NETAJI SUBHAS OPEN UNIVERSITY

STUDY MATERIAL

BLIS

(PAPERS - I-IV)

I.   Library and Society
II. Library Management
III. Library Classification Theory
IV. Library Cataloguing Theory

Library and Information
Science

PREFACE

In the curricular structure introduced by this University for students of various degree programme, the opportunity to pursue Second Degree Programme in a Subject as introduced by this University is equally available to all learners. Instead of being guided by any presumption about ability level, it would perhaps stand to reason if receptivity of a learner is judged in the course of the learning process. That would be entirely in keeping with the objectives of open education which does not believe in artificial differentiation.

Keeping this in view, study materials of the Second Degree Programme in different subjects are being prepared on the basis of a well laid-out syllabus. The course structure combines the best elements in the approved syllabi of Central and State Universities in respective subjects. It has been so designed as to be upgradable with the addition of new information as well as results of fresh thinking and analysis.

The accepted methodology of distance education has been followed in the preparation of these study materials. Co-operation in every form of experienced scholars is indispensable for a work of this kind. We, therefore, owe an enormous debt of gratitude to everyone whose tireless efforts went into the writing, editing and devising of proper lay-out of the meterials. Practically speaking, their role amounts to an involvement in invisible teaching. For, whoever makes use of these study materials would virtually derive the benefit of learning under their collective care without each being seen by the other.

The more a learner would seriously pursue these study materials the easier it will be for him or her to reach out to larger horizons of a subject. Care has also been taken to make the language lucid and presentation attractive so that they may be rated as quality self-learning materials. If anything remains still obscure or difficult to follow, arrangements are there to come to terms with them through the counselling sessions regularly available at the network of study centres set up by the University.

Needless to add, a great part of these efforts is still experimental—in fact, pioneering in certain areas. Naturally, there is every possibility of some lapse or deficiency here and there. However, these do admit of rectification and further improvement in due course. On the whole, therefore, these study materials are expected to evoke wider appreciation the more they receive serious attention of all concerned.

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[BLIS]

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Netaji Subhas Open University

BLIS–I - IV
Library and Information Science

PAPER - I

PAPER - II

MODULE 1

MODULE 2

MODULE 3

MODULE 4

PAPER - III

MODULE 1

MODULE 2

MODULE 3

MODULE 4

Unit 1 ☐ Role of Library in Modern Society

Structure

1.1 Introduction

Library derives its authority from society. So Library is bound to respond to the call of society and remains accountable to society. Thus to have an idea of what library was, what it has become and what it will be, it is necessary to know the characteristics of the society. Many years ago an eminent librarian said "Books, intellect and habitation constitute a library". By this definition he wanted to indicate store of books, employees and place of service. But his utterances can not be said to be rational and wise. For besides all there is a fourth characteristic which is no less important and i.e., "Reader". In the absence of readers or clienteles, a library is reduced to the burial ground of books. So we can never identify a collection of books and graphic documents as library. A library can not be a reservour of all these elements. Library is a social organisation. It is method by which both use and storing of books and graphic documents can be achieved easily. Library is place for reflection and research. It is an organisation which can be regularly used, enjoyed and thereby esteemed by users. A library is a safe shelter of inquisitive and curious mind. It may be asked as to why a man comes to the library? The Librarians answer that he comes in quest of necessary information. Or he comes for entertainment and getting in close contact with other social beings. The fundamental character of a library may be changed if in reply to the question it is said that a person comes to the library to get rid of uncertainty

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or to acquire skill to fight against adverse situation or he wants to arrive at a decision or he wants to find out such information that can give him relief from anxiety. Thus library is used not only for information but also for solution of problems. To provide information is not the basic objective of a library, for information is a key to the solution of a problem.

Thus modern library is a rational and natural Laboratory where information is stored, assembled and processed for solution of problems required by social beings for analysis and synthesis through mutual exchage for augmenting social relations. Ignoring some minor activities, the main objective of a library is to work as an associate of communication being aided by documentation and storage of organised thought processes divulged through bits of information. As a result the past can communicate with future and in future this communication system will develop more spreading over space and time. Scenario, sound, even taste and smell of this day will be stored and preserved in a library for our immediate descendants and future generations.

1.2 Social Organisations

The anthropologists are of the opinion that society was formed far achieving collective objectives and to mitigate collective needs. In modern society all human activities are performed through various organisations. For example, the, religious organisations look after faith and unity; the academic institutions like schools, colleges and universities develop knowledge, skills and social bondings. They control and conduct the social activities through some statutory and unwritten conventional regulations. The social organisations are actually paths towards achieving social objectives though the nature of social organisations are not same in all types of societies. The prevailant sense of values and injunctions of different societies regulate this nature. The social scientists opine that sense of values are ideas latent in pepole in a society that determine what is good or what is evil or bad, what is desirable or what is undesirable. It is a standard by which it can be judged whehter an action is permissible or not. Modern societies generally emphasise upon the sense values like equality, freedom, national character, success, reality etc. The regulations of social science control the behaviour of each and every member of a society. Sense of values are universal puidance whereas injunctions are regulators of minor behavioural parts of individuals.

1.3 Library as a Social Organisation

Library is a social organisation. It has been created as an integral part of communication, as required by society and culture. It is a fact that a modern society can

have no existence without communication. In the absence of documents and without preservation of documents, no culture can perpetuate. Library ensures continuity of a culture and connects culture of different ages. It is true that in earlier days the libraries did not function as social organisations. For, in those days the libraries were either properties of an individual or some associations. The collected reading materials were stored within locked almirahs. In ancient times the books were hand written and few copies of them were available. To prepare large number of copies of manuscripts was not only beyond human limit but also expensive. So only kings or land lords were able to spend for preparation of copies of manuscripts and their subsequent storage and they maintain such libraries for their own use.

For centuries most of the libraries were private properties, either of an erudite scholar or some rich people. The rich people were habituated to collect books as symbol of their treasure. The colletions belonging ancient monasteries, Nalanda and Vikramshila Universities were probably institutional libraries. In ancient India some institutianl academic centres were established as adjuncts of Buddhist monasteries. Libraries were essentially parts of such academic centres. During Mughal periods libraries were constituted through private collections of Kings and Nawabs. They sometimes also patronised in establishing libraries in temples. In the first part of 19th century the European libraries were controlled by missionaries in India. A new cultural movement started with the invention of printing machines and this movemnet promoted intellectual curiosity of people - it was signal freedom of thought, education and self dovelopment of modern age.

1.4 Needs of Modern Society

Amang various needs of modern society, the importance of education looms large. Education makes one wise, resourceful, responsible citizen, without whom the society can not be drawn into the path of development and progress. Indeed the modern society expects that its members will be restrained, wise, kind and conscious of love, beauty and freedom.

Economic stability is a fundamental need of society. For this society needs technological development which ultimately requires research and adequate information service. The important characteristics of modern society are advanced technology, multifarious skills and more advanced knowledge.

"Man can not live upon bread". His finer instincts purify his lifestyle and able him to land on a higher level of living. Since the dawn of History luxury to avail lesiure was restricted to only few fortunate People. Those wealthy and powerful people could only earn such leisure because the poor and weaker sections were compelled to remain bonded

labour throughout lives. One of the desirable aspects of freedom is relief from labour. In modern society this aspect is no more beyond reach. This aspect of freedom is meant far both - the owner and the labour.

In developed societies, nowadays influence of technologial and indusrtrial I revolution have played vital role in spread of special libraries created for the purpose of meeting various needs. Rapid progrees of research has compelled both Government and Industrial Houses to realise the value of information. Additional requirement of information has been exerting influence upon libraries, large and small and such libraries have to undergo through necessary consequent infrastructural changes. Planning for information network system has been devised and implemented among libraries for resource sharing facilities.

The fundamental needs of the modern society like education, research, information, aesthetic sense, entertainment that a library meets, may be available from other organisations. But library is the only organisation which completely engages itself to collect and preserve all the traces of civilization. Rapid change takes place throughout the world standard of development of industries too high, necessity of accurate, precise and timely information and the demand for library as information centre has become limitless.

In modern societies sense of cultural values has been changing. A now social sense develops in conformity with more advanced learning, more complexities and more freedom. As departure from the past modern society has been acknowledging the individual's right to freedom, right to participate in democratic performances. When we think of this expectation of an individual man from a society, we realise the complete possible role of library as an organisation.

1.5 Role of Library in Society

Library oriented service in modern society may have clasp association with the aspects like —importance of reading over other media of communication, comparison between curriculum based school education and library centred education, eternal struggle against illiteracy, impetus to research and continuity of education, aesthetic sense of an individual, spread of information. Let us enquire into the causes as to how the library has strengthened its footings in the idea of modern society.

1. Education : Education may be defined as a transfer of social knowledge, skill, sense of values and behavioural pattern from one generation to another generation. In modern society this function is discharged through conventionally constituted educational system. School, College, University—in any sort of academic institution there must be a library. Society requires educated people because they become good citizen in future.

The modern age can easily be differentiated from earlier ages rapid and continuous development of education and in this connection we become duty-bound to evaluate

libraries and other academic institutions. We acknowledge the role of library in bringing documentary knowledge through graphic medium within the reach of everybody and thereby enriching the social life. In conventional educational system libraries help in preparing syllabus and curriculum with the aid of organised collection. It gives importance to the needs of both the teacher and the taught.

It is, however, not unnatural if a person discontinues his association with an academic institution. For Library can quench his intellectual thirst throughout his life. Library can supplement this function of an academic institution. Throughout the world at present a movement of "Lifelong Education" has been launched.. As regular sharpening keeps the knife sharp, a man requires to maintain his professional and vocational skill to keep pace with ever changing social needs. The Library will have to share the responsibility of maintaining continuity of education for self-development of an individual.

Irrespective of the gradation, highly qualified or moderately qualified, the Library shall meet the intellectual requirements. This is also true in cases of both literate or illiterate. To steer the speed of culutural quest the foremost duty of a Library is to provide education to all. Various methods of data collection, its disemination and transformation are now within the control of modern technology. Photography, Film and Television have provided us a scope of preservation and exihibition of photocopied documents of lsat hundred years. It is the duty of the libraries, specially public libraries to educate illiterate people of the society through such films, audio-visuals.

Thus library can play a vital role as a part of academic, active and entertainment-seeking lives of people. Library is such a place where a person can rise high above the level of his attainments received from in the class rooms, syllabus oriented prescribed books and teachers. In a library both the writer and the reader assemble to get information, education and joy. Thus library can not be confined to the learning of background of a subject. Library must play the role of offering total education which is beyond curriculum centered education.

2. Culture : As a part of communication systems, the perpetual role of a library is to preserve and propagate cultural tradition and heridity. A society can not function if there is no unifying force. The anthropologists describes this unifying force as culture which involves inventions and discoveries, industry, ideologies and faith — the qualities that possessed by human character.

If a library should properly exihibit the graphic documents to all in such a way that individual may develop his creative genius and sense of aesthetic values. To enrich cultural life of a society, the library should organise cultural ceremonies.

Research : Research widens the limit of knowledge. The ability to understand his existence and environment surrounding him has discriminated man from other living creatures. This urge for understanding is satisfied to some extent through his daily

experience, synthesis of these experiences gathered and post analytic review. To augment the limit of knowledge there is way called research - planned and systematic enqueries.

Both external and cultural development of society depend upon research which is the life force of a society. One of the most important duties of a library is to extend help in this research. And for improvement of research, library provides some important services:

A. To keep reference files and indexes
B. Searching printed materials
C. To provide correct, relevant and real information to the researcher
D. To prepare bibliographies
E. Arrange for translation of necessary publications
F. Reference service
G. To augment resources of a library

Information : Information is a fundamental resource of a society like energy and matter. Information had been stored in man for ages and through social contact and communication this information has changed and has become timely. As society develops and becomes complex, generation of information, disemination and propagation have increased. This gives rise to "Information Explosion". With the spread of literacy and ever growing importance of information the number of information seeking people has also dramatically changed. Side by side, due to illiteracy, poverty, want of proper consciousness the number information-deprived people has also augmented. Thus necessity for organised knowledge has become important towards solution of these problems. Library is such a centre of organised knowledge. Library is also known as information centre. Library has been functioning as information storage replacing its image as conventional reading centre.

Library is now a platform of the information-traders. High ranking employees, farmers, industrial workers — everybody requires information. When the manufacturers wants to market a new item or a husbandman wants to start farming or construction of multistoried building is devised, the concerned people wants some distinctness in the background uncertain future. To realise this objective everyone requires information. Everbody seeks answer to his question. Thus the function of a library has become tuned with the nature and extent of information sought by its users.

Entertainment, Promotion and Leisure : For irrigation and fertility of land the embankments channelise lakhs of gallon (4.546 litres = 1 gallon) water through canals. Similarly, libraries make effort to spread its vast treasure of information through its different branches for man's amusement, promotion, education and knowledge. It is duty of a library to ensure that every man can lead a life of healthy, improved standard of taste

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and temperament in his pursuit for leisure. Indeed it is a problem of society to create an environment of standard tastes of amusement. The leisure period of a man should not be washed away after negative and destructive activities. Often the tired, irritated and vexed people wants to get relief from troublesome earthly life through excitement in an imaginary unreal world. In this connection Ranganathan said that to ensure high standard and self dependent leisure, free books, sound recording and other related things should be distributed and opportunity should be created for spiritual awakening. For spiritual and religious quest of man every library should have dependable collections.

The libraries should reflect on why some persons are using libraries and some others refrain from using it. It should be anlysed why cerrtian persons are using library and for what purposes and how the libraries can rightly respond to their stimulus. Among all the democratic institutions and organisations, library is only beyond all political and religious dogmas. Though it is true in disputed cases, the library is sometimes compelled to look after the interest of some sectarian group. But the libraries should try to rise above such sectarian interests for the greater interest of society.

1.6 Changing role of Library

Library which is a life like reservour of our cultural past to enables us to foresee the future. This was opined by Ralf, W. Konant in an articled entitle 'Sociological and Institutional changes in American life (A.L.A. Bulletin, 1964, 58, 994). Every library should build up its collection with utmost care and this work must be accomplished for the benefit of future society. It shall have ensure procedures for massive use of documents without any difficulty faced by the users.

The state in which the libraries of the present day exist has been changing rapidly. The number of methods of news coding, collection and distribution has been increasing. The usual libraries control a fraction of these news documents. Change of existing state of libraries is very much desirable for the librarios occupy an important position in the society. The present day libraries are inheritants of the clay-tablets libraries of early ages. The library collection has shown us the path of freedom from slavery of the environment. The passage of improvement from clay tablets dated 3000 years back to printed documents has become faded. The collected amount of intellectual upliftment of society stored in the libraries is colossal. The usual practices so far followed by the libraries in this respect have become inoperative. Consequently we have to welcome the improved methods of collection and retrieval of knowledge. This information technology is computer based and it helps in cataloguing, classification and indexing besides storage and facilities for instant retrieval and through network system these huge information can be obtained even in distant places.

1.7 Information Based Society

The electronic age has brought changes in the role of libraries. The present day society is going to be based upon information. In such a society standard of living, social changes and economic development become dependent on information and its use. The information and advancement of knowledge have been influencing tremendously standard of living, types of work and leisure, educational system and market. Some people should be well conversant with the procedures of information technology — the usual shape and dimension of literacy must be widened. This new literacy is not computer oriented literacy. Rather it is the power to be developed to understand the role and use of information, its use and abuse and also to acquire control over management of systems of information.

1.8 Spread of Coverage of library

So now a days library is an information centre. The nature of characteristics of a library after industrial revolution has changed and the information centres and libraries have improved more. Change is no new incident to a library. When such changes took place in the past, things happened smoothly. But at present the change is so overwhelming that ceaseless efforts are required to manage such changes. These changes are both revolutionary and evolutionary and the question is how such changes will exert influence upon the libraries.

The printed documents and books have to face the challenge of audio-visuals, televisions, microfilms, computer network etc. Knowledge explosion is so quick and amazing that the libraries faced trouble to keep pace with it. Database has replaced catalogue. The networking systems have wide range of coverage. It has now become difficult to assess the scope and horizon of library service with the speed of advancement generated by information technology.

The libraries were habituated to keep vast and self dependent collections. At present from economic point of view such eforts may be regarded as nonrealistic. Knowledge explosion has not yet been subdued. In addition to films, microfilms, computer tapes, video tapes, CD-ROM, the number of books, journals, commercial reports, proceedings of seminars, symposia have been augmenting. So it is not wise to dream that libraries will be self-dependent one day. Now the libraries shall have to work in co-operative basis with the help of networking system for exchange of their resources.

The librarians prefers to see them as information caterers. But to people in general library seems to be a depository of thick books and not an information centre. The information stored in lakhs of pages of printed documents kept on library shelf are rarely

used. In trade language it may be said that circulation is insignificant. Still it is accepted that libraries are useful and more libraries are being set up. The librarians works for preservation and distribution of information but how may engineers, physicians, advocates and managers come to the library before decision making.

In 1983 John Debold in his publication 'Automation' has described three stages of automation. In the first step what you have done yesterday, you have done electronically. In the second state you observe that what you have done, has already changed. In the third state you will observe this change has given rise to a much bigger change. This change is transformation of society.

Commercial and competitive activities concerning libraries started in 60's decade. The sole duty of managing and diseminating information of libraries has now been captured by information traders. In the last four decades how much reaction takes place due to interference of external challenging forces, may be summed up thus: Autonomus state, co-operation and competition. Technoloics has not only changed the atmosphere of libraries and information, it has equally transformed our entire society.

1.9 Visualisation of Future

The main task of library is to mix up the technological changes in the very core of society in such a way that it can perform the following functions—

A. Provide wide range of information service and to make it individual centered.

B. To develop and improve communication systems with other libraries. and its users.

C. To increase the capacity of internal ability of work,

In an information based society it is necessary to provide computer based information system and their assimilation and reorganisation for meeting the demand of the users. The library is treated as the hub of national network. Thus social responsibility of a library is now enormous. Library shall no more be a static storage of printed materials but it will be a communication centre for every bit format of knowledge.

As expected if our leisure period extends, then demand for literature providing amusement will increase. The number of researchers and information seekers will also augment. The number of people will search to get the reach of predecessors on the basis of local documents. The trade houses will also look for information. It has not yet been noticed that video age has snatched away the joy of reading. So library must be cautious in meeting demand of the users and at the same time creating environment for entertainment.

In the absense of foresight and farsight influx of information is a blind force despite our best attempt to keep balance between user's demand and supply of information. We have

to trace the source of information and to focus under what conditions information has advanced and changed. Moreover the information requires human touch and with this aid information may become source of light. Technologist librarian will send information to all but a humanist librarian will advise to utilise information for the benefit of society.

1.10 Exercise

1. Discuss the role of a library in modern society.
2. Discuss the importance of information as social resource.
3. Discuss the influence of modern methods upon library service.
4. What is the cause behind change of relevancy of information ?

1.11 Bibliography

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Unit 2 ❑ Laws of Library Science

Structure

2.1 Introduction

Ranganathan was educated at School of Librarianship, University College of London. Besides, he also visited over hundred libraries to become acquainted with their operations. He observed that instead of following a common principle, each library grew independently. Immediately after his return from England in 1925 he became actively involved in organising Madras University Library. He introduced several new measures that inspired him in deriving some normative principles which should act as abiding principles in respect of operations of all libraries.

The year 1931 marked the end of an epoch and the beginning of an era. Melvil Dewey passed away and Ranganathan published his Five Laws of Library Science' which publication placed library work on scientific basis.

At first Ranganathan formulated Law 2 to law 5. Professor E.B. Ross often visited his library and a casual hint from him moved Ranganathan to formulate the Law. 1. Professor Ross realised that Ranganathan was in a state of mental stress and strain. Ranganathan explained what was worrying him. At the time of departure Professor suddenly uttered by providence, "You mean Books are for Use." This was how Law 1 was generated.

2.2 The Philosophy of Operation

General Principles that help the library to deduce all practices can be obtained from these five laws i.e. the 'Laws' may be described as epitome of the operational philosophy of librarianship. Ranganathan himself said that the Laws "Contains, in little, practically everything which is found more elaborately elucidated in all the succeeding books of the family." There are considerable philosophical discussions about library in those Laws. These five laws are five cardinal principles that reflect what ought to be done in the sphere of library for efficiency of library organisation, management and operation. The laws are unified principles applicable everywhere in the library world. The laws may be described as code of conduct that leads a librarian towards good practices. The Laws are :

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Books Are For Use

Every Reader His Book

Every Book Its Reader

Save the Time of the Reader

Library is a Growing Organisation

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2.3 First Law : Books are for use

We have observed how the first law was ignored in the past when the books were chained to shelves. The books were meant for preservation and not for use. There was restricted use of books or even the use of books was prohibited. The advent of the first law implied in successive stages - removal of chains from the books, providing access to a choosen few, free to all but in the library premises, and finally lending free to all. The modern librarian is satisfied when the users make his shelves absolutely empty. The first law thus implies :

1. Location : Library should be situated in a busy central locality where most people are compelled to go for various jobs. A congenial environment should be ensured in a library as the law implies. Such environment will be lucrative and possibility of greater use of books and other materials can be expected.

2. Open Access : Open access system certainly abolishes hesitation of the users. This system can also help a reader to get information that he requires properly, easily and quickly. It also saves time. For the users do not need to require the help of library personnels to get the right book or right information or something auxiliary thereof. The reader can go straight to the shelves and handle the books according to his/her intention.

3. Library Hours : If the books are for use and books are to be made available to more

and more users the opening of library for longer hours is a necessary pre-condition. The library should not remain closed even of sundays. and holidays for readers engaged in various essential jobs find time to use library on those days.

4. Library Building and Furniture : At the time of planning of library building it should be kept in mind that the building should be functional and aesthetic. The furniture must be comfortable to the readers and library resourses should be so arranged that they may be conveniently available to the users. The racks should not be too high. For books kept even on top rack must be within easy reach of readers.

5. Library Staff : The Library staff should have proper status and they should develop right attitude towards users. The staff shall remain alert always that books are used by the readers. The staff should have adequate professional competence and must also possess missionary zeal to serve the readers with amiable manners, courteous approach and eagerness to satisfy the readers.. The staff should express genuine willingness while interacting with the readers.

6. Book Selection : Only those books should be collected that are demanded by the readers. The getup and layout of the books should be fair so . that they become attractive to the readers. At the time of book selection, emphasis should be given on the first law.

7. Propaganda : The first law demands that every book of a library needs to draw the attention of the users. So the list of latest collection of a library should be exhibited in a. prominent place to draw the notice of the readers. The book covers or jackets can also be exhibited. .

2.4 Second Law : Every Reader His/her Book.

The approach is reader-oriented. While the first law opened the libraries, the second law establishes libraries holding colletion for education, recreation and information. "Education for all" or mass-education is presupposed by this law. It is mandatory on the part of a library to provide service to each according to his need. Readers with varied requirements visit the library. So the library is obliged to provide required reading material to each type of readers. With progress of democratic ideas, the second law began to make its headway. Ranganathan identified the implications of the second law under four categories:

1. Obligation of the State : The obligation of state developes concerning legislation, co-ordination and finance. Library is to reach every one according the second law i.e., it should reach both urban and rural folks, to men and women, classes and masses, the normal and abnormal, the literate and illiterate, child and the adult. Thus the state is duty bound to

develop and maintain library system that can cater service to all. State performs this duty by way of adopting legislation that ensures financial support for such library system end co-ordination of the activities of its different units.

2. Obligation of the Library Authority : The obligation of the library Authority indicates two aspects - (a) Selection of books and (b) Selection of staff.

It is not possible on the part of a library to purchase all books as there are enormous production of books. Thus there is a limitation on the part of a library which can procure only a fraction of this produced documents. So proper selection of books is a way to get rid of this problem. It is not an easy task to ensure judicious selection of books to meet great variety of requirements of the users. The implication of the second law is to select useful books and discard useless ones. So it is necessary to get in touch with each of the various types of readers in the community served by the library. In order to assess the needs, a systematic survey of the need of the users depending on scientific basis is necessary. It is also necessary to reorient the programme and policies to meet the changing needs of the clientele. This is the task of a Library Authority to build up a balanced collection.

To provide every reader his book depends also upon selection in a library. For a library requires adequate number of competent proper staff and this is an essential precondition that suits the second law. So utmost care should be taken by the Library Authority to recruit right person in a right place.

3. Obligation of the Reader : The second law also expects certain responsibilities from readers. The law demands that the readers will observe the library rules relating to number of volumes to be borrowed, period of loan, and the use of library materials. It is not expected that they will ask for any undue special privileges which will certainly encroach the interest of another reader. User's Education Programme introduced by the library can make the readers conscious of their obligation.

2.5 Third Law : Every book its reader

This law indicates approach from the angle of the book. Appropriate reader should be found for every book. It is complementary to the second law. As financial resource of a library is limited, investment on unused books is a waste. According to Lancaster this law is based upon the Law of Probability. He conducted researches in the use of collection of books and reported that chances of every book finding its reader even in well organised libraries are not 100%. To give effect to this law, the following measures may be adopted.

1. Open Access : In accordance with the third law the most important means used by the libraries to satisfy the readers is to adopt open access system which provides

readers freedom of access to the shelves containing books. They can consult books suitable to his interest and choose the right one. In the closed access system they would not be able to know the physical and biblical contents of a book. To introduce system the book racks should be of reasonable height of 6'-6" or 7'-0" feet so that racks are not higher than comfortable reach. The disadvantages of this system can not be denied. There is every chance of loss of book and readers may also bring chaos in the systematic arrangement of books on the shelves. But for the sake of the third law this disadvantages should be tolerated.

2. Self arrangement : Books on the shelves in a library may be arranged following different sequences but subjectwise arrangement helps a reader more to identify a document. So classified arrangement of books is preferred and such arrangement should be maintained constantly. In such arrangement the shelf rectification, i.e., restoring misplaced books to thier correct place should be done regularly.

3. Catalogue : The catalogue is of immense help to the readers as is it the key to the access of a book. Different entries like series entries, subject cross-reference entries etc., may reveal to the readers the books that might not have otherwise noticed.

4. Reference service : The third law advocates the provision of human beings as canvassing agents for books. This is what is looked after by reference service.

5. Provision of popular departments : The provisiotn of popular departments like newspaper room, magazine room, etc. offers baits to the readers and such provision of handling every book by the readers.

6. Book Selections : The third law is also an aid to the book selection policy to be adopted. The librarian will buy such books as are suitable for the type of users of that library. Full weight to taste and requirements of the clientele should be given in book selection programme.

2.6 Fourth Law : Save the Time of the Reader

The fourth law is reader-oriented approach. The law concentrates on the time aspect of the problem. The effects of this law can be studied from the moment a reader enters a library till the moment he leaves it, critically estimating the processes which he has to undergo, with an eye to the economy of time that can be implemented at every stage. Readers coming to the library should not be made to wait longer than necessary. He may be vexed due to unnecessary delay and such dissatisfied reader will feel reluctant to visit the library regularly.

In a closed access system there is likely to be considerable delay to get in touch of required document. For the reader shall have to consult the catalogue entries, write

the requisition slip, wait for the book to be brought and finally receiving the book from the counter after completion of formalities. The fourth law suggests that the subjective loss of time is more painful than objective loss. The 'subjective time' of the reader is more important than 'collective time'. In closed access system subjective time and objective time are involved: Subjective Time is the time that we feel we have spent. And Objective Time is the time actually spent. The fourth law is in favour of protecting subjective time and some measures may be recommended.

1. Open Access : Open access has become a satisfactory device to save the subjective time of the reader. Here the readers do not feel the flight of time in their adventure among books while patient waiting at the counter is painful to them :

2. Classification, Cataloguing : Economy is time can also be effected by proper stockroom guides, by strengthening the catalogue with analytical cross reference cards, and by classifying books properly.

3. Charging system : Using register for issuing books following earlier practice is time consuming. The adoption of 'two card' system is economical and expeditious. The modern issue system like the ticket system, photo-charging system and computer charging system have been evolved to save the time of the readers.

4. Reference service : The fourth law also warrents the provision of efficient reference service. Both ready and long range reference services should be provided.

2.7 Fifth Law : Library is a Growing Organism

A growing organism can only survive. This biological fact can not be denied. An organsim which ceases to grow, will fossilise aud finally perish. Library has all the attributes of a growing organism. The living organism shows two types of growth — child growth and adult growth. While child growth is evident through the growth of physical dimensions, adult growth is mainly in the nature of replacement of cells. The growth of library is also noticed in the growth of book stock, the readers, the staff and the physical plant.

1. Book Stock : The book strength of a library is not static. It is ever growing. Consequently it requires more and more space. The constant growth of book stock adversely affects stack arrangement. So planning of a library should be made keeping in mind the future growth of book stock. Planning should facilitate easy extension of the stack area.

But indefinite growth of a library can not be allowed. So this law implies that only balanced growth of collection should be encouraged. Collection must grow according to available space which can not be unlimited. As the growth of collection is unavoidable, it will be wise to weed out old, obsolete and unused materials to make

room for new more important additions. A library should adopt regular withdrawn of unused collection.

2. Readers : Readers or users of the library will also grow. In accordance with the expected growth of readers, there must be adequate provision for Reading room and seats. Increased number of readers certainly exert pressure on the circulation section. So most efficient charging system should be adopted.

3. Staff : Corresponding increase in the staff strength is also desirable. To manage increased number of collection and readers if quality of service is to be maintained, number of staff should also be increased.

4. Classification and Cataloguing : The classification scheme that will be adopted in a library has relevance to the fifth law. The classification scheme must be comprehensive, embracing all past and present knowledge and allowing provisions for any possible additions to knowledge. The classification scheme introduced in a library hospitable to new subjects.

5. Provision for the Future : A adequate appreciation of the basic elements of growth of the library, with it consequent increase in the books, readers and staff has been pinpointed in the fifth law. While planning and designing library building there should be provision for both vertical and horizontal expansion of building.

The fifth law indicates that growth in a library will unavoidably and undoubtedly occur and that should be dealt with proper systematic planning. Ranging from physical facilities to administrative practices, the library must be ever ready for expansion. Ranganathan has placed the fifth law in a supreme position and he said that all other principles, postulates should become operative under the ambit of the fifth law. The law expresses that people need knowledge and the function of the library is to see that they get it.

2.8 Documentation — In terms of the Five Laws

Ranganathan realised later that the generic word 'book' should better be replaced by the term 'document' to meet the newer trends of Library Science. In his 'Documentation and its facets' Ranganathan reformulated the laws thus :

1. Document are for use

2. Every reader his document

3. Every document its reader

4. Save the time of the reader

5. Library is a growing organism.

Ranganathan observes, "Driven by the Five Laws of Library Science and urges by the demand for nascent micro-thought by specialist readers, the library profession is now faced with a new situation calling for new techniques, new attitudes and new forms of service". According to Ranganathan, documentation may be defined as

1. "Promotion and practice of bringing into use nascent micro thought by specialist (Law 1) ;

2. Pinpointed (Law 2) ;

3. Exhaustive (Law 3) ;

4. Expeditiou (law 4), service of nascent micro-thought to specialist ;

5. In spite of the continuous ever increasing cascade (Law 5) of nascent micro-thought on an ever multiplying number of subjects, communicated through several thousands of periodicals."

2.9 Information - in terms of the Five Laws

The word 'library' is associated with the word 'book' for many centuries. Both books and documents are physical forms. and information resides in the those physical forms. When the terms 'books' and/or 'documents' are used one obsolete implies information contained in these physical forms.. The term 'library' is getting absolute and is being replaced by terms information centre, information bureau, information system and science. The growth of information services during the 20th century has become tremendous. Machines including computers have appeared as vital urgent needs in the Important task of storage and dissemination of information in a society. In the changing context of information the rephrased laws may be stated as follows :

1. Information is for use
2. Every user his/her information
3. Every information its user
4. Save the time of user
5. Information system is a growing organism

The first law asks for removing all restrictions in the free flow and use of information. It calls for making information available universally for using electronic media and online networks. The law highlights the vital role of information in all national development.

The second law stresses that users should be at the centre in the design and operation of information systems. It suggests that the exact needs of the users should be ascertained. The ideal of reaching all users can be achieved through the advancement of new information technology.

The third law suggests to provide active information service by offering right information to the right user. Information created or generated should be brought to the notice of the potential users. It asks to devise right tools for maximum exposure of information.

The fourth law implies the use of latest technology in information processing to ensure maximum speed and efficiency.

The fifth law suggests that from the physical facilities to administrative practices, the information institution must open ended, always ready to expand. Information centres must cope with dynamic needs of the users. The law points out to the planners and policy makers both at national and international levels to plan and formulate national information policies and strive for international co-operation and networks.

Ranganthan's Five Laws constitute a fundamental contribution. Artherton said, "If Ranganathan had nothing more than publish the Five Laws of Library Science, he would have to be seriously considered for a Library Hall or Fame."

2.10 Exercise

1. What is the opinion regading location of a library according to the first law?

2. How does the second law focus on the responsibility of state ?

3. Give a description as to how open access system make the use of library advantageous.

4. Distinguish between subjective time and objective time. How does a libary save the time of a reader ?

5. Describe the significance of Five Laws in the perspective of documentation and information activities.

2.11 Suggested Readings

1. Artherton P. A : Putting Knowledge to work, Delhi, Biksh, 1973

2 Chakrabarti, B : Library and Information Society, Kolkata, World Press, 1993

3. Ranganathan, S. R. : Five Laws of Library Science, UBS Publishers Distributers, 1989.

4. Ranganthan, S. R. : Documentation and its facets, Asia Publishing House, 1963

5. Sribastava, A. P : A Pattern Maker – A syndetic study of his contribution, Metropolitan Book Company, 1977, chapter-VII

Unit 3 □ Library Movement in UK and USA

Structure

3.1 Introduction

The idea 'Library Movement' is recent origin though libraries did exist from time immemorial. It is result of democratic movement that started towards the end of 19th century. The urge to extend the benefits of learning to the mass at large led to the establishment of numerous public libraries. The possibilities of libraries as medium of mass education drew attention of those who were interested in that movement. In this context let us discuss the development of libraries in two advanced countries of the world - UK and USA where the importance and vale of libraries were recognised as early as 18th century.

3.2 Libraries in UK before 1850

Library movement in UK actually started after the enactment of the Public Library

Act of 1850. To realise the importance of that movement, it is necessary to survey the library situation before 1850.

Industrial revolution in England contributed largely to the library movement. A large number of workers were employed in various establishments. They felt thirst for knowledge. This led to the establishment of libraries all over the country. Moreover, the need for libraries was also felt due to spread of education among the middle class people. Besides these factors, dedicated people and philanthropists came forward to set up libraries. The following may be stated as forerunners of public libraries in UK.

3.2.1 Monastic Libraries

Churches had played a dominant role in the European history of the middle ages. During the period to the institution of church one has to look for the first libraries. Spread of christianity brought with it a class of spiritual people who were very keen to set up monasteries. In fact, the monastic life felt the need of reading scriptures and copying manuscripts. So every kind of ecclesiaastical community had its collection of scriptures and manuscripts. These libraries were small according to our present standard. They cannot be classified as public libraries, though public were allowed to use them on certain conditions. They were primarily meant for laity. These libraries disappeared at the time of the Reformation.

3.2.2 Endowed Libraries

The endowed libraries can trace their beginnings to the 15th century. These libraries were created by the gift of an individual or group of individuals. There were more than 200 endowed libraries between 1550 and 1800. From mid-sixteenth century to about 1680, these libraries were mostly established in towns. From 1600 to 1800, the main emphasis was put on the needs of rural areas. About eighty such libraries came up between 1680 and 1720 and as many again between 1720 and 1800. Most of them were parochial libraries in rural areas. These libraries began to be used by others than the clergy. Some libraries made provision for borrowing. There were also instances of the conversion of endowed libraries to subscription ones. Dr. Thoman Bray, until his death in 1730 worked out schemes for clerical lending libraries for the clergy of each deanery, smaller fixed libraries for the rural clergy and others for the use of parishoners. An act for Preservation of Parochial libraries was passed in 1909. This act directed churches and clergy men to set up village libraries in their respective villages. But the Act remained inoperative. In 1730 a village library was set up by Sir John Cheshyre in Halton village.

3.2.3 Subscription Libraries

Before the close of 18th century, the factors such as the spread of education, appearance of newspapers, coffee houses as important centres of disemmination of news, and similar others, tended to encourage the growth of reading habits. There was a demand for reading materials. This paved the way for the establishment of subscription libraries. Before 1850 there were three types of subscription libraries :

(i) Private Subscription Libraries : Often friends and relatives came together to contribute books or cash and established a library. In some cases participating members came forward with a fixed amount to buy books. A few of these were also known as Gentleman's Societies. Membership of subscription libraries was restricted to shareholders or proprietors. They existed mostly in urban areas.

(ii) Book Clubs : They became popular in the later half of the 18th century. Book clubs were a form of subscription libraries. But they differ from the subscription libraries in three respects : (a) Their membership was small (b) Members were not interested to build a permanent collection (c) They served social and literary needs. Members used to meet for a monthly dinner for exchanging books or to decide on news purchases. Of course, each club had their own style of functioning. But all of them performed an important social function. Since clubs had no permanent establishment they were undoubtedly economical and suited for working class.

(iii) Commercial Circulating Libraries : These libraries were run by booksellers for their profit motive. Such libraries housed scholarly, scientific and literary books, but novels and recreational literature dominated the stock. Books were available on rent. Though the aim of these libraries was to do business, they became popular in course of time as readers began to be attracted by fiction. The first known circulating library was established by a well known bookseller, Allan Ramsay in Edinburgh in 1725. By 1825 there were about 1500 circulating libraries throughout the country.

3.3 Library Legislation in UK

Public Library Act of 1850 under the sponsorship of William Ewart provided a major impetus for the development of British Libraries. Public Libraries appeared as Bryan Lockman observes, "opportunity for bringing all classes together, and uniting them in the common bond of literary pursuits."

1. Act of 1850 : In 1848 a Select Committee on Public libraries was appointed with Ewart as the Chairman for the enact of library legislation. Ewart and Brotherton piloted the first public library Bill through the House Commons in February 1850. The Act which applied only to England and Wales merely empowered town councils with

a population of 10,000 or more to establish a library service. Though admission to public libraries was free, no sanction was given for the purchase of books, and no town library was allowed to levy a rate more than half penny in the pound for financing the library. Availability of books was thus expected through donation.

2. Act of 1855 : It soon became evident that the Act of 1850 was very inadequate. In 1855 thus some improvement in legislation were enacted. The rate of levy was raised from half penny to one penny and purchase of books was permitted.

3. Act of 1882 : Subsequently Act of 1882 was passed with certain improvement and it was followed by Act of 1892.

4. Act of 1919 : The main provision of the Act were the abo ition of the penny rate limitations in England and Wales and permission was given to country councils to set up their own public library services in their areas. Rapid growth of public libraries was found with the establishment of two types. Municipal Library service and Country Library service.

5. Act of 1964 : This Act was the result of Roberts Committee Report of 1862.The Act suggested that Government Authorities shall provide, "comprehensive and efficient service" and with this mandate British Libraries was a golden age.

6. Act of 1972 : It is known as local Government Act of 1972 and became effective in 1974. This Act caused some serious problems public libraries were forced to split and recombine, for libraries like other service agencies, had widely differing pattern in staff and services.

7. Act of 1979 : It is known as the Public Lending Right Act. Brophy suggested that one penny should be charged for every loan from public libraries. The scheme lapsed when administrative problems were pointed out.

3.4 Major Reports on Library

The landmarks of the British Library movement include following major reports :

1. Select Comittee Report of 1849 paved the way for public libraries.

2. Adams Report of 1915 is important in the context of private benefactions. Andrew Carnegie (1835-1919) who was born in Scotland and settled in USA is regarded as the greatest of library benefactors so far known. He earned enormous wealth through business and ultimately became a philanthropist. In 1913 was founded the Carnegie United Kingdom Trust which influenced development of libraries. Substantial grants were also available from John Passmore Edwards (1823-1911). Later on W.G.S. Adams was asked to submit a report regarding removal of problems arising out of functioning of tHe Trusts. In 1919 Adams submitted his report. In 1924

J. M. Mitchell, the Secretary of the Carnegie Trust was also appointed to report on the working of public libraries.

3. Kenyon Report : In 1924 the Board of Education appointed a committee under Frederick Kenyon on public libraries in England and Wales and the report was submitted in 1927. The report was the motivating force behind the development of scheme of co-operation and it also gave details about the status of library service.

4. McColvin Report : The Hon. Secretary of the Library Association, L.K. McColvin made a tour survey of the most of the public libraries of UK and his report was published in 1942. He called for a national library service. The report was not an official document and was not called for the then Government.

5. Roberts Report : In 1957 the Ministry of Education set up a committee under the Chairmanship of Sir Sydney Roberts to report on the structure of the public library service in England and Wales. It was published in 1959. The main proposal was, "the provision by local authorities of an efficient library service should be a statutory duty, and that the Minister of Education should be responsible for its supervision."

The Minister of Education set up two Working Parties to advise him on the details of future legislation based on the Robert Committee Report. The Working Parties reports were issued in December, 1962. under the titles : Inter-Library Co-operation in England and Wales, and Standard of Public Library Service in England and Wales. These three reports led to the enactment of the Act of 1964.

6. Parry Committee Report : University Grants Commission Report of the committee on libraries was published in 1967 and it is known as Parry Committee Report after the name of committee Chairman, Thomas Parry. The Government accepted the recommendations and British Library Act was passed in 1972 and became effective in 1973.

3.5 Observations

After 1850 progress of public libraries was slow. But from 1880s it began to accelerate, favourable factors being the grants offered by Andrew Carnegie and the increasing professional influence of Library Association. Until the mid-1960s public library development in Britain was somewhat impeded by the existence of too many local authorities. A succession of new laws the London Government Act of 1963, the Public Libraries and Museum Act of 1964 and the Local Government Act of 1973 reduced the number of authorities to 167.

Since the dawn of the 1980s, budget cuts have begun to create some problems but still adoption of automated system opened avenue for integration.

3.6 Library Movement in USA : Perspective

Library movement in USA started in response to the American commitment to equal educational opportunity, growing belief in the importance of universal education, growing democratic beliefs in the rights of individual in freedom of thought and expression, the increasing concern with vocational problems, and pursuit of prosperity and happiness. In fact seeds of library movement were planned in the century and a half between the first settlement along the Atlantic seaboard and the American Revolution.

3.7 Public Library Precursors

Provision for what may be called the first public library in the colonies were made in the will of Captain Robert Keayne of Boston (March 23, 1655/56). He gave £ 300 for a public building which was to include a room for a library. Thomas Bray, an Anglican Clergyman established many libraries in the English colonies from Massachusetts to South Carolina toward the end of the 17th century.

1. Social Libraries : There were a few private libraries in the American Colonies, particularly in Virginia, but involment of cost for maintaining such libraries was great. To fulfil this need the social libraries were formed in the pattern of Book clubs and subscription libraries of England. Benjamin Franklin was a pioneer in starting social libraries. In 1731 he organised the Library Company of Philadelphia. Ultimately from his novel move subscription libraries appeared.

2. School District Libraries : During 1830s school district libraries appeared. The idea was mooted by the Governor of New York. In 1835 the New York State Legislature enacted a law for authorising school district libraries to levy tax to fund libraries. This programme ultimately failed due to careless selection of materials and lack of accessibility to public.

3. Other Public Library Precursors : Other types of libraries existed along with the social libraries, but served different purposes viz., Sunday School Libraries emphasising religious themes designed to provide inspirational messages. Some industries sponsored 'apprentice" libraries to foster educational and recreational reading among their employees.

3

3.9 Library Legislation in USA

New Hampshire passed the first state public library law in 1849, authorising towns to levy taxes to support public libraries. Similar laws were passed in Massachusetts in 1851 and in Maine in 1854. The earliest public library of wide influence was opened in Boston in 1854.

Library legislation was adopted in other northern states that permitted municipalities to tax themselves for the support of libraries. Today every state in USA can boast of a public library Act. Though Acts differ from state to state yet all Acts assure free library service.

The Library Service Act of 1956 was the first series of federal funding programme for library improvement. The library service and Construction Act of 1964 provided funds for services to the physically handicapped for public library construction and for interlibrary co-operative activities.

3.9 Observations

A transition from the social to the public library that characterised on major direction in the late 19th century traced its roots to Thomas Jefferson's firm belief that a democratic government could not function properly without an informed public. Much of the activity in library movement was fuelled by the philanthropic benefactions of Andrew Carnegie (1835-1919). Public libraries received a big boost when Carnegie provided funds to construct more than 2500 libraries in USA, Canada and Great Britain. Some other benefactors also followed Carnegie's path.

During World War I American Library Association (ALA) directed efforts to provide a Library War Service for American troops at home and abroad. In 1918 the public libraries had matured into a bonafied social service institutions.

The 1930s brought significant changes. The Great Depression threw millions out of work. Partly to in quest of refuge and partly for re-entering jobs, Americans began to use libraries frequently. American public libraries promoted themselves as "guardians of the people's right to know". This theme persisted through World War II. The Library of Congress or the national library has been giving a lead and direction in several spheres of library movement in USA.

In 1970 the National Commission on Libraries and Information Science (NCLIS) was created by Law. In 1975 the long-range programme of the NCLIS, toward a National Programme for Library and Information Services : Growth for Action, was

published and in 1979 the Landmark White House conference on Library and Information Services was held. The public library system in USA has reached its zenith.

3.10 Exercise

1. Discuss subscription libraries and circulating libraries of UK.

2. Discuss about the main characteristics of Public Libary Act of 1850.

3. Discuss on the influence Adam's report.

4. Write short notes on various types of libraries of USA.

3.11 Selected Further Readings

1. Gates, Jean Key : Introduction to Librarianship, 2nd ed, New York, McGraw-Hill, 1976

2. Kelley, Thomas : A History of Public Libraries in Great Britain, 1845-1975, London, L. A., 1977

3. Wedgeworth, R. Ed. : ALA World Encyclopedia of Library and Information Services, 2nd ed., ALA, 1986

4. White, Carl M : Bases of Modern Librarianship. Oxford Pergamon Press. 1964

Unit 4 □ Library Movement in India

Structure

4.1 Introduction

Library Movement as Ranganathan explains, "is setting up and keeping in an effective state of action an integrated network of libraries". In India the concept of library movement emerged with our national awareness and revival of our sentiment for our culture and tradition with the activities of the Indian National Congress and Swadeshi movement.

In ancient and medieval India there was no public library in the real sense. Oral tradition was prevalent in the world of learning. Important centres of theological and philosophical learning, however, had their libraries. Rulers in the medieval period made sincere effort to set up libraries. The missionaries too established some libraries. When large number of Britishers began to settle in Calcutta, the circulation and subscription libraries came into being. The Asiatic Society was established in 1784. In 1836 the Calcutta Public Library was opened to the public. The Imperial Library Act was passed in 1902.

4.2 Genesis of Public Library Movement

Connemara Public Library established in Madras in 1890 is perhaps the earliest Public Library and it became State Central Library in 1950. In 1903 Imperial Library

(now known as National Library) was opened for public use. But public library movement in true sense of the term was started by Maharaja Sayajii Gaekward III, the ruler of Baroda State in 1906. Dr. S. R. Ranganathan was very much in the forefront of the library movement in India. The idea of an integrated library system was first introduced by him at the first all India Educational Conference held at Benaras in 1930.

4.3 Development of Library Movement

Efforts began after the country's independence in 1947 to establish a network of libraries in the cities, towns and villages in the country's 26 states and 5 union territories. Central and State Governments have a policy of establishing public libraries supported by public funds and open to public free of charge.

The five year plans also attached considerable importance to library information systems development. Delhi Public Library and Indian Scientific Documentation Centre (INSDOC) were set up with UNESCO assistance.

1. Delhi Public Library : It is the best known public library in India and was established as a UNESCO pilot project in 1950. At the outset it was under the expert guidance of two renowned British Public Librarians, F. M. Gardner and Edward Sydney. The children library is an integral part of it and is managed by Delhi Library Board and financed by Ministry of Education and Union Territory of Delhi. It has many branch libraries.

The Central Library has the following functions : Book acquisition and processing, Adult Lending and Reference, Children's Library, Social Education, Arts and Museum Section, Business and Industry Section. Its holdings cover all subjects in Hindi, Urdu, Punjabi and English.

An outstanding feature of the library activity is the service to the blind. The library holds a large collection of braille books on Bharati Braille. It also offers service to the prisoners and the patients.

2. INSDOC : The Indian National Scientific Documentation Centre was set up in 1952 by the Government of India with technical assistance from UNESCO. Formerly it was placed under the control of the Council of Scientific and Industrial Research. In 1962 it became a full-fledged institute with a Director and an Executive Council of its own. It serves scientists and technologists in industry, government, universities and research institutes by providing a full range of documentation services. The documentation services include the maintainance of a national scientific library, document procurement in hard copy or microfilm from international sources,

organisation and dissemination of Information (SDI, and bibliography compilation. it offers computerised literature services.

3. In 1954 the Government of India passed the Delivery of Books (Public Libraries) Act. By dint of this Act National Libary and later on Connemara Public Library at Madras, Town Hall Public Library at Bombay and Delhi Public Library became the depositories of all published documents in India.

4. **Library Legislation** : Twelve States of India have so far passed library legislation. Madras Public Library Act was passed in 1848 for the first time in India. Later on Andhra Pradesh (1960), Mysore (1965), Maharastra (1967), West Bengal (1979), Manipur (1988), Hariyana (1989), Kerala (1989), Mizoram (1993), Goa and Orissa (both in 1994) Library Legislations were enacted.

5. **Raja Rammohan Ray Library Foundation** : During the Fourth Five Year Plan the Government of India set up the Raja Rammohan Ray Library Foundation (RRRLF) in 1972 to mark the bicentenary of the birth of Rammohan Ray (1772-1833). The purpose was to bring books for millions at their doorsteps and stimulate the library movement in the country. It is an autonomous organisation under the Human Resource Development of Culture, Ministry of Education with headquarters in Calcutta.

The activities of the Foundation include assistance towards building up of adequate stock of books and other reading and visual materials, assistance towards development of rural book deposit and mobile library service, arrangement of symposia, seminars, exhibition and cultural activities to create an atmosphere for the development of reading habit among the general public, making effort for enactment of library legislations. Details of activities and programmes are given in the foundation's Information Manual entitled, "Books for the Millions at their Doorstep."

4.4 Important Committees

The reports of the Committee were not binding on governments always, but they highlight certain issues of interest to the library development.

1. **The Library Development Committee, Bombay** : This Committee was appointed by the Government of Bombay, under the Chairmanship of A.A.A. Fyzee in 1939. The report was submitted in 1940. The Committee recommended that the Government should encourage local initiative by recognising private libraries and give them financial assistance on conditions that libraries allow free use of books and other reading materials. It also recommended establishment of one State Central

Library at Bombay and one Regional Library at Pune. One District Library at district level and one Taluka Library at each Taluka level should also be recognised. After independence the Government of India decided to implement the recommendations.

2. **Advisory Committee for Libraries** : In 1957, the Government of India set up this Committee with K. P. Sinha as Chairman and Sohan Singh as Secretary to recommend the future library structure of India. The report consists of nine chapters under the following headings : Present Position, Structure of Libraries, Auxiliary Services and Library Co-operation, Library Personnel, Training for Librarianship, Libraries and Social Education, and Library Finance and Administration.

The Committees made some specific recommendations which include the following :

Each state should have a public library system under the control of State Library Authority.

Every State should an independent Directorate of Social Education and Libraries.

In state the library cess of 6 paise per rupee in property tax might he levied.

Inter-library loan service should be set up.

Library should interact with other social education and adult education programme.

The State and Central Government should supplement the amount collected through cess.

The Library personnel to upgrade their professional skills should be provided with proper training facilities.

3. **Working Group on Libraries** : The Planning Commission appointed a "Working Group on Libraries" in 1965 under the Chairmanship of V.K.R.V. Rao. The group presented a prospective plan for 15 years :

(i) To create a separate division/branch for library affairs.

(ii) To create a Directorate of Libraries in each State.

(iii) To constitute an All India Library Advisory Council with Union Minister of Education as Chairman.

(iv) To set up three model public libraries in the country on the model of Delhi Public Library.

4. **Working Group on modernisation on Library Services and Information** : It was set up by the Planning Commission under the Chairmanship of Dr. N. Seshagiri. The report was submitted in 1984 with the recommendations :

1. Public library development programme should be co-ordinated with activities of other agencies such as social education departments, extension activities of departments of agriculture, school libraries and others.

2. A network of public library system needs to be planned and developed in each state/union territory level.

3. Enactment of Public Library Act should be given top priority.

4. States with such a law should take further steps to extend the public library servics to reach all.

5. Existing Public Libraries run by private organisation should as far as possible be integrated in the public library system.

On Information the following recommendations were made :

1. The present library community should be exposed to the concept of computers and their usage.

2. The library training courses should be developed to include computer application aspects.

3. During the Seventh Plan period the goal should be to computerise most of the major libraries.

4. A Group has to be set up at the apex level to work out plan for computerisation.

5. Importance should be given for developing a union catalogue and a national bibliography.

6. A Plan for interlinking the library systems should be worked out.

7. New technologies like videotext, telecast should provide ample opportunities for disseminating information at the cheapest possible manner.

4.5 The National Plans and Library Development

The national planning is meant to bring about social and economic change. Five Year Plans started in 1951. By the end of 1st Plan only 9 State Control Libraries (in Assam, W. B., M.P., Punjab, Rajasthan, Pepsu, Saurashtra, Bhopal and Vidhya Pradesh) and 100 district libraries existed. In the Second Plan (1956-61) there was provision to set up 320 district libraries and State Central in each of the remaining states. During 3rd Plan (1961-66) the development of public library service did not get the priority. Only 12 states were fortunate to get State Central Libraries and 5 states had central libraries. 203 out of 327 had districts libraires and 27% blocks could set up block libraries.

During 4th plan (1966-1971) "Working Group on Libraries" were appointed by Planning Commission. But implementation part of the recommendations of the 'Group' was not upto the mark. During the 5th (1971-75) and 6th Plan (1975-80)

library development were covered under the sectoral plans it individual organisations. The NISSAT scheme was implemented in June, 1977.

During 7th Plan (1985-86) a Working Group on "Modernisation of Library Science and Information" was constituted. The recommendations were :

(a) National Policy for Library and Information Service

(b) Establishment of separate Library Directorate etc.

(c) All India Library and Information Service.

(d) Publication/Production of Materials Particularly for special categories such as neo-literates, children and physically handicapped.

(e) Use of Computers, Microprocessors and other Gadgets of Information Technology.

4.6 Proposed Plans and Policies

Dr. S. R. Ranganathan made the first conscious effort to develop a prospective national plan for total library services. As the title indicates ("Library Development Plan : Thirty Year Programme for India with Draft Library Bills for the Union and Constituent States"), this comprehensive plan focussed all essential ingredients of an integrated library service.

Since 1950s the Indian Library profession has been feeling the need for the formulation of a National Policy on Library and Information system but it received the active attention of the Government of India in the early 1970s. Raja Rammohan Ray Library Foundation submitted a Draft National Policy on Library and Information system to the Government in July, 1984. A draft Policy statement on behalf of ILA was submitted to the Government in early 1985.

1. National Policy on Library and Information System : In October 1985 a Committee on National Policy on Library and Information System was appointed by the Department of Culture, Ministry of Human Resource Development, Govt. of India, under the Chairmanship of Prof. D.P. Chattopadhyay to advise the Government on the formulation of national policy. The Committee submitted draft document to the Government on 31st May, 1986. The recommendations were :

(i) To foster, promote and sustain, by all appropriate means, the organisation, availability and use of information, in all sectors of national activity.

(ii) To take steps for mobilising and upgrading the existing library and information system and services and initiating new programmes.

(iii) To encourage and initiate, with all possible speed, programmes for the training of library and information personnel, on a scale and of a calibre adequate to provide the library and information services and to recognise their services as an important component of the quality.

(iv) To set up adequate monitoring mechanism for ensuring a rapid development of library and information facilities and services for meeting the information needs.

(vi) In general, to secure for the people the country all the benefits that can accrue from the acquisition and application of knowledge.

(vii) To preserve and make known the nation's cultural heritage in the multiple forms.

The Government of India promptly acted by appointing and Empowered Committee under the Chairmanship of Prof. Chattopadhyay in October, 1986, to turn the recommendations into a practical working plan. The Committee submitted its report in March, 1988.

2. National Information Policy : UNESCO has been advocating the adoption of a National (Science) Information policy by all countries of the world. The National Committee on Science and Technology urged the Council of Scientific and Industrial Research (CSIR) to develop an information system on technology. UNESCO made available the expertise of Dr. Peter Lazar for surveying the facilities and submitting an online for a national plan. Finally, the National Information system in Science and Technology (NISSAT) emerged as a national plan.

3. National Policy on Education : In May, 1986 the Government of India declared the National Policy on Education. The new policy includes a brief recommendation on libraries. It was recommended, "....a nation-wide movement for improvement of existing libraries and the establishment of new ones will be taken up." All educational institutions should have library facilities and the status of the librarians need to be improved.

4.7 Library Associations

Professional associations always play a significant role in the library movement. In many countries library associations play significant role in the development of sound library system. Most of the library associations, as reported by the Working Group on Modernisation of Library Service and Information, face problems because of paucity of funds, lack of physical resources and others.

4.8 Observations

From the foregoing discussions it is evident that the development of public

libraries is far from adequate. Even after 50 years of independence, a majority of the states have no library legislation, plans, proposals, and policies. Library development in the country should have been far better than now. It is a pity that neither the sinha Committee Report nor the Thirty Year Library Development Plan prepared by Ranganathan has been taken up seriously.

The implementation of the recommendations of the Committee on National Policy on Library and Information System (NAPLIS) will hopefully result in an integrated development of Library and information system in the country. The appointment of an Empowered Committee to examine the implications of the various recommendations of the policy document is surely a great step in the library movement.

4.9 Exercise

1. Discuss the main characteristics of Delhi Public Library

2. State how NISCAIR has been created.

3. Discuss the activities and agenda of RRRLF.

4. What is the important objective of National Policy on Library and Information Service?

4.10 Selected Further Readings

1. Dasgupta, Kalpana Ed. : National Library & Public Library Development : 130th anniversary of the Calcutta Public Library, Calcutta, National Library, 1989

2. Human Resorce Development (Ministry of), Culture (Development of) National Policy of Library and Information System a proesentatio, New Delhi, 1986.

3. Kawla, P. N: Ed. : Library Movement in India. New Delhi, 1986

4. Khursid : A growth of Libraries in India, International Library Review 1972 4 (1) 21-65.

5. Planning Commission, Report of the working group on modernisation of Libraries & Information for the Seventh Five Year Plan 1985-1990, New Delhi, 1984.

6. Rajagopalan, T. S. : Year's work in Indian Librarianship, Delhi, Indian Library Association, 1988.

Unit 5 □ Notable National Libraries - Important Narratives

Structure

5.1 Introduction

The first important work on National Libraries was written by A.J.K. Esdale ("National Libraries of the World : Their history, administration and public service", London, Graften, 1994). An important article considering the role of the national libraries came from K.W. Humphreys in Libri 1964, 14(4), 356-368. A more succinct summary of the functions of a national library are those given in UNESCO bulletin for Libraries 1964, 18 (4, 151).

According to Charles A Goodrum there were 106 national libraries in the world by the end of 1985. He divided the national libraries into three disperate types. The traditional or classic national libraries, founded in or before 1800 have come to stay as First Generation. National Libraries belonging to Second Generation came into being in the period between Napoleonic and world War II. The Third Generation national libraries began at the close of world war II.

Brief accounts of some of the important national libraries are given below :

5.2 The British Library

British Library is the national libary of the United Kingdom. During 1960s it became increasingly apparent that there was no adequate central national library in this country. The result of concern of the Government of this problems gave rise to the British Library. Until 1973 Britain's national library was British Museum.

1. Background : The British Museum was founded by the Act of Parliament in 1753 to bring together the collections of Sir Robert Cotton and those of the two Harleys, first and second Earls of Oxford and by Sir Hans Sloane. It was opened at the Montague House in 1759. Books of the royal Library were added to the collection in 1757. The library of George III was transferred to the Museum in 1820. Panizzi was appointed as the keeper of printed books in 1837. The Printing of British Museum catalogue started in 1881 and completed in 1905.

In 1967 the University Grant Commission's "Report of the Committee on Libraries", known as Parry Report strongly recommended the establishment of a British National Library. Dainton report in 1969 also recommended establishment of a national library. In 1972 the Parliament passed the British Library Act and in 1973 the library departments were detouched from the museum. To begin with the British Library had three main divisions Reference, Lending and Bibliographical service.

2. Organisation and Services : British Library now comprises five service areas :

1. The Humanities and Social Science Division.

2. Bibliographic services which include publication of the British National bibliography. It operates BLAISF (British Library Automated Information Service) which has again two services : BLAISE-LINE using UK computer and BLAISE-LINK using USA computer.

3. Science, Technology and Industry division consists of the document Supply Centre and Science Reference and Information Service.

4. British Library Research and Development Department is involved in a steadily increasing number of research projects in the field of library and information science and other related subjects.

5. The Central Administration of the British Library lends supports to the other divisions and departments such as personnel, training, administration, accommodation and legal services along with press and public relation.

5.3 Bibliotheque Nationale

It was known as Bibliotheque due Roi before the French Revolution. It is one of the world's greatest library along with the British Library. The Library was enriched with the collection of Francis I, Charles IX, Louis XIV (1643-1715). In 1692 it was thrown open to the public twice a week. After the French revolution in 1789 it was enriched further by conquest of Napoleon.

1. Organisation and Management : A decree of March 22, 1987, greatly modified the administration of the library. It is a private institution with financial autonomy under the the control of the Ministry of Culture.

2. Objectives : It is funded by Ministry of Culture. Besides purchase, it develops its collection through gifts, legacies and the sale of documents. Manuscripts and documents possessed by the library are described in Catalogue General des livres Imprimes. It has great rare collections and possesses the ancient Egyptian book the Prisse Papyrus which is believed to have been written before 2880 B.C.

3. Collection : The library is funded through the Ministry of Culture. Besides purchase, it develops its collection through gifts, legacies and sale documents.

4. Services : Services are concerned with national bibliography, acquisition, lending, exchange, photographic service and conservation. It is open for post graduate research. It offers facilities for various types of reproduction. It receives all titles by legal deposit since 1980. They makes available French publications in and outside the country.

5. Projects : It has three main projects : to enlarge its premises with building of an annexe, to protect its collection by a large programme of microcopying and deacidification and to create a new online bibliographic database, staff and other libraries, The library has undertaken the retrospective conversion of its catalogue into machine-readable form.

5.4 The Library of Congress

The largest library of the world, which completed 175th anniversary in 1975 of its founding is the Library of Congress of USA. It was founded in 1800 with a small collection of 3000 volumes. Its growth was slow. After the acquisition of Simthosonian collection in 1946, the opportunity to create a national library was presented. Since 1870 it enjoyed full copyright priviledges.

1. Organisation and Services : It is organised into eight major department :

(i) Office of the Librarian, (ii) Management Services, (iii) Congressional Research

Services, (iv) Copyright Office, (v) Law Library, (vi) Processing Services, (vii) Research Services and (viii) National Programmes.

2. Project and Activities : The Library of Congress has been serving at the defacto centralised cataloguing agency for American libraries since 1901 as it began to distribute processed cards to the libraries. It ultimately covers other forms of disseminating cataloguing data. These include proofsheets, printed catalogue, MARC (Machine Readable Catalogue), tapes and CIP (Cataloguing in Publication) date. Of the several activities and projects the following may be worthy to note :

1. National Union Catalogue (NUC)

2. The Cataloguing in Publication (CIP)

3. Library of Congrees MARC System

5.5 National Agricultural Library (NAL)

The national library under US Government of Agriculture is located in Maryland and was established under the Organic Act of 1862. It acquired national status on march 23, 1962.

1. Collection : The library acquires publications in some 50 languages and from more than 120 countries. Its holding includes 1.9 million volumes and other materials such as maps, manuscripts, government documents, software, audio-visuals and laser disc materials.

2. Activities : Activities are divided into two basic organisational groupings, input functions embracing aquisitions, cataloguing and indexing are grouped under resource development. Library services are output functions Computer-based products are services of NAL. include AGRICOLA, the Current Awareness Literature Service (CALS) and the Food and Nutrition Information Centre database (FNIC).

5.6 National Library of Medicine (NLM)

The National Library of Medicine, located in Bethesda, Maryland, USA, is the world's largest research library in a single scientific field. The library grew in 1818 with the collection Joseph Lovell. By 1880 the number of books became 50,000 and the number of pamphlets to 60,000 items. In 1979 the first issue of Index Medicine appeared. In 1980 volume I of the Index Catalogue of the Library of surgeon General's Office was published and the volume 16 was published in 1995. The Library became National Library of Medicine in 1956.

1. Collection : The library collects materials exhaustively in some 40 biomedical areas and to a lesser degree the materials on subjects like chemistry, Physics, Zoology, Botany and Psychology. More than 70 languages are represented in collection.

2. Activities and Services : It classifies all Cocuments on medical and preclinical subjects according to National Library of Medicine Classification. Documents on other Subjects are classified according to Library of Congress Classification scheme. The library follows Medical subjects Headings (McSH) and also provides descriptors for indexing and retrieving information stored in the MEDLARS (Medical Literature Analysis and Retrieval System). It has a computer terminal which provides access to online bibliographic search through MEDLINE.

3. Reference Service : A system of seven Regional Medical Libraries has been set up to facilitate the servicing of requests throughout the country. An automated document routing system DOCLINE was instituted in 1985.

Besides there are services that include Interlibrary Loan Service, Computerised Bibliographic Service and International Activities. Through the last activity the library maintains exchange agreements with about 450 research and educational institutions of 67 countries. The NLM and WHO (World Health Organisation) have a collaborative arrangement to provide photocopies of journal articles to requesters in developing countries in Africa, East Meditterranean and South East Asia.

5.7.1 National Library, Kolkata

In 1948 the National Library, Calcutta moved to its premises in Belvedre, once the winter abode of the Viceroys of India. It was declared by the Constitution as an existence of national importance. Mr. B.S. Kesavan was appointed the first Librarian of National Library. It was declared open to the nation by the then Union Minister, Maulana Abul Kalam Azad on 1st February, 1953.

In addition to the existing building, a 9-storied annexe was built in 1966 and three storied "Prashasan Bhavan" was completed in 1989. Reviewing Committee under the Chairmanship of V.S. Jha in 1969 recommended what the national library will observe as basic features :

(i) "Acquisition and conservation of printed materials produced in the country to the exclusion of ephemera ;

(ii) Collection of printed material concerning the country wherever it is published and also acquisitions of a photographic record of such material that is not available in the country ;

(iii) Acquisition and conservation of manuscripts of national importance ;

(iv) Planned acquisition of foreign materials required by the country ;

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(v) Rendering of bibliographical and documentation services of retrospective materials ;

(vi) Acting as a referral centre purveying full and accurate knowlodge of all sources of bibliographic information and participation in international bibliographic activities;

(vii) Provision of photocopying and reprographic services ; and

(viii) Acting as the centre for international book exchange and international loan.

1. Organisation and Management : The Director is in overall charge of the Library, assisted by two professional Librarians. They are again assisted by the Deputy Librarians on the professional aspects and Administrative Officers in administrative aspects. The set-up of national library broadly consist of (a) Professional Division (b) Conservation Division and (c) Administrative Division.

2. Collection : The library has a collection of nearly 20 lakhs of books, 15,400 current titles, 810 newspaper titles and other materials. The collection is developed through

(i) Books Delivery Act, 1954 (ii) Purchase of selected books and journals published outside India (iii) Gifts (iv) Exchange and (v) Depository privileges.

The unique feature of the library holdings is series of bequests it received during last fifty years. 83,000 documents were received as collection of Sir Asutosh Mukherjee in 1949. The library was also enriched by the gifts of Ramdas Sen Collection (1960), The Hidyat Hussain Collection (1952), The Tej Bahadur Sapru papers (1952), the Barid Baran Mukherjee Collection (1953), the Zakariya Collection (1953), the Imambara Collection (1956), the Jadunath Sarkar Collection (1959), the Surendranath Sen Collection 1960) and Vaiyapuri Pillai Collection (1960).

The national library follows the Anglo-American Cataloguing Code Rules (AACR-I-1967 and AACR-II-1978). It provides readers services through reading and lending facilities, bibliographic and reference service, reprographic services.

5.7.2 National Medicine Library

In April 7, 1966 the Government of India designated the formar library of the Director General of Indian Health Services at New Delhi as the National Library of Medicine.

The objectives of the library were :

To collect manuscript literature, particularly on Ayurveda and other indigenous system ;

To act as resevoir library for the country ;

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To maintain a union catalogue of periodicals and manuscripts, rare books and similar other ;

To maintain a union catalogue of periodicals and manuscripts, rare books, and similar others ;

To promote an active interstate and international library co-operation ;

To provide bibliographical services by including indexing, abstracting and cataloguing of holding ;

To make available reprographic and translation services ;

To make take steps to set up an effective medical library system by creating a network of libraries ;

To arrange training in medical librarianship.

The library has been bringing out Index to Indian Medical Periodicals twice annually since 1959. It has also completed the Union Catalogue of Medical Periodicals.

5.7.3 National Science Library

The National Science Library was conceived in 1964 as an integral part of Indian National Scientific Documentation Centre (INSDOC). Rs. 20 million was provided for developing this library. It has now become an integral part of NISCAIR which came into being on 30th September, 2002 as a result of combination of INSDOC and National Institute of Science Communication. It subscribes all journals on science and technology. It has more than 1,80,000 bound volumes of periodicals and journals. It has a database which contains CA, CAB, SCI etc.

5.7.4 Other Libraries

The National Library for the Blind and Physically handicapped exists in Dehra Dun. The Khudabox Oriental library in Patna and the Saraswati Mahal Manuscripts Library are recognised as National Libraries by the Government of India. The Library of the Indian Agricultural Library is being considered to be recognised as National Library.

5.8 Conclusion

The wind of progress and development blowing throughout the world include almost all countries. One such development is free access to the accumulated stock of

human thought and knowledge through the ages. While almost every nation has a national library, here we have presented only descriptive accounts of national libraries of UK, USA, France and India only. They have some common aspects, but each one of them has their own unique and distinct features.

5.9 Exercise

1. Discuss the three different states of formation of Natioal Library in India.

2. Discuss the various types of National Libraries of India.

3. Discuss the activities of the Library of Congress.

4. Give a description of the bibliographic services of the British Library.

5.10 Selected Further Readings

1. Goodrum Charles & Dalrymple, H. W : The Library of Congress, 1982

2. Line, M. B. : National Libraries, Aslib, 1978.

3. Majumdar, Uma : India's National Library, 1987

4. Wedgeworth, R. Ed. : ALA World Encyclopedia of Library and Information Services of Chicago, ALLA, 1986.

Unit 6 □ Public Library

Structure

6.1 Introduction

The public library is an educational institution open to all—rich or poor, young or old. It is an institution which has no age limit, no entrance requirements other than the desire to learn. It has no restrictions on progress other than those determined by the individual himself. The public library is therefore called the people's university. Each individual in this university begins at his own level and progreses at his own speed.

Benjamin Franclin not only looked upon the public library as an educational institution and used it as one, but went further to define it as an institution for the diffusion of knowledge to the end that people could control their own destinies and become better citizens.

Ralph Waldo Emerson, as quoted by Herbert B. Adams, defined the public library as the place where 'a company of the wisest and wittiest men that could be picked out of all the civilized contries, in a thousand years, have set in best order the results of their learning and wisdom'.

Ranganathan defines it as an 'institution maintained for and by the community primarily for the social purpose of providing easy opportunity for self education throughent life of every person of the community'. According to Ranganathan, the public library is established out of the public fund ; it serves the general public of its locality and it is essentially a service library.

The UNESCO Manifesto clearly states that 'the public library should be established under the clear mandate of law, so framed as to ensure nation-wide provision of public library service.'

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The attributes of the public library may be stated thus :

(a) It is finance for most part of public funds. (b) It charges no fees from readers and yet is open for full use by the public without distinction of caste, creed or sex. (c) It is intended as an auxiliary educational institution providing a means of self education which is endless. (d) It collects materials for giving information on a wide variety of subjects without prejudice.

6.2 History

In UK and other places libraries were established for the public during 16th and 1 century. But the first 'public library' was established in USA and UK during the middle of the 19th century. The purpose of the library was to educate the labour classes in respect of educational and cultural development. The term 'public library' in Latin word 'Bibliolheca Public', according to Kelley, was originated in order to differentiate the other colleges from Oxford and Cambridge University. Gradually the interest of the middle classes and others grew faster and the library was regarded as one of the social institutions during the decades 1960 and 1970.

In ancient and medieval India there was no public library in the real sense. Oral tradition was prevalent in the world of learning. Ruler in the medieval period made sincere effort to set up libraries. The missionaries established some libraries. From 1690 Calcutta began to develop as one of the principal English settlement. The English began to take interest in oriental learning. The Asiatic Society was established in Bengal in 1784. In 1836 the Calcutta Public Library was opened to the public. After a long period of stress and strain the Calcutta Public Library was handed over to the official control in 1903 and the then Imperial Library was renamed as the National Library in 1948. An early public library claimed to be the first true public library, was the Connemara Public Library. This came into being in Madras in 1890 and later became the State Central Library in 1950. The Delhi Public Library is the best known public library in India having being established as a UESCO pilot project in 1950 with services inaugurated in 1951. In 1957, the Government of India set up a committee with K.P. Singha as chairman to recommend the future library structure of India : On the basis of the recommendation of the Singna Committee in 1963 Sen committee was formed to go into the question of providing better public library services. It is pointed out that the Government of India set up the Raja Rammohan Ray Library Foundation in 1972 with a main objective was to promote and support public library in the country by providing adequate library services and by developing reading habits all over the country.

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6.3 Goals, Purposes and Objectives

In a sociological definition of culture, the public library is but one of many inter-related phenomena, which collectively offers a society its flavour, fluency and style. In fact it contributes to a way of life. In cultural terms the goal of the public library is the perfection of individual, and through the individual the perfection of the society. The public library is described as a democratic institution and it is a practical demonstration of democracy's faith in universal education, a lifelong proces. The public library throughout the world is connected with democratic process. It has been created as a source of knowledge for as informed cilizenry upon was collective judgement, the democracy rests.

The UNESCO Public Library Manifesto first issued in 1949 and revised in 1972 by the international Federation of Library Association and Institutions on the occasion of International Book Year is a broad Charter of public library goals. It does not cover the full variety of purposes and activities to which public library can lend itself, but it does lay down certain fundamental requirements that must be met. The most important requirement of public library is that its use should be free to all members of the community on equal terms.

The purposes and objectives of the public library are described in relation to three basic concerns—the needs the people who use the libraries, the need to ensure that the library is located in a suitable site and the need to provide for effective means of operating it and developing its servics. The following broad objectives may be laid down for it as a social institution.

It should foster and provide means for maintaining individuals individuality, for the progressive unfoldment of individual personality, and for helping the individuals acquisition of know-how of daily life. It should believe that a well- read man will become a better citizen and an asset to the community.

According to Ranganathan, it should distribute, in an unbiased and balanced way, all and shades of recorded views and thought to one and all, as a help in discharge of their political functions in respect of local, national and international affairs.

It should provide all kinds of information needed to solve citizen problems. Those seeking information to cope with the daily life or work related problems have not traditionally thought of public library as a primary source of information. To reach the people who have limited intelletual skills, libraries must be prepared to offer custom-tailored produots, to develop new. educational role as an essential lifelong service and a vital public utility.

It should be a primary centre for cultural life and should promote active participation and appreciation of all arts and in this context it should preserve the literacy remains of humanity for posterity, as vehicle of culture and as a source. materials for antiquarian

research. It should play a positive role in encounaging an active use of leisure time through recreation and entertainment. Thus the public library has educational, informational, political, economic, industrial, cultural and antiquarian objectives.

6.4 Collections

The collective development for public libraries is probably the most sophisticated activity and certainly call for the most pervasive exercises. In promoting the culture of the community the public library should include works of literature, art, philosophy, history, biography and topography. In facilitating non-formal education or self education the public library should provide educational materials which include introductions or standard works or a subject. Most uses of the public library read for recreation at one time or another and the provision of this kind of reading is essential. The public library should always encourage cultural reading which is always important in the society. In addition, public library should provide the equipments for using audio-visual materials, micro-reproductions and recordings.

6.5 Functions

The UNESCO Public Library Manifesto as revised in 1972, part of which states 'The public library offer adults and children the opportunity to keep touch with their times, to educate themselves continuously and keep abrest of progress in the sciences and arts. Its contents should be a living demonstration of the evolution of knowledge and culture, constantly reviewed, kept up-to-date and attractively presented. In this way it will help people form their own opinions and develop their creative and critical capacities and powers of appreciation. The public library is concerned with the communication of information and ideas, whatever the form in which these may be expressed.' In the light of this statement the public library has to perform the following functions :

(i) To facilitate access to its resources for information and education. In planning this function the following questions require consideration : Who are the residents who now make use of the library? Who are the residents who would make use of it if its services were known to them? Who are the future users of the library collections? For this purpose the library has to conduct systematic readers surveys to identify the actual and potential needs of the community. It should take steps to select the information sources which will suit educational level, interests vocational pattern, nature of industries agricultural products etc, in the area.

(ii) To encourage informal and life-long self education :

The sucess of democracy depends on universal education of people. The democratic

society now expects its members to be self-governing, informed, generous, tolerant, a champion of freedom, a citizen of the world and devious of leaving the world better for his stay in life. when we consider such expectations of the society in respect of man as individual, we realise the full potential of the public library in society which can only fulfill this expectation. To make democracy safe and beneficial, it is necessary to keep every citizen informed of current events and provide opportunity for independent judgement and facility for elevating oneself.

The public library is the most appropriate agency of adult education in so far as it provides both the requisite reading material and environment for informal reading. In fact it is the only agency in underdeveloped countries for the promotion of mass education and for the elimination of illiteracy.

(iii) To serve as centre for social and cultural activities of the community, the public library is a social and cultural centre in a community. Ranganathan states that 'a library is a kind of social power station where the minds of the members of the community are energised'. A community comprises of different cultural and social groups like children's club, youth fourm, different professional associations and societies. All such socio-cultural groups in a community need nourishment from the public library.

(iv) To preserve the materials of local cultural henitage :

The public library should take interest in preserving the local history collections. Such community boasts of its cultural heritage through the works of art, sculpture, paintings, library manuscripts of the past. The public library fulfils this function by identifying and collecting such materials of cultural value available in its locality. These local history collections should be brought to the notice of the public of the community so that they can take pride in these cultural heritage. To stimulate thought and develop understanding and to strengthen democracy :

The public library contributes towards unification of society by re-directing and re-interpreting group interests in terms of the ultimate interests of a society. Through the diffusion of education it strives to promote equality, social justice and intellectual freedom. It lets every thinker state his own freely and without favour. Free thinking leads to understanding, love and knowledge. The predominant ideals of the modern society are based on principally on democratic convention underlined in the ideas of freedom of thought, freedom of circulation of knowledge and freedom of instruction. It is the public library whose function is to uphold the sancity of such ideas.

Of all democratic institutions in society, only the public library keeps itself above all morals, politics and religions. Nevertheless, it is also worth to note that library is sometimes concerned with specific group interests as they emerge in actual conflicting situations. But the public library has also an integrative role as a cultural unit, constituting an organic part of the society, by bringing together different segments of the society on

a common platform. By throwing open the mine of recorded knowledge for effective use, critical evaluation and exploitation, the public library encourages individuality variety and dissent within a climate of tolerance. In this context the public libary promotes the concept of a democratic society and justifies its existence as a democratic institution.

6.6 Exercise

1. Discuss the objectives of Special Library.
2. Define a special library.
3. What are the roles played by the special library in society ?

6.7 Reading Lists

1. Campbell, H. C. : Developing Public Library systems and Services   Paries UNESCO, Unesco, 1983.
2. Gerard, D. Ed : Libraries in Society : a reader, London, Clive Bingley, 1978.
3. Khanna, J. K. : Library and Society. Kurukshetra, Research Publications, 1987.
4. Sahai, Shrinath : Library and the Community. New Delhi, Today and Tomorrows. Printers and Publishers, 1973.

Unit 7 □ Academic Libraries

Structure

7.1 Introduction

By their nature, libraries in the educational institutions setting are concerned with the teaching and learning processes experienced by specific communities. Thus they range from the largest university library to the small school library. The small library serving the needs of primary school children in essence has the same basic aims as on provided by large numbers of post graduates in a university setting. These needs can be closely identified in the case of most academic libraries in that they reflect the causes offered and research undertaken within the institution. Although the levels of work are vastly different, libraries are primarily to meet the needs of taught and teachers.

However, general objectives of the academic libraries may be summarised as follows :

(1) To serve the curricular, cultural and general educational requirements of the academic community ;

(2) To provide reference materials at appropriate levels ;

(3) To provide study areas of users ;

(4) Analysis of readers needs and knowledge of educational aims provides a sound basis for the development of library services ;

(5) To provide a lending service appropriate to different types of users;

(6) To provide an active information service.

7.2 School Library

The school library awakens and fosters reading habits among children and young students and enlightens their imaginative minds. A school can not run properly without a good library that is a part and parcel of the school education.

7.2.1 Objectives

The primary school library aims to create a love for books, generate interest in reading them and slowly develop the habit of reading. The secondary and higher secondary school library maintain their identity fulfilling all the requirements of young students for learning and teachers for teaching. The librarian helps students to cultivate the habit of using library not only with reference to their reading for course requirements but also reading for pleasure, general knowledge and recreation.

7.2.2 Collection

The primary school libraries should build up a good stock of books and other learning and teaching materials collection should include picture books, biographies of great men and women, books on travel and humour, folk tales, stories of animal and birds, reference books for children, childrens magazines, audio-visual aids like motion films, video-cassettes, models, charts, photographs and toys. The secondary and higher secondary school libraries should develop an excellent stock of text books, general books on popular science, biographies, travel books, books on sports and games, fictions, short stories, conventional reference books such as dictionaries, encyclopaedias, yearbooks, directories etc., periodicals, audio-visual materials and similar others.

7.2.3 Functions

The school library has positive functions. It must help school in the achievement of the educational programmes by providing materials to supplement and enrich the work done in subjects taught in the class-room. The school library service is not a substitute for formal education of the school but it is an integral part of the school. It promotes the habit of general reading amongst students. Learning is a life-long process and the school library must prepare lifetime learners.

7.3 College Library

The basic efforts of all college libraries should be to meet the legitimate needs and demands of all their users from senior teachers engaged in research to fresh students just entering. The library should serve the reading, reference and research needs of the members of the college community.

7.3.1 Objectives

The college library helps young students in proper understanding various disciplines, in preparing them for advanced studies, and for shouldering the higher responsibilities in future life. Getting acquainted with the library practices—consulting catalogues, bibliographies, indexes, locating books and other materials etc., students can step into the university library with confidence.

7.3.2 Collection

In order to satisfy varied curricular and extracurricular activities of both students and teachers the college library should build up a balanced collection consisting of wide variety of learning and teaching materials. The collection should be selected and developed on the basis of educational philosophy and objectives of the institution, size and nature of the student body, size of the faculty and their needs for research materials and the range of services required by the library's users. The collection should include text books and recommended books, books of advanced nature for teacher, a wide range of reference books, travelogues, biographies, learned periodicals. The library should have the equipments needed in the use of materials—such as microreaders, viewing and listening facilities, photocopying equipments, computer-aided teaching and learning materials.

7.3.3 Functions

The basic function of the college library should be to assist its parent institution to carry out its programmes. It must serve the needs and requirements of teachers and students towards reading, study and research. It educative function includes—

(i) providing materials to the college community;

(ii) making materials easily accessible ;

(iii) arranging orientation programme in the use of the library ;

(iv) providing bibliographical information to the faculty ;

(v) arranging inter-library loan, and similar others ;

(vi) promoting cultural activities for the college community.

7.4 University Library

Donald Davison regards the library as the 'soul' of the university, the sun around which all teaching revolves. The Radhakrishnan Commission in their report hailed the library as the very 'heart of a university', the 'workshop of the scholar'' and 'the laboratory of the learned'. In fact no university can develop effective work in the academic community without a good library.

7.4.1 Objectives

Primarily the objective of the university library is to support the instructional and research programmes of the university. The objective ultimately reaches the noble height of helping produce leaders in the community in different fields of human activity, and it inspires the inventors and discoverers and pioneers—persons who create history. However, broad objectives of the university which are to be supported by its library may grouped as follows :

(i) Conservation of knowledge and ideas ;

(ii) Teaching ;

(iii) Research ;

(iv) Publication ;

(v) Extension service ;

(vi) Interpretation.

7.4.2 Collection

The collection of university library includes materials to meet the needs of post graduate students as well as resources of sufficient breadth and depth to support serious scholarship in all areas. The collection in fact, embraces all subjects. It provides a general collection, rare materials, newspapers and periodicals, government publications, special materials such as thesis, dissertations, archives, clipping ; visual and audio-visual materials and microforms ; diverse forms of materials and equipment such as disc, tape-recordings, films, video-tapes, photocopies and increasingly—computers and auxiliary machines.

7.4.3 Functions

The major functions of the university library are :

(a) Building up a collection in a wide variety of subjects for learning, teaching, doing research and publicating.

(b) Providing ready access to materials and facilities such as translation, typing,

photocopying. In an effort to provide more effective and efficient service the university library often participates in co-operative undertakings in bibliographical services such as, interlibrary lending, co-operative and centralised cataloguing and compilation of bibliographies.

(c) By accumulating and organising materials, the library serves as an invaluable aid in the conservation of knowledge and as an active force in teaching, research and extension programme of the university.

(d) Organising and providing a variety of library documentation and information services necessary for the success of the formal programmes of instruction.

(e) Through assietance to the faculty and research staff, the library participates in the interpretative function of the university.

7.5 Exercise

1. What are the objectives of School Library ?
2. Narrate the functions of school library.
3. Describe the objectives of College Library.
4. Give an account of functions of University Library.
5. Discuss the aims and objectives of academic libraries.

7.6 Reading List

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2. Deshpande, K. S. : University Library System in India. New Delhi, Sterling, 1985.
3. Tolley, L. : The Function of a University Library. Journal of Documentation, 1962, 18(3), 133-142.
4. Ranganathan. S. R. : New education and school library. Vikas, 1972.

Unit 8 □ Special Library

8.1 Introduction

The special library is concerned with the literature of a particular subject or group of subjects. It may be designated in different ways such as, scientific library, etc. It may be designated by subject such as, medical library, agricultural library, etc. It may also be designated in relation to its parent institution such as, research organisation, government agency, and similar others. But the precise definition of special library is one of the unresolved issues of librarianship. According to R. Astall, "special libraries serve a specialist clientele, located within a single establishment or group, and all engaged in working towards one common purpose. The Association of Special Libraries and Information Bureaus (ASLIB) defined special library "as a department / faculty responsible for the acquisition, indexing and distribution (dissemination) of recorded knowledge directly concerned with the work of a specialised organisation or a special group of users." P. Wasserman in his article "One of a species : the special library, past, present and future" [Library Journal 1964, 89 (4), 797-802], defines special library as "an information facility designed to provide access to specialised information and placed within range of and addressed to meet the needs of special clientele". These two definitions are fairly representatives of the more general literature on the topic from around the world. They can be summed up in an even more general definition : a special library exists as a service unit within an organisation having non-library objectives.

8.2 Objectives

"Putting knowledge to work" a phrase used by John, A. Lapp in 1916 can succinetly describe the purpose and objectives of special library. A special library may have its own goals and objectives regarding the resources, services and clientele needed or desired to provide such services, but these goals are internal to the library. The parent organisation usually has littel interest in library service as an end in itself, rather it is interested in the library and establishes it as the means of getting the information it needs. Thus the objectives of special library in general are determined by those of the parent organisation which establishes it. Examples of parent organisations are companies, institutes, laboratories, hospitals, mussems, professional associations and societies, and departmental libraries of universities. These specialisations may occur within organisations which may have library objectives. These special libraries may often be found in university and public libraries.

8.3 Collection

Collection of the special libraries are developed to support their information services, both current and retrospective. Depending on the nature of the supporting organisation the collection may cover a variety of forms—books, journals, pamphlets, technical and research reports, translations, dissertations, patents, abstracts, directories, yearbooks, trade specifications and standards, audio-visual materials, magnetic tapes, photocopies and microforms.

Generally speaking the special library collections consist of three major components published information, internally generated information, and information available from sources outside the parent organisation. Published information may be available from pamphlets, periodicals, specialised reports, newspaper clippings, trade catalogues, government documents, etc. Internally generated information within the organisation is recorded in research reports, laboratory notebooks, working papers, etc. For resources outside the organisation, the library often uses resources of other types of library through formal inter-library loan.

8.4 Functions

Information services is the *raison d'etre* of special library. The nature and extent of information services offered by the individual special libraries varies according to needs of its primary users and according to its own resources in stuff and collections. Three functional levels are sometimes identified to describe the range of information services.

At the minimum level it disseminates information and materials, answers reference questions, directs users to appropriate sources, and deals with such simple current awareness services as periodical routing. At the intermediate level, it offers literature searches, prepare bibliography, selects and transmits research materials and provides current awareness services such as acquisiion bulletins. At the maximum level it offers evaluative and comprehensive literature searches and more complex current awareness services such as Selective Dissemination of Information (SDI) services. The third level of service has developed the information centre concept. According to M. Weisman the special library may perform the following major functions :

(a) Collection of documents ; (b) Processing of documents ; (c) Storage of documents ; (d) Retrieval of documents ; (e) Dissemination of documents, data/information and (f) Maintenance of organisation's archive for generating information.

8.5 Information Centre

The increased complexity of the business process and increased output of publications, commonly referred to literature or information explosion that followed World War II, made more acute the businessman's need as well as the engineer's and scientist's for finding better ways to utilising the extant information. It was in this period that greatest development in machine retrieval of information took place and gave library services a new dimension. The tools developed for making this possible were computers, microfilm storage machines and reader-printers. The technique for using such pieces of information largely depended on intensive indexing and detailed subjects heading lists or dictionaries. Preparation of different types of indexing, compilation of thesauri and extensive preparation of abstracts became the work of reference librarians or information scientists. Because of the expenses involved, these activities were confined to large collections, military and government establishments. They began to develop hand in hand with the R & D (Research and Development) movement.

Eventually it was found that a management and business information crises paralleled the problem created by the scientific and technical information explosion. Top management came to understand its need for accurate and prompt information upon which to base meaningful decisions, and began to consider information as its most significant basic resource. In this context the term "Information centre" was coined. The purpose of this centre was to supply what its name implied.

The precise definition of an information centre is difficult because the concept has been changing. Weiseman noted that the tremendous increase in scientific research and development activities, as Cohan and Craven observed, "has ... stepped up the demands of laboratory and administrative personnel for expanded, more efficient and better

integrated services". As a consequence there has been a trend to unify library, patent, translation, report writing, abstracting, literature search and other similar activities within a single facility. The centralisation of all or some of these activities has at times received the appellation of information centre.

Meltzer delineates the function of an information centres as follows :

1. To acquire information needed by the organisation.

2. To organise the material for retrieval of information.

3. To analyse the documents for value, validity and completeness.

4. To synthesise the information to give its broader meaning, greater application and a point of reference.

5. To store data for ready reference.

6. To disseminate information to those who need it.

It may be noted in passing that while the special library offers services to staff of its parent organisation an information centre often serves a widely distributed group of users who need its services.

Meltzer thus defines information centre as "the special library with added function of analyzing and synthesizing information needed by management, staff and the technical personnel of the organisation." The information centre emphasizes the content of the material rather than the material itself.

8.6 Exercise

1. What are the main collections of the special library ?

2. Discuss the aims and utilities of special library.

3. Write two definitions of Information Centre.

4. Describe the functions of the Information Centre.

8.7 Reading List

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Unit 9 □ Library Legislation

Structure

9.1 Introduction

If we accept the fact that library service is a social necessity, the development of social being depends largely on its proper organisation. Every development in a community

radiates from it and gets irradiated productivity calls for the best use of the research potential of humanity. In this context the replacement of wasteful research-in-parallel by rationalised research-in-series in all the more desirable. Research-in-series is only practicable if libraries can offer pinpointed reference service in respect of nascent thought. Hence library service is also an economic necessity. A democratic society deserves proper library service. Citizens in a democratic society should have free access to correct information. Library service is also meant to preserve the universal literacy which is a continuous exercise. People have needs which they cannot resolve Themselves and there are some reasons why, for the common good, these needs should be attended to ; that is to say, public libraries should deal with all these needs. It is, therefore, imperative that every society wants all members should accept library service. But most people do not like to pay for this service and the state has to provide free library service to one and all. A public library expects its users only to spend time and not money for the utilisation of services. Free communication is essential to the preservation of a free society and creative culture. All these necessitate the provision of public library service to all people. It has been experienced all over the world the public library service can be effectively offered only through legislation.

9.2 Concept of Library Legislation

The public library stands for as a sort of beacon for the community as a whole. It is paramount importance to put the public library on a sound and sure financial footing and to allow it run smoothly without any bureaucratic binding. The ultimate goal is to create necessary library agencies and to define their functions in such a way that the national library service may run along the most effective and economic lines. All these imply legislation which is capable of regulating various organs of public library services. It is an instrument for development of public libraries in a planned manner. Library legislation, therefore, ensure establishment, development, and maintenance of libraries in a uniform pattern. Legislation alone can help promote a sense of self consciousness among people who would feel it obligation on their part to use services offered by the library.

9.3 Need for Library Legislation

Provision of public library service is a natural cerollary to democratic way of life. An effective means of designing and developing public library service is the form of will-knit network of central points linking a number of activities. This is possible only in the presence of library legislation. In fact library legislation is the assured way of providing public. library services in a democratic society. For a permanent, uniform, efficient,

balanced and co-ordinated library service, legistation is of utmost importance. Problems of land buildings, gift, donations, legacies, and purchases and sales of property for the library can all be solved by legislative measures. Levy of any cess can be made possible only by law alone. When the library service is an educational concern of the state, the government of the state is obliged to lay down its responsibilities for establishment of the public library system by introducing library legislation. Therefore, a public library system derives its strength from State Library Lagislation.

Ranganathan has also stated that if the library service is found to be essential for the well being of the state, it must be provided by lagislative enactment. Statutory provision of finance is necessary in order to save library from politics. By legislation financial responsibilities of the public local government and state government are defined and long term planning done to ensure full coverage and high standard of library services. Legislation also defines the executive authority of different library authorities. For ensuring the uniformity of library service legislation is the need of the present time.

Unesco faith : Legislation was one of the primary subjects discussed at the first seminar organised by UNESCO in 1953 on public libraries in developing countries at Ibadan in Nigeria. The following statement of principles may be cited.

"Only legislation can enpower the appropriate authoritces to provide and ensure adequate financial support and efficient administration."

In October 1955 UNESCO organised a seminar on public libraries at Delhi Public Library in India. Again, public library legislation and its need and nature were the subjects of discussion.

"Overall control and co-operation of development to provide a permanent and progressive national public library service, can be obtained only by legislation."

1. UNESCO manifesto supports the following preconditions for public library :

(a) library should be establiished under the clear mandate of law

(b) library collection should be preserved out of state exchequer ;

(c) library should be kept open for all categories of peeple of the society for free and fair use ; and

(d) library should not claim any 'direct change' for any sort of service.

2. IFLA in support of Legislation :

The Public Libraries Section of the International Federation of Library Associations (and Institutions) published a memorandum in 1955 on the development of public library services. This included one section devoted to legislation :

"Each state should adopt library laws ..."

To mark International Book Year (1972) IFLA's Public Libraries Section prepared for UNESCO a manifesto which also included a paragraph on legislation :

"The public library should be established under the clear mandate of law, so framed as to ensure nation-wide provision of public library service."

In a democratic society state legislation provides a legal basis to establish a framework of libraries. It ensures sustained financial support and free service to all. It provides the basis for the structure, functions, personnel and finance to meet user demands for library services.

9.4 Characteristics of Good Library Legislation

Some of the important characteristics of Library Legislation are :

1. The library legislation must be simple and general. It should allow for future development.

2. It must not be subjected to political change.

3. It must not merely remit or audit but create conditions for the libraries to flourish.

4. It must co-ordinate library activities and control them in full recognition of the people's right to free access to the means of knowledge and factual information.

5. It must take into account the other types of libraries.

6. It must define the respective responsibilities of local, state and national administration.

7. It must make the library service compulsory.

8. It must prescribe that the public library service should be free to one and all. It should also provide for public library resources to be supplemented by those of academic and specialised libraries.

9. It must provide for lending of books free of charge.

10. It must provide for the bookstock to cover every interest.

The library Act should allocate different tasks to different types of libraries in order to ensure more economical administration, rationalisation of methods, specialisation in subject fields and altogether a better service to the community as a whole.

9.5 Essence of the Pattern of Legislation

Library legislation varies considerably in different countries. It may make the provision of public libraries permissive and compulsory. It may make them the responsibility of the state, regional or local government or a combination of two of them. It may allow libraries to be supported financially by direct or indirect taxes, by local rates or by subscription. Ranging from the most advanced counries to a country which has just become the independent we have one thing in common ; in none of them legislation is entirely satisfactory and effective. All have problems to some degree, despite the fact that

there has been revision of laws in most countries. A pattern provokes a search for a larger and more viable unit of service. One can see similarities in the solutions so far adopted but, there are also variations. It should be noted that public library law is very evolutionary in character, it must owe its existence to the general body of law of a country and must be set in the perspective—the executive, social and geographical structure of the country concerned. In most countries mandatory legislation has replaced the permissive one. In countries like Sweden mandatory legislation is not necessary, since the coverage is already complete. Norway has laid down the obligatory provision in the Act. In Denmark a date was set for all communes to make provisions for public library service. In countries like Canada and the United States the viability poses the problem and this has been general feature of most countries.

One common feature in almost all recent legislation is the intervention of the central government either at state or federal level or both. This has led to the setting up of a central body which may take many forms—advisory or executive. It may be independent or responsible to a department of the state. Membership consists of representatives organisations or individuals. Functions of these Bodies are chiefly advisory. The secretariate of these bodies assumes supervisory functions, no matter whether clearly laid down in legislation as in Quebec or not, as in England and wales. In Finland and Denmark, these functions are inspection and control. There may be a central co-ordinating government department in absence of central co-ordinating body. In Norway the Act has recognised the state Inspectorale and the State Inspector, though a direct appointment of the crown is still responsible to the ministry of church and education. In Sweden Library Section of the Central Board of Education used to supervise state grants. Now it has assumed more advisory functions than supervisory ones. In USA, most states hold an office in the Department of Education to supervise the substantive grants under the Library Services and Construction Act.

All recent legislations are characterised by the creation of a superstructure of co-ordination, often at two or three levels. Library authorities are directed to join with others in a library system or to create a superstructure of co-operation above them.

The provision of grants-in-aid to persuade authorities to imporve their services by entering into co-operative aggrements has been the feature of recent liagislations. In Denkark, Finland and Norway both individual grants to libraries and grants for regional services have been provided. In USA there are generous grants in federal legislation. Sweden provides grants for special purposes. In UK contributions to the local authority funds are the usual practice. But certain conditions are attached to grants in countries like Norway, Finland, Ireland and Quebec. Most countries specify free use of public library services. Denmark prescribes free use for inhabitants of that country. Czechoslovakia and Hungary charge adult users. Free use is denied in Quebec. Financial support for public

libraries generally comes from public funds, that is, taxation. Obviously, any unit at local level must be tax-raising body and provision for funds from taxation at a national level is written in too many legislations.

Developing countries and Library Service Legislation

Though the medium of legislation for providing library service was taken resort to in UK and USA, in the first instance, yet developing countries also have been following it. Asian and African countries are now realising the importance of library legislation. Now legislation has almost become an axiom and is being considered as a sine qua non of adequate and standard library service.

HF Aldefer ; as noted by Gardner, has identified four basic patterns in his study of local government in developing countries. The French pattern carrying the doctrine of *ultra vires* dominates the large part of Africa. It is characterised by centralisation, chain of command, hierarchical structure, executive domination and jurisdiction which is independent of the adminastrative and legislative branch to a great extent. All power is vested with the central government. On the other hand, the English pattern is characterised by decentralisation. This type of legislation has been successfully in practice in Ghana, Eastern Nigeria and Tanzania. The democratic centralisation manifested in the Soviet system. The traditional form of local government emerges a pattern that resembles the Indian Panchayat system. The form is essentially non-urban. The pattern is one of a chief or a local leader or a group of people, having jurisdiction over a village or a group of villages.

9.6 Library Legislation in India before Independence

We have a tradition of human learning but we have no tradition of public libraries in India mostly due to two reasons. First, here humane learning was the concern of the Brahmin. Secondly, our people were accustomed to an oral tradition of learning. The common man had to depend for his enlightenment on the spoken wisdom of gurus. The modern library system in India is a country old as will be evident from the report of the Government of India's Advisory Committee for Libraries published in 1959. It is a pointer to the fact that we could not develop that system into a vital organ of our intellectual life. In fact libraries emerged out of the intellectual temper of a nation. British library system has grown out of the British appetite for learning. Ours is a challenge to build up an effective library system for the nation whose seventy percent of the population are illeterate. Moreover, India is a large country with predominantly rural population, a small per apita income.

Towards the close of the 19th century the public subscription libraries were established in all the provincial capitals, in a big cities and also in capitals of princely states. From 1900 until India achieved her independence, the Government played a dominant role in

setting up libraries. But due to apathy and the preovailing illiteracy in the country the people could not take advantage of these institutions.

1. The Press and Registration of Books Act :

Before India achieved Independence, the Government of India tried to play its part in improving library legislation but could not make much progress in this direction. The first significant date in this connection is 1867. When the Government passed the Press and Registration of Books Act. Under this Act, "the printer of a book was to deliver free to the state government concerned a copy of the book and one or more copies were to be transmitted to the central government". According to this Act every state government was required to list every book received with all the necessary bibliographic information in a catalogue of books." At the end of each quarter of the year this list of books was to be published. The Act was amended in 1890. The amending Act provided that three copies were to be delivered to the Government free of cost.

2. Funds for the Encouragement of Literature

In 1898 the Government of Bombay Province started a scheme "Funds for the Encouragement of literature" for registering institution. Under this scheme copies of books to be published were to be distributed to the registered institution.

3. Imperial Library (Indentures Validation) Act :
In 1902 the Government of India passed this Act. The Act "confirms and validates certain indentures made between the Agricultural and Horticultural Society of India and the Calcutta Public Library, respectively, and the Secretary of State for India in Council."

4. Drafting of a Model Library Act :

Dr. S. R. Ranganathan drafted a Model Library Act which was presented to the All India Educational Conference held at Benaras in 1930. The Act provided for the establishment and maintenance of a system of public libraries and for the comprehensive development and organisation of city, rural and other classes of library service in the state. The Act provided that the Minister of Education should be the State Library Authority for the purpose of promoting and organising library system in the state. There was also provision for a state Library Committee for advising the State Library Authority on all matters arising from this Act. The Act provided that "with the previous sanction of the State library authority, a local library may raise a library rate in such manner and at such rate as may be determined from time to time."

In 1942 the Indian Library Association requested Ranganathan to draft another bill. He drafted the bill called the Model Public Library Bill in which he changed all the compulsory clauses which were present in the Model Library Act. Ranganathan converted the compulsory clauses into permissive ones. This bill was presented to the Fifth All India Library Conference held in Bombay in 1942. The bill was discussed but it could not get due consideration.

9.7 Library Legislation in India after Independence

India achieved her independence on 15th August, 1947. In 1948 the Government of India passed the Imperial Library (Change of Name) Act. By this Act the Imperial Library at Calcutta became the National Library of India. In 1954 the Government of India passed the Delivery of Books (Public Libraries) Act. The Act was amended in 1956 to include newspapers.

9.7.1 Model Library Ac/Bill

Following the recommendation of the Sinha Committee the Government of India appointed a committee under the chairmanship of Dr. D. M. Sen for drasting a library Bill. This was submitted to the Ministry of Education in 1963 and the Ministry Circulated Bill for comments to State Governments and professional Associations in 1964. A revised version was brought out as 1965. As noted earlier, Ranganathan prepared in 1930 a draft Model Public Libraries Act for India which was revised in 1972 and formed pat of the proceedings of the All India seminar on Public Library System held in Bangalore during 28-30, April, 1972. Another Model Public Libraries Bill was prepared by the Library Legislation Sub-Committee of the Planning Commission in 1966.

9.7.2 Library Legislation in States

Many constituent States considered the idea of library legislation but they have met with little success. Out of 29 States and 6 Union Teritories 15 States have so far put into the Statute Book their Public Library Acts. Union Territory of Lakshadweep has framed the Constitution and Rules for regulating the working of Public Libraries.

9.7.2.1 Tamil Nadu Public Libraries Act, 1948

Originally it was called Madras Public Library Act. In the development of public libraries, the then state of Madras turned a new leaf on the historic day of October 25, 1948 when the state legislature passed the Madras Public Libraries Act. It got the assent of the Governor General on January 22, 1948 and came into force from April, 1950. The name of the state was changed to Tamil Nadu on the First January, 1969. Accordingly, the Act has taken the present name. However, this was the first library legislation in India.

The Act provides for the constitution of a State Library Committee with the Education Minister of the state Chairman. Members of the Committee include representatives of the universities, local library authorities and library associations (3 members).

The Act provides for the establishment of the office of the director of Public Libraries who would be responsible for managing the State Central Library and supervising all other libraries.

The Act provides for the establishment of Local Library Authorities (LLA) in the city of Madras and one each for various districts.

The Act specifies that the LLA would have central over the cess to be collected by the local bodies such municipal corporations, municipal councils, taluk boards and panchayats.

The Act empowers every Local Library Authority to levy cess in its area in the form of surcharge on the property tax or house tax at the rate of six pies (3 paise) for every whole rupee in the property tax or house tax so levied. This can he increased with the previous sanction of the government.

The Act amended the Press and Registration of Books Act 1867 and made it obligatory on the publishers of the state to deliver five copies of each book to the State Government.

The Government will contribute to the library fund maintained by every Local Library Authority, other than that for the city of Madras, an amount not less than the cess collected by the LLA.

The state has a directorate of Public Libraries headed by a full time Director. Connemara Public Library in the State Central Library. A State Librarian manages it. The District Library officer acts as the secretary of the Local Library Authority. The elected chairman of the concerned LLA acts as Chief Executive. Each District Library Authority is responsible for establishing and maintaining one District Central Library and various branch libraries. A branch library can be set up with a population of less than 5000. The Delivery stations are usually looked after by local elementary school teachers employed on part time basis.

9.7.2.2 Andhra Pradesh Public Libraries Act, 1960

Prior to the enactment of this Act, public library service in Andhra region was run under the Madras Public Libraries Act, 1948. and public libraries of Telengana region was governed by Hyderabad Public Libraries Act, 1955. The State of Andhra Pradesh was formed on November 1, 1956 by joining Hyderabad state and a part of Madras. On April 1, 1960 Andhra Pradesh Public Libraries Act was passed. It was amended in 1964 and 1969. In general, the Act is a great improvement of the Madras Act.

The Act provides for the establishment of a separate department of Public Libraries under a Director of Public Libraries.

The Act provides for a State Library Committee and the constitution of a Library Authorities.

The Act empowered to levy a library tax not exceeding eight paise for every rupee as a surcharge on the property tax or house tax. The government will contribute an amount not less than the amount of tax collected.

The Act provides for the implementation of the Press and Registration of Books Act, 1867 with modifications.

The Director is the overall incharge of the Department. The State Library Committee is called the State Library council. There is a Zilla Granthalaya Samstha for each district and one city Granthalya Samstha for the city.

The present structure of the public library system is almost hierarchical consisting of the State Central Library in Hyderabad as the apex library, the Regional libraries, the District Central Libraries and Branch Libraries. Further down Branch Libraries there exist village libraries, Book Deposit centres and Mobile libraries, Aided libraries, Panchayat libraries and Co-operative Society lebraries functioning in the state receive annual grant-in-aid from Zilla Granthalaya Samsthans.

9.7.2.3 Karnataka Public Libraries Act, 1965

It was enacted as the Mysore Libraries Act in 1965. The Act ensures a state-wide network of public libraries in the state of Karnataka by providing a separate Department of Public Libraries.

Under the earlier two Acts, the state Library Authority is constituted with the Minister-in-charge of Education as Ex-officio President and the state Librarian as Ex-officio Secretary. The State Library Authority is responsible for the governace of libraries.

The Act provides for Local Library Authorities such as District Library Authority and City Library Authority. The Act authorises the levy of a library tax of three paise per rupee as a surcharge on lands as buildings, on entry of goods in the areas on vehicles and on profession, trade, callings and employment. The rate of library tax can go up to six paise in a rupee with the sanction of the State Government. Further, the State Government will provide an annual grant to every District Library Authority, a sum equal to three percent (3%) of the land revenue collection of the concerned district.

The Act provides for the implementation of the Press and Registration of Book Act, 1867 with modification.

It may be noted in passing that the Act has taken most of the features from the Model Public Libraries Bill suggested by Ranganathan. Moreover, the financial clauses of the Act are more realistic and are correctly oriented to the current tax pattern of the country.

The State Central Reference Library at Bangalore is at the apex in the organisation, followed by a City Central Library for each of the five principal cities—Bangalore, Mysore, Mangalore, Hubli, Dharwar and Belgaun. The District Central Libraries and their branches are functioning in places where population is less than one Lakh. The District Central Libraries are set up in all revenue districts where City Central Library does not exist. The branch libraries, service stations and the Mondol Panchayats libraries serve the rural people.

9.7.2.4. Maharastra Public Libraries Act, 1967

The State of Maharastra came into being on May, 1960 under the Bombay Re-orientation Act, 1960. The Maharastra Public Libraries Act came into force with effect from May 1, 1968.

The Act provides for the creation of a Department of Libraries, with the Director of Libraries as its head, being responsible for planning, organising, maintaining and developing public libraries in the state.

The Act also provides for a State Library Council to advise the State Government on all matters connected with the administration of the Act.

The Act does not provide for library use. But it provides for financial grant by the State Government including special grant. The State Government grant is not less than 25 lakhs. The library system also envisages grants from the Central Government.

The Act provides for the constitution of a District Library Committee for each district. It provides for a separate constitution of a Library Committee for Greater Bom. · .

The Asiatic Society Library, Bombay functions as a State Central Library. Ther are Divisional Libraries, District Libraries, Taluka Libraries, Rural and Mobile Libraries. Divisional Libraries are government libraries. Other libraries are added libraries managed by public bodies. Besides these aided libraries a number of circulating and privately managed libraries serve the public. The State Government provides grants to the extent of 75% (per cent) of the admissible expenditure of the previous year. Each of the five Divisional Libraries has one Assistant Director to assist the Director.

9.7.2.5 West Bengal Public Libraries Act, 1979

The West Bengal Public Libraries Act was enacted "to provide for the establishment of Public Libraries in the State and to regulate, guide, control, supervise and to grant recognition to the existing libraries to the state as also to provide for a comprehensive rural and urban library service in the state."

The Act provides for constituting the State Library Council to advise the State Government in all matters relating public library system and services in the State. The Minister-in-Charge of Library Services is the Chairman as the Director of Libraries and the Ex-officio, Member-Secretary of the council. Other members come from the following categories : Educationist (4), Legislators (4), Expert in Library Science and services (4), Representatives of the Bengal Library Association (2), Other Government officials (5), Representatives of the Local Library Authorities (2), District Librarian (1), Librarian of the State Central Library (1), Librarian of the National Library (1), District Library officer (1), and Representatives of the employees (2).

The Act provides for a separate Directorate of Library Services headed by a Director. The Director is to be appointed according to the rules of the Act.

The Act provides for the constitution of a Local Library Authority for each revenue district. Its Chairman is the District Magistrate (For Calcutta : Director of Library Services) and the Secretary is the District Library Officer. Other members come from the following categories :- Representatives of the Local Governments (5) [Zilla Parisad Panchayat Samity, Municipalities / Corporation], Educationists (3), Legislators (2), Members of the Managing Committees of Public Libraries (2), Representatives of the Bengal Library Association (2), District Social Education Officer (1), Representatives of the employees of Public libraries (2), District Libraries (1/2/3 depending on the number of the District Libraries in the district).

It may be noted that the State Library Council as the Local Library Authority are heavily nominated bodies. There is a amount of democratic representatives as well as technical expertise built into the composition of these bodies.

The Act does not provide for levy of any library cess. The State Government has taken up on itself the responsibility of establishing and maintaining public libraries and also for providing a comprehensive rural and urban library services. The Act provides funds by the State Government in the form of Annual Grants.

"Every Local Library Authority shall maintain a library fund out of which payments under this Act shall be met."

(a) Contributions, gifts and income from endowments ;

(b) Grants from the Goverment for general maintenance of libraries and for any specific purpose ; and

(c) The amount collected by LLA rules or regulations made under this Act. The Act modifies the Press and Registration of Books Act to ensure the deposit of one free copy to the State Central Library. The Act was amended on April 5, 1982 (West Bengal Ordinance No VI of 1982). In this amendment the Calcutta Metropolitan Library was recognised as the District Library of Calcutta. "The Director of Libraries" was turned into "Director of Library Services" and similarly the "Directorate of Libraries" into Directorate of Library Services. "The West Bengal Public Libraries (Amendment Act, 1985 (West Bengal Act XXIV of 1985) was published on October 9, 1985. In this amendment the State Central Library was recognised along with its functions and activities. The notable feature of this amendment is the Government may, in consultation with the council by order supersede the Local-Library Authority for such period as the Government may consider expedient." The Government can appoint an administrator or an adhoc committee.

9.7.2.5 Manipur Public Libraries Act, 1988

Manipur Public Libraries Act was passed in 1988 to provide the establishment and maintenance of public libraries in the state.

The Act provides for the constitution of the State Library Committee consisting of 9 members with the Mininister-in-charge of Education as the Chairman.

The Act provides for the constitution of the department of Public Libraries and the appointment of the director. The Act provides for the constitution and incorporation of the District Library Authorities. The District Library Authority for each district will consist of 12 members.

The library fund will be augmented thorugh the following ways :

(a) Contributions, gifts and income from endowment ;

(b) Special grants from the State Government ;

(c) Fund and other amounts collected by the district Library Authority ;

(d) The State Government annual grant.

The provisions of the Act are yet to be implemented.

9.7.2.7 Haryana Public Libraries Act 1989

The Act provides for the constitution of a State Library Authority with the Minister-in-Charge of Libraries as the Chairman and Director of Libraries as the Secretary. Other members will include the secretaries of the Libraries Department, Education, Finance, Culture, Local Bodies, Social Welfare, state Development and panchayat Department, the Director of Public Relations, the Librarian of the Civil Secratariate, the State Librasian, Vice-Chencellors of all Universities in the State, President of the State Library Association, and 5 nominated persons.

The Act provides for the constitution of the State Library Directorate and the appointment of the Director.

The Act provides for the constitution of the Standing Advisory Committee consisting of 11 (eleven) members to advise the State library Directorate in all matters relating to library organisation and development and to make recommendations to the authority on mattersrelating to promotion and development of library service.

The Act provides for the establishment of a State central Library, a District Library in each district and other types of libraries such as Municipal / City / Town libraries, Block library, village library and smaller book deposit centres.

The Act provides for the library cess. Public Library Fund will consist of three types of library funds :

(a) The State Library Fund, (b) The District Library Fund, and (c) the City or Town or Block or Village Library Fund.

The Act has also made provisions for the constitution of District Library Committee for each District Library, Block.Library committee for each Block Library and Panchayat Library Committee for each Village Library.

The provisions of the Act are yet to be Complemented.

).7.2.8 Kerala Public Libraries Act, 1989

The Act provides for the constitution of a State Library Council. The Council will consist of 66 members, of whom 61 members will be elected by the general body of the District Library Councils, one each from a Taluk and 5 members nominated by the Government.

The Act does not provide for a separate Directorate of the Libraries. An elected Secretary of the State Library Council will be the Chief Executive Authority.

The Act provide for the constitution of the District Library council to organise and administer Library, service at the district level.

The Act provides for the constitution of Taluk Library Union to organise and administer library service at the Taluk level.

The Act provides for the constitution of Taluk Library Union to organise and adminster library service at Taluk level. The State Library Council will maintain a fund to be called State Library Fund from which all expenses of the State Library Council, District Library councils and Taluk Library union will be met.

The following sums to se credited to the State Library Fund :

(a) Grants from the State or Central Government.

(b) Contributions as gifts made to the State Library Council.

(c) Provident Fund, Welfare Fund and other Funds of Granthalaya Sangham.

The Act provides for the dissolution of the Kerala Granthasala Sangham and transfer of assets and liabilities. Trivandrum Public Library will act as a State Central Library.

The provisions of the Act have not yet been implemented.

9.7.2.9 Mizoram Public Libraries Act, 1993.

One of the smallest states in North-East part of India in Mizoram where the Mizoram Public Libraries Act was passed in the year 1993. The following are the major characteristics of the Act :

(1) The State, District and Sub-Divisional Libraries are under direct Government control and supervision, but the rural libraries are run by the approval and support from the State Government and other voluntary Organisations / Associations.

(2) There will be a State Library Council to look after, to supervise and to control the various type of libraries in the state.

(3) There will be a separate Department of Library service to central and supervise all type of libraries within the state.

(4) The Act provides the provision for grants from the State Government for the establishment of libraries and its overall preservation.

(5) The provision of grants from private or non-govt. Bodies.

The provisions of the Act are yet to be implemented.

9.7.3 Goa Public Libraries Act, 1993

The Govt. of Goa Passed the Goa Public Libraries Act in 1993. The aims and objectives of the Act was to provide free library service to public of the State. The Act does not provide for levy of any library cess. However, The Act provides provision for meeting the whole expenses out of State Govt. For this purpose the Act provides the establishment of a Department. The formation of this Department be made as follows :

(a) State Library Authority (b) Library Director ; (c) State Public Library and (d) Representatives of Associations / Organisation. The Minister-in-Charge of Library Services and the Director will be the Chairman and Secretary of the Council respectively. The Act provides for the establishment of the State Central Library, District Libraries, Taluk and Rural Libraries. The Act provides recognition of State Library Associations.

The provisions of the Act have yet not been implemented.

9.7.3.1 Gujrat Public Libraries Act 1998

The Gujrat Public Libraries Act was passed on September 1, 2001. The purpose of the Act is to form a Gujrat State Library Development Council. The powers and functions of the Council are as follows :

(a) The Council will extend all sorts of advice to the State Government when necessary with regard to the act and the provisions of the Act.

: (b) To sanction expenditure approved out of State Library Development Fund :following the Act.

(c) To advice about the development of reading habits of the public and also to increase the use of books and allied reading materials of the public.

(d) To consider the annual reports in respect of the activities of the public libraries, its administration and overall development etc.

9.7.3.2 Orissa Public Libraries Act, 2001

The Governor of Orissa gave the assent on the Orissa Public Libraries Act on 28th February, 2002. For the purpose of advising the Government on matters concerning the management and development of Public Library System and library services, Orissa Public Library Council shall be constituted. The Minister-in-charge, Department of Tourism and Culture shall be the Chairperson and the Director, Public Libraries shall be the Member-Secretary of the Council. Orissa Public Library Authority shall be constituted by the provision of this Act to acquire, hold and dispose of property and to look after other financial matters. The Authority shall consist of

(1) The Minister-in charge, Department of Tourism and Culture as the Chairperson;

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(2) The Secretary to Government in the Department of Tourism and Culture as the Working Chairperson; and

(3) The Director, Public Libraries as the Member-Secretary.

The Authority shall maintain Orissa Public Library Fund collected and formed in the following way—

(1) Grants made by Government, Raja Ram Mohan Roy Library Foundation and other sources for the purpose of library services in the State;

(2) contributions, donations and gifts made by any person;

(3) endowments donations and bequests as may be made by any non-resident Indian, any Corporate House; and

(4) interest on fixed deposits and receipts from any other source.

The provisions of the Act have yet not been implemented.

The Uttaranchal Public Library Act, 2005

The Act was passed by the Uttaranchal Government on April 23, 2005 to make the law relating to the establishment and maintenance of Public Libraries in the State.

A State Library Committee consisting of sixteen members including the Minister-in-charge of Education as *ex-officio* Chairman, the Principal Secretary / Secretary to the Government in the Education Department as the Vice-Chairman and Director, School Education as Member-Secretary shall be constituted to advice the Government on all matters arising under this Act.

A District Library Authority for each district shall be constituted to provide library service in the area of its jurisdiction establishing block libraries, city/town libraries and village libraries. The District Magistrate shall be Chairperson and District Education Officer shall be the Member-Secretary of such committee.

A cell of Public Libraries in the Directorate of Education shall be established to supervise the State Central Library and the branches of such library and superintend and direct all matters relating to public libraries.

The Library Funds are collected from the following sources

(1) The State Government shall impose fee for the purposes of libraries;

(2) funds collected from Raja Ram Mohan Roy Library Foundation (RRRLF), Central Government and similar bodies;

(3) District Library Authority shall maintain a fund called the "Library funds";

(4) contributions, gifts and income from endowments made to the District Library Authority for the benefit of public libraries;

(5) special grants made by the Government for the purpose connected with libraries and audit education;

(6) funds and other amounts collected by District Library Authority under any rules or bye-laws made under this Act.

The provisions of the Act have yet not been implemented.

Rajasthan Public Libraries Act, 2006

Rajasthan Public Libraries Act was passed by the State Government on April 20, 2006. This Act provides for the constitution and functions of State Library Council including twelve elected members and eight nominated members to be formed to advice the State Government on all matters arising in the administration of this Act. The Library Minister shall act as the Chairperson and Director, Public Libraries shall be the Member-Secretary of the Council. The headquarters of the Council shall be situated at Jaipur or at a place the State Government decides. The Director of Language and Libraries shall be the Director, Public Libraries to be responsible for the administration and operation of the provision of this Act under the supervision, direction and control of the State Government. The Act provides for the Public Library Fund from annual plan or non plan budget of the State Government.

The provisions of the Act have yet not been implemented.

Uttar Pradesh Public Libraries Act, 2006

Uttar Pradesh Public Libraries Act was passed by the State Government on September 01, 2006 to provide for the establishment, organization, maintenance and development of free and effective rural Public Libraries and allied services in the State of Uttar Pradesh. This Act provides for the constitution and functions of twelve-member State Library Council to be formed to advise the State Government on all matters arising in the administration of this Act. The Minister, Secondary Education Department of the State, the Secretary to the Government of Uttar Pradesh, Secondary Education Department and the Secretary to the Government of Uttar Pradesh, Finance Department shall be the Chairperson, Vice-Chairperson and Member-Secretary of the Council respectively. There shall be a State Standing Committee to ensure the implementation of the decisions and suggestions made by the Council. A District Library Committee will be formed in each district of the state to prepare plans for the development of Public Library System in the district and monitor the progress thereof. There shall be two State level libraries.

1. The State Central Library at Allahabad and

2. The State Reference Library at Lucknow and a Government District Library in each District.

The Director of Secondary Education, Uttar Pradesh shall be the Director of Public Libraries and be responsible for the proper administration and operation of this Act.

The Act provide for the library development plan to form and integral part of the centralized and decentralized annual and five year plan and non plan budget of the State. If required the State Government may provide additional resources to support and develop the Public Library System.

The provisions of the Act have yet not been implemented.

Library Legislation in the Union Territory of Lakshadweep

Lakshadweep is a Union Territory without legislature and therefore enactment of library legislation is not possible. However, the Union Territory Administration has framed the Constitution and Rules for regulating the working of Public Libraries established and run with public funding. There shall be a State Central Library of the Union Territory of Lakshadweep named as "LAKSHADWEEP CENTRAL LIBRARY, KAVARATTI" and situated at headquarter island Kavaratti. Name of public libraries, hitherto known as Reading Room-cum-Library, run by the Department of Social Welfare and Culture, shall be "Public Library" followed by the name of respective island and these shall function as branch libraries of the Lakshadweep Central Library. These public libraries including the Central Library shall function under Art and Culture sector and the Social Welfare wing of the Union Territory Administration. The Constitution and Rules have been formulated to regulate the working of the public libraries. No fee shall be charged from readers for using the library. If any dispute arises as to the interpretation of any rule in any matter which may arise which is not provided for in any rule, the decision shall lie with the librarian. But the decision of the Director, Social Welfare & Culture shall be final. The Administrator, Union Territory of Lakshadweep reserves the right to amend the rules.

9.8 Exercise

1. Discuss the salient features of ideal Model Library Acts rafted by Dr. S. R. Ranganathan.

2. Describe the characteristics of good Library Legislation.

3. Give a brief description of sources of funds as mentioned in the Public Libraries Acts of different States in India.

4. Discuss about the formation of State Library Council, Local Library Authorities, and Local Library Council.

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Unit 10 ▢ Library Extension Work

Structure

10.1 Introduction

Library extension work or extra library activity existed on one form or other since the dawn of public library development. The advent of the electric light in 1879 was probably the greatest single contribution to the extension of library service. The artificially created longer day made possible the pursuit of reading and with that the need for reading

materials. When librarians decided that the use of library should be encouraged the user made welcome the extension of library service began. Prior to this dramatic change in attitude, the librarian's role was that of collector, cataloguer and custodian. In recent years the extension work has undergone many changes in methods and in relation to libraries themselves and particularly in regard to librarians' views on its values and place in their work.

10.2 Definition

Extension work is defined as activities which are undertaken with the object of reaching groups of people who might otherwise be unaware of the library, such as lecture societies, reading circles, discussion groups, and the provision of books for prisons, clubs, hospitals, library society, etc. It may also mean as the provision of lectures film shows, etc, in the library, arranging talks, book displays, etc, outside the library, in order to draw attention to the library services and book stocks. The two part definition is usually confusing. McColvin considers it as means "to increase the number of readers and the volume of work accomplished and later to make the library most useful to more people.

The ALA Glossary of Library and Information Science, 1983 defines it as "the provision by a library of materials and services (including advisory services) to individuals and organisations outside its regular service area, especially to an area which library service is not otherwise available."

Precisely stated, extension service is the activity of lending or delivering books and other forms of information to users who are distant from a library or who may be relatively near it but somehow unable to travel to it.

10.3 Objectives and purposes

The main objective of the extension work is to make library a social, cultural and intellectual centre. Another objective is to convert non-readers to readers. It the library is a service institution it should reach people by extending its services. By so doing if can convert many readers, many non-users to users of the library. As a social institution a library is charged with the duty of persuading members of the community to accept library services for their personal and social well-being.

"According to Ranganathan extension activities lead also publicity as an important secondary product". According to McColvin "This publicity, if it is to provoke action directly, must be such as to be able to make a direct specific appeal to each reader who must not only realise the mere existence of the library in his neighbourhood but there are good reasons as to why he should use it" Above all the objectives of these extension

services are to fulfill the expectation of the Third Law of Library Science as pronounced by Ranganathan.

Howerver, the purposes of the extension work may be summed is follows :

1. To inform those who do not use the library services and to attract them to that service.

2. To inform those who use the library partially what library can do in other direction than one in which they are specifically concerned.

3. To inform readers of all facilities offered by the library.

4. To remind both readers and non-readers of the library and its resources.

5. As a means of publicity to enlist support, financial or otherwise for the libraries.

6. To take effective part in the cultural programme of the community.

7. To assist in connection with the illiteracy and backwardness in reading.

8. To participate in the adult education.

10.4 Need

In a well developed unban, sub-urban or rural library system extension service is provided as a convenience to user populations for whom travel to a central library is difficult or expensive. Extensive service may be a necessity to significant members of users who find travel to the library impossible because of the following reasons :

(a) They have physical disabilities ;

(b) They are institutionalised or homebound ;

(c) They lack transportation.

Because of these human and economic considerations, extension service is necessary and important specialisation in a public library service. Extension activities may be performed by special and academic libraries, but the concept of extension service is most frequently associated with the public library.

10.5 Limitations

The extension work presupposes the existence of a good library services. Without proper provision of suitable personnel the programme will not prosper. The desire to participate or the local initiative is very necessary. If the people are apathetic no amount of persuation will help in a healthy growth of service. Extension service is a part of many library organisations, but it does have limitations. Because of financial and logistic considerations it is difficult to provide complete service in the desired manner. Compared

to centralised service, on a per user basis extension is usually an expensive means of providing information delivery. In spite of limitations and problems extension service is accepted as an essential component of effective library and information service.

Some arguments against extension service are also levelled. It is said that public libraries have neither the money nor the time for other activities than the normal library services. All available money should first be spent on the library itself and the question of extension service will arise if there is more money. It is also argued that it is unwise to create demands by publicity of any kind which the library cannot satisfy. However UNESCO strongly recommends extension services for stimulating reading interests and publicising librarys services.

10.6 Activities

Library extension work began as a means of delivery of traditional lending service to users in growing cities and to dispersed populations in rural areas. Extension techniques were further developed to respond to the needs of special populations such as the visually handicapped, the homebound and economically disadvantaged. In recent years the concept of library extension in developed countries took on additional new meaning as library uses of computers and improved telecommunications are being employed to meet the demands of increasingly sophisticated information users.

However, the librarian in a developing country should approach the extension service in a missionary spirit and should consider the following :

10.6.1 Lecture and Group Work

Lecture may be organised by the library directly or in association with other groups or making available the lecture hall of the library to other bodies. The lecture may be on a specific topic by a specialist speaker or of a general nature. Selection of lecture topics and the size of the programme would depend on the local condtions and the availability of funds. It is desirable to have illustrated lectures using film strips and other audio-visual aids. The display of books and other reading materials on the theme of the lecture is also common.

The library may also sponsored societies such as library clubs for both adults and children for discussing books and literature. Book week is an exhibition of books. There may be programme of prominent lectures. Library weeks with emphasis on libraries and books may be organised. Illustrations, photographs, pictures, film strips, discs, tapes, radios, televisions etc. are also used to assist the speaker during or after a talk.

10.6.2 Exhibition and Display

Exhibitions and displays using not only books but also material of all kind of illustrative books are common extension activities. Displays bring to people's notice the latest additions to libraries. Exhibitions on local history, local festivals, careers and courses art, photography, paintings, adult education, local architectural treasures can offer great opportunity to attract notion of the community.

10.6.3 Publications and Other Printed Materials

The publications include Annual Reports, Readers Guides, Printed Catalogues and Bibliographies, Library Magazines and other similar publications etc.

10.6.4 Public Relations

The extension service imply the idea of creating and maintaining public relations both individually and collectively, inside and outside the library. The relation with the public always matter much in library services, Public relations are not only built between the library and the public but also between the library and its governing body. Public relation call for intelligent phrasing and interpreting of rules of the library. Personal publicity, direct advertising, newspapers are important as these provide contact between staff and readers.

10.6.5 Children's Extension Activities

The children's library should arrange for story hours, play readings, film shows, talks and other attractive forms of extension service to encourage them to come to the library. Organising library clubs, bringing out children's magazines are some of the extension activities.

10.6.6 Cultural Programmes

Public libraries have been including cultural programmes in their extension services. They arrange drama, a puppet show, concerts of all kinds. Displays of ballet and dance recitals also figure in extension programmes. Celebration of festivals and organisation of fairs have good influence on masses as extension activities.

10.6.7 Promoting Adult Education

The adult education which the public library provides will be mainly informal study of the books by the users of library. An efficient public library system is the necessary background to any scheme of adult education. In 1972 UNESCO organised the

International Commission on the development of education. The little of the report of the Commission is Learning to be. It carries recommendations on twenty-one subjects. For our purpose the following three recommendations are worthy to note :

(i) Every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the keystone of the learning society.

(ii) The normal culmination of the education process is education.

As a social institution the public library can play a significant role in the promotion of adult education. In fact most of the extension services can be the proper media for the promotion of adult education. In India the National Adult Education Programme, 1977 attached a due importance to the concept of continuous non-formal education. It is stated that adult education involves emphasis on literacy but not that only. In the development of adult education continuity is the key factor. In fact all programmes of adult education and literacy must be followed up by effective arrangements for continuing education. It should include library services, group discussion and other forms of organised learning, re-activations of group cultural activities and festivals, and community action.

In promoting the non-formal education and adult education the public library should consider the following measures :

(1) Eradication of illiteracy by organising primary schools in the locality, by organising night schools, etc ;

(2) Organisation of technical and vocational education ;

(3) Preservation of traditional culture of the community ;

(4) Organisation of discussion groups of many different types ;

(5) Organisation of courses of tusons ;

(6) Proper utilisation of mass media communication such as, radio, television, film shows etc.

(7) Exhibition of cottage industries, agricultural products of the community etc.

An important example of continuous non-formal education is UGC INSAT Educational TV project.

A library can make the best use of this project in its own programme of non-formal education.

10.6.8 Mobile Service

Librarians motivated by their concern to provide service to citizens without access to central or branch libraries have devised an interesting variety of delivery methods :

The book mobile, with one person or several persons staff, carrying a few hundred volumes has proven to be an effective means of delivering materials for loans to many remote localities. The time for each locality is fixed and notified earlier. In India book

mobiles often run on rickshaws or cycles. Raja Rammohun Ray library Foundation has a scheme of financial assistance for this type of service.

10.6.9 Books by Mail and Telephone

An extension service has been developed to each widely populations in rural areas, it has become common practice in developed countries to use the mail and telephone to receive requests from users and to deliver books and other forms of information in response to those requests.

10.6.10 Dial-A-Book and Dial-A Fact

These two types have also been formalised in developed countries. Dial-A-Book is used in rural service extension where a library or library system receives an information request by telephone and then responds to that request with a book or other material returned to the borrower by mail along with a return mailing label.

Dial-A-Fact is an extension of reference information service by telephone ; it allows a patron to call the library for needed bibliographic information or other forms of factual information.

10.7 Special Populations

An outstanding feature of the extension activity is the service to the blind. This type of extension service bestknown in the USA is the recorded book and braille book distribution programme of the National Library Service for the Blind and Physically Handicapped, Library of Congress. This is popularly known as Talking Book Service. In India Delhi Public Library has also a programme for servicing the blind. As noted earlier, this library prepares books on Bharati Braille. other special populations include prisoners and patients.

The Delhi Public Library arranges for the collection of books at the Central Jail and differnt hospitals in Delhi Public Libraries in Britain have been doing commendable services to these special populations.

10.8 New Technology and Library Extension

As the uses of microcomputers and other computer systems in residences and libraries become common place, it is quite natural that these technologies, supported by improved telecommunications, will influence the traditional approaches to extension services, specially in the developed countries. Communication with online library catalogues was

made possible for personal computer users at residences and in offices over telephone. Full-text databases of reference and research information are going to be available online to home users and others away from the library, as well as to users at the library.

In support of reference information service the provision of the full-text video from the library to home users is in the offing. Improvements in local mass data storage will eventually allow databases of bibliographic or textual information to be lent by mail in disk or cassette units for use at home on personal computers.

All these refinements and similar other improvements in new information technology reveal that information users will see growing capability to use library resources from remote locations.

10.9 Observations

The library extension work calls for efficient organisation and managements as well as understanding of books and of people. The trained and experienced staffing is obligatory. The importance of qualitative staffing is once more stressed when it is a fact that a well-organised library service provides not only actual book, but information which is to be found from a great variety of sources by expert reference workers. Each year more and more information becomes available about every subject that interests people. The volume of materials published on almost every general topic doubles every 10 to 20 years. The amount of materials is what some sociologists call the Information Society poses challenges for librarians in providing extension services.

The amont of information also makes more difficult the job of locating materials for users. Fortunately tools with which librarians work are improvising many of the tools that help librarians deal with the problems caused by the growth of information result from the technological advances. Microproductions of which microfilms and microfiche are the best known make it possible to store information in less space. Computers are another technological advance that help librarians.

It is imperative that a realistic logical programme of library extension is prepared at the outset in order to avoid much fruitless effort, disappointment and unnecessary expenditure. Any sound library extension programme should pay heed first to the conditions in which it must operate. We have noted earlier that library extension is the process of creating and increasing library resources and of securing their use.

The desire to participate or the local initiative is a vital factor in library extension. Any effective library service must be both suited to and the expression of the community rooted in the individual and the locality concerned.

In our country, as in every other country, there are people who can but would not read and there is also another category who would like to read but are not equipped and hence

cannot read. Where there is a high percentage of illiteracy it is useless to expect the same amount of library use as in countries where this percentage is low. But this cause does in no way, support the contention that library provision can be proportionately reduced.

Under the present circumstances in our country we may effect economy by organising library networks and library system which will help librarians deal with the growth of information. Library networks and system enable a group of libraries to share information materials and services.

From the laymans, stand point the efficiency of extension service of a library is measured, not by the number of lectures, exhibitions and cultural programmes nor by its agility in keeping abreast of current publications, nor by its excellence of book mobile system but entirely by the number of persons who make beneficial use of it. It is the duty of the library staff to make the institution magnetic through extension service.

10. 10 Exercise

1. Describe the necessity of Library Extension Service.
2. Discuss, in brief, the different activities of libary extension service.
3. How the third law of lirbary science influences the Library Extension Service?
4. Describe the effect of new technology on Library Extension Services.

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Unit 11 ☐ User Studies

11.1 Introduction

User study is analogous to the efforts of a manufacturer who surveys his market for the product that he proposes to produce. In the context of a library and information system, it is extremely important that in-depth studies are conducted to acquire the actual and potential needs of users. In fact, different kinds of libraries have different objectives, but all exist to provide the services which their users need. The effectiveness of collection provision in the library must be judged by the way that its results satisfy the needs of the users. This is not to suggest that needs, even if fully known, can never be completely satisfied. After all library budgets are finite. It is always necessary for choices to be made and priorities to be assigned. Nevertheless, the strength and variety of needs of the various users groups obviously should form the basis of library policy making. Needless to say, users of different types of library have widely different requirements. Public libraries satisfy the general requirements and any special requirements of both adults and children. In academic libraries the needs are more easily identified and the range and level of subject areas can be varified from institutional syllabus. In many special libraries, the total number of users are relatively small and a detailed attention to their requirements is feasible.

Libraries have been a product of social surroundings. They actively support almost all aspects of human activity which include education, research, socio-economic growth, industry and business, arts and culture, government administration and so on. They have the missions to cover entire life span of their clients. Libraries have to gather and make available various resources that will be relevant to individuals during various stages of life.

11.2 Categories of Users and Their Needs

The community of users may be diverse groups comprising different categories. It is rather difficult to identify mutually exclusive categories of users. But we can indicate the broad categories. In general, users comprise the following categories : students, teachers, researchers, scholars, writers, planners, business managers, and executives, industrial entrepreneurs, bureaucrats and general public.

J.D. Bernal provides some sort of classification of users of scientific and technical information. His categorization presents only one way of grouping the users of scientific information. According to this grouping, engineers, architects, medical practitioners and agriculturists fall into the category of technologists. Users of academic libraries are known as academic community : students, teachers and researchers belong to this community. Students need text books and background materials ; they occasionally use journals. Teachers, researches. and scholars consult primary literature, general books,

reference books, government documents and bibliographical tools such as current awarenes bulletins all secondary sources. Researchers in science and technology use monographs, treatises, primary and secondary literatures and bibliographical tools. Planners, business managers and executives often look for Government documents trade literature and need product digests, directory of traders and manufacturers, and management information. The scientific and technological communities in industries are concerned with practical problems. They need specific information from specific documents. They require current data and information. Industrial entrepreneurs cunsult primary literature, reference books, bibliographical tools, patents, standards. and specifications, manuals market research digests, referral directories of licencing, imports of machinery and technology and other related aspects. General public often consult reference books, general fictions, travelogues, biographies, etc. The toilers need specific information or materials, the lonely hearts use library because they have nothing to do, retired people spend time in reading ; the escapists and bored people looking for personal fantacy. The uniformed seek answers to personal questions.

11.3 User Education

Reference functions of a library may be identified under two broad groups : responsive and anticipatory. Responsive services are offered in response to requests for help or assistance or for finding answers to specific questions. Anticipatory services are those that are given in anticipation of demand for a specific type of reference or information service.

Enquiries or requests for help / assistance or reference questions may include :

Directoral guidance in the use of the library, its collections or services, including initiation of fresh persons in the use of the library. Directoral guidance is generally sought by persons who use a library for the first time but may be generally familiar with library practices. such persons may seek help or assistance—for example, in locating the current issue of a periodical title, or where books on computer programming are displayed or in general to know what services are available in the library. According to some professionals, these services are not considered strictly as reference. But these services are not considered strictly as reference. But these types of assitance are often sought and have to be rendered.

Another form of directoral guidance, particularly for new entrants to colleges and universities, is an organised and regular programme in the use of the library or an introduction to the library and its services. Such initiation programme for fresh persons has to be carefully designed in relation to the level at which it is required in college, university, public or special libraries. This service is usually given to groups rather than

to individuals. Usually this programme is explained through slides, followed by a tour of the library. Such programmes include the following :

Objectives of the library, the cellection, its form, variety and languages and their organisation and display in the stack room and at other places ; the library catalogue and how to use it, references and borrowing privileges ; reference and information services. reprographic services, library, rules and procedures ; a map of the library including wash room locations and rent room, etc.

One common feature of all the anticipatory services is that they are not just one-time service. All of them are to be offered on a continuing basis, except perhaps bibliographic compilations on specific topics that may be occasional but with a regular updating mechanism, User education programmes fall in a different category which are meant to develop skills in readers in the use of a library's extensive collections. However, this is a service, sort of orientation programme for users at different levels helping them to use the library and its collection effectively. In designing such courses ; the main points that require attention are :

(i) The target groups to be given the orientation course ;

(ii) Duration ;

(iii) Course centents ;

(iv) Course materials, supporting oral introduction ;

(v) Demonstration through audio-visual kits, the use of reference tools ;

(vi) Knowledgeable and trained faculty ;

(vii) Practicals and self-learning excrcises ;

(viii) Evaluation.

11.4 Types of Users' Studies

Users' studies and surveys that have been carried out so far are of various types. They can be broadly studied under the following broad groups :

(1) Information gathering habits ;

(2) Reading habits ;

(3) Service performances ;

(4) Flow of Information among users.

11.4.1 Information gathering habits

These have been studied in the context of research and development. It is generally noted that researchers gather information in a number of ways such as (a) Browsing current journals and also noting down the latest references to researchers' papers.

(b) Consulting indexing and abstracting periodicals.

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(c) Contacting and obtaining information from persons in the same field.

(d) Seeking information from tutors, guides, and senior co-workers.

(e) Writing to information supply centres and so on.

As the twenty-first century approaches, successful storage and retrieval of the exponentially growing body of scientific information is quickly becoming dependent upon the Internet and the World Wide Web (WWW). The way in which scientists seek information to support teaching, research and creative activities is changing. New technologies and information delivery systems emerge. Consequently the traditional module of scientific communication proposed by Garvey and Griffith wherein information is primarily disseminated through and subsequently becomes most highly valued when printed in, referred journals, is being challenged. An early model of electronic communications proposed by Lancaster and modernised by Hurd, bypasses printed journals, indexes and abstracting tools and suggest that scientific information disminationn will eventually be purely electronic. In light of the escalating cost to libraries for purchasing and archiving printed scholarly journals, electronic journals may prove to become the only alternative for maintaining an active platform for scientific scholarly communication in science. It is not clear whether it meets the needs of the scientists creating and using the information.

11.4.2 Reading Habits

It means the relative performances of the users to the different categories of documents, frequency of borrowing, as such other data.

11.4.3 Service Performances

The library offers a variety of services and the users may prefer some or many of them.

11.4.4 Information Flow

Information flow studies have been made from different point of view. Some studies have been done by Garvey and Griffith of the American Psychological Association, regarding communication system in the field of psychology. Their findings seem to hold good for the entire science communication system. Research information generated by an individual or a group, gradually gets disseminated through personal correspondence, meeting at national and internatioanl conferences, publication in current journals or in the form of pre-prints and so on. It would be useful to know what medium is preferred by the generators of information for their propagation, to what extent conventional media like print periodicals help in the dissemination and whether languages pose any barrier in communication etc.

Garvey and Griffith observes, "Information flows throughout in an orderly manner,

and although there are a variety of routes, specific kinds of information produced by specific types of research workers seek certain outlets on predictable occasions in predictable sequences and time patterns. The outlets preferred by research workers are very often associated with the specific needs of the user and "the information is shaped and reshaped to fit the characteristics of channels and the needs of the audiences".

11.5 User Requirements

The information need is a composite concept of different types of requirements and apporaches to information. A large number of studies have been made to understand the pattern of information need of the users. Such studies reveal that though information need may vary from persons and a particular person may need different types of information at different points of time, there is a general pattern of information requirements amongst the various groups of users. Melvin Voigt clearly identified three types of information requirements and the fourth type was added by other workers in the field. There are categorised as :

(a) Current approach ; (b) Everyday approach ; (c) Exhaustive approach ; and (d) Catching-up or Brushing-up approach.

11.5.1 Current Approach

Every active worker wants to keep himself abreast of the latest developments and intends to be up-to-date in a particular field of activity and related areas. Speed and timeliness of making the information sources available, are the important characteristics. Here the worker interacts with the information system in a very general way-browsing through the choicest periodicals, going through abstract journals, etc. The knowledge of current activities in the fields helps in various ways—such as, choice of new area of activity, product and process, avoidance of duplication of work utilising the methods and techniques used by others.

11.5.2 Everyday Approach

The need occurs at a time when the users want to get information frequently in their day to day activity. The characteristic of this information need is that the requirement is for a very specific piece of information for which a quick answer is expected. Libraries are used to calling more or less a similar approach as short range reference queries.

11.5.3 Exhaustive Approach

The approach is for all or almost all relevant literature on a subject. The exhaustive coverage of the information sources aids literature searches and furnishes a total picture

relating to the availability of information in that particular field of activity. Such approach would be occassional only.

11.5.4 Catching-up Approach

The need arises to some workers when a complete but short picture of the development of a particular field of activity is required. This is likely to be an area in which he is not an expert. As a result, he may not be quite current with the field. So he wants information to be available in a short and simple form which will provide the complete picture of the subject which could be comprehended quickly and easily.

11.6 Techniques of Information Need Survey

Such surveys are helpful in determining certain facts like use of information, use of particular channels of information, attempts made in getting the information and so on, which when properly analysed can provide a measure of effectiveness and guide to the design of an information system. For the purpose of a definite methodology is needed. From the literature on the subject it is evident that most of the general methods or techniques of social surveys have been extensively used. the methods used so far may be categorised as follows :

11.6.1 Conventional Methods

General or conventional methods include questionnaire, interview, diary, self study and operational research study.

11.6.1.1 Questionnaire Method

A questionnaire is essentially a skilful translation of objectives into a set of questions intended to be answer on written form. This method still suffers from certain limitations. Here return is never complete. Often respondents fail to understand the merit of the questions and hence furnish incorrect replies. But this method is suitable for shy persons who feel no hesitation to disclose personal matters to reach a large and scattered samples this method is suitable.

11.6.1.2 Interview Method

Misinterpretation of questions may be avoided in the interview method. The interviewer can provide the correct interpretation and the answers can also be checked. Interviws may be formal or informal or any mixutre of the two. A formal interview is governed by a set of previously formulated questions asked in a particular order. And an informal interview is less structured or unstructured and can be just a normal

conversation. However, this method is costlier than the questionnaire method because interviewers need to be trained.

11.6.1.3 Diary Method

Here users maintain a diary for the specified period. But this method should be tried for a short period. A diary form is framed indicating all possible information activities of a user—browsing, reading, library use, etc. This method works very well when the study aims at obtaining facts about scientists habits rather than preferences and views. One modern variation of this method is the tape-recorded self-observations by subjects during working hours.

11.6.1.4 Self-Study Method

A self-study techniques that places less faith in willing participants is actively sampling. The fraction for a individuals time devoted to specified activities is ascertained by recording his actions at random. It is actually a modification of diary method.

11.6.1.5 Operational Research Method

Here selected participants are observed by others during working hours. The time spent on various information activities is recorded. To study the apportionment of time between different information activities, this is a useful technique.

11.6.2 Indirect Method

Indirect methods include : (i) analysis of library records, (ii) citation analysis.

11.6.2.1 Analysis of Library Records

Library records of various types have been used by librarians for a long time to draw forth useful information. Library maintains statistical records of inter-library loan, reference questions, compilation of bibliographies, etc. Analysis of these records reveal the nature of use, documents, and user needs.

11.6.2.2 Citation Analysis

This method entails the analysis of bibliographical references, that are usually appended to articles in a journal. Analysis of such citations reveals useful information like the relative use of different kinds of dcuments such as books, periodicals, reports etc. the age of these documents reveals the rate of obsolencence of literature, the most frequently used titles of periodicals, etc. This type of information can be utilised for acquisition of materials, selection of periodical titles, weeding out less important ones and so on. But it should be noted that citation studies are based on individual citation practices of authors

where considerable variation may occure. Some authors are unfair in citing others may be in the habit of overdoing in this respect.

11.6.3 Unconventional Methods

These methods tend to be unstructured. Autobiographical and biographical works provide useful hints as their own experience in the collection of information. In such works writers may reveal their activites and present a large amount of detail that may not be available through any investigation. But this method is usually and may not fetch any additional data.

11.7 Exercise

1. What are the different categories of users and their needs ?
2. Discuss the types of users' studies.
3. Discuss the various user requirements.
4. Discuss in detail the techniques of information need survey.
5. Describe the conventional and unconventional methods of user study.

11.8 Reading List

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Unit 12 ☐ Resource Sharing

12.1 Introduction

In the past, a library was considered to be important from the collection point of view. It was regarded that the library was valuable when its collection contained a good number of manuscripts and other text books etc. Consequently, trends of these libraries were to be self-sufficient and independent. But a voluminous growth of

published documents it is totally impossible for a library to acquire even half of all published materials. No library is able to procure, process or store documents that its users demand.

The sharing of resources between libraries began as the approach to an ideal, that of being able to supply any document or wriitten information for any user anywhere. The innovation of printing press, establishment of educational and Research institutions, advancement of technology have called for a revolution throughout the world. In this circumstances it is imperative for libraries to think of resource sharing for the purpose of survival, continuance and credibility to the readers. Again, since the concept of sharing has now been developed on national and international lines, the reader can enjoy resources of the world of libraries.

12.2 Inter-Library Co-operation

The sharing of resources between libraries used to be known as library co-operation. The term "resource sharing" is a fairly recent one. In the past, the term "library co-operation" was commonly used. To underestand what we mean by library co-operation it is worth to look a litle into its history. Joe W. Kraus in his article "*Prologue to Library co-operation*', *Library Trends 1975* reports that, "catalogs of manuscripts in more than one monastery library existed in the first half of the 13th century. Manuscripts in 138 English and Scottish monasteries were listed in the Registrum Librorum Angliae." Curt D. Wormann in his article "*Aspects of International Library Co-operation: Historical and Contemporary,*" Library Quarterly, 1968, cites examples of an exchange agreement among universities of Lund, Abo and Greifswald as early as 1740, a projected union calalogue of the libraries of Weimar and Jean, a proposal for a co-ordinated acquisition scheme for Wolfenbuttel and Gottingen, and the ambitious attempt to establish *Bibliographie generale* based on the millions of books confiscated during the French Revolution.

In an article 1876 *Library Journal* Samuel S. Green proposed that librarians should enter into agreements to share resources. When he unfurled the banner of library co-operation, he was expressing two concerns : the need for a single library to provide a level of service which could satisfy its clients, and the concomitant need for a regularity in the means by which the librarian could increase the possibilities of service to a level nearer to the librarian's own expectations.

So we should look at co-operation as a social phenomenon by which libraries mutually engage to increase the service capabilities of a single library and by which librarians extend their options to serve clients. We should place the phenomenon of

co-operation into a conceptual framework in order to relate it to other social phenomenon.

Co-operation is both a process and means through which two or more separate entities accomodates each other to approach a mutually satisfactory conditions. As a process it is an ongoing activity involving interactions ; as a means it is intended to produce an outcome or product.

One can explain co-operation intuitively and declare that since the natural state of man is to live together in harmory, co-operation is the expression of the means by which this is done. One can hold that disharmony is the natural state of man and since men must, of necessity, live in proximity to each other and depend on each other to survive, co-operation is the means by which conflict is mitigated and life is seestained. For the purpose of examining co-operation among libraries, there are considerable advantages in regarding co-operation as a form of exchange which not only be expressed in real or financial terms but also have a social physiological dimension which includes such intangibles as prestige, respect and friendship.

According to Kraus library co-operation signifies a system of goodwill. It is intended to share resources. It provides an opportunity for the collaborating libraries to increase their resources and to ensure better library services to users. It is an extension of individual library services to achieve economy. It is work to note that in the current situation of automation, information, databases, shared cataloguing and other activities the term "resource sharing" is more appropriate and library co-operation remains a past of it.

12.3 Library Resources and their Sharing

Library resources when discussed in the context of their sharing include any and all of the materials, functions and services that constitute a modern library system. Materials include both documentary and non-documentary forms. Books, periodicals, reports, patents, standards, thesis are examples of documentary materialy Non-documentary materials include audio-visual aids, microforms, machine readable databases and computers. The functions cover the activities concerning acquisition, processing, storage, retrieval and maintenance, Services imply techniques, activities and procedures employed to establish contact between the mass of literature and its consumers. Services include among others, lending, reference, documentation, reprography and translation. Resources also include expertise and experience of the professional staff.

Whatever resources is being considered, the sharing of it means that not only that a library gives and receives a part of it, but also that the library is involved in the

process of determining how the resource should be shared. Two definitions from the American and British library literature, will provide a clear idea of the concept of resource sharing.

1. Philip Sewel's definition as quoted by M. Smith, in worth re-quoting here : "Resource sharing may appear to be nothing more than a new term for the familiar concept of library co-operation. True, many of the same activities are included, but there is a significant difference in approach. The earlier term takes the existence of libraries for granted and describes how many can achieve their objectives better by working together. The new term appears rather assume a range of physical, intellectual and conceptual resources on the one hand and a body of people on the other, and covers the activities involved in organizing the one into a set of optimum relationship to meet the needs of the other."

(ALA World Encyclopaedia of Library and Information science 2nd ed. 1986 P. 704)

2. Allen Kent observes, "Resource sharing denotes a mode of operation whereby library functions are shared is common by a number of libraries. The goals are to provide a positive net effect : (a) On the library user in terms of access to more materials or services, and/or (b) on the library budget in terms of providing level service at less cost, increased service at level cost, or much more service at less cost than if undertaken individually".

[Encyclopaedia of Library and Information Science. vol. 25, P. 295]

It will be evident from the first definetion that resource sharing not an end in itself, but rather a means to improve the services provided to users. Resource sharing entails certain reciprocity and implies a partnership in which each participant has something useful to contribute as well as to receive from others and there is willingness and ability to make available something when needed.

12.4 Need for Resource Sharing

Until early decades of the 20th century, each library was an entity, serving the needs of its own membership and procuring library materials to need their primary demands. However, a combination of circumstances made it extremely difficult for an individual library to be self-sufficient. The circumstances include :

A tremendous increase in knowledge and corresponding growth in publication ; the spread of education leading to greater and more diverse demands on the library service ; the increased complexity of the relationship between subjects the increasing diversity of users demand ; an imperative need for widening accelerating the speed in

the supply of information ; the demand for up-to-date information, the advancement of technology and its impact on industry and commerce and the necessity for employers and employees to develop new skills and techniques ; the soaring cost of reading materials against limited financial capabilities of libraries ; the increasing availability of technology ; the increasing demand for space.

The above-mentioned factors have been compelling libraries to consider sharing resources. The imperative need for practicing resource sharing among libraries in developing countries is even more urgent and necessary than in the developed countries. The resources of developing countries are obviously limited and they should be put to maximum use by the largest number of users.

12.5 Resource Sharing Activities

We have discussed the factors which make resource sharing a must among libraries. Participating libraries should come forward with the common end and fulfil the obligation to subscribe to the sharing endeavour.

12.5.1 Co-operative Acquisition

No single library can be wholly self-sufficient in the face of demands for a broad spectrum of bibliographic requirements in support of research needs ; the other is the impossibility of funding either from governmental or from non-governmental sources. A multitude of libraries duplicating a good deal of their efforts. By planned co-operative a cquisition, participating libraries can avoiod undesirable duplication of materials, avoid omissions, extend the range of material available and have speedier access to it than through inter-library lending. Both co-operative acquisition and de-acquisition co-operative decisions as to which monographs should be discorded to ensure that adequate coverage is maintained, or which less used periodicals each participating library should cancel to ensure that at least one copy of each title is held.

Co-operative acquisition may tane into account the subject specialisation or an empiric method. In the empiric method participating lirbaries review book not purchased and come to agrement concerning expensive items of small demand for common use. The scheme may also be directed towards the acquesition of audio-visual materials.

Besides documents selection, acquisition involves several activities such as placing orders, reminding the suppliers and passing the bills. All these activities are reduced to a great extent through co-operative acquisition.

12.5.2 Cooperative Storage

Many libraries face to chronic problem of shortage of space. Because of possessive attitude, libraries keep on holding older and obsolete materials on the shelves no matter whether they are frequently used or not. Often libraries have to incur unnecessary storage costs for unused or lesser used materials. Resource sharing supporting collection development also includes the provision of co-operative storage facilities for lesser used materials. A group of partcipating libraries cooperate among themselves for lesser used or weeded materials to a central agency for preservation. The stored materials can even be interselved and their use is placed on an equal basis to all participating libraries. It is the desirable by product of co-operative acquisition.

Both co-operative starage facilities and cooperative approach to preservation of materials require as much co-ordination as co-operative acquisition policies. But this aspect of resource sharing concentrates greater attention to presesation crisis.

12.5.3 Shared Processing

Despite the establishment of national biliographics throughout all the developed and much of the developing world, many resource sharing arrangements are made in shared cataloguing. In fact the advent of computers has been paving the way for co-operative cataloging since 1960s. This involves the production of catalogue entries or printed book cataloges through the collective effort of several independent libraries so that each participating library and other. non-participating libraries as well may share the benefits of such cartaloguing.

Some libraries usually of national status produce printed catalogue cards which can be purchased by other libraries. In Catrloguing-in-Publication programme introduced by the Library of Congress the following cataloguing data are usually printed on the verse of the title page : auther, title, series statement, note, subject and added entries. LC classification number, DDC number, LC card number and ISBN (International Standard Book Number). This sort of programme would save the cost on cataloguing to a great extent.

Besides, there is also scope for sharing processing of information contained in micro-documents.

12.5.4 Inter-Library Lending

The oldest and the most common resource sharing activity is almost certainly the provision of access to library materials. Indeed, Inter-library loan form of resource sharing is prevalent among libraries in the world. The ability to satisfy readers with requirements outside the stock of an individual library has led to the development of formalised schemes which fall into the following categories :

(a) Local, regional or national centres with union catalogue of holdings of libraries.

(b) A central store of books dedi 'ated' to supply books on demand to other libraries.

(c) Lending between libraries directly without reference to a regional or national centres.

It may be noted in passing that inter-library loan arrangements have some inherent weaknesses. They fail to extend the total provision of available material unless accompanied by a co-operative acquisition policy. They also require the construction of a union list of holdings. Inter-library lending may also conflict with a library's obligations to its own users and in the larger decentralised systems the stage has been reached where the demands imposed on those libraries with richer collections have imposed restrictions and redistributive charges. An alternative is to provide a centralised collections dedicated to the provision of services to other libraries.

Another means for providing access to materials through resource sharing is the referral of readers themselves to collections which will be able to supply their particular information needs. This process presupposes the compilation of directories of resources. Other activities may include co-operating indexing, abstracting, translation of material and joint provision of online services to assist exploitation of collections.

12.5.5 Sharing of Equipment

Modern libraries use different types of equipments for carrying out various jobs. Computers and reprographic equipment have now become popular. But small libraries can not afford to purchase costly equipment. A number of libraries can co-operate to procure them.

12.5.6 Staff and Management Information

Two other activities amenable to resource sharing involve staff resources and management information. Resource sharing may incorporate arrangements for co-operative staff training ventures and exchanges of staff. A successful resource sharing requires a sharing of information for monitoring its activities.

12.6 Basic Requirements for Resource Sharing

The following basic requirements should be considered to make resource sharing feasible :

(1) Libraries should have resource to share. Resources to be shared should also be useful to other institution.

(2) There should be willingness to share the resources as well as develop necessary bibliographical apparatus.

3. Terms and conditions of sharing should be spelt out clearly.

4. More than a formal agreement, desire for voluntary participation is essential.

5. There should be suitable allocation of responsibilities by formal or informal agreements on acquisition policy, loan period, payment on loss of materials and similar others.

6. A suitable plan has to be formulated to work out the mechanics of resource sharing.

7. There should be understanding of the user community of the philosophy or resource sharing.

8. A network of libraries should be constructed for sharing resources at all levels.

9. Union catalogues : This apparatus helps in locating individual items needed for inter-library loan.

It also provides guidance for subject specialisation and for avoiding purchase of an expensive items available in nearly library. Therefore union catalogues are indispensible tools for promoting resource sharing. The other tools are bibliographics, indexes, abstracts and directories.

Finally, the effective resource sharing rests on adequate resources, administrative capability and efficient communications.

12.7 Resource Sharing Programmes in Action

Resource sharing can be carried out at any level, from the international to the local and can be arranged in a variety of ways.

12.7.1 International

Work by Unesco in the 1970s in co-operation with organisations such as, International Federation of Library Associations (IFLA) led to the establishment of complementary programmes later merged : UNIST, contracting on the development of a World Science Information System, and NATIS, identifying the structures required to enable library and information service to play an effective role in national plans for economic and social development. IFLA conducts two major programmes : Universal Bibliographic Central (UBC) and Universal Availability of Publication (UAP). UBC aims at the creation of a worldwide scheme for exchange of bibliographic information for all publications. By this the basic bibliographic data on all publications issued in all countries are to made available in an internationally accepted form. UAP concerns with a model for making documents available to users

speedily and efficiently. UAP is based on the principle that every country should be able to provide access to its own publications, Both the/ programmes, if fully developed, will have profound resource sharing complications.

The International Serial Data System (ISDS) is another example of co-operation endeavour to disseminate information about current serial publications of the world by setting up ISDS (International and national) files. National centres are being created in many countries for this purpose.

Apart from the programmes which are intended to promote universal resource sharing, international information systems have came into existence with the support of national governments and bodies. INIS (International Nuclear Information System) and AGRIS (Agricultural Information System) are familiar examples. INPADOC (International Patent Documentation System), Vienna, is another co-operative venture for organisation and dissemination patent information.

12.7.2 National

At the national level it is worth to highlight some cencrete examples of resource sharing in USA, UK and India.

12.7.2.1 United States of America (USA)

The United has a long tradition in resource sharing. An ambitious programme for co-operative acquisition of foreign materials by American libraries was conceived in the Library of Congress.

The plan took its name from a meeting sponsored by the Executive Committee of the Librarians Council of Library of Congress, held at Farmington in Connecticut on 9th october, 1942. This was the *Farmington Plan.* It involved the recruitment of purchasing agents in many countries, whose task was to buy their counstries current publications and distribute them to American Libraries according to a scheme of subject specialisation. In 1948 the plan was put into operation in France, Sweden and Switzerland. Many criticisms was levelled at the scheme and as a blanket operation it inevitably acquired a certain amount of trivia and duplications, but many research libraries have benefited by the acquisition of material that otherwise would have been difficult to obtain. It ended in 1972 in part because of the success of both *National Program for Acquisition and Cataloging* (NPAC) and the *Public Law 480 Programs.* Both thete profeets were managed by the Library of Congress. Several hundred academic libraries have participated in these programmes designed to acquire and catalogue foreign materials.

The situation in USA is no longer the preliminary stage of examination of the concept of resource sharing, rather it is how best to achieve it. Although several

library consertia and co-operatives are functioning. Modern technology has demostrated the capabilities of its funding application in a variety of resource sharing networks. At present resource sharing in US is largely characterised by privately funded netwo's such as RLG's Research Libraries Information Networks (RLIN), OCLC, and state or regional networks such as the Western Library Network (Previously Washinston Library Network.)

Co-operation for automation and resource sharing among academic libraries, specially the state-supported university libraries, has been firmly established in Ohio since 1960s. The most important accomplishment was the establishment of OCLC in 1967. Originally OCLC was the abbreviation for Ohio College Library Centre, an entirely founded by a group of academic libraries whose institutions were members of the Ohio College Association. Under the leadership of the Inter-University Library Council (IWLC), an informal organisation of the library directors of state supported universities, initial funding was obtained from the ohio Board of Regents, the planning and wordinating agency for all state supported institutions of higher education. OCLC's success in creating a central bibliographic database of MARC (Machine Readable Cataloguing) records to facilitate online, shared cataloguing by participating libraries encouraged many other libraries to join. The expanding membership caused OCLC to change its name and governance. Today OCLC stands for Online Computer Library Centre.

At stated earlier, one of basic requirements of resource sharing is the compilation of union catalogues. Here we note—*New Serial Titles : a union list of serials commencing publications* after Dicember 31, 1949, Washington DC, Library of Congress, 1950. This guide effectively continues the *Union List of Serials in Libraries of the United States and Canada* edited by E.B. Titus, 3rd. ed. 5 vols (New York, Wilson, 1965). *New Serial Titles* appears monthly, with quarterly and annual cumulations. The years 1950-1970 have been covered in a single cumulation, available as either hard copy or microfiche from Bowker of New York. Cumulations covering 5-year periods from 1971—are published by the Library of Congress, Washinglen Dc. Entries are arranged alphabeticaly by title, indicating the relevant holdings of major US and Canadian libraries.

12.7.2.2 United Kingdom (U.K.)

The most event in resource sharing in the United Kingdom has undoubtedly been the formation of the British Library. At the hub of the national network of resource sharing stands the British Library Document Supply Centre (BLDSC) in Boston spa, Yorkshire. It was set up as British Library Lending Division (BLLD) in 1973, by amalgamating the stocks and services of the National Central Library with the

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National Lending Library for Science and Technology. While USA has developed computerised databases achieving great success in bibliographic control, UK has made an outstanding contribution in developing a document supply system. The BLDSC is a model which has deeply impressed the library world. It is the library of the last resort for inter-library loans. In addition it maintains a union catalogue and trace other sources if its own stock fails to meet the need. The BLDSC brings out list of its own periodical holdings, entitles *Current Serials Received*. In addition, the *British Union Catalogue of Periodicals* (BUCOP) was updated by supplements until 1980 ; three cumulations cover the period up to 1973, with annual volumes thereafter.

ASLIB, AIM Association for Information Management) played a prominent role in the development of several areas of inter-library co-operation. It maintains its own information service for use by its members and also administers an interlending service between participating libraries. It publishes the *Aslib directory* and *Index to theses*.

12.7.2.3 The Indian Scene

Resource sharing in developing countries is gaining in importance due to advances in computer telecommuniction and reprographic technologies. India is still in the era of library co-operation ; even here much progress has not been made. Still we need to develop the culture of resource sharing. As a result concrete action has yet emerge for practical implementation of library co-operation and resource sharing activities.

Co-operative acquisition has never been a strong point. India, being a vast courtry with more than hundred crores of population, can not think of centralised acquisition for all libraries in the country. The centralised acquisition of Periodicals (CAP) project undertaken by INSDOC is a successful effort in this context. In 1974 INSDOC launched this computer based project. The project is catering to the needs of the majority of libraries of the Council of Scientific and Industrial research. The participating institutions need not take the trouble of obtaining foreign exchange. Labratiories participating in this project send their list of titles to INSDOC. On recipt of the indents INSDOC places orders and makes the payment. Thus it is corporative effort for the order and acquisition of about 2000 scientific and technical periodicals from about 850 publishers outside India. In spite of some operational constraints the CAP has been operating well.

Inter-library loans within the city have more or less been accepted, here again due to the voluntary efforts to librarians. The Bombay Science Librarians'. Association (BOSLA) had promoted a scheme to work out jointly the efforts involved in the co-operation of inter-library loan transactions. It may in near future extend the sphere of co-operation to other areas-also.

With regard to co-operative storage the Inter library Resources Centre of the National Science Documentation Centre (NASSDOC) is to be regarded as the maiden attempt. In 1975 NASSDOC and Jawaharlal Nehru University organised this centre at Delhi :

Union catalogues as a tool for promoting inter-library loans are being published. NASSDOC has compiled Union catalogues of social science serials holdings of about 500 important libraries from all parts of the country. The National Medical Library (NML) has been publishing and updating the union catalogues of medical periodicals in Indian Libraries. INSDOC has published in 1988 the *National Union Catalogue of Scientific Serials in India*, 4 vols. Local Union catalogues such as city, have been compiled. The National Information System in Science and Technology (NISSAT) scheme may be regarded as a landmark in our endeavour to establish a well laid out and co-ordinated information system. The scheme will optimise the utilisation of existing resources and facilities by all concerned in addition to filling up the gaps in the existing facilities. The NISSAT scheme would make a great impact in co-ordinating information centres and systems in the country for sharing resources and facilities.

The development of computer communication networks has undoubtedly been an important advancement in resource sharing in India. The National Informaties Centre (NIC) of the Electronic Commission is a centralised facility for processing data and management informatin for central government departments and organisations. The National Informaties Centre has set up a Network NICNET in November, 1987. In 1991 (University Grants Commission (UGC) founded "Inter-Agency Working Group for Development of Information and Library Network." It is known as INFLIBNET. The head office is at Ahmedabad. The objective of this institution is to evolvo a national network, interconnecting varicus libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R & D institutions etc, in the country for efficient sharing of information resources available with them and to improve capability of information handling and services.

12.8 Impact of Technology

Many trends will be significant in the development of resource sharing activities in the near future, but the effects of technology are likely to be more profound than all others. The introduction of cheap and reliable photocopying equipment provided an alternative to inter-library loan for shorter items such as serial articles. At present

telecommunication facilities, including sateltites can trasmit massive amount of data, including digital images of documents from continent to continent at cheaper cost. The developed countries are taking the full advantage of these facilities in resource sharing.

Development in the technology for storing data are also likely to have a powerful impact on resource sharing networks. Though information technologies have been developed by leaps and bounds in the developed countries, the scenario with regard to developing countries like India is different. Only recently has the full impact of the role of information technology been recognised and information systems are expanding gradually. In developed countries present bibliographic networks have become possible only because of advances in the information technology. The development of optical desk technology appears to offer the prospect for libraries capable of holding far more data on their own computer than at present.

12.9 Observations

Resource sharing will clearly be a continuing element in the provision of library services. It has become one of the most written about topics in library literature and now has a journal devoted entirely to the concept, Resource Sharing and Library Networks, 1981—. Yet the objective evaluation of the results of resources sharing is very much lacking. Resource sharing is not an end in itself. Librarians should take it reatistically as a means for the library to imporve its standards of services to users.

Resource sharing, despite its numerous favourable aspects, is subject to criticism. Resource sharing activities often effect the autonomy of the libraries involved. It for some reasons resource sharing falls, participating libraries will find it difficult to fill up the gaps afterwards. The publishing industry will likely to be affected by resource sharing. Publishers throughout the world have argued with varying degrees of conviction, that photocopying is damaging their interests and have passed for legislation to control such activities.

Despite criticisms resource sharing should deserve due attention of the developing countries. India, with its limited resource sharing among her libraries. Developments in modern technologies are taking place to a considerable extent in India, There should be a holistic approach and integrated planning for developing information infrastructure. In some areas, as noted earlier India has made same progress and there is still scope for development. For example, union catalogues of both science and social science periodicals have been complied, but union catalogues of books and other documents are yet to be borught out. In some other areas such as co-operating processing, sharing of equipment, India is yet to start. Libraries belonging to the some displine or mission can from a network of their own for sharing processing work to

create databases in the subject of their interest for the purpose of current and retrospective services.

Automation is still to be actively considered by libraries in India. However, a few institutions in india are having computers. Libraries of these institutions in India are gradually mecharising certair processes and have developed softwares for the purpose.They are developing their own for inputting data into their computers. The pressing need is to be evolve a common communication format for data input. Once this is evolved the resource sharing concept would automatically follow from it. How ever, the resource sharing should be built into the design of the national system. Fer sound planning of resource sharing activities, efforts should be made to cololect data about library-their resources, facilities and services. Finally library associations can play an important role in promoting library co-operation and encouraging resource sharing activities. Efforts in this regard should continue because of the social value for libraries, regardless of the operative facts, since the consequences of the idea of co-operation not bering present will be ditrimental to the library as an institution and as an organisation.

12.10 Exercise

1. What are the objectives of Resource Sharing ?
2. Discuss the need for resource sharing.
3. Describe the impact of technology on resource sharing.
4. What are the important events of resource sharing in libraries in USA ?

12.11 Reading List

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Unit 13 □ Networking and Resource Sharing

13.1 Introduction

The ancient Rishis of India developed a unique networking system i.e., transmission of knowledge through 'sruti'. In absence of proper and adequately available writing materials, they had to depend upon same disciples with sharp memory for transmission of Vedic knowledge or information through the ages and throughout a vast area for the purpose of perpetuality of their knowledge. But this was one way transmission of knowledge, though this was device, no doubt, for storage and disseminaton of information. Thus man tried to record information in memory and subsequently in documrents with invention and evolution of writing materials, assuming a concrete shape through invention of printing technology. But the ever growing knowledge and consequent growth of information led man to discover some other media as processing and storage when a vast amount of information, augmenting every moment ceaselessly, became unmanageable. Man's sincere efforts never failed, through delayed due to primary faiures, The scientists became successful to discover computer for recording

unlimited information for storage and future retrieval with a view to satisfying their thirst for knowledge and quenching that of others. The invention of electronic media, the computer pacify his need to a great extent when scientists were able show that a networking system par excellence can be eveloped through computer technolgy.

13.2 Genesis of Computer Networking

Computers are information processing machines which can do a vareity of jobs in great rapidity. Data in computer terminology means fact and figures. computers were originally devised for scientific works as they wonderfully performed arithmetic operations very fast. These simple numerical processing machines were later on extended to cover data-processing as they were also found reliable in handling non-numeric data. This marginal power of the electronic device called computer paved the ways for solving the problem of central processing, storage and retricval of influx of ceaseless information. But the necessity of computer for application in networking system was greatly felt when in 50's Russia sent ''Sputnik'' in space and outfitted its close competitor as well as rival superpower, USA in space research. The American Scientists were under great pressure exerted by the Statesman to show their unique and novelty in some other branch of science and technology within a very short time and above the Russian Challenge. The sceintists working in the field of research and analysis of US Defence came out successful when they developed a computer networking systems among some host computers situated at distant places of the country for exchange of quick and correct information on multiferious aspects associated with military affairs, This was done, first of all through wire connection which had obviously various limitations.

The scientists began to think of discovering better techniques and found that there were already advanced telephone system in the country and if the host computers and the recipients computers can in every way be connected with it a miracle may happen in the networking system. The idea was translated into action and the scientists proved themselves supermen. The whole world became astonished at the sight of the great revolution brought by networking system based on computer technology.

By and by the use of networking system in or limited sphere viz. defence and war, could not be to restricted for two main reasons.

Firstly, the US Defence Department felt anxious that persons in other sectors had been trying to get into their networking system. Secondly, there was tremendous pressure from all other sectors for mastering the networking system for their immense benefits. Thus the use of networknig could not be restricted in the sphere of defence only, the demand from other sectors to enjoy this facility went beyond control.

The first binary data communication system was demonstrated by Cooke and Wheatstone in 1839. The first machine to use serial binary data communication was the teleprinter, developed by Emil Bardot. Early computer system used only local communication to link the central processor to peripherial and to terminals. The techniques and equipments necessary for high-speed data communications were developed in the 1960s. It is now common for users connected to a local Area Networks (LAN) to communication with computers on other local area networks via gateways links by a local are network. Long distance communications employed by Wide Networks (WAN)may use satellite links, or terrestrial links multiplexed on microwave, fibre optic or coaxial bearers.

13.3 Library Netwroking in India

A great scholar in the field of networking technology, defined networking as anything potentially related to anything. In these days of knowledge explosion this "anythihg" perhaps covers any informatin or every bit of information under the sun. However the nature of information should be transmissible and should have the intrinsic qualities towards use and application, whenever needed. The predominating role of libraries remained unquestionable until the days of commencement of knowledge explosion, Neither the professional librarians, nor the researchers, nor even the scholars in the field of library science could foresee as to how and what extent. They should make themselve equipped to act as primemovers, with the aid of modern technolgy to accept the challenge of knowledge explosion so that they can keep command over the vast realm of knowledge. This lack in farsight practically dethroned them and very quickly the technologists occupied their places and got central over the helm of information technolgy. The people in the field of library world could not rise to the occasion and became unnerved and completely bewildered for a considerable period of time. The librarians as information scientists began to feel that they are being given how priority in the information world where they were the men who could show miracle drawing the respect and dignity from the users. It was already late when the librarians of the third world awake from the state of dormancy and bewilderness and tried to keep pace with the demand of the present day though in a limited sphere, so far our country is concenred.

There is also dearth of finance and universally accepted principle and technology in connection with the library networking. Some sporadic attempts have so far been made in some selected areas, so far our country is concerned, to restructure the libraries capable of becoming participant in the networking technology introduced for the purpose of resource sharing. So far our practical experience goes, less has been done in comparison to vast amount of resources deposited in various important store-houses of this large

country and to exploit-their treasures, through much has been done through organsing seminars, symposiums and lectures and in attempting serious research in this direction. Still it is praiseworthy that an awareness and willingness is creeping up in the field of library and information sceince towards networking and resource sharing.

13.1 Concept of Networking and Resource Sharing

Knowledge being even-expanding and evergrowing in nature, it has posed as serious problem for every library, however, rich, well-financed, well equipped and well-administrated with the support of well-trained desirable number of staff strength, to cope with the unmanageable data or information, cropping up constantly. Thus to reduce the burden of individual library and at the same time extending the scope, variety, taste, comprehensiveness and maximum usefulness and to give a new dimensions and shape to the library service, the concept of library netwroking emerged with a view to bring the libraries closer and to booster cooperation among the member libraries.

Networking is transmission among computers installed in the cooperating libraires, much in the manner we communicate with other thorough a telephone network or telegraphic network, computers are linked together to so that the information available in one computer system can be easily and quickly shared by all the cooperating libraries. Library network may be of three types :

1. Local i.e., within the same of adjoining building(s).
2. Metropolitan i.e., within the city.
3. National and International i.e., over large distance, in and outside the country.

Information in such a networking travels among libraries or parts of library according to the distance that should be covered.

a) In case of short distance information is to be transmitted through copper wire.
b) In case fo slightly large distance, information is transmitted by microwaves.
c) In case of long distance, information is transmitted through copper coaxial cables or through optic fibres.
d) In case of more distance, informatin is obvioulsy transmitted by Satellites.

Satellite communication for library networking has been put into effect by SAILNET (Satellite Library Information Network under the auspices of NASA.

Whatever may be the technologies involved in library networking, the main objective and purpose is resource shairng. It may be an ideal that a library will be self-sufficient according to the principle of (a) every reader his book and (b) every book its reader" i.e. the library will be so omnipotent that it will be able to satisfy the interests of all readers

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completely out of its our resources, without depending upon any outside agencies or any sister concern. An ideal is an ideal simply because it can not be actualised. For what can be actualised, can no more be an ideal. So the actual situation is diametrically opposite, at least so far the libraries of the third world are concerned. In our country most of the libraries have severe experience of paucity of fund position, dearth is adequate staff strength, lack of proper infrastructure. So the only way to overeqme these shortcomings is perhaps library cooperation, the term which requires clarificaton regarding areas and extent of cooperation.

But it is obvious that resource sharing, a modern terminology coined to replace the term library cooperation, perhaps comprises of all the holdings, role and services, which contributed to the birth and growth of modern library. The library/holdings means all the reading materails in all forms, possessed and maintained by a library. Role means the function or activities initiated by a library as regards selection, acquisition, organistion and maintenance of the collection of a library, Service is the 'elan vital', the life force (as explained by Bergson in his famous theory of creative evolution) that definitely includes all science, technology and all techniques evolved so far, enabling the readers to establish link with the reading materials, with the help and direction of the library personnels. All these cumulatively give a schope perhaps to library resources. This resource sharing aimed at through inter-library loan, cooperative action in equisitions, performing union catalogue, bibliographic srvice for inter-library loan and undoubtedly this resources sharing can be accomplished in a best way through library networking. We can understand the importance of resource sharing when Herman Fussler observes the librarian sits between the anvil of resources and the hammer of demand."

Materials of resource sharing include both documentary and nondocumentary forms. Book, periodicals, report-patterns, standards, these, monographs, manuscripts, are various examples of documentary forms. Non-documentary materials consist of audiovisual aids, we have already discussed that resources also include the activities pertaining to acquisition, processing, storage, retrichval and maintenance of the techniques, operations and methods used to establiush link between the literature and its clientele and obviously other activities like lending, reference, documentation, reprography and translation. Expertise and experience of the professional staff also contribute to the formation of resources. Allen kent observes, "Resource sharing denotes a mode of operaion wherely functions are shared in common by a number of libraries". "Resource sharing" as philip sewel defines, "may appear to be nothing more than a new term for the familiar concept of library cooperation...but there is a significant difference in approach. The earlier term takes the existence of libraries granted and describes how they can achiever their objectives betteer by working together. The new term appears rather to assume arrange of physical, intellectual and conceptual resources on the one

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hand and a body of people on the other, and covers the activities involved in organising the one into a set of optimum relationship to meet the needs of the other."

13.5 Resource Sharing in Indian Libraries

Growth of unimaginable number of reading material as a consequence of kowledge explosion, immense diversification of knowledge in the field of education and scientific research, genesis of interdisciplinary subject fields, noticeable change in the nature of demands of the readers, demand for upto-date information, rapid growth of industries and development of technologies in this direction, development of trade and commerce, requirement of newer and newer skill and techniques on the part of both the employer and employees, the ever increasing price level of the reading materials and its bearing on the limited financial abilities of the libraries urged the Indian libraries to think of resource sharing for the purpose of survival, continuance and credibility to the readers.

Resource sharing activities hase become a must among libraries. The member libraries shall have to come forward to fulfill same common ends so that resource shairng may be meaningful in true sense of the term. The areas in which resource sharing must be done in India are to be identified to obtain maximum fruitful results i.e., the capability to satisfy the needs of the readers on a best possible way. Some such areas are listed below :

(1) **Cooperative Acquisiton :** The member cooperating libraries can achieve best results by way of implementing the scheme of cooperating acquisition, in a planned manner, like avoiding unnecessary duplication of materials as well as ommissions, extending the range of availability of materials and through speedy accession and processing of the materials.

(2) **Cooperative Storage :** Space problems often hinders the operation of the libraries which are evergrowing and we should better say in most cases speedily growing libraries are affected by this chronic problem. The library suffering from acute space problem, often set aside the old and obsolete materials without considering whether they will be frequently required or not in recent or remote future. But is case of cooperative storage system, the participating libraries cooperate within themselves for less used or unwanted materials, preserving them in a central agency, ensuring intershelving and use on an equal basis.

(3) **Share Processing :** It is computer which pares the way for shared processing. Several independent libraries exert independent efforts towards the production of catalogue entries and publishes printed book catalogues in order to achieve benefits avaiable to both participating libraries and non-participating libraries.

(4) **Inter-Library Lending :** Inter-library loan is the oldest and most commonly used

form of resource sharing and it developed from the desire to satisfy the readers going beyond the stored information of an individual library.

(5) **Other areas** : Where resource sharing is possible are sharing of equipement and sharing of staff and management of information.

But the development of the areas of resource sharing depends mostly upon some requirements; viz.

i) The libraries must have resource to share.

ii) There should be willingness to share.

iii) Terms and conditiqns of sharing should be well defined.

iv) Over and above formal agrements, there should be desire for voluntary participation.

v) Suitable methods should be evolved towards distribution of the responsibilities relating to acquisition policy and others.

vi) The uses should have awareness of the philosophy of resource sharing.

vii) The library network is to be developed for proper resource sharing.

13.6 Problems of Library Networking and Resource sharing in India

Resource sharing has got a lot of favourable aspects but in India resource sharing needs due attention. We have to think deeply over the organisation and spread of the resource sharing activities as most of our libraries are given low priority, low status in the socio-economic structure of the country. In some areas India has definitely made progress but there is a vast barren area which is to be cultivated. The scientifiec and Research Institutes, Industrial and commercial Houses must come forward with open mind immediately to evaluate the idea of resource sharing immediately to evaluate the idea of resource sharing and automation. We observe recently that much discussions have been started towards the need and implementation of resource sharing and networking of libraries. It is felt that modernisation of the libraries is to be accomplished. But still we are for from the goab that we have to reach. The government, University Authorities, Learned Bodies, Research Institutes and different Library Associations should work in hand for promoting resource sharing and networking of the libraries in India.

13.7 Computer-Based Networking of Libraries in India

It is very difficult to implement centralised acquisition in a vast country like India. But in case of procurement of foreign periodicals, the centralised acquisition procedure has been introduced by INSDOC since 1974, and this computer-based project has been

feeding the member libraries which have been relieved from unnecessary expenditure of foreign exchange by way of avoiding duplication. The majority of lileraries of the CSIR have benefited through this project. Inter-library loan within the city have commanded popularity. In this direction the Bombay Science Libraries Association (BOSLA) has started functioning and it is expected that this operation will be extended in other areas also. In 1975 NASSDOC and Jawahar Lal Nehru University organised the National Social Science Documentation Centre (NASSDOC) as inter- library resource centre. NASSDOC has compiled union catalogues of social science serials holdings of about 500 important libraries from all parts of the country. The National Union Catalogue of Scientific Serials in India (4 volumes) has been published by INSDOC. The scheme initiated by the National Infromation System in Science and Technology (NISSAT) is commendable as it attempts to minimum utilisation of existing resources and facilities. The National Infroamtion Centre (NIC) of the Electronic commission has been advancing the facilities for processing of data and management of information for central government departments and organisation. In November 1987, NICNET has set up National Information Centre for the use of government. The Educational and Research Network (ERNET), a project of the department of Electronics has been operating, being supported by INDONET, VIKRAM and NISSAT.

13.7.1 INFLIBNET

Institutional libraries are responsible for extening best possible services to the educationists and researchers. The objectives of these libraries, from the technological point of view, are to provide all sorts of reading materials of any format, to all categories of citizens on the qne hand and to provide document delivery services to them whereever they stay on the other hand. To fulfil these objectives the role of netwok service is very crucial and important. Modern network technology comes to the help of the end-users in supporting maximum use of the reading materials. Recently, the uncertain econnomic environment effects the services of the jnformation centres throughout the world. As a result, these centres are bound to ask for ways and means for providing better services to the users of information.

There is a great fressure on the information centres to provise pertinent, current and pinpointed information. To meet the demands the need of modern networking system is one of the vital issues. For this purpose digital full text sound, graphics, image, multimedia, hypertext etc. required modernised to provide information at the right time for the right users. To make the education instituties of higher learning self sufficient and to modernise the networking activities UGC, through INFLIBNET, Ahmedabad sanctioning financial assistance.

Information Library Network (INFLIBNET) is a major programme of the university

grants commission (UGC) initiated in 1991. The programme is directed towards modernisation of libraries and information centres and establishment of a mechanism for information transfer and access, to support scholarship, learning and academic pursuid over the years, the programme has progresed steadily and since may 1996 if is an independent autonomous inter-University centre under UGC to co-ordinate and impliment the nationwide high speed network, using state-of-the-art technologies for connecting all the libraries in the country. The Headquarters of the INFLIBNET is located at Gujrat University campus, Ahmedabed.

13.7.1.1 Objectives

The Memorandum of Association of INFLIBNET States the following objectives : (i) to enable the users all over the country, viz scholars, researchers, etc. irrespective of location and distance, to have access to information regarding books, monographs, serials, and non-book materials by locating the sources where from available an union catalogue of documents ; computerised communication and to establish computersed information network, INFLIBNET, to avoid unnecessary misuse of time and manpower and to enable the universities deeded universited, college, UGE and impertant national lebraries and research centres to establish a close contant with the libraries and the information centres throught the country.

13.7.1.2 Activities

The automation of university Libraries is a major activity of INFLIBNET. It is also a pre-requisite for networking of libraries and resource sharing under the INFLIBNET programme. Proper initiative has been undertaken to give a digital shape of databases. For this the table of contents of books of six libraries have been selected and the full text journals of these libraries have ben made and these are now ready for supply. To the ttne of six lakhs grants has been made available for one hundred fortytwo university libraries for automation, network, purchase of computer various and softwares, to prepare site, telephone tine and internet service etc. Moreover, efforts have been made to train the library personnels and other staff to acquire proper knowledge in operating moder technology used for library. Based on the feedbacks received from these institution, a new version of ILMS called SOUL Soff ware for university libraries to work in windows environment has been brought out very recentrly SOUL (college version) has also been made available. This supports the multilingual database creation and web access. It has five major modules viz, acquisition, cataloguing, circulaltion, OPAC and serial control.

INFLIBNET has launched two projects : to supply restropective information from five important libraries and to arrange information services from big libraries.

To facilitate all the university libraries to get source of important journals, UGC has adopted proper step. For this purpore UGC-NET will soon be started functtoning. This will also take proper enitiative to make available of e-journals on physics, chemistry mathematics etc.

13.7.2. DELNET

The first active library network is developing Library Network (DELNET) in India. The members of this Network are from libraires from twenty three states and five union territories. The libraries inclued public libraries special libraries grovernment libraires, embasy libraries, University libraries research libraries etc. At present DELNET serves ten lakhs documents in five hundred databases. This includes the union catalogue of books, list of current journals, catalogues of cumulative prose, databases of learned society, CD-ROM, databe etc. DELNET has on-line service viz DELLISTSERN. DEL It provides services, such as, inter-library lending, online service, e-mail service etc. It organises network training programmes lectures seminars, workshops etc. It helps libraries to prepare restrospective works of document. DELNET has made two network softwares viz. DEL-DOS and DEL-PLUS. These are used for creation of documents on english and multi-linguals letters with low cost and easily for the MARC use.

13.7.3 UGC-NET

It has established necessary infrastructure for the development of educational atmosphere throughout the country for the Universities under UGC. The Ministry of Technology. has established ERNET India Society to prepare a plan, aims and objectives activities of this network.

The satellite connection of this network will be made available from the ERNET satellite centre, Bangalore.

In order to reach the goal all sorts of attempts are to be made so that all the university and college libraries throughout the country should come under the national network system after proper development and improvement of their departments along with proper infrastructe of the information technology.

13.8 Exercise

1. Describe the Networking system in India.
2. Discuss genesis of computer networking.
3. Describe the resource sharing activities in Indian libraries.

13.9 Reading List

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Unit 14 □ Library Profession

Structure

14.1 Introduction

The work 'profession' is derived from a concept which indicates the work that an individual is called upon to perform, and therefore, in everyday language any kind of work can be a profession. But it is sometimes difficult to differentiate between professions and non-professions. The eminent social scientists A.M.Carr-Saunders and P.A. Wilson in their article *'Professions'* (In Encyclopaedia of the Social Sciences, vol. 11-12,1933, P.478) said, "we recognise a profession as a vocation founded upon a prolonged and specialised intellectual training which enables a particular service to be rendered." and in another work *'The Professions'* (Frank Cass & Co.1964,P.307) pointed out that "special competence, acquired as the result of intellectual training, is the chief distinguising feature of the profession."

D.J.Foskett in his article *'Professionalism and the future* (In the Nation-wide provision and use of information, Aslib/IIs/LA Joint Conference, 15-19, September 1980 Sheffield, Proceedings, 1981, P.386) observed that "like any other social group profession consists of a number of seperate persons who have agreed to set up a system of relationships among themselves with a view to carrying out activities and achieving objectives which are beyond their powers as separate individuals." Traditionally the objectives are those which society as a whole accepts as desirable and activities are those which the profession claims to be the most effective. However, during the early part of the 20th century definitions of what constituted a profession were formulated.

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14.2 Definition

Morries L..Cogan summarised and analysed definitions of the concept 'profession' in his article *Towards a definition of profession* (Havard Educational Review, 1953, 23(1), 48-49) thus : "A profession is a vocation whose practice is founded upon an understanding of the theoretical structure of some department of learning and science and upon the abilities accompanying such understanding. This understanding and these abilities are applied to the vital practical affairs of man. The practices of the profession are notified by knowledge of a generalised nature and by accumulated wisdom and experience of mankind, which serve to correct the errors of specialism. The profession, serving the vital needs of man, considers its first ethical imperative to be altreustic service to the client."

According to Cogan, a single term 'profession' is used to designate disparate referents. Cogan indentifies three levels of definition - historical - lexicological, persuasive, and operational. Cogan's own definition based on analysis of standard etymological works is an example of the first type. The second, 'designed to redirect people's attitudes," he illustrates with the definition of Abraham Flexner ("Is social work a profession?" School and Society, 1915. 1(26) 902 which he says, has been translated into the programme and behaviour of contemporary medical societies." The third, Cogan describes as "the guidelines for the practioner as he faces the day to day decisions of his work.", resulting from a demand for the observable and the measurable which will not be satisfied by lexicological and persuasive statements."

Webster's Third International Dictionery defines profession as a calling requiring specialised knowledge and ofter land and intensive preparation including instruction in skills and methods as well as in the scienctific, historical or scholarly principles underlying such skills and method, maintaining by force of organisation or concerted opinion high standards of achievement and conduct and committing its members to continued study and a kind of work which holds for its prime purposes, the rendering of a public service."

To sum up, it is stated that profession is characterised by organisation, learning and a sprit of public service.

14.3 Characteristics of a Profession

The various attempts to delineate the characteristics of a profession began with Abraham Flexner in 1915. Since then sociologists and practitioners in a variety of disciplines made many attempts to list the distinctive features of profession.

1. The existence of an organised body of a systematic and theoretical knowledge.

2. The existence of a professional association which monitors the general standard of activity.

3. The code of ethics which regulates relations of professional persons with clients and colleagues.

4. A dedication among members to the enhancement of the profession and to the education of its members.

5. A set of applied techniques for practice.

6. A service orientation to clients.

7. Recognition from a significant number of non-practitioners.

If a profession sits squarely on an academic discipline, observes McGarry, then its social recognition comes more easily – law is a good example. The profession maintains its own integrity, its inner strength, by means of relations set up between individual members who agree to act in concert.

14.4 Rise of the Library Profession

The library profession is a new as a recognised profession but old in fact. It began with the unacknowledged society of scholars who worked independently first to investigate, write and record later to collect and preserve what others had written and finally to make that collected and preserved knowledge available in libraries. Gradually, there came into existence a body of librarians who devoted themselves to problems of acquisition, organisation and administration, with the emphasis always directed towards extending library use and improving conditions of use. In the course of time, with the development of public education and adult education movement the profession developed further. A body of theory and practice was evolved and is still evolving.

As a profession librarianship has been called an "essential" and a "service" profession. Libraries have become such integral part of our educational system and of our community life that one can hardly imagine our society without them. The library is recognised as a social institution and as such it has many facts, limitless possibilities and unplumbed potentialities. From a select body of scholars it has grown to a profession of thousands of trained men and women. Before the end of the 19th century to be a librarian one did not have to undergo any special preparation. As a result of the increase in knowledge and information libraries grew in size and number, book and journal production increased bringing a demand for indexing and classificatory techniques. The educational base of the potential user population began to widen, and this user population became more and more diverse in its information needs. Relationships with users entered a new phase as libraries – particularly public libraries – began to be seen as instrument of social betterment. In fact, librarians of wide learning, experience and training were needed to cope with the new situation. Such men and women are to be trained and educated and given a social status, which the social climate will determine.

Active professional organisations and library associations came into being with the furtherence of library movement in difficult countries. The library movement in each advanced country has ben furthered, at the outset, by scholars and public spirited citizens,

who help in creating full-time positions of rank for capable librarians. The American Library Association (ALA) was founded in 1876 and the Library Association in the UK was founded next year.

It may be noted in passing that there have been many arguments over whether library and information work can be defined as profession. Some people consider it an occupation, others argue that like medicine and law it can be regarded as a profession, some conclude that it is not and never will be, still others argue that it has made some progress on the road to becoming a profession. As Pierce Butler said in 1951, "We all do believe that librarianship is a profession". In this tacit assumption, observes Shera, there is certainly an element of desire to validate librarianship's credentials in a bid for improved states. However, by applying the criteria for professionalism, we can determine to what extent library and information work can be regarded as a profession and what measures can be taken to assist it in that direction.

14.5 Professional Nature of Library and Information Service

The medical doctor uses his scientific knowledge of biology, physiology, chemistry and many other sciences to diagnose illness of the patient and to prescribe remedies to cure it. The library and information worker uses his/her knowledge of bibliology, readership and information science to transmit to the concerned person the correct information in the correct format for his/her particular purpose. The librarian's professional skill is therefore based on scientific knowledge and on a commodity by means of which a new state of affairs can be created. S.I.Malan in his book "Library Science and Information Service : a general orientation" (Butter worths,1978, chapter 5) has drawn a noteworthy analogue thus : "A doctor uses his scientific knowledge to determine the nature of indisposition (diagnosis) and to use remedies (medicines) to change the conditional (cure) of the sick person (patient). The library and information worker uses his own particular scientific knowledge to analyse the need (diagnosis) so that he can determine what means (documents and/or information) should be used to change the condition (inform/educate) of the user (reader)." In a profession scientific basis of knowledge is used to develop and enrich its practice. However the opposite is also valid. The practice can also help us to expand the scientific basis of knowledge. The growth of librarianship is perhaps best reflected in the changing nomenclature from the term library economy" used in earlier days, "library service" and "library science" followed by the current usage of "library and information science" to describe the field.

Various professions have evolved. Each has a well-defined objectives, a set of techniques and skills and above all a set of rules to which practitioners adhere. Library and information workers are always concerned with a practitioner/client situation in the profession. The rules determining the behaviour with the professional practice must be associated with ethics. The ethical view is manifest in librarian's conscious efforts to keep himself above controversy. Where the professional/client relation rest on a personal and indi-

basis in a service situation, ethical norms determine the relation. These norms protect the profession, the client and professional acting within the bounds of ethical norms. These ethical duties of a profession are referred to as professional obligation.

14.6 Scope of the Profession

The scope is determined by the range, the status and the developmental level of the profession. The range of library and information profession covers the area of informal education and the provision of information. The whole issue of unity of librarianship and information science concerns the range of profession. The status of the profession is determined by the degree of acceptance by the public or client of the attained expertise of the professional practitioners. For example, in illness the services of a medical practioner is called in; in the event of legal problem, the services of lawyears are used; and of information is required librarians and information workers serve themselves. This demonstrates the status of the professional service in the society.

Full professional status is achieved through professionalisation of profession. Professionalisation refers to the level already attained by the given profession. Professionalisation, observes Herbest Blumer in his preface to *professionalisation* (edited by Vollmer and Mills. P.XI) "seeks to clothe a given area with standard of excellence to establish rules of conduct, to develop a sense of responsibility, to set criteria for recruitment and training, to ensure a measure of protection for members, to establish collective control over the area, and to elevate it to a position of dignity and social standing in the society."

In addition to training and education, the spread of professionalism in the library world can be linked with the founding and growth of professional library associations in each country. Majority of the associations have as a common aim the improvement and strengthening of library service and librarionship. This is accomplished through publishing, conferences, continuing education workshops, development of standards and guidlines and similar other activities. Internationalism co-operation and understanding in promoting the advancement in knowledge and availability of information.

The status of the librarian in the society varies in each country. In some, emphasis on education means the librarians are seen as scholars and are highly respected. In others, they may be seen as clerks. Still lack of qualified staff hinders the development of library service in a few countries.

14.7 Professional Ethics

Librarianship as a vocation has evolved through the ages, allowing values to accrue to the principles observed, in the long sojourn of human civilisation. They might have undergone certain metamorphosis, but whatever changes have occured have historical sanction,

inspired by the compulsion of transformation in the changing social context. There may have changes in the form and number of graphic records, quantitative and quantitative changes in the composition and character of clienteles changes in the methods of organisation and dissemination of information but the basic pursuit for truth in the written word and faith in the development of individual remains as ever. The code of ethics is therefore, expected to stimulate clear ideas about what librarians have got to do and facilitate their capacity to project to others their sense of high purpose.

In a professional code, duties and responsibilities must be differentiated. Duties are activities that have to be performed in the work situation, whereas ethical responsibilities express attitudes of the professional practitioners toward his client and toward institution he serves and toward community in which he works. ALA first provided the professional librarians with a written code of ethics in 1939 and it was last revised in 1981.

The code of ethics clearly states that the librarian should perform his duties with realisation of the fact that final jurisdiction over the administration of the library rests in the officially constituted governing authority. It is the librarian's responsibility to more the resources and the services of the library known and available to its users. Imperial service must be rendered to all who are the members of the library. It is the librarian who should try his best to protect and preserve the resources of his library. Library profession has long been considered as an essential and service profession. Therefore, the motto to serve the community, and realisation of the value of library service rests on him. He is the mirror of a service oriented educational work in the society. So the conduct of a librarian should be such as to maintain public esteem for the library and library work.

To the serious-minded librarian, life has been compared to the priest, physician and teacher, offering as it does scope for active good, in the widest possible degree. Librarianship is a high calling, worthy of the best preparation, and most consistent study. Acquisition of a significant body of knowledge and specific technological skill is essential for any type of profession. This is true for library and information profession too.

Ethics deals with the principles for judging right and wrong. Whether there are principles other than "might makes right" has been debted since plato. If power plays a key role in issues such as the above, information professionals can ask how to control power in the interest of the just, the right or the good. If knowledge is power - as assorted by Bacon – how is it to be regulated? Who can own knowledge and who has the right to control it? Powerful people can often bend those with knowledge to their will, calling into question simplistic interpretation of "knowledge is power."

14.8 Observations

The role of librarian and information worker in the future is subject of debate. Some see an enhanced role as activities such as on time databases searching make them more visible.

Others suspect that librarian's role will be deprofessionalised as users gain increased direct access to databases outside the context of the library.

What saves librarians from shipwreek, what keeps society functioning more or less permanently, is and always has been efficient communication. The responsibility for ensuring a smooth and effective flow of communication based on records, of whatever form, lies with the library and information service for an efficient and pleasurable flow of information what we require in a smooth running canal and not Niagra Falls. Innundation by torrent of instant information often leads to instant mental obliview. Our professionalism for the future should not lie in the formation of elite-or-wise, several elites-seperate from real people because of the mystry of specialist training and skills and our ability to control the flood of documents which pour out from every well and mine of information. True professionalism certainly implies this kind of expertise, but it also means an awareness of developing needs of society what it expects. If we can find inspiration from this concept of profession, then we can look forward to a bright future.

14.9 Exercise

1. Discuss the basic characteristics of the profession.
2. How the dignity of the profession is achieved?
3. Describe the professional ethics required to be introduced for librarians.
4. What are the professional duties?

14.10 Reading lists

1. Carroll, C Edward.: The professionalization of education for librarianship. Meluchen, Scarecrow, 1970, Chapter-1.
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4. Paton, N.B.: The profession of librarianship. Library Association Record. 1962, 64(10), 367-372.
5. Shera, Jesse H.: The Foundation of education for librarianship. New York. John Wiley, 1972, PP66-74.
6. Vollmer, H.M. and Millo, D.Eds.: Professionalization, Prentice-Hall, 1966.

Unit 15 □ Library Professional Associations

Structure

15.1 Introduction

The definition of what constituted a profession was formulated during the early part of 20th century. The emergence of librarianship as recognised profession is a fairly modern development. Librarianship became more conscious of its status and occupational identity as did many other fields in the latter part of the 19th century.

Although the list of characteristics of a profession varies, the following attributes may be cited for our purpose :

1. A body of theoretical knowledge and specialised knowledge ;

2. A set of applied techniques for practice;

3. The establishment of formal educational programme;

4. The development of code of ethics;

5. A representative association which monitors general standards of activity;

6. A service orientation to clients; and

7. Recognition from a significant number of non-practioners.

There major steps have been taken by the librarians towards the professionalisation of their occupation and toward making themselves professional people. The three major steps are :

(a) The establishment of professional association which according to Carr-Saunders and Wilson, usually occurs as soon as a profession emerges; (b) the development of educational programmes to provide the specialised intellectual study and training necessary for providing skilled service; and (c) the production of a body of literature, part of which supports the skills that characterise the profession.

15.2 Association

The term ''association'' means the union of persons in a society for some common purpose. In fact association is an organisation formed to effect certain functions. An association is what its members make by their active participation in its programmes and activities. Thus there are business associations, educational associations, political associations, religious associations and so on. The functions of an association depend on the particular pursuit for which the association is formed. Professional associations are made up of, by and for the professionals in the fields concerned. The existence of a profession rests on the bonds between the practioners and these bonds can take but one shape—that of formed assocation. Thus the spead of professionalism in the library field can be linked with the founding and growth of library associations in each country.

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15.3 Library Associations

Library associations are learned societies. They strive for the advancement of the profession and the professionals. During the last hundred twenty five years bond between librarians and library practitioners developed and took the shape of formal associations with the growth of librarianship as a profession. In 1852, a group of men—librarians, scholars, teachers, and clergymen—"believing that knowledge of books; and the foundation and management of collection of them for public use" could be promoted by consultation among librarians and other interested in bibliographical activities, met in New York for the purpose. Taking hint from the meeting, a few library devotees proposed in May 1876 a like gethering in connection with the Great Exhibition in Philadelphia that year. The announcement of the meeting held in October was sent to the leading libraries and to the librarians abroad. The countries which were first in the field of library movement were naturally the first to forms such professional were naturally the first to form such professional associations.

The American Library Association (ALA) was formally inaugurated on October 4, 1876 and was followed, only year later by the Library Associaton (LA) in the United Kingdom. At present every country has library associations. In many countries, library associations have played their part perfectly well and helped in spreading library movement and in ensuring better library service. After the formation of the ALA and the LA several library associations of many different kinds have been established, each with definite aims and objectives.

15.3.1 Aims and objectives

Library associations are established with the following aims and objectives :
1. To unite all persons engaged or interested in library profession.
2. To promote the cause of libraries and the professions.
3. To work for the enactment of library legislation.
4. To work for the improvement of professional status and the working conditions of the professionals.
5. To work for the sharing of resources and avoiding dupncaton of efforts.
6. To provide a common forum for library professionals for exchange of inforamtion, ideas, experiences and expertise.
7. To create and publish professioanl literature.
8. To work for manpower development for library and infomation work by establishing proper training institutes.
9. To conduct research for the advancement of library and information science.

10. To promote bibliographical research and to issue bibliographical publications.
11. To bring its members into close relation with each other, with government, eminent persons in other fields and members of the other library associations at national and international level;
12. To work for standardisation of library practies and library requisites;
13. To find out solutions for the adhoc professional problems.

The overall objectives of library association is to strengthen and expand the library movement in the country. In other words library association should be the backbone of library movement in a country for speading knowledge. The broad sweep of library development is more and more dependent on to professional planning, foresight, understanding and activity which are fostered by library associations.

15.3.2 Activities

To realise the aims and objectives as mentioned above the library associations understand the following activities :
1. Conducting survey of library facilities and services to as ascertain the existing conditions as to take necessary steps for improvement.
2. Holding library conferences, seminars, meetings, lectures, etc. to provide opportunities for the professionals to meet, discuss and exchange ideas and experiences.
3. Conducting training courses and organising programmes of continuing education of the professionals for self-improvement.
4. Creating, publishing, and encouraging publication of the professional literature :
5. Establishing encouraging adoption of standards t6 improve the quality of library services.
6. Establishing principles to guide the professionals in the performance of their duties.
7. Functioning as an accrediting body to maintain proper standards in library education.
8. Maintaining relations and cooperation with other library assooiaton of various levels within and outside the country.
9. Encouraging libraries to promote resource sharing and extension services.
10. Organising user education programmes, library week, book fairs, and similar activities to promote library consciousness among the people and popularise libraries.
11. Building up and instilling into the minds of the professionals a code, an ethics of

conduct vis-a-vis their communities in order to preserve the professional respectibility.

12. Fighting for beter conditions of service, betterment of salary grades of library professionals.

13. Setting up an employment bureau or maintaining a panel for advertising the prospective employers and employees on job opportunities.

14. Instituting prizes, rewards for library science students and professionals.

15. Maintaining liason with book trade and its association for solving mutual problems of a equisition.

By serveral such activities, the library associations can help not only the profession but also the development of library services. If fact library associations should present the collective opinion and thought in all matters of library profession and service, which the authorities should treat with respect and consideration.

Library associations are of many different kinds. They can be international, national, regional, state or they can be even more limited by being directed to one particular area of activity, such as music, medical, or agricultural libraries. We shall present in this chapter a general account of the representative library associations of USA, UK and India. Associations at international level will be taken up later.

15.4 The United States

In the USA there are national library association, regional associations, as well as individual state library associations. Further more the USA is also covered by a number of specialist bodies examplies being the Music Library Association and the Special Libraries Association.

15.4.1 American Library Association (ALA)

ALA was founded on October 4, 1876 by a band of enthusiastic American librarians. Prominent among the pioneers were Melvil Dewey, Tustin Winsor and William M. Poole. It has the uniqueness of being the oldest library assocation in the world. Melvil Dewey was the first Secretary. The objective of the newly formed association was, "to promote the library interest of the country by exchanging views, reaching conclusions, and inducing cooperation in all departments of bibliothecal science and economy, by disposing the public mind to the founding and improving the libraries; and by cultivating good-will among its own members,' The February 28, 1877 issue of *The American Library Journal* carried on its title page, "Official Journal of the American Library

Association". According to its latest constitution, the objective of the ALA is "to promote library service and librarianship".

In addition to formulating standards to raise the level of library service and to ensure professional compelency of librarians the ALA has set up "Code of Ethics for Librarians". Sen 1939 the ALA has been consciously promoting the concept of man's freedom to seek the truth. During that year the Association adopted the "Library Bill of Rights" and "Freedom to Read" in 1953 was drawn up in collaboration with the American Book Publishing council. ALA covers all types of libraries–state, public academic, special libraries etc., serving people in government, industry, armed services, hospitals, prison, and other institutions. The Annual conferences of the ALA in usually, held in June indifferent cities. It conduct a number of seminars, workshops, etc. before and after the conference. Library Science in USA grew with the ALA and in fact, there has been no development in the field in which the ALA was absent. In education and training of library and information sceince, its role has been mainly accreditation and setting up standards. However, the programmes of continuing education are conducted by ALA. It has library technology programme. It maintains effective relationships with more than seventy other library associations in USA, Canda and other countries. It has also been active in international cooperation and relations. It takes been 6 interest in the clarificaion of legislative issues as and when necessary.

ALA has impressive and outstanding publication programmes. It has no far brought out more than 2200 titles including significent contributions like ALA catalogue and AACR. Its official organ is *American Libraries* (previously ALA Bulletin). Other periodical publications are *ALA Year book* ALA *Handbook of organisation and Membership Directory (Annual), Booklist (22 issues)* and *Choice (11 issue)* Besides, it has brought out numerous books, proceedings, of the annual conferences and audio-visual materials in many phases of library work.

ALA has instituted several awards in the name of eminent professionals to recognise the outstanding performance of the working professionals, for example. Melvil Deewey Award for creative professional achievement, John Cotton Dana Library Public Relations Award, Margaret Mann Award for achievements in cataloguing and classification.

ALA has been active in both national and international cooperation and relations. It maintains relations with other organisation concerned with publications, information, communication and disadvantaged people and participates in the performance of Unesco, IFLA and FID and other similar international organistions.

15.5 The United Kingdom

In 1877 E.W.B Nicholson, the Librarian of the London Institution in Finsbury Square

wrote to *the Times* suggesting the need for an international conference of librarians in London. The idea was taken up and the conference was held at the London Institution. The international flavour was reflected by representatives from Australia, Belgium, Denmark, Franch, Germany, Greece, Italy, the UK and the US. On the last day of the conference, October 5, 1877 it was resolved, "that a Library association of the United Kingdom be founded". In 1896 the words "Of the United Kingdom" were dropped from the title of the Library Association presumably to widen its influence.

15.5.1 The Library Association (LA)

In the United Kingdom the oldest and the larget organisation for librarians in the Library Association. In 1898 it was granted a Royal Charter and its text includes such phrases as "to promote the better administration of libraries" and 'to watch any legislation." The LA became a wholly professional association in 1962 when new buy-laws came into operation.

The Association in controlled by a 60 member council elected by the members. The LA has a number of departments devoted to various aspects of librarianship and library service. The Association is advised by four committees : Executive Coordinating, General purpose, Library Services and Professional Development and Education.

The objectives of the LA are : the establishment and improvement of libraries in UK; the promotion of legislation; the encouragement of research; and the better training of librarians.

The activities of the Association include legislation and development of public libraries, academic libraries, and special libraries, professional education and examination. It maintains the register of professionally qualified members. These qualified members are known as chartered librarians and are of two categories :

Associates who are fully trained and professionally educated librarians and Fellows (FLA), who have successfully completed additional work at an advanced level of prove their ability in special areas of librarianship. The Association maintain a good library, open to all members. The Association holds annual conference regularly. It organises a number of short courses on currently important topics in library and information science.

The publication committee of the LA is very active. It publishes books, pamphlets, indexes, abstracts and bibliographics. Some noteworthy publications are : *British Humanities Index (Quarterly) Current Technological Index (Monthly), Library Association Record (monthly). Library and Information Science Abstracts (Bi-monthly), Journal of Librarianship ana Information Scence (Quartely) and Curent Research of Library and Information Sceince (Three issues).* One of the important publications is the *Walford's Guide to Reference Materials.*

The Library Association took active initiative in enacting the Public Library Acts of

1892 and 1919 and revising the bye-laws of the Public Libraries and Museums Act of 1964. It has been active in clarifying issues arising from legislations. It has kept a watchful eye on such issues such as censorship and copyright.

The LA makes bilateral contact with the ALA supports the work of IFLA (International Federation of Library Asociations and Institutions) and cooperate in many ways with Unesco. It assists the British Council in implementing its assistance programme in developing countries.

The LA has a scheme of instituting awards to recognise excellence and outstanding performance in library and information science. For example, Wheatly Medal, for outstanding index, Besterman Medal for outstanding bibliography and Mc Colvin Medal for best reference book.

15.5.2 The Association of Special Libraries and Information Bureau (Aslib).

The Aslib was established in 1924 with the little Association of special Libraries and Information Bureau. This professional Association remained the principal focus in Great Britain of cooperative activity and of efforts to promote special librarianship and information services and earned a great reputation in the professional field. In 1983, however, the Associaton extended its activities to keep pace with expanding horizon of information and renamed it as the Association for Information Management. But the present name carries the same acronym since the Association has alredy been well-known as *Aslib.*

The Association was established with the aim to "facilitate the coordination and systematic use of sources of knowledge and information in all public affairs and in industry and commerce and in all the arts and science." It has extended its activities with a view to increasing the contribution of information to the economic, social and cultural life of the community by the promotion of effective information mamagement. Specialities include information technology and online services. Groups and branches have been formed in certain interest or geographical areas to promote useful contacts and discussion between their members. The groups includes the following areas : audio-visual, biological and agricultural sciences, chemical, computer, economic and business information, electronics, engineering, informaties, social sciences, technical translation, and transport and planning.

The Association now concentrates on information services, publications and professional development. It abandoned its research role in 1985. It keeps registers of specialists translators and maintains an index of translation into English of articles on scientific and technical subjects. It organises conferences, seminars, and study circles from time to time.

The association publishes the following :

Aslib Proceedings (Monthly), Aslib Information (10 issues per year), Records Management Journal (Quarterly), Program (Quarterly), Current Awareness Bulletin (10 issues), Online Notes (10 issues), IT Link (10 issues), Critique (10 issues), Journal of Documentation (Quarterly), Aslib Booklist (Monthly).

The occassional publications of the Association consist of monographs, directorcis, reports, conference proceedings, bibliographics, and others. *Aslib's Handbook of Special Librarianship and Inforamtion* work (5th ed. 1985), serves as a valuable guide for organising library and information services and systems.

15.6 Indian Scene

The first library Association to be founded in India can be traced to that of Library club organised by W.C. Borden in Baroda State in 1912. The Club was later replaced by the Baroda Library Association in 1924. Andhra Wesa Library Association was formed in 1914. As an appendage to the Indian Science Congress of 1918, a conference of librarians was convened by the Government of India, for the first time wherein were discussed problems including library cooperation, training of library assistants, compilation of catalogues etc. The first All India Public Library conference was held at Madras in 1919. The Indian National Congress was the inspiration behind the formation of library as.ociation in Maharastra (1921), Bengal (1925), Madras (1928) and so on. Thus in course of time several state library associations came into being and became the fore-runners of the Indian Library Association. India, at present, has many national and state level associations. There are also associations devoted to special categories of libraries and subject fields.

15.6.1 Indian Library Association (ILA)

The ILA was founded in September, 1933 at Calcutta, It is now an all India organisation of library professionals and others interested in promoting library movement in India.

The ILA constitution lays down the following objectives :

1. Promotion of library movements.
2. Enactment of library legislation and improvement of library services.
3. Promotion of library science education and training.
4. Promotion of cooperation among libraries and library professionals.
5. Promotion of bibliographical study and research in library sceince.
6. Improvement of salary, service conditions and status of library personnel.
7. Affiliation with the state and other library associations.

8. Publication of bulletins, periodicals and others which will help the realisation of the objectives of the association.

9. Providing a common forum to all persons engaged and interested in library and information work by organising conferences, seminars and meetings.

10. Promotion and formulation of standards, norms, guidelines etc, for management of library and inforamtion systems and services.

11. Accreditation of institutions imparting library and information education and training.

Activities of the Association include holding of annual conferences and seminars, planning of continuing education programme, taking up certain professional issues such as library legislations, offering consultancy service and bringing out publications.

Its publications include ILA Bulletin, ILA News letter, ILA Members Directory and other publications.

ILA with its headquarter in Delhi, is a member of IFLA and COMLA. It organised the IFLA Universal Availability of Publications (UAP) Regional Seminar in October, 1985 on New Delhi. It hosted 58th IFLA General Conference, from Aug 30-Sept. 5, 1992 in New Delhi.

15.6.2 Indian Association of Special Libraries and Information Centre (IASLIC)

IASLIC was founded in Calcutta in 1955. The Association aims to work on the lines of Aslib, UK and SLA, USA.

The Association was founded to promote cooperation among special libraries of scientific institutions, learned societies, academic bodies, commercial houses and industrial research establishments to encourage and promote the systematic acquisition, organisation and dissemination of knowledge ; to act as a centre of research in special librarianship and documentation techniques and to look after the professional welfare, to improve technical efficiency of workers in special libraries, information centres and to look after thier professional welfare, and to fulfil similar other objectives.

The major activities of the association include holding annaul conference and seminars, organising study circles for special lectures, publishing literature in the library and information sciences and conducting short-term documentation and inforamtion science cousses.

The major publications of IASLIC are : IASLIC Bulletin (Quarterly), IASLIC Newsletter (Monthly), Indian Library Science Abstract (Quarterly). It published the second edition of the *Directories of Special and Research Libraries in India in* 1985.

IASLIC is affiliated to IFLA and FID. It maintains a good relation with the ILA and

other associations in the country. It cooperates with the National Information System in Science and Technology (NISSAT) by taking up specific assignments and projects. Is is represented in the Bureau of Indian Standards through Committee on Documentation Standards.

15.7 States

Allmost all the States in India have their own Library Association. Some of them have been very active. A few of them are ever oldest than the Indian Library Association. The State library associations confine their activities mainly to the promotion of public libraries, conducting training courses, holding cenferencs and bringing out Journals and other publications. We shall discuss in brief about two associations.

15.7.1 Bengal Library Association (BLA)

It is the blessing of Rabindranath Tagore for All Bengal Library Association (BLA) was established in 1925. The association ended its function after a conference held in 1931. Later, as a result of sincere effort of Kumar Manindra Dev Roy, the association again re-established and the name became Bengal Library Association. It holds annual conference; organises seminars, celibrates "library day" and "library week" It publishes monthly Bengali Journal, "Ganthagar" regularly. The association conducts certificate course in library and information science, organises seminars and workshops on computers etc. It plays a vital role in library movement. It has published a directory of Libraries. The association has a scheme of instituting award to writiers of excellent article published in "Granthagar"

15.7.2 Delhi Library Association (DLA)

The DLA was established in August, 1953. It has been conducting a certificate course in library science since 1955. It organises a P.G. Diploma course in library science sence 1972. The DLA, from line to line, organises seminars, exhibitions, lectures etc. It holds competitoin among students with a view to give competion on increasing reading habits of the school students. It publishers journal "Library Heral" (Quarterly). The DLA published monthly journal "Indian Press Index from 1968.

15.8 International Organisations

We have noted that professional associations play a significant role in the development of a profession and its personnel. There are many profe..sional organisations at

international level activity engaged in the professional development. There are specialist organisations such as International Association of Agricultural Libraries and Documentalists (established in 1955 in England) and A International Association of Music Libraries (formed in 1951 in Paris). Some organisations are general in nature and cover a wide filed. Here we shall present descriptive accounts of two such well-established professional organistion.

15.8.1 International Federation of Library Associations and Institutions (IFLA)

IFLA is a non-governmental professional oganisation. During the celebration of the 50th anniversary (September 30, 1927), of the Library Association (UK), when represnetative of library associations from 15 countries signed a resolution that can be regarded as the foundation of IFLA. It was founded in 1929 with the aim of promoting international contact among librarians and library associations. It was in fact, an Association of library associations (International Federation of Library Associations.) aiming at the organisation of regular world conferences. Its secretariate was localed in Munich. Its structure consisted of a General Council and Executive Board. In 1961 IFLA held the International Conference on Cataloging Principles in Paris. In 1971 an energetic President, Herman Liabaers brought the Secretariate to the Hague and stepped up its activities. A new structure for IFLA was approved by the council in Lausanne in 1976. The name of the organisation was extended to include institutions (libraries, library scholos, bibliographic institutes). Scince 1976 IFLA has two main categoreis of members, Association and Institutional.

IFLA is now quite active international organisation and cooperates with other international organisations. such as FID and UNESCO in the matters concerning library and related fileds. Its purpose is to promote international understanding, cooperation, discussion, research and development in all fields of library activity, including bibliography, information services and the education of personnel and to provide a body through which librarianship can be represented in matters of international interest. Many of the IFLA's activities are organised within the framework of one or other of its core programme, which include those concerned with Universal Bibliographic Control (UBC), International MARC Programme (IMP), Universal Availability of Publication (UAP), Tranborder Data Flow (TDF), Preservation and conservation core programme (PAC) and the Advancement of Librarianship in the third world (ALP).

UBC : The aim of UBC is to place responsibility for the creation of bibliographic records on the country of publication of documents to which they refer and to ensure that the records are made available to the international community in accordance with international bibliographic standards and procedures. The standards that have been resulted since the programme was launched in 1973 have been the products of IFLA

working groups and are now widely accepted as a basis for bibliographic cooperation. They included the series of International Standard Bibliographic Description (ISBD), rules for determining the form of names of anonymous classics and corporate bodies and guidelines for the production of national bibliographic and union catalogues and serials. Other project included those flowing from the International cataloguing-in-publications meeting in Ottowa, August 1982 such as the preparation of a standard format for the cataloguing-in-publication (CIP) entries of books. UBC activities have received considerable support from the General Information Programme of Unesco.

IMP : IFLA's International MARC (Machine Readable Cataloguing) Programme developed from the UBC initiative. The programme was established officially in 1983. Its purpose is to enable national machine-readable bibliographic records to be used outside their country of origin. This programme consists of two main project components. The first, in the Deulche Bibliothek an Franfurt, is concerned mainly with International MARC applicaton and UNIMARC (Universal MARC) testing. The second, in the British Library, is primarily responsible for the continous maintenance, revision and devlopment of the UNIMARC format.

UAP : According to this programme each country should be responsible for supplying its own publications by loan or photocopy on request to other countries. This programme ensures such matters as intertebray lending, exchange of publication, legal deposit, copyright and cooperative acquisition schemes.

TDF : It deals with the promotion of electronic transfer of data among libraries accross national borders. It is concerned with the improvement of access to computerised databases.

PAC : This programme is concerned with the physical deterioration of library and information materials.

ALP : The aim of this programme is to stimulate horizontal cooperation among the countries of the Third Wrold.

Periodical Publications of the IFLA are the quarterly *IFLA Journal,* and *International Cataloguing. IFLA Annaul* and IFLA directory (biennial) are also issued. The IFLA brings out a library journal called *LIBRI* and a series of monographs, proceedings, bulletins and UBC publications.

India is represented in the Executive Board of IFLA. In 1985 ILA organised for IFLA a regional seminar on UAP in New Delhi. The IFLA also held the 1992 General Conference in New Delhi.

15.8.2 International Federation for Information and Documentation

Federation International De Information Documentation is the oldest international organisation of institutions and individuals who are developing, producing, researching and using information products, information systems and methods are directly or indirectly involved in the management of information. It is a non-government body. Two Belgian bibliographers, Paul otlet and Henri La Fontaine were regarded as the founding fathers of FID. In September 1985 FID was founded as the Institute Internationale de Bibliograhie (IIB) at Brussels. This was in 1895 when two Belgium bibliographers were working on Universal bibliography under the ouspices of IIB. The projected compilation was called Universal Bibliographic Repertory, a comprehensive classified index to all published information. At the same time the main objective of IIB was the compilation of repertory of knowledge and the development of the Universal Decimal Classification from the Dewey Decimal Classification for providing order and access to the bibliographical entries in the repertory. While the project had failed the development of UDC continued.

In 1931 the IIB became the IID (Institute Internationale de Documentation). In 1938 it became the Federation International de Documentation (FID), with its headquarter at The Hegue in Netherlands. In 1986 the word *information* was added to the name but the acronym in retained.

Upto the end of the year 1991 it was the duty of the FID to update the UDC. Then this responsibility was transferred to a new organisation named UDC consortium (UDCC).

FID had to face crucial financial hardship and the situation compelled the organisation to stop functioning during the year 2002. It could not repay the loans and even the payment of salary to the staff. The tenure of the then council expired at the end of the year 2001. There held no election. Practically, FID became non-functing body, if the FID would not be dissolved. The headquarter of FID at Hague is now under the control of Royal Library, whose responsibility has been conferred upon the UDC Consortium.

15.9 Observations

Professional associations can gear up library development through professional planning, farsight, understanding and involvement. The solidarity of the profession is a pre-requisite to work for a common cause. The strength and effectiveness of professional associations very much reflect this solidarity. Professional associatons, if they play this part properly, can help speceading library movement in a country and ensured better library service. Library Associatons in DSA and UK, as described earlier, have long and distinguished record of activities and service. They have been pattern setters for the

creation and organisation of national associations in many countries. With a creditable record of performance of the past and well organised structure in the present, the future of the library association in USA and UK is one of hope and promise. They have built up the image of the ideal library profession.

15.10 Exercise

1. Discuss the activities of Indian Library Association.
2. Give a list of publications of IASLIC.
3. Describe the international activities of ALA.
4. Narrate the publications of LA
5. Discuss the aims and objectives of UBC.
6. Give an account of the present condition of FID.

15.11 Reading list

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Unit 16 □ Organisations, System and Centres : Their Library and Information Activities

16.1 Introduction

There are many national and international organisations, and also systems and centres actively engaged in the promotion, cooperation and development of library and information services. They have profound and outstanding contribution in library and information world. We shall discuss about some of the international and national level organisation, systems and centres. In the first stage there are UNESCO, INIS, AGRIS and in second stage there are UGC, RRRLF, NISSAT, NISCAIR, NASSDOC and DESIDOC. These organisations extend best possible efforts for the development of cooperation and relations for information, skills, and distribution of experience and exchange of ideas etc.

16.2 International Organisations

We have noted that there are many professional organisations at international level actively engaged in the professional development. The Unesco, an inter-governmental agency belong to the United Nations, works on library, documentation and information. Unesco helps its member countries for the growth and development in the sphere of technology, standardisation, training, computerisation, regional planning etc.

16.2.1 Unesco

Unesco was founded by representatives of 20 countries in London on November, 16, 1946. Now it has its headquarter in Paris. Unesco is commited to the objectives defined by its constitution. to encourage international intellectual cooperaton, speed up development through operational assistance to member-states, promote peace, human rights and international understanding. Since its inception, Unesco has been active in promotion, coordination and development of library activities, documentation and information services. While the role of Unesco has been one of promotional, advisory and catatigtie in nature, its involvement is in the nature of operating projects, holding conferences, seminars and meetings, providing experts, equipment and fellowship, preparing standards and guidelines, publishing manuals and doing similar others. Unesco has concrete steps in the development of public libraries, in the elevation of national libraries and in the improvement of university libraries in many of its member states.

In 1967 Unesco joined forces with the International Council of Scientific Union (ICSU) to carry out feasibility study on the establishment of a World Science Information

System, UNISIST. The launching of UNISIST programme in 1973 and the formation of PGI (General Information Programme) Division in 1976 marked a new phase in Unesco's work in information field. The PGI, the initials of is French name (Programme General d' information) was set up by the decision of the General conference of Unesco at its 19th Session in 1976. PGI committed to promote the dissemination of specialised information of use of economic and social development, especially in the Third World. Uner the UNISIST programme, standards, rules, methods, principles and techniques for the processing and transfer of information are adopted and applied internationally.

A second conference the International conference scientific and Technological Information for Development—UNISIST-II—Was held in Paris in 1979 to review developments sence UNISIST conference of 1971 and to make recommendations for the future.

The UNISIST II recommendations emphasized the application of information–particularly scientific and technological information–in the service of development, the importance of developing user-oriented information systems, the need for national information policies and planning and the importance of education and training. The major thrust in PGI's current work is on promoting computer application to library and information activities in developing countries, and use of information technologies in network development and online facilities for sharing and exchanging information from local area to international level.

Three micro computer based software packages have been provided free of charge to non-profit organisations in the developing world. One of the packages in the mini-micro version of Computerised Documentation System / Integrated set of Information Systems (CDS/ISIS) software.

At the regional level, programmes are launched in informationi exchange and development of information systems, often with the help of founding agencies such as UNDP. For example, a Regional Network for the Exchange of Information and Experience in Science and Technology in Asia and the Pacific (ASTINFO) was established in 1984, Asia Pacific Information Network in social Sciences (APINESS) was launched in 1986; and the Asian Pacific Information Network on Medicinal and Aromatic Plants (APINMAP) is in the process.

The Common Communication Format (CCF) was published by Unesco in 1984 and a second edition was published in 1988. The purpose of the CCF is to provide a detailed and structured method for recording a number of mandatory and optional data elements in a computer–readable bibliographic record for exchange purposes between two or more computer-based systems.

Unesco's assistance to developing countries in establishing and developing information institutions, systems and service has been substantial.

In the field of archives Unesco collaborates with the International council of Archives. In the field of libraries, Unesco collaborates with the IFLA. In this context a special concern is an international strategy to ensure universal accessibility to publications. Particular mention should be made regarding cooperation with the Committee on Data for Science and Technology (CODATA), established by International Council of Scientific Union (ICSU). This cooperation has been effective in area of data sources and data handling in general.

The *Unesco Journal of Information Science, librarianship and archives administration*, published quarterly replaced the *Unesco bulletin* (bi-monthly), at the beginning of 1979. However, this publication has now ceased. *UNISIST Newsletter* is issued quarterly. Unesco published *Index Translationum* an annual catalogue of translations published in the form of monographs in the member states of Unesco. It is concerned only with books. Other publications of Unesco include monographs manuals handbooks, standards, guidelines, seminar proceedings and similar others.

16.3 National Organisations

16.3.1 University Grants Commission (UGC)

In order to determine and maintain standards in the Universities the UGC was established in 1952 and was constituted as a statutory body under the Act of Parliament in 1956. It has become a national body to coordinate, to determine and to maintain standard of the University education. The UGC serves as a pivotal link between the union and state governments and the institutions of higher learning. In performing its basic functions, the UGC allocates and distributed grants places at its disposal by the Central Government to the universities, after an assessment of their needs. In addition to its role of giving grants to Universities and College, the Commission also advises central and state governments on the measures necessary for the improvement of higher education.

The primary responsibility of the Commission is to promote and coordinate University education in the country and to ensure that the standards in teaching, examination and research are maintained properly. The Commisson is maintaining higher education in the country has also played an effective role in promoting library and information services in Universities and Colleges. It has also established a number of libraries / information

centres and constituted a number of committees to provide quality of education and services in the field of library and information activities.

UGC's activities include :

1) Financial assistance to University and College libraries.

2) Curiculum Development Committee (CDS) on library and information science.

3) Establishment of information centres.

4) Establishment of INFLIBNET.

5) Modernisation of University libraries.

6) National Review Committee on University and College Libraries.

16.3.1.1. Financial Assistance

In order to meet demands of students, teacheis and research scholars, Universities and Colleges including central and state Universities, deemed Universities, Government and affiliated college receive financial assistance from the UGC for building up libraries. The commission provides grants for the acquisition of books and periodicals. For other infrastructural facilities like library buildings, furniture and equipment grants and given in every five years.

16.3.1.2 Curriculum Development Committee (CDC)

The UGC constituted CDS on Library and Information Science in 1990 to restructure the courses of studies. The Committee in its recommendation framed guidelines for Library and Information Science Schools covering admission policy, students and faculty strength, teaching aids etc. the UGC constituted committee called UGC Panel in Library and Information Science to suggest improvement in the education and training of library and Information Science Courses.

16.3.1.3 Establishment of National Information Centres

In order to provide improved accens to information and to provide bibliographic support to teachers and research scholars in their respective fields the UGC has so far established the following three centres which have developed computerised databases to render reference services, documentation services and current awareness services.

1. National Centre for Science Information. Indian Institute of Science Bangalore.

2. Maharaja Sayajirao University for Social Science and Humanities, Baroda.

3. SNDT women's University for Social Sciences and Humanities, Bombay.

16.3.1.4 INFLIBNET

The UGC, taking into consideration of twin phenomena of information explosion and price rise, decided to take a quantum jump into new era, by setting up an "Inter-Agency Working Group for Development of Information and Library Network." popularly known as INFLIBNET in April, 1991 with headquarter at Ahmedabad, INFLIBNET is to be a computer communication network for linking libraries and information centres in Universities, deemed Universities, institutions of national importance, UGC information centres, R & D institutions and college.

16.3.1.5 Modernisation of University Libraries

Advance in information technology and its utility to prove fast and efficient computerised information services to users have encouraged University Libraries to computerise their serivces and to connect themselves to various network programmes like INFLIBNET. The UGC provided special financial assistance to central University libraires (2 crores ruppees) and University libraries set up before in dependence (50 lakhs rupees) during the 1994-95 and 1995-96 financial years for moderning library services. The role objective was to computerise library activities and to participate in the INFLIBNET programme.

16.3.1.6 National Review Committee

A review Committee was constituted to review the utilisation of grants to central Universities and some state Univerisity libraries. The committee will prepare a report of University and college libraries in India and prepare a strategy plan / guideline for the smooth functioning of these libraries.

As a part of coordination and maintenance of standards of higher education, the UGC has set up an Inter-University Institution of quality assessment and accreditation for carrying out periodical assessment of Universities and colleges. This is named as National Assessment and Accreditation council (NAAC) and it was set up in 1994 under section 12 ccc of UGC Act. Though assessment and accreditation is voluntary on the part of the institutions, UGC has already indicated that its plan-based development support to educational institutions will be related to the outcome of assessment and accreditation. It has already extended financial support to the extent of Rs. 5 lakhs to each univerisity to meet the expenses involved in undergoing the accreditation process. Librarise, the autonomous colleges are provided with financial support of this purpose as a part of their annual grant from UGC.

The UGC and the Council of Scienctific and Industrial Research (CSIR) have set up

the National Educational Testing Programmes. It has also set up a national level institution for quality assessment and accreditation.

16.3.2 Raja Rammohan Roy Library Foundation, (RRRLF), Kolkata

During the Fourth Five year Plan the government of India set the Raja Rammohan Roy Library Foundation in 1972 to mark the bi-centenary of the birth of Rammohan Roy (1772-1833), the Father of Modern India. It was therefore, quite fitting that the National Committee for the bi-centenary celebration decided to set up a network of library services in Rammohan Roy's memory which would bring books for millions at their doorsteps and stimulate the library movement in the country. The Foundation came into being as an autonomous organisation under the Department of culture, Ministry of Education (now Ministry of Human Resource Development) with its headquarter in Calcutta. Coincidentally, the vehr 1972 also happen to be International Book Year and the Silver Jubilee Year of our Independence.

The main objective of the Foundation was "to promote and support public library in the country by providing adequate library services and by developing reading habits all over the country." At the beginning of the Foundation, a State Library Planning Committee was established in each State to achieve the objectives of the Foundation.

The activities and programmes of the Foundation include :

a) assistance towards building up to adequate stock of books and other reading and vidual materials;

b) assistance towards development of rural book deposit and mobile library services;

c) arrangement of symposia, seminars, exhibition and cultural activities to create an atmosphere for development of reading habits among the general public;

d) making efforts for the enactment of library legislation, and

e) provide grants to library associations.

Foundation's most significant contributions to the development of library service in the country have been its extension of service of rural areas and its encouragements to indigenous publishing and to the states to undertake library projects. Details of the activities and programmes are given in the Foundation's Information Mannual entitled "Books for the Million at their Doorstep."

The important publications of the RRRLF are :

(1) India : Trends and Perspectives (2) Directory of Indian Public Libraries, (3) Granthana : Indian Journal of Library Studies and (4) Raja Rammohon Roy and New Learning.

16.4 International Information Systems

The programme and activities of the United Nations, Unesco and other agencies have demonstrated the need and value of cooperation among nations in science, technology, education, culture and development programmes. An increasing awareness that information innecessary for planing and strategy formulation in country's relation or interaction with other countries in respect of political, sociological,commercial and technological matters. There is need to more information quickly from the point of generation to points of likely use on a global scale. Technological developments in information processing and communication facilities have now opened up a new opportunity to develop international information systems. The need is felt to systematize or organise information system development instead of haphazard and uneconomic way of dealing with information. All those factors have made it necessary and possible to think in terms of global information systems. It would be proper to discuss in this section some of the trends which are going to influence information services in the future. Two successful international systems namely the International Nuclear Information System (INIS) and the International Information Systems for Agricultural Science and Technology (AGRIS).

The essential features of INIS are : (a) decentralised imput; (b) centralised processing, and (c) decentralised global services.

16.4.1 INIS

INIS sponsored by the International Atomic Energy Agency, Vienna Started functioning April, 1970 since then it has gathered momentum and has set an example for other information systems such as International System for the Agricultural Sciences (AGRIS). Development Sciences information System (DEVSIS), Science Policies Information Exchange System (SPINES).

The salient feature of INIS are : International Information Retrieval System (IR), cooperative venture, assured communication with participants, maximum decentralisation and minimum centralisation, guided standards and rules, computerbased IR system, a document retrieval system, use of Thesaurus for subject quality input, a dynamic and flexible system, machine-readable information service, a mission—oriented system and an IR system.

INIS in an international system for storage and retrieval of bibliographic information on documents in field of nuclear science and technology. Each participant INIS Member State or International Organisation (e.g. ISO, FAO, UNESCO), is responsible to scan, to identity the literature published in the respective geographic regions and to report those pieces of literature falling within the pre-defined subject scope of INIS by categorising,

cataloguing, indexing and abstracting and also making available one copy of the piece of literature which cannot be obtained through normal publication channel. The input so received is chacked, corrected and transferred to machine-readable form at the INIS headquarters. The entire input is merged and processed in the computer to produce an output in magnetic tapes and the printed INIS *Atomindex*. The magnetic tape is available to participants either an a semi-monthly or montly basis : The INIS *Atomindex* an magnetic tapes can be used by the member-state for providing current awareness, selective dissemination of information service.

India has been actively participating in INIS since its inception. The Bhaba Atomic Research Centre serves as the input centre for INIS. It also responsible for reproduction and distribution of *Atomindex*, a semi-monthly indexing and abstracting journals.

16.4.2 AGRIS

AGRIS became operational in 1975 in Rome. It is sponsored by the Food and Agricultural (FAO) of the United Nation. It is modelled on INIS. AGRIS is organised at two levels. AGRIS level one is a co-operative, comprehensive and rapid current awareness service convering all the subject field of FAO's interest. Level Two is a network of service grouped by subject field or mission including specialic information services, data banks and data handling services which would provide specific information through abstract services, intensive index and other form of specific and direct services to users.

The AGRIS Level One is to provide all countries the comprehensive current awarness service in all fields of FAO. The input in standard format is provided by participating countries. The maintenance of AGRIS programme is being done at INIS database at Vienna. The information processed through computer yeild two products every month— printed bibliography AGRINDEX and AGRIS magnetic tape. Indian council of Agricultural Research has been participating in the AGRIS programme since May 1975. It receives every month updated AGRIS magnetic tape and passes on about 4000 bibliographical entries to AGRIS database every year.

16.5 National Information System

The rapid growth of information and the increasing number of people who require informatin demand the development of a suitable information system on a priority basis. Even the advanced countries have realised the need. Even though they have a large number of information centres and services, they find it imperative to evolve a national system to make the best use of their information resources. In India, Science and Technology Plan recognises the need for developing a national scientific and technical

information system on a priority basis.NISSAT was set up first to cover the broad area of science and technology. Then a few national information systems followed for example, Environmental Information System (ENVIS), Biotechnology Information System (BITS) and Patent Information System (PIS).

16.5.1 National Information System for Science and Technology (NISSAT).

The Government of India made a request to UNESCO for a shor-term mission of consultant for advising the government about the establishment of an information network in science and technology. Dr. Peter Lazer who worked as a consultant submitted a report on NISSAT in 1972. The proposal for establishing NISSAT under the Department of Science and Technology (DST) was duly recommended by the Panel Group for the Information Sector of the high powered apex body called the National Committe on Science and Technology (NSCT) for the Five-Year Plan (1974-79). NISSAT was to launched on 13th May 1997. With the reorganisation of the Government of India in 1985, NISSAT was put under the charge of the Department of Scientific and Industrial Research (DSIR) in the Ministry of Science and Technology.

The objectives of NISSAT includes : optimum utilisation of existing information services and systems, provision of information services to meet the present and future need, promotin of national and interational cooperation and liaison for exchange of information, support and active participation in research, development and innovation in information science and communication to enhance both efficiency of information services and quality of information provided by the services and development of manpower.

The main component of NISSAT are the NISSAT National Focal point in the Department of Scientific and Industrial Research and the NISSAT Network services. The NISSAT Network consists of Sectoral Information Centres (SIC), Regional Information Centres (RIC) and other specialised supporting service.

In the first phase (1977-1984) the following four Sectoral centres were set up : National Information Centre for Leather and Applied Industries (NICLAI) at the Central Leather Research Institute, Chennai; National Information Centre for Food Science and Technology (NICFOS) at the Central Food Technology Research Institute, Mysore; National Information Centre for Machine Tools and Production Engineering (NICMAP) at the central Machine Tools Institute, Bangalore; National Information Centre for Drugs and Pharmaceutical (NICDAP) at the Central Drug Research Institute, Lucknow. Later eight more Sectoral centres were established. National Centre for Crystallography (NICRYS) at the Institute of Cryslallography, Madras; National Information Centre for Textile and Allied Subjects (NICTAS) at Ahmedabad Textile Industry's Research

Association, Ahmedabad; National Information centre for Chemical Science (NICHEM) at the National Chemical Laboratory, Pune; Compact Disk (NICDROM) at the National Aeronautical Laboratory, Bangalore; Bibliometrics (NCB) at the Indian National Scientific and Documentation Centre, New Delhi; Advanced ceramics (NICAS) at the Central Glass and Ceramics Research Institute, Kolkata; Management Sceince (NICMAN) at the Indian Institute of Management, Ahmedabad; and Marine Science (NIC MAS) at National Institute of Oceanography, Goa.

Regional Information Centres to act as contact points are yet to be created. NISSAT has been playing an active role in bilateral co-operation programme in Science and Technology Information (STI) with many coutries–such as USA, France, and others within the overall framework of India's agreements on science and Technology. The NISSAT Advisory Committee functions as the National Committee on UNISIST in India as well as for collaboration with UNESCO including ASTINFO project. For the purpose of international database services NISSAT has nine NISSAT Access Centres of International Database Services (NACIDS). NISSAT extends all possible means for study, preparation of bibliography and databases, helping for primary and applied research in library and information science. NISSAT has adopted some initiative for the growth and advancement of resource sharing. For the purpose of using information technology on a national level NISSAT has initiated ADINET in Ahmedabad, BONET in Mumbai, CALIBNET in Kolkata, DELNET in New Delhi, MALIBNET in Mysore and PUNENET in Pune.

NISSAT has been organising and sponsbring computer courses for librarians and information scientists. NISSAT publishes a quarterly newsletter. The following are the network centres sponsored by NISSAT.

Network	Place	Administration
ADINET	Inflibnet, Gujrat University campus, Ahmedabad	Inflibnet Sponsored Committee
BONET	National Centre for Sofware Technology, Bombay	Instititutional Project.
CALIBNET	Regional Computer Centre, Jadavpur Univ., Kolkata	Association
DELNET	Indian International Cenre, New Delhi	Sponsored by ICC
MYLIBNET	CFTRI, Mysore	Institutional Project
PUNET	Bio-Informatics Centre, Pune	Institutional Project

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16.6 National Information and Documentation Centres

Information is the key resource to every country. Information storage is one of man's most fundamental activities. The only reason for storing information is to make it available when required at some later point of time. Among the varied forms or organisation for collection and dissemination of documentary inforamtion, documentation centres are quite important. Nowadays, the term 'information centre' is more commonly used, even though in broad sense documentation centre and information centre may mean the one and the some thing. Strictly speaking, information centre ought to undertake information analysis and supply evaluated data and information, whereas the documentation centers may be satisfied with the function of contents analysis of documentary sources towards pointing out to the existence of raw information. However, the present day information analysis centres undertake higher level functions, which would have otherwise been the responsibility of information centres.

The major services offered by most of the information centres are document collection, cataloguing, indexing and abstracting the production of various types of announcend devices; the searching of literature in the prospective fields including SDI services; the document delivery by means of sale, and lending or photocopying procedures; and evaluation and synthesis.

16.6.1 NISCAIR, Delhi

NISCAIR has been formed on 30th September 2002 with the merger of National Institute of Science Communication (NISCOM) and Indian National Scientific Documentation Centre (INSDOC). The core activity of NISCAIR will be to collct / store, publish and disseminate S & T information through a mix of traditional and modern means which will be benefit different segments of society.

16.6.1.1 Mandate of NISCAIR

a) To provide formal linkages of communication among the scientific community in the formal of research journals in different areas of S & T.

(b) To disseminate S & T information in general public, particularly school students, to inculcate interest in science among them.

(c) To collect, collate and disseminate information on plants and mineral wealth and industrial information infrastructure of the country.

(d) To harness information technology application in information management with particular reference to science communication and modernising libraries.

(e) To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information.

(f) To develop human resource in the field of science communication library, documentation and information science, and S & T information management systems and services.

(g) To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR.

(h) Any other activity in consonance with the mission statement of NISCAIR.

16.6.1.2 Mission Statement

To become the prime custodian of all information resources on current and traditional knowledge systems in Science and technology in the country and to promote communication in science to diverse constituents at all levels, using the most appropriate technologies.

16.6.1.3 Dissemination of Information to Scientific Community

To provide communication links among members of the research community NISCAIR publishes 19 research journals (including one in Hindi) and two abstracting journals of international repute, covering all the major disciplines of Science & Technology. Publication in all the research journals is subject to peer reviewing, and the journals are covered in most of the major abstracting indexing / current aid awareness services.

16.6.1.4 Popularization of Science

Popularization of science among common masses is a major programme of NISCAIR. The institute publishes three popular science magazines; Science Reporter (English, monthly), Vigyan Pragati (Hindi Monthly) and Science Ki Duniya (Urdu, Quarterly). NISCAIR has also published 60 popular science books in English under different services. NISCAIR has also launched a new series of books on IT for kids.

16.6.1.5 Wealh of India and Monographs

NISCAIR brings out the encyclopaedic *The Wealth of India* on Indian raw materials and monographas on specific topics, the Hindi version of *The Wealth of India* called *Bharat Ki Sampada* is also being published. Over thirty-five sceintific monographs in Botany, Industry, etc have been brought out.

16.6.1. 6 Raw Materials Herbarium and Museum

NISCAIR has Row Materials Herbarium & museum, which acts as a reppository of raw materials. The herbarium houses over 4000 species of economic and medicinal plants of India and the museum comprises over 2500 samples of crude drugs, animals and mineral specimens.

16.6.1.7 Research and Development (R & D) Newsletters

NISCAIR brings out *CSIR News* (fortnightly) and its Hindi version, CSIR Samalar (monthly).

16.6.1.8 Database Design and Development

NISCAIR has developed expertise in the design and development of database. Some databases include *Indian Science Abstracts Database*, National Union Catalogue of *Scientific Serials in India Database*, *Indian Patents Database*, and Aromatic Plants Abstracts Database. All these databases are available online.

16.6.1.9 Traditional Knowledge Digital Library

NISCAIR and the Department of Indian Systems of Medicine and Homeopathy (ISM & H) have entered into an agreement for establishing a Traditional Knowledge Digital Library (TKDL) on Ayurveda NISCAIR is the implementing agency for this project.

16.6.1.10 National Science Library (NSL)

The NSL is a comprehensive collection of S & T publications in the country offering services on a national scale. It subscribes to almost all Indian S & T periodicals and has over 1,80,000 found volumes of books and periodicals, NSL, also has an Electronic Library Division with a collection of more than 5000 foreign journals, conference procedings, etc, and a large number of databases including CA, CAB, SCI, current contents.

16.6.1.11 Consortium for Accessing e-Journals

NISCAIR is the model organisation for developing a consortium for CSIR Laboratories for Accessing e-journals. To begin with an agreement has been signed with M/S Elsvier for a period of four years for all their e-journals.

16.6.1.12 Information Services

NISCAIR offers a host of information services on indigenous and international infor-

mation resources. NISCAIR is the National centre for ISSN International centre for assigning ISSN numbers to serials published in India.

NISCAIR provides S & T translation services on specified subjects on customers choice for studying growth development and spread of any area of research.

NISCAIR renders bibliometric services on specialised sujects customers choice for studying growth development and spread of any area of research.

16.6.1.13 Consultancy Service

NISCAIR undertakes consultancy assigment in designing, editing and publications of journals, books, conference proceedings etc. for other institutions and organisations. It undertakes projects for the recoganistion, automation and modernisation of libraries. It undertakes sponsored projects on design and development of databases for organisations on turnkey basis.

16.6.1.14 Human Resource Development

NISCAIR organises HRD programmes to train and prepare library, information, documentation and science communication professionals, in meeting the challenges of IT scenario. It organises two-year advanced Masters Degree level academic course in documentation and reprography (Associateship in Information Science).

16.6.2 National Social Science Documentation Centre (NSSDOC)

The NASSDOC renamedso in 1985, was created in 1970, by the Indian Council for Social Science Research (ICSSR), New Delhi. It serves the information needs of social scientists in India. It has been playing an active role by building up a comprehensive collection of different categories of documents such as doctoral dissertation, serial publications ; abstracting, reprography and transtation services ; and by compiling union catalogues.

Moreover, it, like other sectoral Institutions, tries to fulfil the aims and objectives of the original institution. The following objects inclue :

(1) To disseminate information about the development social science research.

(2) To establish a strong infrastructure of social science research by extending library and information services.

(3) To develop the publication of documents on social science.

(4) To establish contact with national and international organisations and institutions.

(5) To facilitate the international documentation centres for gelling bibliographics on the Indian documents on social science.

(6) To keep the bibliographical control over social science materials or subjects.

(7) To make availabity of bibliography, reprography, duplicate copy of the documents, on request.

(8) To extent advisory service.

(9) To contduct professional training course.

(10) To extend financial assistance on bibliographic projects.

The publications of NASSDOC include Union List of Social Science Periodicals four volumes covering periodicals available in Delhi, Bombay, Karnataka. and Andhra Pradesh Libraries. Union catalogue of social science serials 32 volumes giving the location about 32,000 serials in 550 libraries, with a separte volume on national library, Kolkata, *Mahatma Gandhi* Bibliography in English and various *Indian Languages, Indian Education Index, Directory of Social Science Research Institutions, Directory of Professional Organisations in India* ; and the Retrospective Cumulative Index of Indian social science Journals is under preparation. Its current awareness publications includes Acquisition update (monthly), *Conference Alert* (quarterly), *Indian Diary of Events* (quarterly), *Social Science News, Index to select Newspapers in English* (monthly) and *Samajik Vigyan Samachar* (monthly, Hindi).

NASSDOC has been actively participating in Unesco's APINESS programme since its inception.

16.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)

Formerly knows as sciientific Information Bureau (SIB) in R & D organisation of the Ministry of defence, it was formed in 1967 in Delhi to function as scientific information and documentation centre to cater to the information needs of R & D Headquarters and R & D establishments scince 1970. The DESIDOC has been functioning in the DRDO (Defence Research and Development Organisation of the Government of India as a central agency to collect scientific and technical information from various published and unpublished sources, process it in different usuable forms and disseminate the same to about 40 DRDO Laboratories and other establishments of the Ministry of Defence.

The objectives of the DESIDOC are :

(1) To provide scientific information and documentation services to DRDO headquarters, research laboratories and other allied institutions ;

(2) To make available the services like Information library, reprographic, translation and also to coordinate in scientific project,

(3) To develop information system on defence science and technology.

(4) To conduct training and education programmes on defence science ;

(5) To extend advisory service ; and

(6) To publish journals, books, monographs on science and technology of DRDO.

The major activities of DESIDOC include : collection, processing and dissemination of information ; literature searches, compilation of union catalogues of DRDO libraries organisation of translation bank. Training and consultancy, reprography and printing one of the greatest defence libraries Defence Science Library (DSL) has about 2 lakh collection. It subscribes about 600 current journals. Most of the works of this library are done by computers. DLS collects CD-ROM database. It has started online service on international database through DIALOG Information service and US Naval Institute and Arlington, US organised databases.

The publication of DESIDOC include Defence Science Journal (Quarterly), R & D Digest (bi-monthly) R & D bulletin (Quarterly) Popular Science and Technology (half yearly) Current Abstracts (bi-monthly) and DESIDOC Bulletin (monthly).

16.7 Observations

We have discussed representative organisations, systems and centres and their library and information activities. All countries are apparently striving for the promotion of international information activities. But some of the problems usually faced by the developing countries in this ragard do exist in India as well. While discussing these problems, A Neelameghan and J. Tocatliaa in their article, Intermational cooperation in information systems and services (JASIS, 1988, 33(3), 153-163) have summarised the situation as follows which in particular is applicable in developing countries : Information systems and services are under-utilised. In building up information infrastructures, emphasis has been placed mostly on the supply of information services and little attention is paid to resource mobilization to meet future demand. In many countries, planners and administraters do not use existing national infomation services effectively and try to introduce not new information service effetively and try to introduce new information service effectively and try to introduce need information services cf their own which tend to be counter productive, In some countries access to home—produced information is not satisfactory rather disconraging ; Access to international information is restricted by its high cost, the small proportion of total world resources of information which is held in each country, the dispersion of information sources among differnt institutions and centres and the paucity of cooperative arrangements designed to provide access to these services. The national coordinating mechanism and policy institutions for information systems and services are indequate ; and consequently information does not receive priority funding.

James Heitzman in his article *Information Systems and Development in Third World*

(*Information processing and Management*, 1990, 26(4) 489-502) has noted the following observations : the shift in global economy toward the development of services, including information systems, offers challenges to third world nations from five directions ; micro electronic technology, a multiplicity of development theories or policies, the power of multinational corporations, international information agencies, and variables of national political economy. In the face of these challenges, developing nations start from a position of weakness, based on low levels of capital formation and rapid population growth. The resulting problems include low levels of public interest in modern information facilities and dependence on the multinationals. Responses are varied. India as a nation, observes Heitzman stands as. an island of progress among countries in the late 1980s is always from large scale, centralised intervention and toward more decentralised national and regional projects. There are indications that international agencies as well as governments in the Third World are moving towards forms of decentralised technology diffusion and information access that can allow poor peoples to compete in the 21st century.

16.8 Exercise

1. Describe the activities of Unesco in the sphere of library, documentation and information with special reference to developing countries.

2. Discuss the activities of UGC for the development of library and information activities.

3. Describe the aims and objectives of RRRLF.

4. Narrate the activities of UNISIST.

5. Discuss the main characteristics of AGRIS.

6. Write a short note a INIS.

7. Describe the activities of NISCAIR.

8. Give an account of the activities of NASSDOC and DESIDOC.

16.9 Reading List

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BLIS-II
Library Management

Unit 1 ❑ General Principles of Management and their Applications to Library Management

Structure

1.1 Introduction

Management is a body of systematized knowledge based on some general principles which are verifiable in terms of business which is again the purview of administration. The science of management has grown to a great extent and a range of new subdisciplines are born out of it every day. In the modern world, the field of management and its impact is tremendous. In this unit, you shall be acquainted with the basics of management discipline, its general principles and functional elements, and also the various items of library management.

1.2 Management—its meaning and scope

Management involves acquisition and application of knowledge. Management encompasses many things like decision-making, planning, appropriate use of

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technology, communicating, leadership and goal-setting. Management can be defined in many different ways. Rizzo (1980) points out that the primary responsibility of managers is for ends, for results. Management is concerned both with methods and with the very definitions of the goals or ends to which the methods are to be applied. Mackinzie (1977) gives the definition thus : "Management is the direction of known resources, through systems, towards a defined set of objectives within given constraints, using agreed measures to provide feedback to all segments of the total system." Other important definitions by different groups of people include management concept as being based on command and control; management is a process or an activity that brings together several varied resources like persons, materials techniques and technologies to accomplish a work; management is a body of organised knowledge which underlies the art of management.

An overview of the above management definitions leads to the conclusion that management is a vast and fascinating subject. It has antecedents in earlier centuries, and partisan schools in this century. Management uses techniques, some of which can be termed 'scientific' but it is itself quite different from purely scientific disciplines. Management is an intangible activity or process which is purposeful and· makes things happen.

1.3 Scientific Management

Scientific management means applying the principles of science to problems of administration. The roots of management science dates back to the late nineteenth century. Frederick Taylor (1856—1915), an engineer is often referred to as the Father of Scientific Management. Experiments were conducted at the Hawthorne plant of the Western Electric Company between 1927 and 1932. This experiment revealed that the motivations of an individual or a group are complex, and that there are many factors—physical, psychological and social that influence productivity. Today's scientific manager is concerned with all those factors and tries to satisfy the objectives of an organization.

Taylor offered four objectives to guide managers in their endeavour to improve productivity :—(1) the development of management as a science, (2) the scientific selection of workers, (3) scientific education and development of

workers and (4) intimate friendly co-operation between management and workers. Taylor believed that the casual rule-of-thumb approach to management that was so prevelent in the 19th century should be replaced by scientific analysis. His contributions included time study and the application of work standards.

Apart from Taylor, other schools of management thought are broadly divided into three parts. These are :—(1) Classical management theory (1880's—1920s), which is organization centered, and included scientific management, administrative management (Fayol, Barvard, Urwick) and bureaucratic organization (Weber); (2) Neo classical theory (1920's—1950s), which is person-centered and human-oriented, and has emphasized the needs, behaviours and attitudes of individuals, and included human relations schools (Mayo), and behavioral schools (Maslow, McGregor etc.); (3) Modern Management theory (1950's), which emphasizes the complete employee view (Litchfield) which includes systems theory, contingency theory etc.

Thus modern scientific management includes not only application of scientific methods to managerial functions, but also inclusion of human elements in management, developing a systems approach, use of computers for analysis and increasing emphasis on economic effectiveness in all management functions.

Scientific management is more than a mechanistic set of tools—it is a philosophy, an approach to the problem solving, generating a special attitude towards work by workers and managers.

Taylor's concept of scientific management was based on Motion study and Time study. The necessity of scientific management was revealed by Taylor in the following manner :—

(a)   The whole country was suffering a great loss due to inefficiency found in their daily jobs;

(b)   The remedy for curing it lay in providing systematic management;

(c)   The systematic management was a true science, based on definite laws, principles and rules;

(d)   These principles were applicable to all kinds of human activities;

(e)   If and when these principles are applied correctly, the results must be very encouraging.

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Based on these concepts, scientific management becomes more valuable, and bestows some benefits to the society by—(a) increasing the efficiency and productivity, (b) providing a scientific basis for fixing the wages of workers from time to time, and (c) providing valuable information and data about the desirability or otherwise of adopting rationalization in an enterprise.

But scientific management has some limitations too. These are as follows:—

(i)   Scientific management is not an exact science because it deals with human beings. Since human behaviour is variable, therefore management principles often tend to be wasteful.

(ii) Every organization has its own traditions and objectives. Management principles, policies and techniques are applied to specific circumstances in each organization. These differ from institution to institution.

(iii) Scientific management changes from time to time since science is advancing rapidly. Therefore the principles of scientific management are not fixed, but changes.

(iv) Work methods, work standards and output cannot be measured accurately and easily; huge cost is involved in making these methods and standards full proof.

(v)   The human element, a basic factor in scientific management, is neglected.

The benefits of scientific management are too many compared to its demerits. So it has been popular in almost all the advanced countries of the world.

1.4 Managerial Functions

Management is a set of common processes or functions which, when carried out, leads to organisational efficiency and effectiveness. These processes or functions have been broken down into a set of related elements forming a useful framework. Experts have identified several managerial functions as important elements of management. Henry Fayol envisaged five distinguishing

functions of management, namely, to plan, to organise, to command, to co-ordinate, and to control.

Luther Gullick adopted Fayol's ideas and restated the functions under the catchword POSDCORB, which stands for Planning, Organising, Staffing, Directing, Coordinating, Reporting and Budgeting.

Planning—The first function of management is to plan, i.e., determine the goals and ideals of an institution. Four important characteristics of planning are :— (a) the purpose of every plan and all derivative plans is to facilitate the accomplishment of enterprise purposes and objectives; (b) planning is the first function and logically precedes the execution of all other managerial functions; (c) managers at all levels are involved in planning; (d) the efficiency of a plan is measured by the amount it contributes to the purpose and objectives.

Organising—Next step in management is organising which is essential to make planning fruitful. Through this, a structure of authority is established. This structure helps in arranging the work subdivisions, defining and coordinating for the set goal. Organisational structures usually comprise departments, divisions, sections, units or cells, obtained on the basis of division of works and jobs. Libraries are organized on the basis of their functions, on the basis of user groups served, subjects / areas handled, products and services generated, or a combination of these.

Staffing—The real strength of an organisation is its personnel. So staffing forms a very important part in management. Staffing function includes human resource planning, recruitment and selection, training and development, rewards and compensation, health and safety, performance appraisal etc. Many features like job analysis, job description, job specification, job enlargement all fall under this purview.

Directing— It is the function concerned with managing, by which the members of the organisation moves in the direction, that will achieve its objectives. It includes continuous decision making, and embodying them in general and specific orders and instructions.

Coordinating—It is the process of linking several activities to achieve a functional whole in the organisation. In this process, a manager has to act

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like a leader, and his leadership skills are put to test. The best coordination occurs when individuals see how their jobs contribute to the goals of the organisation.

Reporting—Reporting means keeping authorities informed about the progress or regress of his work. This function not only helps in making a healthy self assessment, but also maintains good public relations.

Budgeting—This includes fiscal planning, accounting and control. For effective financial management, some guiding principles are necessary. These are :— (i) effective control, (ii) simplicity, (iii) regularity and farsightedness, (iv) economy and (v) flexibility. The other related fields are cost accounting and economics, ratio analysis, break even analysis, operating and financial averages.

1.5 General Principles of Management

Useful principles have been evolved from a long time to guide management operations. F.W. Taylor, Henri Fayol, Charles Barnard, F.W. Wilson, Luther Gullick, Lyndall Urwick, Max Weber, are major contributors to the principles of management. Taylor's principles are concerned with organized knowledge, obtaining harmony in group action, achieving co-operation of human beings, working for maximum output and developing all workers to the fullest extent possible. Fayol's principles are : Division of work; Authority; Discipline; Unity of command; Unity of direction; Subordination of individual interest to general interest to general interest; Remuneration of personnel; Centralization; Scalar chain; Order; Equity; Stability of tenure of personnel; Initiative and strength in unity. Barnard's principles of management is a social systems approach, concentrating on major elements of managerial job, with emphasis on decision making and leadership. F.W. Wilson's contributions are Shop Management (1903), Principles of Scientific Management (1911), Testimony Before the Special House Committee (1912). Luther Gullick and Lyndall Urwick based their principles on Fayol, and developed them in many respects. Gullick has summarized his principles under the acronym POSDCORB, which means Planning, Organising, Staffing, Directing, Coordinating, Reporting and Budgeting.

Max Weber's theory is mainly based on 'bureaucratic' type of organisation. Elton Mayo's model is known as "human relations" model and visualizes that man is a uniquely social animal who can achieve complete freedom only by submerging himself in the group. Mayo has demonstrated that the human relations between workers and their superiors are important influences on their behaviour.

These various principles of management are more or less limited, and are essential in the smooth functioning of an organisation.

1.6 Library Management

Library is a social institution entrusted with the vital function of dispensing knowledge. A library presents almost the same problems as are encountered with any other social institution. The aim of the library is to ensure maximum use of its reading materials by maximum number of users.

Therefore, management of a library means management of information resources, machinery, human being, finance to meet the objectives of the library. During the last two decades, library management faced a major change because of the invasion of information technology. The management policies in a computerised library ought to be somewhat different from a manually run library. The management principles and procedures in the former has a new orientation and new dimension. The conventional approach to library management, according to Evans, are :—

(1) The functions of management, such as planning, organising, motivating, and communicating, can be defined, emphasized, and studied.

(2) Principles or fundamental truths exist concerning organization and management, and they are very important in clarifying the study of management.

(3) Principles derived from the study of management should be the starting point for research.

(4) Management is to a great degree an art, concerned with the application

The management procedures should be adopted in the library for effective and efficient result in all spheres of library activities, and it should be a continuous process.

1.7 Exercise

1. Discuss Taylor's view of management.

2. What are the benefits of scientific management?

3. Give an idea about the principles of management.

1.8 References

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Unit 2 □ Library Organisation Structure

Structure

2.1 Introduction

As we have noted earlier, organisation is the design of the structure, the grouping, of positions, which will best carry out the library's planned objectives. The pattern or network of relationships between the various positions and position holders is termed organisation structure. Organisation structure serves mainly four functions—providing an efficient work system, providing a system of communication, providing satisfaction to individual members of the organisation, and providing organisational and individual identities. The important elements of organisational structures are organisation chart and job descriptions, differentiation, integration, authority system, administrative system, and flow of the information and communication network. This unit deals in detail; with the library organisation structure.

2.2 Organisation—Tneories

From the nineteenth century, many social scientists have propounded theories of organisation. There are broadly three theories of organisation :—

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(a) Classical theory which comprise the principles underlying organisation by Fayol, Gullick and Urwick, and bureaucratic structure by Weber; (b) Human relations / Behavioral approach; (c) System theory.

(a) **Classical theory of organisation** : There are three classical models of the "traditional" theory of organisation as referred above. These are discussed below :

(i) **Scientific Management Theory** : F.W. Wilson (1856—1915) was the propounder of modern "scientific management". His major contributions are Shop Management (1903), Principles of Scientific Management (1911), Testimony Before the Special House Committee (1912). Taylor's name is very much associated with scientific management. Summing up the essence of his system of scientific management, Taylor wrote : it is Science, not rule of thumb, harmony, not discord; co-operation, not individualism; maximum output, in place of restricted output; the development of each man to his greatest efficiency and prosperity. Scientific management was mainly concerned with organisational efficiency interpreted in mechanistic terms. Henri Fayol defined the administrative functions in terms of these elements : Forecasting, Planning, Organising, Command, Co-ordination and Control. Apart from this, he elaborated 14 principles of organisation, all of which, according to him, should be flexible, and which is always open for further additions, amendments, changes, understanding and generalisation. Henri Fayol, in his principles, put stress on formal organisation and he is also a pioneer in the concrete elaboration of the complexities of organisation planning. This plan, which foresees not only the usual course of events, but also contingencies, prospects, conditions, possibilities, is of major scientific interest.

(ii) **Theory of Gullick & Urwick** : Luther Gullick and Lyndall Urwick systematized and popularized the 'classic' theory of organisation. Gullick has developed the principles of Fayol in many respects. He has summed up the principles of organisation under the acronym POSDCORB, which we have discussed in the last unit. He has enumerated nine principles as against fourteen by Fayol. His nine principles are :

- Division of Labour or Specialization
- Departmentalization
- Co-ordination by ideas
- Co-ordination by Committees

- Decentralization
- Unity of Command
- Staff and Line
- Delegation and
- Span of Control.

Gullick and Urwick attach much importance to the principle of Delegation of Power, which means the ability to invest responsibility to subordinates. We shall discuss these in the next unit in details.

(iii) **Bureaucratic Model** : "Bureaucracy is the systematic organisation of tasks and individuals into pattern which most efficiently achieve the ends of collective efforts (Ptiffener). Like Ptiffener, M. E. Demock, John A. Veig all have defined bureaucracy in their own respective ways. Max Weber suggests an "ideal type" of bureaucracy in this manner :

(a) Assignment of specified duties to every member of the organisation;

(b) Distribution of authority to enable every member to discharge the assigned duties;

(c) Methodical provision for the regular performance of these duties;

(d) The organisation of offices follows the principle of hierarchy;

(e) The activity of the organisation is regulated by a consistent system of abstract rules;

(f) The ideal administrator manages in a spirit of formalistic impersonality;

(g) Reliance on written documents or records;

(h) Service in a bureaucratic organisation is based on correspondence between the technical qualifications and the position held; employees must be protected from arbitrary dismissal.

The classical theory has been made explicit in organisational charts, rules, books, manuals, rules of procedures, etc. It deals with formal organisation planned deliberately to realize the objectives of the organisation.

(b) **Human Relations / Behavioral Approach** : Elton Mayo's name is associated with the "human relations" model. He advocates a method of living in social relationship with other people, and, as part of this, an economic function for,

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and of value to the group. He has demonstrated that the human relations between workers and their supervisors are important influences on their behavior. In this approach, organisation is seen as a set of work relationships, that grows out of the natural interactions of persons, working together over long period of life. The informal organisation is more subtle, reflecting such matters as socio-economic status, race or language differences, educational levels etc. The formal organisation tends to be rational and impersonal. The essence of humanistic approach lies in its dominant emphasis upon people, upon human motivations, and upon informal group functioning.

In recent years, organisations have been explained in terms of various disciplines, like economics, political science, sociology, anthropology, history, law, etc.

The study of organisation has become the focus of several disciplines. If the classical theory of organisation was task-oriented and the humanistic theory was employee centered, a new theory came up, which sought a harmonization of these two approaches to the study of organisation. This is the aim of "system theory".

(c) **System Theory** : This concept implies that organisation is a "Social System". It is a system of interrelationships and interactions, which maintains a constant state of stability, while material and energy which enter into it, go on changing. The main parts of the organisation systems are individuals, formal structure, informal factors, groups, group relations, types of statuses and roles in groups. The main parts of a system are interconnected by definite organisational forms, which include formal and informal structures, communication channels and decision making processes. The basic idea of "systems approach" is the fact that the needs of man and the organisation do not coincide. This approach brings the employees and the organisation together. It tends to build up a positive environment, that will integrate the employees' needs with those of the organisation.

Thus, while the 'traditional' theory of organisation was based on the view that the conflict between man and organisation is an anomaly, which can be prevented by the proper use of material reward; the 'human relation' doctrine regarded a conflict as a dysfunction, which is neutralised by the method of humanizing labor, and the system theory projects the view that conflict is a normal aspect of the functioning of an organisation.

2.3 Organisation—Types

There are mainly two types of organisations—formal and informal. Formal organisations are social units formed for the purpose of accomplishing some objectives. These are usually formed to accomplish a goal, and this goal may be changed many times during the lifetime of an organisation. It is a result of decision making, deciding how people and activities should be related to each other. Formal organisation represents a system of consciously coordinated activities. It corresponds to some design. This type of organisation is deliberately planned, designed, and duly sanctioned by competent authority.

Informal organisation is a natural growth; it comes into collusion with formal organisation and may even supercede it in part. An important aspect of this type of organisation is the informal communication network, or "grapevine". It forms an important component of the organisational information system. Formation of groups, which may spontaneously evolve when the formal organisation is slow to respond to changing external and internal forces, is another characteristic of informal organisation. Informal organisation is the pattern of the actual behaviour of the personal engaged in it. Informal organisation is usually structureless and indistinct.

2.4 Organisation—Principles

Organisation is both structure and process. The concept of structure enables one to observe and classify the principles of organisation autonomy, and to recognize similarities and differences among organisation; the concept of organisation process makes possible the recognition of the various kinds of behaviour that produce growth and change in the structure. The principles of organisation formulated by Mooney and Reiley (1930) projects four major themes—the coordinated principle, the scalar principle, the functional principle, and the staff phase of functionalism. Some of the important principles of organisation are discussed below :

(i) **Principle of hierarchy or the scalar process** : The basic principle of hierarchial process is that, no intermediate level should be neglected or skipped in the dealings of the people at the top, with those lower down or

vice versa. It requires that there will be a final authority in every organisation, and the lines of authority extend downward through the organisation to every subordinate position.

(ii) **Principle of unity of Command** : In any organisation, final authority for decision making at each level in the hierarchy must be clearly located and understood. It means that an employee should receive order from one superior only, and every member should report to one leader.

(iii) **Principle of span of control** : There is limit to the number of people and functions that one can supervise effectively. If span of control is limited, there is greater opportunity for close supervision, which increases the number of organisation levels.

(iv) **Principle of line and staff** : Line authority refers to the command authority of supervisors over their subordinates.

Line staff is concerned with the execution fulfillment of the organisation's objectives. This structure facilities speed of decisions and also flexibility. Staff activities provide advice, support and service to the line positions, but does not command since it has no operational responsibility. In libraries, line includes those units that initiate and carry through to conclusion the basic activities of the library, e.g., acquisition, technical, circulation etc. Staff are assistants to sectional heads, personal officers, administrative assistants, etc.

(v) **Principle of Functionalization** : Functionalization is the process of differentiating functions between line and staff, as the organisation grows. Functional differentiation downward is the process of separating functions downward as the organisation grows. Functional authority is the supervisory power excised by a person outside the unit, on a unit.

(vi) **Principle of Unity of Objectives** : This assumes that the organisation has clearly defined objectives, and it should facilitate the employees' contribution to attain those objectives.

(vii) **Principle of Authority and Responsibility** : Authority is the right to guide or direct the actions of others. So it involves three steps—decision making, communication of decision and execution of decision. Authority is manifested as a process, which influences the action of those persons, who make up the organisational structure. Responsibility is the obligation of an individual, to perform the functions assigned to the best of his ability, in accordance with

the directions received. Responsibility pertains to what one must do. Delegation of responsibility that does not contribute to organisation objectives is the result of unclear or changed objectives.

(viii) **Principle of Flexibility** : It recognizes that organisation structure must be flexible enough to accommodate certain variations, which occur within and outside the organisation. Flexibility is the opportunity to deviate from a set course.

(ix) **Principle of Balance** : There should be a balance in the application of organisational principles, so that an effective and efficient structure emerges, that includes the achievement of goals and objectives.

(x) **Principle of Organisational Efficiency** : The organisational structure should enable the organisation to function efficiently. This type of organisation structure operates without wasting its resources.

(xi) **Principle of Unity of Direction** : There should be one objective and one plan for a group of activities having the same objective.

(xii) **Principle of Departmentalization** : Departmentalization refers to the process of establishing groupings of functions or tasks. It is the process by which an organisation expands horizontally. It depends upon three factors—job analysis, division of work & specialization.

(xiii) **Principle of Centralization and Decentralization** : A problem of organisation is whether it should be centralized or decentralized. In a centralized organisation, most of the decision-making power is vested in the top level. Decentralization may be defined as a process, in which ultimate authority to command & responsibility for results, is localized as far down in the organisation as management of that organisation permits.

(xiv) **Principle of Co-ordination** : It refers to the existence of coherence, unity and integrated effort within the organisation. It can be divided into two categories : internal or external. The former refers to coordinating the individual duties of persons working in an organisation. The latter is concerned with coordinating the activities of different organisational units.

(xv) **Principle of Integration** : This principle emphasizes the promotion of a measure of agreement and cooperation between the interests of the organisation. Integration facilitates the standardization of all administrative processes and procedures, and it makes definite, the line of administrative authority and responsibility.

All these principles should be judiciously monitored and adequately justified, before their implementation in a library.

2.5 Library Organisation Charts

This is a diagrammatic sketch showing the vertical and horizontal structures of an organisation. It indicates the span of management, hierarchical and vertical positions, line & staff positions, flow of authority, responsibility, communication etc.

The diagram below shows the organisational chart of a **public library system :**

State Public library System
Director of Public library

City central Library	State Central Library	District Central Libraries

Technical Service

Readers Services
- Asst. Lib — Stack Maintance
- Lib. Asst — Circulation
- J. L. A. — Reference
- Clerk — Internet Service

Extension Services
- Asst. Lib — Lectures
- Lib. Asst. — Exhibitions
- J. L. A. — Mobile Service
- Clerk

Acquisition
- Purchase
- Gift
- Exchange

Asst. Lib.	Asst. Lib.
Lib. Asst.	Lib. Asst.
Junior Lib. Asst	J. L. A.
Clerk	Clerk.

Classification & Catalaging

Other Processing

Periodical Reminders etc.	Binding	Asst. Lib
		Lib. Asst.
		J.L.A
		Clerk

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University Library

|

Senate / Court

|

Syndicate

|

Vice Chancellor

|

Library Committee

|

Librarian

|

Deputy Librarian

|

Technical Services		Readers Services		Periodicals Section		Circulation Section	
Asst. Lib.	—Acquisition	Asst. Lib.	—Repography	Asst. Lib.	—Acquisition	Asst. Lib.	—Lending
			—Reference		—Processing		
Lib. Asst.	—Classification	Lib. Asst.	—Internet	Lib. Asst.	—Remiqders	Lib. Asst.	—Reservation
			—CAS		—Microfiloming		
Junior Lib. Asst	—Cataloging	Junior Lib. Asst.	—SDI	J.L.A.	—Others	J.L.A.	—Fine collection
			—Others		—Documentation		
Clerk	—Processing	Clear	—Documentation	Clerk		Clerk	—Others

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                        Special Library
                              |
                          Director
                              |
                      Library Committee
                              |
                          Librarian
                              |
        ┌─────────────────────┼─────────────────────┐
   Technical              Readers            Documentation &
   Service                Service            Information
     ┌──────┐               ┌──────┐             ┌──────┐
  Asst. Lib.  —Acquistion  Asst. Lib  —Circulation  Asst. Lib.  —Document
     |        —Cataloging     |        —Interlibrary    |           supply
  Lib. Asst.  —Classification Lib. Asst.  loan       Lib. Asst.  —CAS
     |        —Processing     |        —Reprography     |         —SDI
   Clerk                    Clerk                     Clerk       —Indexing
                                                                  —Translation
                                                                  —Computer Based
                                                                    inf. service
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2.6   Exercise

1.   Discuss the classical theory of organisation.

2.   Differentiate between the two types of organisation.

3.   What are the principles of organisation which can be implemented in a library?

2.7   References

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3.   Stueart, R. D. and Morgan, B. B.—Library management, 1987.

Unit 3 ❑ Technical Processing : Steps

Structure

3.1 Introduction

The major part of the library work is carried out behind the curtains, i.e., behind the eyes of the readers. This type of work consists of selection, acquisition, accessioning, classification, cataloguing, labelling etc. The journey of a book into the library begins with the process of selection, and ends only when it is shelved. This whole work has no direct link with the users, but this work is much essential for the readers to get the right book in the right time. This unit gives a view of the above mentioned processes in a nutshell. Though selection and acquisition does not fall under the so called 'technical' work, yet without these two primary steps, the technical processing would have no meaning at all. Therefore, these two processes are also included in this module.

3.2 Selection and Acquisition

Book selection is a very vital and responsible job on the part of the librarian. Dr. Ranganathan mentioned that book selection for library use is based

on definite principles, and carried on with the tools planned for the purposes. The people involved in the selection process are the librarian, subject experts, library committee and senior staff. Each library has its own selection policy. This policy depends on many factors like— (a) the purpose of the library, (b) the users, (c) the reusability, (d) the quality of the book, (e) allocation of fund, (f) cultural influence, (g) balance of collection.

The determination of the objectives of the library is a very important factor in book selection. In the public library, the objective is to provide all types of books to library, the objective is to provide all types of books to each and every member of the library, according to their need and circumstances. Most public library users read for recreation at one time or another, and the provision of this kind of reading material is essential. In academic library, the objectives of the governing institutions influence that of the library's objectives.

Provision of upto date books pertaining to the syllabus, provision for research needs, and books catering to the general interest of school students, college students, university students and faculties are required in an academic library. In special libraries, variety of forms and type of materials is great, though it may concern a narrow subject area. Selection of books is governed by three theories—the Best Book theory of Francis Drury (1930), The Demand Book Theory of Mclolvin and Theory of Ranganathan. Drury's concept of book selection is "The best quality reading material for the greatest number of patrons at the best possible time." He pointed out that the selection should operate on the basis of three factors the books or titles as individual entities, the clientele using the collection, and the resources of the library. Lionel McColvin in 1925, proposed the Demand Book theory. His basic principle is that book representation must be comprehensive of, and in proportion to demand, and not to subject content. In the selection of documents, the demand is to be assessed, keeping in view the interrelationships between volume, value and variety. S. R. Ranganathan has emphasized the principle of book selection based on his 5 laws. The first law means selection is to be made with a view to utilization. The second law implies that all the documents that can be useful should be selected, and all the useless discarded. The third law states that the librarian will select only such documents as are suitable for the types of readers who visit the library. According to the fourth law, provision should be made of all materials that is necessary to promptly obtain exhaustive information. Fifth law

gives a view that libraries grow in size and in quality. Selection of materials for a library requires judgement, skill and awareness on the part of the selector.

When the selection is complete, comes the work of purchase. In India, a tender system is prevalent, by which the list of required books is sent to various booksellers and the order is placed with the firm offering lowest quotation for each book. Other than this, an appointment of a vender for a specified time is also done, and he continues to supply the books efficiently and at the approved rates, for say, 2-3 yrs. Many libraries directly places orders with publishers and dealers. It has many advantages, specially in case of acquisition of periodicals.

Many publishers and booksellers send books-on-approval to libraries for selection and ordering. The librarian may visit book fairs, or book shops and also bring books on approval. The library may also be an institutional member, which publish useful materials, which the library may procure.

Books and documents can be procured by five district ways—(a) gifts / donations, (b) exchange, (c) purchase, (d) institutional membership (d) deposit system.

The next process of acquisition concerns with the receipt of books. The books are sent by the bookseller to the Incharge of order section, or to the librarian along with the bills. The bills are then checked with the order list. The books are also physically checked, along with the latest, hard copy editions. The bills are then arranged vis a vis with the books.

Excerpts from UGC recommendations of Library Committee (1965) report on book selection and book purchase is given below :—

● "The acquisition of reading materials for the libraries should be regulated as follows :

1. The authority concerned may lay down the policy according to which book-selection should be regulated;

2. The authority concerned may make the allocation of the amount for the purchase of reading materials as indicated in sec. 23 items 4 and 8.

● The proportion implied in the allocation should normally be continued for at least three years without undue disturbance, unless there are unexpected

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special factors coming into play. The proportion may be reviewed and established periodically, say, once in three years.

- The authority concerned should provide a panel of experts in different subjects to help the librarian in making the final selection of reading materials.

- Standing vendors may be appointed with stipulated terms, including discount and exchange rate for a year or longer period with a clause in the agreement that if orders are not filled within a prescribed period, the librarian will be free to place order with others.

- In view of the increasing cost of foreign books, it is desirable for the commission to promote publication of cheap Indian editions of foreign books in wide demand in the universities and colleges, or their import in sheets and being bound in India.

- To minimise the effect of the—
  1. Present exchange difficulties,
  2. Import license difficulties; and
  3. Frustrating delay caused by these two factors in the procurement of foreign reading materials, it is desirable for the commission either

  To arrange through a suitable agency for—
  1. Pooling together the orders of the different libraries for foreign reference books, and advanced treatises of too limited a demand to warrant cheap Indian edition or Indian binding;
  2. Their purchase in bulk; and
  3. Their distribution to the libraries and debiting of their cost against the grant due to the respective libraries.

  To give part of the grant in the form of foreign exchange license or coupons.

- The following principles should be adopted by a library for weeding out books :
  1. Generally speaking, pedestrian books (for example textbooks and other books without permanent value) may be weeded out once in a year.

2. Books worn out by use beyond repair may be weeded out once in a year.

3. Reference books, which are quite out of date, and whose later editions are available in the market, may be weeded out once in five years or ten years according to their nature.

4. While rare, costly, and small—size reading materials should be kept safely without direct access to readers and issued out only on formal application, in the case of the other books housed in the open access regions of the library, loss of three volumes for every one thousand volumes issued out, is a risk worth taking for getting the books widely used, before they go outmoded in thought-content, or perish physically; and such a loss should be normally written off by library authorities, unless there is evidence of malpractice on the part of the staff.

3.3 Accessioning

After these procedures, the books are accessioned. A stock register is maintained in the library in which all the books purchased / received are entered Each book is given a serial number, which denotes serially its entrance in the library. This register is called accession register, and the serial number Accession number. In this register, the columns or headings are denoted as follows :—

Date	Accession no.	Author	Title	Edition	Volume	Publisher's Place & name	Price	Volume	Supplier's name & address	Call no.

The accession number is put on the verso of the title page also, and on a secret page decided by each individual library. The accession number is put on the bill against the concerned item. Stamp of the library is put on the verso of the title page and in the secret page too. The books are then sent to the processing section for processing purposes.

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3.4 Classification

This is the method of bringing order in a library. Unless and until the books are grouped into some major categories, no one will find his or her proper choice of books. The most scientific way to classify books is according to subjects. For this reason, a major tool needed in the technical department is the classification schedule. As individual institutions or libraries adopt different practices to carry out their routine work, the choice of classification schedule will also be different. The different classification schemes which are used in the various libraries are Dewey Decimal classification, Universal Decimal classification, Colon Classification, Library of Congress classification etc. Out of these, the first one is the most popular one. An important decision to be taken in the case of classification is, whether broad or close classification is to be adopted, i.e., the extent to which one would assign the classification number to a book. The personnel in this section should have adequate experience, because classification requires a high degree of precision. The work of classification involves the following steps :—

(a) **Sorting**—Books are first sorted out broadly into fiction and non fiction books. The non fiction books are then grouped by their respective subjects. This method facilitates easy way of classifying books.

(b) **Duplicate checking**—The books are then checked with public catalogue as to whether it is a copy of an already existing book, whether it is a new edition book, whether it is another volume of an already existing multivolume set, or whether it is a totally new book. The last category of books only need to be classified. For the other three categories, the classifier needs only to add relevant information in the already prevailing catalogue cards.

(c) **Determination of the specific subject**—Determination of the specific subject of a book involves intelligence, judgement and expertise. The thought content of the book is revealed through this classification number. The title only should not be consulted for determining this specific subject, as titles are often misleading. Therefore the preface, foreword, subtitle, table of contents, book jackets information, and book reviews should all be consulted to ascertain the specific subject through the classification schedule.

(d) **Allotment of class numbers**— The next task is to allot the specific class number to each book, according to the classification scheme used. The

class number is written on the verso of the title page in pencil, because in future, if necessary, the class number may be changed, and this will not cause any damage to the book, if written in pencil.

(e) **Assigning the book number**—The book number is assigned to each book, with the help of Cutter's Author Table, Cutter—Sanborne Author Table or Ranganathan's Book Numbering System.

(f) **Assigning the collection number**—If the document is placed in some other place than the usual lending section, a collection number is often assigned to the book.

(g) **Writing the call number**—The call number assigned to a document should be written at three places—on the verso of the title page, on date label and on the book tag.

3.5 Cataloguing

The purpose of cataloguing is to give the readers an idea of the total holdings of a library in a descriptive format. In a closed access system, the readers cannot reach the books personally. The catalogue cards play the role of surrogates for the books. Moreover, the readers may seek a document through subject, author, title, or series. To meet these variety of approaches, it is necessary to prepare multiple entries for the convenience of the readers. Cataloguing work, therefore, consists of preparing the necessary entries for each document. The staff of the cataloguing department should be well qualified and experienced, and also should have a good, legible handwriting. Decision has to be taken by the authority, as to whether simplified cataloguing, or descriptive cataloguing is to be used; dictionary catalogue or classified catalogue to be followed; typed, handwritten or computerised catalogue is to be chosen; Anglo-American Cataloguing code or Classified catalogue code, or American Library Association code to be adopted, and so on. The cataloguing work consists of the following :

(a) **Assigning subject headings** : Subject headings occupy an important part in the cataloging work. For assigning subject headings, Sears list of Subject headings, Library of Congress list of Subject Headings or Ranganathan Chain Procedure one used. Subject headings help users to locate a book through its

subject. See', 'See also' and specific subject entries are all prepared.

(b) **Main Entry** : This entry contains more or less all the information about a book. Based on this main entry, other additional entries are prepared.

(c) **Added entries** : These are additional entries prepared on the basis of main entry. Added entries may be author added entry, title added entry, compiler added entry, series added entry, corporate body added entry, name title added entry, etc. These entries help the users to approach the document through the respective search points.

(d) **Tracing** : The tracing is prepared on the back of the main card, and it indicates the added entries made for each document. The tracing is made for the use of the cataloguer, and users have no relation with it.

(e) **Shelf-list card** : A card for each volume of book is made, and these are arranged parallely to the books on the shelves. This is called shelf-list card. The purpose of it is to enable stock verification. .

(f) **Book card** : Book card contains information like call number, author, title, accession number, and this card is placed at the end of the book in the book pocket.

(g) **Forwarding** : All the set of cards are kept inside the title page of the concerned book, and forwarded to the chief of the technical section for checking. The set of cards include the main entry card, added entry cards, shelf list card, and book card.

3.6 Other Procedures

For preparing the book for the shelves, some other works are necessary. The chief of the Technical Department should scrutiny that all the technical works have been accurately done. Scrutiny involves scrutiny of accession numbers, call numbers, subject headings, catalogue entries, shelf list card & book cards.

After the preparation of all the catalogue cards, the books are handed over to semiprofessionals, who paste labels in the books. Labels are of various kinds—

i. **Spine label**—Gummed white cloth is cut into round or square pieces, and this label is pasted one inch above the bottom of the spine of the book.

If the width of the book is less, the spine label is pasted on the front card board. In the spine, the class no. and book no. is written.

ii.   **Date slip**—One date slip is pasted on the front or back fly-leaf of each book. This date slip is meant only for books which are to be lend out, and not for reference books. The size of this slip is 5" × 3". The slip gives a record of the number of times the book has been issued, and also to whom it has been issued.

iii.   **Book pocket**—The pocket is pasted on the bottom of the inner right side of the front, or back-card board cover. This is also meant for lending books. In this pocket, the book card is inserted..

The labels are written in superior type of ink-so that it may not blot. Accuracy is very important in this job, because if labels are not accurately written, the books may be misplaced.

Next comes the card filing work. In classified catalogue, the main and cross reference entries are filed in the classified part, while the other added entries are filed in the alphabetical part. In the alphabetical catalogue, cards are filed alphabetically, either word by word, or letter by letter. A.L.A. Filing Rules is followed for filing catalogue cards. The shelf list cards are filed in the shelf list.

After this whole process is over, the books are arranged on the shelves and are ready to be circulated on read in the library. Responsibility of the technical department does not end here. The regular updating and maintenance of the library catalogue is an important work. This means filing of the cards of newly processed documents, withdrawal of cards of last or withdrawn books, correction of cards, labelling the catalogue trays and providing adequate guide cards. So it can be inferred that the technical processing section is the pivot of the library, around which all the activities revolve.

3.7   Exercise

1.   Discuss the factors which decide the selection of books in a library.

2.   Give the detailed work of the classification section.

3. "Accuracy is very important in the technical work of a library".—
Discuss.

3.8 References

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Unit 4 ❏ Circulation Activities

Structure

4.1 Introduction

Circulation section is the hub of the library. It is the section where users get their stipulated and anticipated service. It is the most important public relations counter ensuring users satisfaction. In this unit, the management of the circulation section, various circulation systems, different changing systems and the interlibrary loan are dealt with.

4.2 Circulation Section

The management of the circulation section is a very important task. The staff has to know about the needs of the users, they must be very speedy in handling the books or other documents, they must have a knowledge about the stock of books, and they should be willing to cooperate with the members of the library. Since the staff of this section always meet the demands of the users, so they are most competent to know about the presence or absence of a particular

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item in the library. Moreover, the demand of the users help the staff to suggest for the acquisition of a particular book in the library. The personnel of this section also do a very important work in sorting out the books which need to be preserved urgently—they become aware of distorted, mutilated and damaged books, and also can detect the particular user involved in these works. In this way, they are indirectly very much responsible for maintenance work of the library. Maintenance of statistics in this department is very essential, because without these, reliable records can not be prepared. Records are prepared regarding the daily issue and lent out documents; numbers of users availing the lending facilities each day; amount of fines collected per day; number of new members enrolled and number of withdrawing members etc. These daily statistics are also minutely classified like :

i. address of visitors; their occupation, sex, age.

ii. name of members—

    (a) Occupation, sex age (public library),

    (b) Standard/stream of study, age, sex (academic library),

    (c) Department, post, interest (special library).

iii. number of documents issued and returned daily—Subject wise, languagewise, streamwise, material wise.

iv. number of documents lost.

v. amount of fine—Categorywise, documents wise.

vi. number of mutilated books—Subject wise.

The activities of the circulation section are summed up in a nutshell :

1. To maintain the records for registration of members of the library, with their category of membership.

2. To keep the records of the expiry date of membership of every member.

3. To issue books and to keep the record of the name of the borrower

4. To keep record of each book regarding the date of return.

5. To keep records of overdue books and to send reminders.

6. To make renewals if a book is issued to a particular reader.

7. To maintain the reservation records.

8. To maintain records of circulation activities.

9. To suggest withdrawals of books from circulation, as and when needed.

10. To keep a stock of books very frequently used in the circulation section in broken order.

11. To arrange and keep records of books received on interlibrary loan, issue them to the readers and take these back.

12. To maintain all statistical records of circulation section.

13. To maintain good public relationship.

4.3 Circulation Systems

There are various systems of issue and return of books in a library. The particular system which a library would adopt depends on the type of the library, its resources and its users. The charging systems have evolved over a period of time. From the simple day book system, sophisticated computerised systems have evolved. We shall discuss these one by one.

(a) **Day Book system** : In the earlier days, the number of borrowers were very small, and this system was sufficient. Here, in one register, all the transactions in a day were recorded, along with the particulars of the book and the borrowers' names.

(b) **Ledger system** : Ledger was a bound book with numbered pages. The transfer of daily transactions were kept in this ledger book. One page was allotted to each borrower. The records entered were date of issue, author, title date of return, librarian's initials.

(c) **Temporary slip System** : Loose slips were used with printed headings here. One slip was used for each issue of the book. Entries like call no. author, title, edition, date of publication, particulars of borrower, and date of issue were recorded along with signature of library staff. Then the slips were arranged in a particular order. The slips were destroyed when the books were returned by the borrowers. No permanent record of charging and discharging could be kept.

(d) **Card system** : Here cards are used for keeping issue records. There are two type of cards—book card and membership card. In the former, there is one card for each book. In membership card, the members possess a card, in which the details of issue and return are recorded. These will be discussed

in details in the next section.

(e) **Automated circulation system** : Nowadays more and more libraries are moving towards the automated circulation system. The advent of computers in the library, and the introduction of numerous packages aid in circulation work very much. Packages like CDS/ISIS, SOUL, LIBSYS, TLMS etc. are becoming more and more popular in carrying out the issue and return of books.

4.4 Charging Systems

Though there are many charging and discharging systems, we shall discuss two of these. These are Brown and Newark charging systems.

(a) **Browne Charging System** : This was devised by Nina E. Browne towards the lad of the 19th century. In this system, a pocket or envelope is used for every borrower. When a book is to be charged, the book card is removed from the book pocket, and placed in the borrower's pocket which records the name of the borrower, address and membership number. The borrowers pockets are then filed under the date, either by call number, author or title of the book.

The book and borrower's pocket (3" 2" size) are presented at the circulation section by the borrower. The person at the counter takes out the book card from the book pocket, and keeps it in the borrower's pocket. The due date of return is stamped on the due date slip pasted on the front, or backflyleaf of the book, and the book is given to the borrower.

Then the book card is filed in the charging tray behind the respective due date card by call number. The call number and borrower number is recorded in the daily circulation statistics sheet.

In discharging, the book is presented for return. The issue date or due date is checked with due date slip. The book card with borrowers pocket is picked up from behind the date guide card. The borrowers' pocket is returned to the borrower, after cancelling the issue date or due date. The book card is inserted into the book pocket, and so the discharging process is complete. The main advantages of this system are its simplicity and rapidity. Other than this, the reminders can be issued without loss of time; delay fine is calculated easily and issue statistics can be easily prepared. Moreover signatures are not required

during charging and discharging. The disadvantages are : no permanent issue record is available, this system takes a lot of space, very efficient and vigilant staff is required to practice this system, and it can not be easily ascertained as to whom a particular book is issued

(b) **Newark charging system** : Under the leadership of John Cotton Dana of Newark Public library, this system originated in 1900. The members, after selecting books from the shelves present them at the issue counter along with their membership cards. The staff will stamp on the date slip of the book, either issue date or due date. The due or issue date is stamped on the book card taken out of the book pocket and the borrower's card. Borrower's number is written opposite the date in the book card, and is filed behind the date guide card. The book card and the book is given to the borrower and so the book is charged.

In discharging, the book is presented for return along with the membership card, date of return is stamped on the borrower's card, and so the book is discharged. Borrower's card is returned to the borrower. Book card is located in the circulation file from the date on the date slip, and placed in the book pocket.

The main advantage of this system is that here, a permanent record of books issued is maintained. Since duplicate records are available, there is no danger of dislocation of issue records. The whereabout of a book, where it is, to whom it is charged, when it is due, can be found out.

There are some disadvantages also of this system—the important one being that the issue procedures are time consuming. During rush hours, there is a danger of dislocation of normal working, because all procedures cannot be carried out.

4.5 Interlibrary loan

Interlibrary loan is the process by which a library requests materials from, or supplies materials to, another library. Interlibrary loan is an essential service nowadays. Owing to financial, personnel and information resource crunch, each and every library is facing lot of problems. Therefore resource sharing programme of libraries is becoming more and more important. If an user seeks a document

not present in the library, efforts are made to provide the user with that item, if present in other libraries. This is possible only if an interlibrary loan arrangement is made between the participating libraries. Once the user returns the book, it is sent back to the owing library. A record of these loan transactions is maintained in a separate register.

In the interests of providing quality service, libraries have an obligation to obtain materials to meet the informational needs of users, when local resources do not meet these needs. Interlibrary loan is an adjunct to collection development in individual libraries. Interlibrary loan is a mutual relationship, and libraries should be willing to supply materials as freely as they request materials. We shall discuss here the responsibilities of the requesting and responsibilities of the supplying library :

Responsibilities of the requesting library — the requesting library should:
- establish and maintain an interlibrary loan policy for its borrowers and make it available;
- process requests timely;
- identify libraries that have, and may provide the requested materials;
- be responsible for all.authorized charges imposed by the supplying library, if any;
- ensure compliance with copyright law and its accompanying guidelines;
- be responsible for honoring due dates and enforcing all use restrictions specified by the supplying library;
- request a renewal before the item is due. Responsibilities of the supplying library — the supplying library should :
- establish and maintain an interlibrary loan policy, and provide it on request.
- process requests within the timeline;
- state any conditions or restrictions on use of the materials lent;
- state the due date or duration of the loan on the request form or on the material;
- in need, recall materials at any time, or may suspend services to any requesting library.

So it can be inferred that interlibrary loan is essential to the vitality of

libraries of all types and sizes, and its effectiveness depends upon the responsible distribution of borrowing and lending.

4.6 Exercise

1. What are the functions of the circulation section of a library?

2. Discuss the different circulation systems.

3. Which charging system is to be followed in a public library and why?

4.7 References

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Unit 5 ☐ Stacking, Shelving Methods and Stock Verification

Structure

5.1 Introduction

An important part of management of libraries is the circulation work. For proper circulation of library materials, appropriate stacking and shelving methods are necessary. Stock verification, or checking of the documents in the library physically is another part of the management work. All these together form the maintenance work of the library. The maintenance work mainly includes the organisations of the library materials.

5.2 Stacking-Principles and Systems

Stack rooms are meant for housing the collection. The main consideration in stacking is to achieve economy of space, while ensuring ease of accessibility for the readers to the shelves' contents. This problem is more and more faced acutely in today's space crunch system. The other principles of stacking is to

ensure maximum capacity; facilities for accommodating books and non-book materials; easy accessibility to books and also other related areas like library catalogue, circulation desk etc.; proper ventilation for adequate flow of fresh and dust-free air with temperature and humidity control; adequate artificial lighting, and provision for future expansion.

There are various systems of stacking prevalent in the library. These are as follows :—

(i) **Double rows on fixed shelves** : Here books are arranged in double rows on normal fixed shelves. Though this increases capacity, it hinders access to the rear row.

(ii) **Hinged stacks** : Here two shelves are joined together with hinges at one side. One shelf is fixed, while the other is mounted in front of it at the hinges. In this system, the whole shelf can be opened as a door to reach the books on the rear shelf.

(iii) **Rolling stacks** : These are metal stack units mounted on ball bearing wheels which are placed side by side. The wheels help the individual units to roll easily when they are pulled aside.

(iv) **Multitier stacks** : This consist of wooden stacks, supported by metal framework extending from basement to the roof. The basement has a strong foundation, which bears the load of books. The vertical extension of stacks is economical than the horizontal one, as the floor on each stack is a temporary one, which may be either a wooden framework, or a lighter steel framework.

(v) **Compact storage** : Compact shelves are a special type of storage equipment by which a substantial increase in the storage space-capacity is possible. Through the compact storage system, high degree of compactness is achieved. Fremont Rider is in strong opinion of compact storage. The principle of compact shelving rests on firmly packed collections as against dispersed form of shelving. There are three types of compact shelving :—

      (a) Stationary shelves, combined with movable revolving segments.

      (b) Stationary shelves with movable drawers,

      (c) Movable sliding shelves.

There are many factors which the librarian must know when going for compact shelving. These are—(a) cost of shelving per linear foot, (b) mechanical

functioning of the equipment, (c) relative accessibility and visibility of books, (d) ease of shelf labelling, (e) adjustability of shelves and drawers, (f) hazards and safety features, (g) efficiency in shelving, collecting and shifting books, (h) relative quietness and noisiness in operation, (i) adaptability to non-book uses. But there are some disadvantages of compact storage too. The most crucial among them is the cost of the shelving equipment. Apart from this, other factors are— (i) noise caused by moving of drawers or hinged doors, (ii) time required is much more in shelving and collecting the books, (iii) effort needed to teaching the users and staff regarding the operation of drawers or hinged doors safely.

So the decision of installing the proper stacking system in the libraries have to be taken very judiciously by the authority.

(vi) **Bracket stacks** : Here tabular columns into which the shelf brackets engage are supported by a heavy shelf base, and the shelves are easily adjusted at 1 in intervals. A lot of space and materials are saved, and more books can be shelved in a given space.

(vii) **Tower stacks** : Many shelves are arranged one on another, so that the shelf capacity is raised. Made of light wood, these are arranged along the walls and extend up to the very high roof. The whole of the weight does not rest on the lower shelves. But here every volume is not within the reach of the readers. Staircases have to be used for having access to the volumes on the upper stacks.

(viii) **Conventional shelving** : The normal height of the shelves is 190—205 cm. which permits books to be accessed from the topmost shelf. The conventional shelving system is high on accessibility, but quite low on economy. Books are kept on open shelves which are usually arranged in parallel rows with passages from 75—80 cm. in width between the rows. Single faced shelves are placed along the walls. Within the rooms, the shelves are double faced.

Small libraries should use only standard fixed shelves. Libraries which stock books and other materials for constant use prefers normal standard fixed stacks. National libraries or other big libraries, where books are kept not for constant use, but for storing and preserving purpose too, uses other methods of stacking.

5.3 Shelving-Types, Arrangement, etc.

The arrangement of the materials in a library is of two types—Sequence arrangement and shelf arrangement. Sequence arrangement is usually based on any or more of the following features—

(a) access—open / closed, (b) size of books, (c) the purpose-reference / text books & lending books, (d) user category / children / adult, (e) Type of materials—book / film maps, (f) special sequence-on special topic.

All these characteristics are often combined, and a genera decision is taken regarding the choice of arrangement. Some common principles are always followed in all the libraries—over sized and odd sized books are kept in a separate sequence, apart from normal sized books; maps, periodicals, films, audio cassettes, manuscripts, books are all placed separately; books for reference and lending sections are arranged in different places; a juvenile section for childrens books and so on. Within these separate collections, different types of sequences are followed.

The arrangement of books on shelves should be guided, keeping in view the fourth law of library science—save the time of the reader. So books are meant for maximum use, and to be delivered with the minimum of delay, is the principle of a good shelving method.

The various shelf arrangements are :—

(i) **Classified arrangement :** The books are arranged on the shelves in the order of the classification scheme used in the library, because subject approach is the most scientific approach, and most useful basis for the arrangement of books. Approaches to the 'known documents and approaches to the unknown documents both fall under the purview of subject approach.

(ii) **Ribbon arrangement :** In this system, books of fiction are placed on the middle row, and nonfiction books are placed on the upper and lower rows. This system attracts readers to read non fiction books and not only fictions.

(iii) **Block arrangement :** It is the method of shelving books in regular shelf-to-shelf, case to case order according to classification. Here often a section of nonfiction books is kept in the congested fiction areas. But in public libraries, in open access system, readers may often mix up the two categories of books while browsing.

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(iv) **Broken order** : Often it is seen that some books are in great demand, while others may not be used by the readers so frequently. These 'very much used' books are placed separately for easy access and economy of time. Since this is a deviation from the normal process, it is called broken order. In a public library, books on literature, management, etc. can be shelved separately in a broken order.

(v) **Alphabetical** : It is found that in small libraries, books may be conveniently arranged by the alphabet in the name of the author or title. Books of fiction are often arranged in this sequence.

(vi) **Accession number arrangement** : In a closed access system, arrangement of books on the stacks with the help of accession number can be experimentally tried. It requires that there are very detailed and in-depth subject and author catalogues providing access to the content of the materials, and requests are for specific documents whose existence is known to the users.

Stack Maintenance : Maintenance of the stack rooms and shelves is indispensable part of the management process. This maintenance comprises of a number of tasks and equipments :

(i) **Guides** : are to be put up at different places in the library to enable an user / staff to locate the materials. Guides are of different kinds— a) tier guide—Each tier of stacks should have one tier guide to show the arrangement of books on the shelves in that tier; b) pay guide—Each bay of shelves must be provided with a bay guide containing the concerned class numbers and the subject headings; c) gangway guide—These are placed on both sides of the gangway indicating the class numbers and subject headings in natural language terms; d) shelf guide—Each shelf is to be provided with shelf guide indicating the class numbers and subject headings; e) general guide—It gives an overall view of the stacks and the arrangement of books has to be provided preferably in the lobby or near the entrance.

(ii) **Book supports** : Also called book ends are provided to each shelf, at least two for each, to keep the books upright when the book shelf is not full of books.

(iii) **Book trollies** : Book trollies are required for transportation of books on the floor in horizontal way from book shelves to book lift or to any other place, or from one end to other end of each floor.

(iv) **Book lifts :** These are essential in a multistoried building for transportation of books in a vertical way.

(v) **Shelving tables :** One or more tables are to be provided in each floor of book stack for sorting out books for shelving.

(vi) **Ladders :** Two step or three step ladders are to be kept to take and replace books at the top shelves. These are required for dusting and cleaning of books.

The other responsibilities of the personnel of this section are—

(i) dusting and cleaning of the shelves;

(ii) bringing newly processed books from the processing section and arranging them in a proper manner.

(iii) shelf study and shelf rectification-which is the job of restoration of order of books on the shelves.

(iv) detection of damaged books in the shelves.

(v) checking of book tags.

(vi) assistance to readers by helping them to locate and identify books.

5.4 Stock Verification

Library materials need to be verified physically on a regular basis. This is called stock verification. This job is necessary to ascertain that all the materials required by the libraries through various ways can be accounted for. The continuous verification of the library holding may be in parts-shelf by shelf, or subject by subject, or portion by portion. By this method, it is possible to keep constant watch and vigil over the entire stock. Not only this, but it also helps to reveal the number of misplaced books & lost books, and also provide statistical records for the movement of books.

The various advantages of stock verification are :—

(i) It helps to replace the lost books.

(ii) The library staff can be well acquainted with the books.

(iii) Worn out books can be identified and sent for repairing.

(iv) Library catalogue and other stock control records are regularly updated.

(v) Ensures thorough dusting, cleaning and rearrangement.

The various methods of stock taking are with the help of accession register, shelf list and through numerical counting.

Accession Register Method : A simple method of stock taking is with the help of accession register. The register is taken to the stack room. One person calls the accession number with particulars of the book, and the other person checks the information in the accession register, and puts a tick mark on that number as a mark of verification. The unmarked accession numbers thus give a list of lost books. This process is slow and time consuming, and therefore can be used only in small libraries. It also spoils the accession register.

Shelf list method : Shelf list is kept in card form according to arrangement of books on the shelves by call numbers. Each book is thus represented by a shelf list card with bibliographical information. In this method, the shelf list drawers are taken to the shelves. Books are checked on the shelves with the shelf list cards. One person calls out the call numbers and particulars of the books, and the other person checks them with the shelf list cards.

Numerical Counting method : Here all the books on the shelves and the books on loan are counted and tallied with the total number of books as per records. The comparison indicates the loss of books in terms of numbers Since it does not give the particulars of the books, therefore it serves only a limited purpose of stock verification, & thus this method gives a rough idea of the extent of loss.

Withdrawal and **weeding** goes hand in hand with stock verification and rectification. A book is withdrawn from the stock if it is outdated, worn-out beyond repair, found lost in stock verification or damaged so much that is unused. Sometimes a book becomes outdated, (like an out of syllabus book in a college library). These books are then considered to be weeded out. Weeding out involves the arrangement of such books in correct order, assembling the necessary relevant catalogue records & putting a disposition slip in books to be withdrawn.

5.5 Exercise

1. Discuss the various systems of stacking in a library.

2. What are the equipments needed for proper maintenance of the stacks?

3. What are the various methods of stock taking in a library?

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Unit 6 □ Preservation of Library Materials

Structure

6.1 Introduction

The written words, which are the ideas embodied in the human mind years after years are collated and stored in the library. The storage of these ideas are in various media like paper, manuscripts, cartographic materials, audio and video cassettes, microforms, floppies and so on. But storing these in an improper manner leads to loss of these invaluable human knowledge. Scientific management of a modern library involves a well planned preservation programme, to keep these ideas alive into the future, imparting them a permanent nature. In this unit, the various enemies of library materials are sorted out, the damage caused by them are discussed and lastly, the remedies from these damages are also chalked out.

6.2   Preservation—Meaning and Scope

The term 'Preservation' means in a broad sense, the process of keeping an object safe from harm or loss, damage, destruction or decay, and maintaining it in a reasonably sound condition for present and future use. The art of preservation is as old as human culture. Documents were there in the ancient world in one from or other—clay tablets, papyrus rolls, parchment, vellum, birch bark, palm leaf, metal, cloth, silk. Attempt has been made from the ancient times to preserve these materials in one way or other. There are three components of a document in the library which has to be taken care of in a preservation programme : the artefact (the physical entity), the image (the impression on the artefact), and the information (the thought content). These three things are interrelated, though in the modern times, the information (i.e., the thought content) can be transferred to other physical entity, or carriers also. The good quality of materials, durability of constituents of materials, less harmful ingredients used in manufacturing, preventive and preservative measures taken during processing of materials, the care and craftsmanship associated with the manufacture of materials, prevented decay and deterioration, and the materials did not pose considerable problem even during the middle ages. During the modern period, since paper became the main constituent of the library collection, the problem of preservation became more acute. By the end of the 19th century, people became aware of the problems of preservation, and attempts were made to cope with the problems. The physical properties arising from the base materials and their composition in construction of the physical entity of book and other materials, create the problems of preservation. The physical entity of a book is composed of paper, board, cloth, leather, thread, ink, adhesive etc., each of which is susceptible to decay due to aging as well as deterioration. These are caused by various physical, chemical and biological conditions created by atmospheric and environmental situation. The modern concept of digital preservation has evolved, and this involves preservation of information in the digital form, i.e., through bytes and bits, and in the computer. The librarians have the moral responsibility of preservation and conservation, vested in them. The librarians must pay adequate attention to preservation of the materials, of which they are custodians. This is an important part of the management process, and efficiency of management is measurable by the proper maintenance of the library materials.

6.3 Library Materials—Enemies

There are numerous agents responsible for the decay and destruction of library materials. All these agents harm the materials in three ways—firstly, some agencies do not bring any physical harm, but accelerate the process of decay, and thus weaken the strength of support. These agencies include acidity, frequent climatic fluctuations, heat, light, humidity etc. These enemies have a long lasting deleterious effect on the library materials. Slowly and steadily they damage these materials. The second way of damage to library materials are caused by zoological and botanical agents which instantly cause visible damage, like formation of scars, holes, marks, tears on the materials. The third way is by those agents which cause sudden destruction, like natural calamities. We shall now discuss these one by one.

Type 1.

(i) **Heat :** It makes the paper yellowish and brittle. Increase of temperature makes the paper dry, and so paper loses its natural strength. Heat adversely affects the fibres of cloth, paper, and other allied organic materials. In short, we can say that heat acclerates the mould growth, dries out adhesives, causes embrittlement of paper, and results in buckling of film and tape. The loss of hygroscopicity and swelling ability on heating, can be understood by increased hydrogen bonding between adjacent cellulose molecules.

(ii) **Light :** Paper documents require light, but not direct sunrays. The cellulose fibres lose their strengths on exposure to sunlight. The rate of deterioration varies with the intensity of light. The ultraviolet rays coming directly from the sun cause harm to library materials. Light reacts photochemically on the other ingredients and impurities in paper content such as lignin, acid, resins, glue etc. Artificial light, like fluorescent table light, electric bulbs all cause damage in one way or other. Indirect light is required in a controlled quantity only in the storage area.

(iii) **Moisture :** Moisture and excessive humidly weaken the binding of the cellulose fibres, and thus promotes the growth of micro organisms. Moisture speeds up chemical deterioration and paper becomes discolored, and mildew sets in. In tropical countries, the effect of moisture is felt acutely. Moisture weakens the sizing materials, and loading materials of paper. It causes spreading

of ink. Not only does moisture affect paper, but it also causes softening of gelatin on film and sound tape.

(iv) **Darkness** : Excessive light and direct sunlight are harmful to library materials no doubt, but darkness in storage areas is harmful too. Humidity increases in dark areas. Darkness creates a condition for breeding of biological enemies, and makes shelter for their hideouts. Light, because of its heat element, absorbs moisture to some extent.

(v) **Dust** : Dust and dirty substances increase the harmful action of sulphur compounds. These are sources of both physical and chemical deterioration. Dust and dirt discolour the pages of books and help to grow microorganisms. When dust, which is hygroscopic, is mixed with high humidity and moisture, it is transformed into dirt.

(vi) **Smoke** : Smoke is responsible for chemical degradation and damage to library materials. The chemical contents of smoke, are various oxides of carbon, nitrogen, and sulphur. The physical deterioration is also caused also by smoke, while the suspended smoke particles of the air settle down on the surfaces of library materials as dust.

(vii) **Atmospheric Pollution** : It is a very important deleterious agent of library materials. Polluted air contains oxides of nitrogen, carbon, sulphur which damage the library materials. Ozone, hydrogen sulphide, ammonia, sulphur dioxide, aerosols all cause decomposition of paper and binding materials.

(viii) **Acid** : Acids cause heavy damage to library materials. Main source of acid in paper is from sulphur dioxide of polluted air, ligen in wood pulp, residues of bleaching chemicals, iron gall ink, and from other agents. Acids cause paper to become brittle, crumble, badly stained, and lose its readability. The greatest absorption of acid from external sources occurs in the outer edges of the leaves of books. So, the edges of leaves deteriorate faster than the internal parts of the leaves. The effect of acid is so acute that its minute traces can destroy the entire document in course of time.

Type 2.

Under this type are included those agents which cause rapid destruction. The botanical and zoological agents are included in this category.

(i) **Fungi** : These are a major threat to library materials. They grow in moist and dark conditions. They cause damage by decomposition of the

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cellulose fibres. Not only this, they also affect the sizing and loading materials of paper. They make the paper soft and weak, loosen the binding materials and thus damage paper.

(ii) **Silverfish** : In dusty places, these shiny insects are found. They do not directly injure books or papers, but are very much attracted by the glaze or colouring matter of the cloth bindings, which ultimately they destroy. They eat up the starch, which they get from the bindings of the books.

(iii) **White ants or Termites** : Termites are voracious eaters of almost everything in a library. Since they avoid exposing themselves, they are seldom seen until great damage has been done. They do not stop eating until the contents are shredded and digested, and the waste excreted, leaving a mass of pulp where once were printed pages.

(iv) **Book worm** : It is a generic term that includes various types of beetles which are found in the libraries. These lay eggs, and when these are hatched, the larvae eat their way into books, making tunnels in the pages and book covers. They make the tunnels in book and eat up paper, making the pages almost breakable and unreadable, and are sometimes responsible to stick the page's together so firmly, that these are badly damaged when pulled apart.

(v) **Book lice** : Also known as psocids, they are minute grey or white insects. They live in thousands in the pages of the books, and they are not larger than a pin head. They eat almost everything of vegetable and animal matter collected on surface. They make little damage to library materials, but their presence proves that books are being infected by enemies.

(vi) **Cockroaches** : In the tropical countries, these are abundantly found. They eat the surface of the books and documents. They eat through the cloth binding and paper spines of books. They are particularly active at night.

(vii) **Rodents** : These are occasional visitors to the library. They include mice, rat, rabbits, squirrels etc. They often inhabit the library building, and are voracious eaters of anything made of paper, textile, leather, paste, glue, starch, gelatine etc. They are very quick in action. Rodents do not eat and digest the library materials; they destroy them by cutting into pieces.

(viii) **Human beings** : Perhaps the greatest damage caused to the library materials is by human beings. Not only we damage books through neglect, unawareness, or lack of knowledge, but also through theft, vandalism, hatred

towards some special community, mutilation, rough and bad handling etc. Sometimes library staff cause damage by adopting wrong preventive measures, improper storage, or improper use of materials for repair and restoration.

Type 3.

There are other enemies of library materials which cause sudden destruction. These are natural calamities and accidents. Natural calamities are cyclone, typhoon, flood, earthquake, storm etc. which cause devastating loss to libraries. Accidents like fire are very destructive because all the library materials are highly inflammable. Rain water by accident can soak the library materials. The damage caused by hurricane was recently witnessed in U.S.A., where a number of libraries were devastated.

6.4 Control of Deterioration

Pertaining to the issues causing deterioration of library materials, there should be control measures too, which require planning and careful administrative measures. In this control, all the factors-physical, chemical and biological should be kept in mind.

I. **Environmental control** : Measures must be taken to ensure that deterioration can be checked and retarded. The environmental control starts from the planning and construction of the library building. The soil of the site is to be tested for planning a new building, and insecticides properly applied to the soil. The building is to be properly planned and designed, so that it may be a functional building. Heat should not be allowed in stack areas; moisture should be fully controlled. Windows in the stack areas are to be vertical, and not horizontal. Shelves are to be placed in between two windows against the walls. Stack rooms must be well ventilated and well lighted. Insecticides must be applied to the floors and corners of the buildings. There should not be any drain pipe hole in the storage area. Colored glass panes, usually yellow or green, and curtains are to be used in the windows to control ultraviolet rays of sun.

All sides open double faced book shelves made of steel is ideal for storage of books, because this ensures proper lighting and ventilation for the books. Covered almirahs should never be used for book storage. Books should never be tightly kept on the shelves, and there should always be book supports to keep the books erect.

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Central air conditioning is an ideal means of proper preservation. The ideal temperature in the storage area ought to be between 20°C and 24°C and ideal humidity between 50% and 60%.

Control of heat is very much necessary. During the dry summer months when the heat is too high, windows of the storage area must be closed. Floors of this area are to be cleaned by wet dusters. High speed air circulators must be used in the storage areas.

Dehumidification is an important step in environmental control. This is done by using dehydrating agents, like anhydrous calcium chloride, or silica gel. The control of relative humidity depends on size of the cubic area in a room, quantity of atmospheric humidity and moisture content in the room.

Regular periodical dusting of book shelves is a routine work in a library. Use of vacuum cleaner is recommended. Floor dusting is also essential. Stack rooms must be planned away from polluted air, harmful gases and traces of smoke. Books with the following conditions should be segregated—(a) moulds or fungi infected books, (b) books which are infested by insects, (c) books with physical deterioration. All these books need proper treatment according to their conditions. Such books will be disinfected and cleaned, and will be replaced on the shelves.

II. **Control of biological agents** : If it is found that documents have been initially infested by fungi, mould or other micro organisms, then mild fumigants must be applied to the book shelves. A liquid made up of 10% thymol and 90% methylated spirit must be sprayed on the book shelves and on the books. Apart from this, the following chemicals can be used in low concentration;

    i.   Mercuric chloride (.2% conc.)

    ii.   Pentachlorophenol (0.25% conc.)

    iii. Paranitrophenol (3%—5% conc.)

    iv. Sodium salicylate (10%)

    v.   Sodium pentachlorophenate (10% conc.)

Other compounds which are effective are formaldehyde, boric acid, thymol, ethylene oxide etc.

All these chemicals may be used as repellent or preservative, considering the nature of the damage done, or the type of material applied on.

For rodent attack, the best protection is to seal off their entry points and access to library buildings. Otherwise, poisoning and trapping them is the best method to get rid of them. Warfarin applied in the rodent infested areas can inhibit their attack. Silverfish and book lice can be controlled by spraying Pyrethrum or paradichlorobenzene. Cockroaches are controlled by spray of dust containing Pyrethrum, Sodium fluoride, Gyssum, 5% DDT. Painting of wooden bookshelves by creosote helps in combating termite attack. White arsenic, 5% DDT powder if sprayed on the infected areas, gives good results.

Fireproofing arrangements should be there in the library. Dry type extinguishers should be used in rooms and corridors. These emit tetrachloride, methyl bromide or carbon dioxide, and these are very much effective. There should be periodic inspection of every book and strict vigilance over every nook and cover, ceiling, floor, bookshelves to get good results.

6.5 Library materials—Rehabilitation

Rehabilitation and restoration are the methods applied in preservation of library materials, when the precautionary or preventive measures fail. These are curative measures, taken to reinsure the longevity of the documents. Different methods of rehabilitation and restoration are followed, depending upon the degree of damage. We shall discuss these methods one by one :

(a) **Cleaning and Sterilization** : Cleaning of documents carefully is important process. In case of fungus infected document, cleaning the area with a cotton swab dipped in 5% solution of thymol in methanol gives good result. Salicylanilide, Formaldehyde are good agents for sterilisation.

(b) **Removal of Stains** : Stains caused by excreta of insects, foxing, fungus coating can be removed by various solvents. Benzene, alcohol, petrol, pyridine are some good solvents. The concentration of solvent will depend on the nature of the stain and also its depth.

(c) **Funingation** : This is the process of destruction of biological enemies with the help of "fumes". Fumigation is possible with thymol (most common), formaldehydes, paradichlorobenzene etc. A fumigation chamber is constructed in which infected books are kept, and the chemical by which fumigation is to be done is also placed. Thymol crystals, when heated by an electric bulb in

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the chamber, vaporises and this vapour sterilises the infected documents. The duration of fumigation depends on the condition of infested documents. Formaldehyde fumigation is also carried out similarly. The documents are treated for 24 hrs. to 48 hrs. according to this infested condition. Paradichlorobenzene fumigation kills insects and their larvae, but not the eggs. This method is simple, and no special equipment is needed, and any number of books can be treated.

(d) **Deacidification :** As mentioned earlier, acids are a major cause of damage to paper. Acidic deterioration occurs as a result of hydrolytic action on cellulose. Deacidification reduces the rate of deterioration and increases longevity of paper.

It is done by calcium hydroxide solution and calcium bicarbonate. The sheets of the document is treated in first solution for twenty minutes. After this time, the sheets are taken out and the solution is drained off. These are then immersed in fresh water for few minutes, and then dipped in the second solution for 20 minutes. After this they are taken out, and excess solution drained off. The treated sheets are then placed between blotting papers for soaking. On drying, the paper is deacidified.

(e) **Lamination :** This is a distinct area of preservation because it requires special techniques, expertise, equipment and materials. When the sheets of paper are badly damaged, seriously weakened, and is in such a condition that these cannot be restored by any other means, then lamination is done. Here the sheet of paper is sandwiched between two sheets of supporting material by some adhesive. Lamination gives the sheet the long lasting restoration effect. Such laminating materials are used, so that readability of documents is not hampered, and it is safely preserved from any atmospheric contamination. It is done by glassine paper, tissue paper, chiffon and cellulose acetate foil with tissue paper. In tissue lamination, the document is placed on a terylene cloth over the glass top of a table. Dextrine paste is applied on it. A longer tissue paper is laid over it gently to avoid any bubbles or crease. The tissue paper is gently pressed over it with paste by a soft cloth. The document is then turned over, and pasting by tissue paper is made in the same way. Paste used may be dextrine, CMC paste, or thin starch paste. If tissue paper is not available, chiffon of finest quality is to be used.

6.6 Library Materials—Binding

Preservation and binding are the two sides of a coin. Binding is the part and parcel of the preservation process. The main objective of binding is to build strength into a book, subjected to the rigorous and abuses of library usage. Binding is necessary to make a book fit for use, to the satisfaction of Ranganathan's first law.

The main guiding principles of binding documents are the type of materials, in terms of their physical quality, content value and extent and nature of use. All materials do not need the same type of binding in all libraries. Usually large or heavy volumes, and those which have extra ordinary use have reinforced bindings.

There are a number of anatomical details which constitute binding.

Paper : The first task is to unstitch the volume, collate it, rearrange misplaced signatures, and supply missing signatures, if possible. Then comes thread. The thread used for sewing must be strong and durable. It should not injure the paper at all. Unbleached thread of suitable thickness, of cotton or linen is the best one for sewing. The choice of cotton or linen depends on the quality of paper.

Tape : The tape round which the thread is taken, and against which the sheets of the book are stitched, must be of the best unbleached linen, for heavy books of permanent value.

End paper : It is the extra fold of paper, sewed along with the sections at the beginning and at the end of the book. The end papers must be good, thick and strong.

Board : The board is the foundation for binding. It is attached to the two ends of a book. If the board cracks, warps or breaks, the covering material will wear out very fast.

Covering Material : This is the material that covers the board. These fall in two classes—leather and woven textile fabric. Leather is used for heavy, and fairly permanent books; cloth for others. Paper, like marble paper, is used to cover the sides of the book too.

The Binding process : The main stages in the process of binding are as follows :—

(i) **Preparation of material for binding** : Collation is the first task of the binding process. All the parts and pages of a volume are correctly sequenced. Collation of journal volume ensures extra care. If any defect is noticed in this process, it has to be rectified.

(ii) **Sewing** : .It is the very essence of binding. Books are trimmed before sewing. There are various styles of sewing—All-Along Sewing, or stabbing etc.

(iii) **Cutting & Trimming** : The edges of the leaves are cut with the 'Plough'. It is not usual to cut old and valuable books. The edges are to be sparingly trimmed in other cases.

(iv) **Rounding** : The process of sewing increases the thickness of the back of each section by the thickness of the thread. So there is often an additional amount of swelling at the back of the book, which means that the book will assume the shape of a trapezium. To set this right, the back is to be rounded. The back of the book is first knocked flat, and covered with thin glue.

Before the glue becomes too hard, the back is tapped with a hammer until it takes a uniform canvas form. This is 'Rounding'.

(v) **Backing** : The backing process is to create a groove on both sides of the back. The depth of these grooves should be just enough to accommodate the thickness of the covering boards to be used.

(vi) **Attaching Boards** : Two pieces of board of selected quality, one for each side of the volume, are cut to size. The spine is glued with thin glue. The board is attached to the book and pressed, and the glue is let to dry.

(vii) **Covering** : After the boards have been fixed to the volume, spine glued, dried, the boards are covered wholly or partially by leather, cloth, rexine, plastic etc. If the back is fully covered along with full, 1/2, or 1/4 of the cardboard, the binding is known as quarter, half, full leather, cloth, rexine bound volume.

(viii) **Finishing** : This is the last step in the binding process. Here end papers are pasted on to the cardboards, and the bound book is put under pressure, so that a smooth and curveless binding is ensured. Lettering and decoration are then done. Lettering is done by using gold leaf, silver foil, or by electric stylus.

Types of Library binding : There are three types of binding seen for the various documents in the library. These are :

(a) **Publishers Casings :** It is a light straw-board cover, over which an attractive coloured cloth is glued. This casing is attached to the book itself by narrow tapes projecting beyond the spine to which they are glued.

(b) **Library Reinforced Binding :** This means strengthening the book by adding some extra material. There are some standards for this type of binding e.g., blue (best quality), paste (from best quality starch), board (of best quality, single ply, acid free), leather (from mature animals), etc.

(c) **Library binding :** The various other types of bindings are—

(i) **Full leather binding :** The whole of the card board is covered by leather. Usually reference books, like encyclopedias and expensive books are given this binding.

(ii) **Half leather binding :** Half of the board is covered by leather and the other half by cloth. Back issues of periodicals need this type of binding.

(iii) **Full cloth binding :** The cover board of books are covered completely with cloth. Very heavily used books, like text books are given this binding.

(iv) **Half cloth binding :** The spine and corners of the board are covered by cloth and the rest of the cover board by cheaper materials like paper and other decorative materials. Books which are slightly cheaper are given this type of binding.

(v) **Plastic coverings :** Colourful dust jackets·are attached with transparent plastic foils which covers the books, gives them a glamorous look, and protects them too. They are reasonably priced and can be easily fitted.

6.7 Exercise

1. Discuss the essence of preservation.

2. What are the biological enemies of books?

3. Describe the various methods of restoration of damaged documents.

4. Give a view of the binding process.

6.8 References

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Unit 7 ❑ Personnel Management In Libraries

Structure

7.1 Introduction

The personnel of an organisation play the most vital role, and is essential for the survival and stability of the organisation. So personnel management is an essential part of the library management process. The aim of effective personnel management is to maximise output and profit; by helping the workers develop their capacities to the maximum, and for this it requires a constant alertness and awareness. According to Peter Jordan, the staff management requires a clear idea of what has to be done, and therefore an understanding of the cyclic nature of effective management. The objective of any personnel management plan is to build human competencies, to build a climate, and to improve employee satisfaction with work.

7.2 Library Staff—Types

As noted earlier, personnel forms an organisation's most expensive, yet, most valuable resource. Library staff is responsible for organisation and

arrangement of the library materials as well as for the users' services. A library must have adequate number of competent, well trained and motivated personnel to carry out the work effectively.

The library personnel should have good academic background, scholarship, professional qualifications and knowledge, competence and an attitude to render services. The staffing framework should be planned and designed in a library on the basis of some technical aspects, like job analysis, job description, activity analyses etc. The nature and qualities of a library service largely depend on the activities of the library personnel. The right persons for the proper positions should be selected, and if necessary, they should go through a training. The basic activities of the library are making the documents accessible and available to the users. There are various types of activities like reprography, micrography, management of audiovisuals, binding, computer application, preparation of budgets, accounting, keeping records, organisation and maintenance of office records, routine jobs of office administration etc. Persons having qualifications and experience of performing such activities should be employed in the library. A library must have adequate number of competent, well-trained and motivated professional and supporting staff according to the particular kind of the library and size. Therefore, various types of persons should be there in different types of posts.

The library personnel can be grouped in the following categories :—

    (a)   Professional of different grades for management and professional activities.

    (b)   Semiprofessionals for routine jobs.

    (c)   Supporting staff for specified activities.

    (d)   Staff for routine jobs in administration, financial work and accounts.

(a) **Professionals**—These include persons employed at higher level and middle level, responsible for administrative, managerial, professional and technical activities, placed at supervisory positions. They are placed at various levels in the hierarchial order, from top management level down to operational level, upto a certain stage. The librarians, deputy librarians, assistant librarians and senior library assistants are included in this category. These professionals must have scholarship, academic interest, adequate professional knowledge, technical

expertise, knowledge of latest developments in the field, and adequate experience. They are responsible for planning and programming, organizing and implementing, communicating and administering all the affairs of the library. They must have leadership role, must know motivation techniques and must have a strong decision making strategy.

(b) **Semi professionals**—They are placed at the lower level in the hierarchial order. They usually perform the routine and technical jobs. They should have qualifications in library and information science. Their jobs include book ordering, accessioning, preparation of books for the shelves, physical verification of books, filing catalogue and shelf list cards, maintenance of catalogue and shelf list, circulation work, stock verification and rectification, keeping periodicals record, etc. Their designations are library assistant, technical or professional assistant, junior cataloguers etc.

(c) **Supporting Staff**—The supporting staff include the persons with a wide range of skills, from paraprofessionals to clerks. They perform many routine library jobs, jobs for reprography and micrography, typing and copying of various maters, repairing and restoration of damaged books, operations of different types of equipments, and many other jobs. They must have minimum educational background, but their expertise and adequate experience counts most. Those persons must be employed who have sufficient training, experience and expertise in the particular kind of job.

(d) **Administrative, Finance and Accounts Staff**—There are a number of staff needed for other non professional jobs. They keep and maintain the infrastructural framework of the library. They also do a wide and varied kind of jobs not necessarily related to each other. Their jobs include personnel administration, such as job relating to advertisement for appointment, interview, selection and appointment, promotion, retirement records etc. The job also includes inviting tenders, purchase, stores and supplies, printing and stationary, receiving and despatch, building maintenance, dusting and cleaning, canteen and other essential services. Several persons should be in the library for looking after the financial control, budgeting, accounting, handling of cash, maintenance records, etc.

All these categories of staff make up the human resource of a library. Different kind of jobs and various types of activities in a library are neither of identical nature, nor of same magnitude. The total workload for the present

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and the anticipated workload for the future, should be taken into consideration to assess the staff requirements at various levels.

7.3 Personnel planning

Successful planning and management of human resources is critical for overall organisational effectiveness. It is a complex process that ensures that staff are given the opportunity to develop both their personal and professional competencies, and so maximize their output. The external and internal environment also affects personnel planning. External factors are legal implication, unions, economic conditions etc. Internal factors are size, structure and type of organisation its degree of specialization, personnel configurations, professionalism, formalizations and its technology.

The personnel planning consists of the following steps :—

i.   **Job analysis** : This is the process of studying and collecting information relating to the operations and responsibilities of a specific job. The administration can get the idea and information regarding the tasks actually being done by the individual holding specific job, only through this process. Job analysis helps to understand the step by step procedure of each operation, time required for each job, professional skill and experience needed for each job and the workflow in the library. It provides the details on a quantitative, as well as a qualitative basis. The former refers to such factors as the size of the work group, and the number of times a task is performed per hour, day, or week. The latter refers to working conditions, and human resource requirements. The data obtained through job analysis must be reliable, accurate and comprehensible. The information collected through job analysis are description of the work activities performed, work oriented behaviours, accountability, nature of supervision and so on. So it is seen that job analysis finds out what is to be done, and determines the best method of doing it, the qualifications required of an employee to be able to do the job satisfactorily.

ii.   **Job description** : The second phase of human resource planning is job description. This is the descriptive, factual statement of the duties and responsibilities of a specific job. It may vary from library to library according to the kind of library, size of the library, number of users, total collection,

infrastructural facilities etc. The following information are provided through job description—

    (a)   Job identification—Job title, department, code number of the job.

    (b)   Job summary—Purpose of the job and its relation to other jobs in the unit, definition of the job.

    (c)   Duties performed—Job activities and procedures including a description of the tasks to be performed and the time limit specified.

    (d)   Achievable results—Some measure of performance rating or standards.

    (e)   Accountability—Identifies the immediate superior and subordinates and levels of responsibility.

    (f)   Experience or training required.

    (g)   Salary scale.

    (h)   Machine, tools and materials—Lists and describes each major type of technology, knowledge and equipment used.

    (i)   Working conditions—Various types of working conditions, i.e., ergonomics, hazardous conditions are also noted.

Job descriptions form the basis for human resource planning, and management; but their value depends on how they are used and updated. Therefore this should be planned and implemented very carefully.

(iii) **Selection & Recruitment** : The suitability of a person in the particular library for the post and for promotion thereafter is very important. In selection, usually two kinds of requirements are considered—academic qualifications and working experience. Here we are considering only the external sources for selection, though there is often scope for internal selection also. For this selection, the common methods followed are through advertisements, employment agencies, recommendations, forced applications. There are several basic instruments to assist in making the final selection—application forms, letters or written statements of interest in the position, tests, reference checks, physical exams, interviews, and oral presentations by the candidate.

The management of the library has to choose the particular person most suitable for the vacancy. The key predictor of the candidate's ability to fit into

the particular working environment is the interview method. The interview board can assess the academic background, knowledge of the subjects, general awareness, professional skills, personality, aptitude, leadership, motivation, attitude, sense of cooperation, acceptance of challenge, and efficiency of the candidates.

(iv) **Induction and Orientation** : Induction is the process which establishes what is required of the new appointee; it also orients and introduces the new employee to the organization. The steps involved here are :—

    i.   an orientation programme.

    ii.   induction into the library by the head.

    iii.   introduction to the various section / units.

    iv.   introduction to the work that the person is assigned, by the head of the unit.

These programmes make the newly recruited persons confident in their work, motivates them, inspires them, and creates a sense of belonging to the institution. The programmes are chalked out in such a way, so as to provide information about the library, its objectives, hierarchial structure, rules and regulations, services rendered and the like. These programmes ensures the best dividend from an employee.

(v) **Training** : Training helps the personnel to develop the potential that is already latently there. Periodical in-service training should be organised to promote the best performance, and to motivate the persons to do the best for the institution. Training helps to acquaint the library staff with the current developments in the field.

There are various types of training—technological training to cope up with the rapidly changing technological environment; dealing with 'problem' customers; disaster recovery training; basic supervision training; communication training etc. The training program should be designed so as to be relevant, understandable, and associated with the work environment.

(vi) **Communication** : It has a very important role in library management. It may be in the form of discussion, oral instruction, written note or advice on particular situation. The interdepartmental and the intra-departmental communication are very important in the library. The reception, perception and understanding of a message by the individual is very much related to his personality, experience, expertise, and capability to tackle the situation.

Recognising the barriers of communication, the management staff must make attempt to communicate rightly, and should monitor the actions of the communications as well as should set the feedback. In this way the gaps of communication can be identified, and proper steps can be taken to overcome the situation.

(vii) **Performance Appraisal** : It is the continuing and systematic evaluation of the performance of employee. It helps in improving staff motivation, expertise, provides feedback to employees on their level of performance, provide a method of career counselling, allows managers to set the goals for the future and determine the strategies to reach these goals. The appraisal should not be subjective or based on adhoc impression. There must be some objective parameters for the performance appraisal. The benefits of performance appraisal are :—

    i.   Essential to good management

    ii.   Assures, at least, minimum performance

    iii.   Only valid means for granting, or withholding economic benefits.

    iv.   Means of maintaing control of production / service.

    v.   Essential for employee growth & development.

    vi.   Assess quality / success of orientation & training programme.

    vii.   Reflects a continuous analysis of a person's daily work.

    viii.   Reflects staff member's future and potential for advancement.

    ix.   Essential for planning personnel needs.

    x.   Key to successful counselling of staff members.

7.4 Library Staff—Pattern

The number of staff members in a public library should be sufficient to provide efficient service at all hours when the library is open to the public. The size of the staff for any given library must be based upon the program of service adopted by the library, the population and size of the service area, the financial support, etc.

Dr. S. R. Ranganathan has recommended the following staff formula for estimating the number of various kinds of posts required in a **public library**.

Book Section :

  1 Person for accessioning 6000 books in a year.

Circulation section :

  1 Person for 1500 gate hours.

Librarian & Deputy Librarian :

  1 Person for 1500 working hours in a year.

Maintenance Section :

  1 Person for shelving and repairing 3000 volumes.

Periodicals Section :

  1 person for acquiring and recording 500 periodicals in a year.

Reference Section :

  1 person for 50 readers in a day.

Technical Section :

  1 person for classifying and cataloguing and documenting 8 books / articles per day.

  All the above posts are meant for the professionally qualified staff.

  Later on Dr. Ranganathan modified this formula, and restated it as follows :—

Public Libraries
Professional Staff

  Book Section :

  1 person / 6000 volumes added in a year.

  Periodical sec. :

  1 Person / 1000 periodicals currently taken.

  Classification & cataloguing sec. :

  1 person 2000 volumes added a year.

  Maintenance Sec. :

  1 person / 2000 volumes added a year.

  1 person / 50,000 volumes in the library.

  Administrative Sec. :

  1 Lib. Accountant, / steno typist / clerk.

Reference Sec. :

    1 person / 50 readers using the lib.

Circulation Sec. :

    1 person / 1500 hrs.

Supervisory sec. :

    1 librarian & 1 deputy librarian.

University and College Libraries :—

  Periodicals sec. :

    1 person / 500 current periodicals taken.

  Documentation sec. :

    1 person / 1000 entries prepared each year.

  Maintenance Sec. :

    1 person / 6000 volumes added per year; 1 person / 500 volumes to be replaced in a day & 1 person / 100,000 volumes in the library.

  Unskilled staff :

    1 cleaner / 30,000 volumes ; 1 attendant / 60,000 volumes;

  Classification :

    15—25 books / day

  Cataloguing (5 cards) :

    12 books / day

  Accessioning :

    40 books / day

  Filing :

    200 cards / day

The above staff formula is the recommendations of the U.G.C. (1957) of which Dr. Ranganathan was the chairman, and also of further revisions (1966).

7.5 Exercise

1. What are the various categories of staff in the libraries?

2. What is the relevance of performance appraisal in personnel planning?

3. Discuss the staff pattern in Indian libraries.

7.6 References

1. Bryson, Jo—Effective library and information centre management, 1990.

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3. Mahapatra, P. K.—Library Management, 1997.

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Unit 8 ❑ Library Committees

Structure

8.1 Introduction

A committee is a body, consisting of certain persons, which is assigned a particular job. Library committee mostly supervise and advise the librarian in matters in which public participation is essential. The library committee acts as a link between the library authority and the library. The library committee guides and directs the library services to supplement and strengthen the implementation of the programmes of the parent body.

8.2 Library Committee—Types

The library committee of an institution is usually a statutory body for overall supervision of the library affairs. Besides the library committee as a statutory committee, a library may have other types of committee too. The library authority and the library committee may also appoint various committees subcommittees when needed. The nature of these committees are disc·

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1. **Statutory Committee**—The first statutory committee is the library committee itself. An organisation may have more statutory committees. These are constituted according to legal requirement as stated in the act, statutes, rules and regulations of the parent organisation.

2. **Standing Committee**—This committee is relatively permanent. The membership of such a committee is long-term and stable. Some standing committees, such as budget review committee, deal with the same set of issues continuously. Others like the library management committee deal with a variety of problems. Executive committees are standing committees, which comprise top management and which are primarily concerned with strategy and policy. Standing committees meet regularly and usually before the board meeting, in order to place recommended actions before the board.

3. **Adhoc Committee** This is a committee created for a relatively narrow, short run, yet generally extremely important purpose. An adhoc committee meets irregularly. When its purpose is fulfilled, it is normally dissolved.

4. **Task forces Working Committee**—They are similar to the adhoc committee and project groups. They have a relatively narrow purpose and a limited time horizon, and are concerned with the integration or coordination of activities between units. The matters for consideration usually determine the regularity and length of meetings.

5. **Nominated / Elected Committee**—A larger committee or an authority nominates or elects a smaller body for looking after certain bodies under it. It delegates certain functions to such a committee.

6. **Recommending Committee**—It gives certain proposals which are subject to the approval of the library authority.

7. **Reporting Committee**—This committee decides the matters within certain limits. Such decisions need no confirmation of the supreme authority but the decisions are reported to the latter for its information.

8. **Executive Committee**—This committee is the most powerful of all the types, since it has full powers in the matters which are delegated to it. It need not report its decision to the library authority.

8.3 Library Committee—Functions

The main purpose of the library committee is to give advice for smooth functioning of the library in its routine work. The role of the library committee is vital for library administration and management. The functions are summarised below :—

(a) **Library Building** : The library committee should make sure that a library building is functional and modular. The library must have natural light and air, and it must be hygenic. Necessary arrangements should be made for the proper maintenance of the library building.

(b) **Library furniture & fittings** : The next function of the committee is to see that adequate, proper and cosy library fittings and furniture are made available in the library. Standard furniture should be provided at any cost.

(c) **Library personnel** : Qualified and adequate staff are to be provided for the library so that standard library services are provided to the readers. For proper development of the library, the library committee must ensure that fixed number of staffs are to be provided in the library, their scales are to be fixed, and they should have sufficient opportunity of promotion.

(d) **Library finance & book collection** : The committee should see that enough funds are provided for purchasing basic books and for adding the latest books in the library. It should appoint a sub committee to serve as book selection committee, to avoid the purchase of undesirable books. The books should meet the appetite of the readers.

(e) **Library Rules** : The committee must frame a set of library rules which are not rigid, but flexible & suit the readers' needs. These should be simple enough for everyone to understand.

(f) **Library Accounts & Audit** : An accounts subcommittee can be appointed for checking the accounts & audit of the library regularly.

(g) **Library Cooperation** : A library committee should find out ways and means of securing cooperation between various branches within a locality and between other authorities too.

(h) **Library Policies** : It should lay down a policy for the guidance of the librarian, for the general day to day administration of the library.

8.4 Librarian & Library Committee

The librarian, being the administrative head of the library, as well as the secretary to the library committee, acts as a liaison between the library committee and the library. He is responsible to the committee, and places before the meeting of the committee, all the programmes and routine matters of the library. The librarian is to implement the policy which is made by the library committee. It is the duty of the librarian to prove himself as a reliable guide to the committee for transacting the business of the committee meetings. The librarian as the chief executive of the library, must have full control over the staff. He should keep the committee well-informed about the day to day happenings in the library. He should tender advice to the committee on various matters. He should consult the chairman of the library committee on all matters.

8.5 Library Committee—India

In India, in academic institutions, the Library committees are of advisory type, and are mainly concerned with book selection. In Indian Universities, there is a provision for a library committee which consists of the Heads of various teaching Departments. The work of this committee is to allocate book funds to various subjects, frame and suggest amendments to the library rules, assess the library services provided by the library & suggest improvements in library services. The Vice Chancellor or Pro Vice-Chancellor becomes the chairman of this committee. The University librarian is the ex-officio secretary of it. The library committees of the Universities are both advisory and executive in nature. In the special libraries, library committees act as advisory or recommending bodies. In many research institutions, separate committees are not present. The library authorities perform the committees' functions. In the public libraries, library committees are constituted according to the public library acts of the various states. In Tamil Nadu, there is a state Library committee as the apex body, and it is advisory in nature. Andhra Pradesh has a state Library committee with the minister in charge of Education as its chairman. Karnataka has the Mysore state library authority. According to Maharastitra Public Libraries Act, there is a State Library Council at the state level. The Maharashtra State Government appoints District Library Committee for every district in the state.

West Bengal Public Libraries Act provides a State Library Council with the Minister in charge of library services as its chairman. There is a state library committee in Manipur and a state Library Council in Kerala. Haryana has a state library authority where the minister in charge of libraries acting as the chairman. Mizoram has also the provision of State Library Council, and Goa Public Libraries Act provide for the State Library Authority, with the Minister-in-charge of Library Affairs as its chairman.

8.6 Exercise

1. What are the various types of library committees?

2. Discuss the importance of the library committee.

3. Give an idea of the library committees in India.

8.7 References

1. Evans, G. Edward—Management techniques for librarians, 1983.

2. Mahapatra, P. K.—Library management, 1997.

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Unit 9 ❑ Library Rules & Regulations

Structure

9.1 Introduction

Rules and regulations serve as a guide in smooth functioning of an organisation. These rules bind the staff and the users to follow the instructions, and work in a methodical way in a library. Without rules and regulations, there would be chaos in an organisation. So rules and regulations form the binding factor in any organisation. These prescribe a specific action for a given situation, and ensure that there is uniformity and consistency of actions. The rules and regulations are enforced in the library as the administrative measures and management responsibilities.

9.2 Rules and Regulation—Functions

Rules act as the guides, instructions and directives to the users of the library. They must follow the rules to ensure the smooth procedure of the library functions. Rules are formulated with regulations, so that no deviation of rules

is done. In case of deviation or violation of rules, the provision of regulation enforces the authoritative measures by some steps taken against the deviation of violation. The rules and regulations can be treated as administrative measure of a library. Library rules and regulations are formulated to help the users to understand the procedures of the library, and to provide them guidance and direction in using the library resources and services. Rules and regulations direct the limits of actions of the users whether individual or in groups, by making them understand what to do, and what not to do. Rules facilitate the use of the library in a judicial manner, so that all members can get equal service in all respects. Rules and regulations may vary according to the kind and size of the-library, its user groups, its staff pattern, its information resources etc. But the fundamental principle governing these rules are the same. Library rules ensure the use of information resources in the proper way, and control the misuse of library materials. The general functions of library rules and regulations are enumerated below :—

1. To provide guidance and directives to the members of the library.

2. To make the members aware of their rights, privileges and limitations in the library.

3. To facilitate the use of library materials to every member.

4. Protection is provided to all kinds of library materials against misuse, mutilation, damage and loss.

5. To ensure library services to all the members according to their requirements.

6. To provide a course of actions in specific cases and code of conduct for the members, and ensures uniformity of actions.

7. To provide the use of resources, facilities and services of the library to the users.

8. To empower the library management to enforce these rules and regulations.

9. To control the behavior of the library staff and their services.

10. To give the librarian certain discretionary powers to fulfil the aims and objectives of the library.

9.3 Rules and Regulations—Applications

Each library should formulate its own rules and regulations according to its own requirements. The rules should be flexible, simple, few, reasonable and plausible. In the library the rules and regulations are formulated primarily for the services the library offer. So the service pattern should be incorporated in details. The language of the rules should be expressive, not consisting of jargons, and should not be rigid. The rules should appeal to be reasonable to an ordinary man. The rules are to be framed by an expert. These rules must provide enough autonomy and discretion to the librarian.

These rules should be enforceable as law, if necessary. In the public library, users are of various ages, background, culture and community. They come to the library for recreation, community information etc. So rules and regulations are to be formulated accordingly. The college libraries require to cater to the needs of the faculty & students mainly. They usually do not require specialised service, but require adequate lending and reading room facilities. Rules should include all these factors. University libraries consist of a wide variety of materials, users, long working hours etc. An elaborate set of rules and regulations should be formulated for these libraries. Special libraries consist of homogenous group of readers. Information services are highly specialised here. Rules should be formulated in that way to conform the procedures and rules of the parent organisation.

9.4 Model library Rule

The rules and regulations are formulated for each library according to the kind and size of the library. Each library must have its own set of rules and regulations. These are :—

1. Name, address and telephone number of the library.

2. Working days in a week.

3. Working hours in the working days, and closing time of the public counter.

4. Rules governing the eligibility of membership and categories of membership.

5. Rights and privileges of the members.

6. Restrictions and control imposed on the members.

7. Penal measures for violating the rules and regulations.

8. Rules governing the reading room facilities & circulation of books.

9. Personal conduct and discipline.

10. The prerogative of the librarian in certain cases.

Model library rule

A model library rule for a University library is sketched out below :—

1. **Opening hours** : The opening hours of the library are determined by the university librarian, according to the demand for library use and the availability of staff. Details of opening hours are displayed at the entrance of the library.

2. **Admission** : Admission to the library is conditional upon the presentation of a valid University Identity card or a library card. Visitors are admitted only with the permission of the University librarian.

3. **Library membership** : All staff members and students are to obtain the appropriate identity cards from the personnel office. The following personnel will be granted borrowing privileges on completing the application procedures— Members of the syndicate / court / council; full time staff members of the University; full time faculty members; current students of all the disciplines; research scholars; visiting scholars who will stay in the University for less than three months. Such other persons approved by the University Librarian from time to time for a specific period.

4. **Conduct of library users** :

    *   Smoking, drinking and eating is not permitted in the library.

    *   Personal pagers are not to be taken inside the library.

    *   Outside books, umbrellas and other personal belongings to be kept in the counter outside the library.

    *   Library users are required to sit in the places provided, and they should not move tables and chairs to new positions. Silence must be observed in the library.

- All library furniture, equipment and library materials to be kept clean.

- Books and other items which are property of the library, must not be defaced or mutilated;

- In the use of photocopying machines in the library, the law regarding copyright must be observed. Users are warned that they are fully responsible for any legal consequences concerning copyright infringement that may arise.

- Users will be held responsible for any damage, or loss to any library materials whilst in their change.

5. **Borrowing regulations** : Holders of valid library cards may borrow books according to these conditions : All library materials in the circulation section must be checked out at the appropriate counter before they are removed from the library; the library cards are to be produced when borrowing library materials; books are to be borrowed as per the rules of the borrowing quota; all materials borrowed must be returned before the due date. Items may be renewed either in the library or through telephone, no loan may be renewed if the item has been requested by another borrower; fines for the late return of materials borrowed will be calculated according to the official opening hours / days of the library, and will be charged accordingly; borrowers will be held responsible for any loss or damage to library materials, and they may be requested to pay full value of the replacement; staff members are responsible for returning all the library materials before their employment is terminated; students must also return all books before they withdraw from the University.

6. **Others** :
   - Loss of library cards to be reported immediately to the circulation counter.

   - Library users may be asked to show the contents of their bags, cases etc. when required.

   - Borrowers who have kept overdue books which have accumulated the maximum fines, will be suspended from borrowing until the matter has been settled.

   - Borrowers who refuse to follow the rules and regulations will be barred from using the library.

- The University librarian may from time to time make special regulations regarding admission to and use of particular areas of the library.

- The University Librarian may make any special rules or waive any of the library regulations temporarily in special circumstances for the best interest of the library.

These rules and regulations, though ideal for a university library, may be applied for a public library, or a special library with some amendments.

9.5 Exercise

1. Discuss the necessity of framing rules and regulations of a library.

2. Chalk out an ideal regulation of a college library.

3. What is the role of the librarian concerning rules and regulations of a library?

9.6 References

1. Mahapatra, P. K.—Library management, 1997.

2. Shimmon, Ross, ed.—A reader in library management, 1976.

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Unit 10 ❑ Fiscal Management in Libraries

Structure

10.1 Introduction

Every library or information service—regardless of size or customer base, faces financial issues, like other organisations. So issues of managing money in a library is the focus of each and every library manager. The fundamental concepts underlying library finance must be borne in mind, while making necessary provisions, which are that—library is a spending institution, it is also a growing institution, and every citizen is to be provided with adequate and standard library service. In this unit, focus is drawn on the various aspects of library finance, budgeting and accounting.

10.2 Budget—Types

The budget is a plan document and a financial statement, which provides details of the proposed revenues, and their utilisation for expenditure for a specific period,—usually a year. Library budgets normally are of two types : operating and capital. **Operating budgets** identify amount of money the library expects to spend on its activities over a specific time frame, usually a 12-month

fiscal year. **Capital budgets** address planned expenditures on equipment. Expenditures for technology usually fall into the capital expense category. For libraries, the operating expense is the primary budget. An operating budget addresses the projected relationships between income and expenses. The operating budget defines the limits of the library's fiscal activities for a defined period of time. Within the total operating budget, there is a series of budgets covering specific items of expenditure. These include— (a) Materials budget, (b) Labour budget, (c) Distribution / Expense budget, (d) Administrative expense budget.

Materials budget lists the types and quantities of raw materials, parts, and supplies required to carry out an activity. For libraries, this takes the form of money for various types of collection building items—books, serials, videos, microforms, electronic resources etc. Libraries must be aware of increase in the cost of paper, as well as increase in the cost of furniture and other supplies.

A labour budget specifies the amount of direct labour needed to meet production schedules (usually in work hours). Multiplying this amount by the wage rate gives a total and per-unit labour cost. This budget helps in estimating costs for new programs and services.

The distribution / expense budget takes into account the estimated costs of services and record keeping. Distributed expenses are generally subdivided in terms of departmental responsibility.

An administrative expense budget implies those expenses, that result from performing general management functions.

There are some methods of budgeting to prepare library budgets. These are as follows :

(a) **Line-Item Budget** : It is the most common format. It divides the items of expenditure, line by line, into broad categories, such as salaries, equipment, contingencies etc. with further subdivisions for each of these broad categories. There is no standard number of expenditure classes for line—item budgets. That number varies from organisation to organisation. The advantage of this type of budgeting is that it is easy to prepare, present and understand. It is extensively practised. But there are some drawbacks in this system also. This method does not evaluate any activities and services of performance, and also does not suggest any future projections. Here budget funds allocated for one item can not be spent for other items. It emphasies tools, rather than what these tools have to achieve. It lacks a forward look, and does not provide

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accountability for performance.

(b) **Performance Budget :** This type of budget is widely described as the tool for fiscal control. Performance budgets focus on what the library staff do (tasks) rather than services (programs) or classes of expenditure. A performance budget is an expansion of a line-item budget, but gives the authorities a means to assess staff performance, in terms of quantity and establishing unit costs. Management techniques such as cost benefit analysis are used to measure the performance and establish norms. In this budget, a senior manager can give each functional department head his own line-item budget to manage. This approach provides a useful training tool for junior information professionals. The emphasis on the service mission of the library is the main advantage of this budget. But the major drawback of it is that, it is of little value is assessing quality. It often does not show a clear relationship between money and service.

(c) **Program Budget :** Program budgets relate the expenditure to the services / programs the library provides, and have clear links to mission, goals and objectives. Such budgets require more time to prepare. So often this budget has a lower usage. These steps are necessary to accomplish this budget : identify library objectives, relate broad objectives to specific service programs, relate programs to resource requirements, relate resources inputs to budget money, relate inputs to outputs. These steps show the interrelated nature of management activities. The next step is to determine work programs : groups of related activities that produce complete tasks and products. Each work program is then assigned a cost, which serves as the basis for the estimation of the works program's financial requirements. A library manager can assign to any activity within a library, a time factor and a cost factor. One can then combine these factors in work measurements, to determine how much time and money is necessary to do both the parts of a job, as well as the whole job.

(d) **Formula Budget :** Based on financial norms and standards, this method tries to relate some inputs like users served, academic programmes supported and ratio of book stock to total funds of parent body. The formulae are used for financial estimation as well as budget justification.

(e) **Zero-base budget :** This budget system was developed by Peter Phyrr as a means of achieving more effective planning and fiscal control. This system is based on the development of a hierarchy of functions, based on the assumption that the unit or agency is starting operations for the first time (point

zero). Thus, the focus of the planning and development of the ZBB is on the unit's purpose, and on the functions it should perform in order to meet the reasons for its existence. Several phases of ZBB are necessary in order to implement the system : construction, planning, budgeting and control. The time-consuming part of the process and a more cost effective one is the construction phase. It is during this phase that the budget maker assumes that the unit is engaging in zero activity. ZBB improves the plans and budgets of libraries and helps to develop good management teams.

(f) **Planning Programming Budgeting System (PPBS)** : This method is a combination of both the programme and performance method. Here emphasis is given on planning of the total system. It begins with the identification of objectives and goals of the library, and ends with the performance of the implementation and achievements. The controlling aspects are the evaluation criteria. PPBS emphasises the selection of appropriate criteria for evaluating the alternatives to achieve the goals. It combines the planning, implementation of planning through activities and services, evaluation of the services rendered, and the final results through cost—benefit analysis.

Preparation of Library Budget : Usually, budget estimates for the current financial year is notified by the parent body during the middle of the current financial year. The librarian prepares the budget estimates for the next financial year. In budget estimation, t e librarian considers the increased cost factor for the materials to be purchased, because of the escalation of prices. Provision for expenditure for new posts, increase in salary and allowance of the staff members, retirement benefits to persons retiring, and other expenditure for staff should be calculated.

In the budgets, there are two major heads-receipts and expenditure. These two heads are divided in may sub-heads. These two major heads are divided in 2 categories-recurring and non recurring. Under recurring head, falls the administrative cost under routine heads. The nonrecurring expenditure includes costs for new building, extension of existing building, purchase of furniture, purchase of equipments etc. The items in non recurring and recurring heads vary from library to library, according to the kind, size, services rendered.

In the preparation of budget, fund should be provided for each budget head, and details of items under a particular head. The management should see that the budget heads are spent properly and only for the particular purpose for which these are estimated.

10.3 Library Finance : Sources

Different kinds of libraries have different sources of finance. We shall discuss these one by one.

i. **Academic Libraries** : Academic libraries are those attached to the academic institutions. The three types of academic libraries are school library, college library and university library.

School library—Here the funds are managed by the school authorities. Students have to pay their library fees. Donations are often received from individuals too. Apart from this, State Government, municipal bodies, local bodies or other organisations often give grants.

College Library—The college management is the main source of financial aid of college libraries. In Government colleges, the support is received from the Government through the college governing body. In non-Government colleges, the University Grants Commission and State Government gives the capital grant for building, equipment, machineries etc.

University Library—They get their fund from universities out of their own fund. The major part of the revenue is sanctioned by the university for books, periodicals, equipment, machineries etc. Apart from this, the UGC, and State Government also gives grants.

ii. **Public Libraries** : The main sources of public library revenue are subscriptions, endowments, Government grants, fines and fees, gifts and taxes. If we mean a public library in the true sense, it must be fully financed by the government under appropriate legislation. Some library authorities consider library subscription as a source of revenue. But this view is not supported by most of the experts in this field. In U.S.A., the acceptance of endowments and other private donations is a popular source of revenue for the libraries. But endowments can never be expected regularly, and the library financial demands are recurring in amount and nature. Uniform rates of library taxes can be levied, thereby making it easier to provide standard and uniform library service in all the parts of the country. The taxes may either be a surcharge on existing taxes or a fresh by, i.e., library cess may be levied. Library cess is charged in form of a surcharge on taxes on lands and buildings, on vehicles, on professions,

etc. As stated earlier, the ideal public library must be financed by national and local governments. The Government should also make up financial deficiency in backward areas, so that uniform library service is provided to all persons in the country. When members lose their books and do not conform to the library rules, a fine is imposed on them. The income from fines and overdues, though very meagre, is also a little source of revenue.

iii.   **Special libraries** : Special libraries are organised and attached to the parent institutions. These are libraries attached to learned bodies, scientific institutions, research institutions etc. These type of libraries are fully financed by the parent organisations.

Library Expenditures : Library is generally considered a spending institution. Libraries spend money on books, periodicals, various services, furniture & equipment etc. Library expenditure is a recurring one. Since the library is a growing organism, the expenditure is ever increasing, and also because of the support service, the expenditure is continuing. The library expenditure is to be planned in advance and proper financial estimate should be prepared on various heads and subheads of expenditure. Library funds should be equally allocated for spending on different types of reading materials on different subjects. The principle of economy should be followed for each item of expenditure.

10.4   Libraries—Financial estimation

Each and every organisation has to make a financial estimation for the next financial year. The details may vary from library to library, but the general principle remains the same. The librarian has to make the planning of the library accordingly, as short term, medium term or long term. There are three methods of financial estimation—per capita method, proportional method and method of details.

(a)   **Per Capita Method** : Here estimation is based on per head appropriation for the members of the library for library materials, and over all expenditure for maintenance of the library. The salary levels of the library staff in relation to other services and the average cost of publications are taken into account for determining the percapita limit. The U.G.C. Library Committee (1957) recommended that a University should provide Rs. 15/- per student and

Rs. 200 per teacher for acquiring reading materials for its library. In 1964—66, Kothari Education Commission recommended that it should be Rs. 25 for each student and Rs. 300 per teacher. The estimation is made per unit as a basis of calculation.

(b) **Proportional Method** : This method implies that the library authority or the parent organisation should provide a segment of its total budget expenditure for the library, and the minimum percentage should be fixed. Dr. S. R. Ranganathan suggested that 6% of the education budget of the government should be spent for public libraries.

(c) **Method of Details** : This implies that all items of expenditure are accounted for while preparing financial estimates for a library. These items include salaries, books, periodicals, newspapers, binding, telephones, stationery and contigencies etc. The expenditures are estimated under recurring and non recurring heads. The former includes staff salaries, purchase of books and other reading materials, binding, etc. The non recurring amount indudes the sum required for library buildings, furniture, equipments, machining etc. This method does not reflect the changes, if any, to be included in a fresh budget.

Out of the three methods of finanical estimation, the last one is most dependable and authentic.

10.5   Exercise

1.   Discuss the importance of fiscal management in a library.
2.   Differentiate between Line-Item Budget and Program Budget.
3.   What is the source of library finance in an academic library?

10.6   References

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Unit 11 ❏ Library Statistics

Structure

11.1 Introduction

Until recently, the application of statistics in addressing library problems seemed to be unnecessary for most professionals. Now, however, the advantage of sophistication in understanding statistical application has been seriously felt. Statistics, when properly used, characterize and make sense of numbers. Management involves making choices and selecting alternative strategies. Statistics can be helpful in evaluating datasets and drawing conclusions. It is concerned with group characteristics of numerical data relating to human activities, on which the investigations are conducted. In this unit, the various applications of library statistics are discussed, and thus the beneficial approaches of library statistics is revealed.

11.2 Library statistics—use and function

Library statistics form an integral part of the library management. Library management refers to many levels of policy and responsibility. It directs the

organisation to the successful achievement of its stated mission, goals, and objectives, and consists of seven basic elements, the most important of which is planning. Strategic planning balances aspirations against reality, and involves making choices that presumably change and mature the organisation. Management involves making choices and selecting alternative strategies. Planning serves as a focal point for placing statistics in the context of aspirations and objectives. Library managers can judge the significance of the data or numbers, and identify implications for decision making. The presentation of statistics might include the use of statistical tests and concepts unfamiliar to library managers. Librarians collect large amount of data, which might be digested into monthly and annual reports, or reports to accrediting bodies. At the same time, they might conduct on-line database searching or have on-line catalogues and circulation systems. Where computers automatically capture transactions, or are programmed to record the types of information sought by decision makers, there are increased opportunities for compiling data subject to statistical analysis. All the activities performed in the library, and all the services rendered to the users must be measured, monitored and evaluated. Without the factual records, the output in terms of activities and services rendered cannot be measured objectively. The monitoring and evaluation processes imply factual data about past performances, and their use in future actions. Library statistics is the only medium to show the progress and regress of a library. A comparison can also be made with other libraries of the locality to know whether a particular library is running better compared to others. Both primary and secondary data are used in each department of the library and the final result shows the state of the art situation of the library. But it is to be remembered that statistics should be used with due care and caution.

11.3 Library Statistics—types

There are a number of types of library statistics. We shall discuss these one by one :—

(a) **Descriptive statistics :** This type of statistics provide a useful and convenient means for summarizing datasets. Librarians might collect 500 completed questionnaires and then need to digest or summarize the information. By computing percentages, measures of central tendency, and correlation

coefficients and by displaying the results graphically, librarians reduce the data to manageable quantity. In the process of describing and summarizing data, information is lost and the results might be misleading or insufficiently interpreted.

(b) **Inferential statistics** : It is a set of procedures used in drawing inferences and generalizations based on a sample of cases from a population. These procedures are derived from the principles of probability theory. Many population are too large to permit the investigation of every case. Sampling distribution serves as a means for characterizing the population.

(c) **Parametric statistics** : These make certain assumptions about population parameters. A parameter is a population score. Parametric statistical tests generally require interval or ratio level data, and meet certain assumptions.

(d) **Non parametric statistics** : These are generally less powerful and require fewer qualifications; they head larger samples to produce statistical significance. Using such statistics, librarians propose that "regardless of the shape of the population we may conclude that ...". Non parametric procedures may ofter result in the loss of information.

11.4 Library statistics—compilation

The numerical data relating to the resources and various activities of the library should be regularly compiled. This is required because it guides the collection development policy & procedures, measures the efficiency & drawbacks of the various sections of the library, measures the output and performances of every member of the library staff, assesses the user services, and overall reflects the progress and regress of the library. The statistical records are kept in numerical data. Therefore, a format with necessary elements are kept, and it is required to fill up the format whenever necessary. The methods of compilation of library statistics depend on the kind of the library, departments, library materials, size of the library, total holding, services offered in the library, membership pattern, frequency of using the library materials etc. The specimens of the format of statistical data are given below :—

1. **Acquisition Department**
   (a) **Growth of Library Collection.**

Reading Materials	1997-98	98-99	99-2000	2000-01	Average Annual growth
Books					
Pamphlets					
Reports					
Patents					
Standards					
Theses					
Surveys					
Others					

   (b) **Annual Growth by Subject in the year ...**

Books	000	100	200	300	400	500	600	700...

   (c) **Collection of books in the year ...**
   By Purchase
   By Gift
   By Exchange

   Total Collection in the year

2. **Processing Dept.**

   (a) **Classification of books.**

	Month		Year
		Date	
Books Received	Books classified	Year	Name of classifier	Signature

   (b) **Cataloguing of books**

	Month		Year
		Date	
Books Received	Books catalogued		Name of Cataloguer	Signature

(c) **Total number of books processed.**

Apr.	May	Jun	July	Aug	Sep.	Oct.	Nov.	Dec.

000

100

200

300

400

:

:

3. **Circulation Dept.**

(a) **Categories of membership & number** (Public Library)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Step

Doctors

Teachers

Students

Homemakers

Lawyers

Engineers

Scientists

Others

11.5 Library statistical software—use

Different types of microcomputer software perform statistical calculations. Developments in the marketplace make it easy for librarians and others to obtain software that interfaces with other types of packages. Many software are fully integrated packages that enable users to enter and edit data, analyze the data using statistical procedures, generate graphics, charts, maps, produce presentation—ready tables instantly, and identify trends (fore casting or other

analysis like time series analysis). The librarians can readily produce reports with access to such software. Now there are increased opportunities for creating new datasets and use appropriate statistical analyses for hypothetical testing, answering questions and examining trends and patterns. The various types of library software are :—

(i) **Spreadsheet software** : Library decision makers can use spreadsheet software for budgeting, project monitoring, financial and manpower projections, and planning. They can generate descriptive statistics, and produce calculations amenable to presentation in tabular form. A disadvantage of using spread sheets for statistical analysis is that library staff often have to write the formulae and create a series of worksheet commands for the statistical procedure.

(ii) **Analytical Databases** : These combine features of spread sheets and database managers. Here, also library staff may have to write formulae. These can sort, manipulate, categorize, and perform computations of data in surprisingly sophisticated fashion. For typical descriptive statistical computation, it is quite powerful. Often an added advantage of such software is its low cost.

(iii) **Special statistical software** : These softwares help the librarians to produce financial and manpower projections, and analyze research and other data using simple and complex parametric & non parametric routines. In these software, commands are given in such a manner that these can permit the reading, editing and printing of data & do statistical calculations.

When evaluating a software program for possible purchase, some criteria are to be kept in mind. These are :

(1) Ease of use ; (2) Compatibility with existing hardware and software; (3) Preferences for statistical analysis techniques; (4) Quality of available documentation; (5) Cost of the program.

A library, planning to incorporate statistical software programs into its decision-making process, should follow some rules. These are :— (a) it should review its goals and objectives, as well as its expectations from such software; (b) the data elements librarian wants to collect should be examined, (c). Staff members are to be encouraged to take research methods and statistics course, (d) current and long term expectations from the use of statistical software programs should be identified. Librarians ought to constantly challenge themselves and attempt to improve the effectiveness and efficiency of the library's information services, operations, and management through the use of statistics.

11.6   Exercise

1. Discuss the role of statistics in library management.

2. How can one compile the statistics of a library?

3. Give an idea of the various library statistical software.

11.7   References

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2. Mahapatra—Library management, 1997.

3. Mittal, R. L.—Library administration, 1987.

Unit 12 ❑ Annual Report

Structure

12.1 Introduction

An annual report is the written document of survey of the actual work done during the preceding year. Every organisation brings out its annual report regularly. This annual report is the reflection of the organisation's progress or regress. Based on this, the organisation can change a) its mode of operation, b) human resource, c) planning and programming of its various activities, d) financial policy and so on. Like all organisations, the library also has to depend on its annual report for its plans and programmes. Since the library is a social organisation, it has all the more obligations to satisfy its readers, and also to clarify its efficiency of services.

12.2 Annual Report—Purpose

As mentioned above, the annual report is the mirror of the achievements or drawbacks of a library. It is the medium through which the librarian can know the achievements and shortcomings of the library services along with the

reasons. The annual report is a combination of individual reports of the various departments of a library—therefore the achievements and the pitfalls of these individual departments are well known. In this way, a comparison between the various individual departments can also be made through this. The report, which contains an account of annual financial condition of the library, is instrumental to know the actual needs of the library.

It is a document which brings out clearly the volume of work performed by the library staff in a year. In this way, the quantity and quality of the staff in various departments can be increased or decreased, or the staff may be reshuffled as need be. So we can sum up the functions of the annual report in this way :—

i. It helps the librarian to know about the financial position of the library—i.e., the income and expenditure of the preceding year. Accordingly, the librarian can report the status to the respective authority.

ii. It helps in efficient human resource management in the library.

iii. It helps to attract the users to the library. In an annual report, information regarding number of new books purchased (with examples); new services added; number of new members; type of members with their professional details; various types of programmes like video shows, lectures etc. held in the library, and other details, are given. These information help to give an overview of the library.

iv. It has an immense importance in tracing the history of the library. Annual report is an ideal reference source for research on a particular library. Since it is a historical sketch of the library, from its origin to the present day, therefore it is an authentic information source.

12.3 Annual Report—Characteristics

There are some inherent characteristic features of the annual report. The report must be written in a lucid manner, and should be presented in such a way that even a layman can understand it. Jargons, difficult words, out of use terms should be avoided. But it should be supplemented with tables, charts,

diagrams, graphs, whenever necessary. Statistical tables and data, catchy words and keywords are all essential for a good annual report. The contents of the annual report will reflect the total management picture. There should be information about clientele. The information should include the natural and potential readership, some professional qualifications of the members, interest subject areas etc. The book stock is another important feature of the content. The total number of volumes in the stock, the no. of volumes weeded out, the new nos. added, the no. of books selected for binding, the no. of books circulated in the whole year, no. of books given and received through interlibrary loan should all be recorded. The same holds true for periodicals or other materials in the library too. Different types of technical services provided throughout the year is to be given. This includes the no. of books accessioned, catalogued and classified in the whole year. It should also give information about the number of duplicate copies of a book acquired in the year. The various types of services rendered throughout the year is yet another important piece of information. Included here are also the reference service, including the no. of reference books circulated for consultation, the abstracting, indexing, digests, current awareness service, reprographic service, documentation, bibliographic service.

The efficiency of a library depends upon the service rendered. So in an annual report, this has an important position. As stated earlier, financial statement forms a major part of the annual report. The detailed analysis of income, expenditure, per capita expenditure in terms of materials, service, staff should all be clearly stated. Based on this, the librarian can try to exploit the untapped sources of finance and also fix an average percentage of expenditure to be spent on books, periodicals, binding, staff, etc. Details about the library building, its repair, construction, annexure, furniture purchased or sold are given here. An important content of the annual report is the preservation of library items. Steps taken in preservation process, agents involved in pest control, no. of books sent to the bindery—all come under the purview of the annual report. A library cannot run without its staff. So the information regarding the staff—their achievements— promotion, awards received, medals, names of those attending any national or international conference should also be included. Apart from this, the new recruits, or the retired personnel—all information are adequately incorporated in the annual report. The extramural activities of the library are also focussed. The activities like extramural lectures, extension lectures, film shows, exhibitions, social and adult education activities are also focussed. The donations received

in case of public library, along with the name of the donors and the names of the members of the library committees are given here.

So it is seen that the annual report brings out clearly the overall activities of a library, in short, it shows the morphology and anatomy of a library in details. Therefore, it is a symbolic representation of the library.

12.4 Annual Report—Example

Year :—

A. General :

1. Name of the library—

2. Nature of the library—

3. Date of establishment—

4. Working hours—

5. No. of days closed in the year—

B. Clientele :

1. Total number of members—

2. Male—

3. Female—

4. Children—

5. New members added—

C. Book Stock :

1. Total no. of volumes at the beginning of the year—

2. No. of volumes added during the year—

3. No. of periodicals subscribed—

D. Technical Services :

1. No of books accessioned—

2. No of books classified—

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3. No. of books catalogued—

E. **Staff :**

   1. Total no. of employees—

   2. No. of new recruits—

   3. No. of retired persons—

   4. Professional employees—

   5. Unskilled employees—

F. **Public Services :**

   1. Total no of books issued and returned during the year—

   2. Average number of books issued daily—

   3. No of readers who used reference service—

H. **Indexing, Abstracting and Documentation :**

   1. No. of indexes made—

   2. No. of abstracts made—

   3. Current awareness service given—

I. **Finance :**

   1. Expenditure

      (a) Books purchased—

      (b) Periodicals subscribed—

      (c) Building repaired—

      (d) Furniture repaired / bought—

      (e) Other expenditures—

2. **Revenue :**

   (a) Membership—

   (b) Grants—

   (c) Various services—Reprographic, Internet, Printout etc.

J. Miscellaneous :

1. Publications, if any—

2. Grant for lectures—

3. Grant for exhibitions etc.—

Date :   Signature of the Librarian

12.5 Exercise

1. What purpose does the annual report serve?

2. What type of information is compiled in it?

12.6 References

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BLIS-III

Library Classification Theory

Unit 1 ☐ Classification in General

Structure

1.1 Introduction

The word 'classification' has come from the Latin 'classis'—calling together of Roman citizens in groups. In ancient Rome nobles were arranged in six orders or ranks according to qualities of blood or degree of wealth. The word 'class' in our sense has the same meaning. Classification is the act of arranging things into classes. It is, in its simplest statement, putting together of similar things; more fully-described, it is the arranging of things according to likeness or

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unlikeness. Classification may also be described as sorting or grouping of things. The 'things' which we classify may be existent, concrete or conceptual or the abstraction. Abstraction is the mental process of grouping or separating.

Classification is considered the most fundamental activity of the human mind. The ability to classify is essential to life. In classification we collect like things and separate unlike things. We distinguish things which possess a certain characteristic or property from those that lack it. We group things which have the property or characteristic in common into a class. The act of classification therefore, consists of dichotomous process. The characteristic is the property, quality or the attribute by which the process is carried out. The process is carried out by arranging individual objects into groups and combining these groups into larger groups and so on. It can also be carried out by dividing groups into subgroups and subgroups into further subgroups and so on. While grouping we proceed from less general to more general. While dividing we proceed from more general to less general. Both these processes are referred to as classification. Grouping is an inductive process and division is a deductive one. Classification is, therefore both inductive and deductive.

Classification groups or separates a series of objects according to the degree of fundamental likeness or unlikeness. But it should be noted that likeness alone is considered in classification. When likeness is defined the unlikeness is merely what left over. Likeness, in fact governs the classification.

We can classify the same object or ideas in many ways. People can be taken as the best example. People can be classified by physical characteristics, Such as height, weight, colour; by religions characteristics such as Hindu, Muslim, Buddhist; by social characteristics and so on. There is no end to the possibilities. In ancient days people were classified into four groups namely, the sanguine (confident), the chloric (angry), the phlegmatic (calm), and the melancholic (sad). The modern thought has classified people into two groups, extrovert and introvert.

1.2 Purpose of Classification

Behind all classification, there is always a purpose. The purpose is to arrange things in the convenient order. It is a method of science. It is a way

of knowing things. It should be noted that classification is primarily an intellectual activity, not a physical one. The classification may be exemplified or illustrated by the grouping of objects in a library, museum or in a shop. But the mere physical grouping is not the real, essential classification. This is only an illustration of classification. The essence of classification lies in the fact that certain things are thought of as related in certain ways to one another.

The importance of classification varies among libraries depending on their functions, the size of the collection and the components of the collection. Classification is more important in a 200,000 volume collection than in a 2000—volume collection. A small special library serving a select clientele, however, may be more concerned with details of classification than would a larger general library serving non-specialist users. Many such elements go into deciding how seriously a given library approaches classification of its collection.

Given the often conflicting demands of collection size and library function, it is passible to generalise only about those purposes of classification that are true for any library. First, classification arranges a collection in a known order, which facilitates the use of the collection. Second, classification places materials nearby. And third, classification allows materials to be reshelved in their proper locations. This seemingly mundane function is of great practical importance in libraries where large numbers of works must be reshelved quickly and efficiently—and where a misshelved work may be lost for years.

1.2.1 Classification in Everyday Life

The word 'classification' has come into English language in its present use from the field of classical logic. In its simplest meaning it is merely the grouping of various things on the basis of likeness. Whether or not we realise it we have used classification all during our life. On our ability to group things together according to likeness rest our chance for survival in this chaotic world. Even the infent crawling about on the floor learns to classify things with which he she collides. He / she groups together those things that will cause pain when he / she butts his / her head against them and place in another group the softer, more yielding things which can hit without damage to himself / herself. We shall now turn to a consideration of some of the common uses of classification in our everyday life. Although the persons who use it never employ the word 'classification' the process is used in almost every walk of life. Take for example, the bus conductor and the way he arranges or classifies his wads of tickets.

They must be arranged so that he can find the one required as quickly as possible. For that purpose tickets are arranged by price into 350 paise, 450 paise, 500 paise and so on. To facilitate their ready identification they may each be made of different colours.

In a shop of any kind the employment of some kind of classification is essential, so as to facilitate speedy access to goods required. Thus in a grocer's shop one will find dairy products together, all cereals together and so on. In turn, each of these may be divided into smaller divisions of like objects. Thus dairy products may be divided into butter, eggs, cheese and so on, and in turn each of these classes of commodities may be further subdivided, if such subdivisions facilitate the use of and sale of the objects concerned. Thus butter can be divided into Amul, Vijaya, Trihut, etc.

Factory stores arrange machinery parts together according to how they are used. Garment shops arrange garments by the make as the customer asks for them in that way. Record shops group gramophone records on the basis of certain criteria. Cinema and Theatre allocate seats and of course, libraries organise collections. Convenience governs classification. It is the question of convenience that dictates the particular way in which things are to be arranged.

1.3 Natural and Artificial Classification

Classification is the act of arranging things in classes according to common characteristics. Things are either already grouped together according to their likeness in natural or they are grouped together by man in his mind or in outer material. Things arranged according to likeness without the aid of man are nature. Thus classification can be divided into natural and artificial. A natural classification is one which groups or separates a series of things according to some fundamental likeness or unlikeness. It exhibits properties of things classified. For example, grouping of persons according to age, grouping of garments according to material.

An artificial classification may be defined as one which groups or separates a series of things according to some external likeness or unlikeness. In other words, artificial classification is based on some artificial characteristics. For example, grouping of garments according to size. The natural classification is scientifically fruitful while the artificial classification is not. In his pursuit of

knowledge Man has looked for those classifications that are most fundamental. Scientists favour classes in which the members have the largest possible number of features in common. For example, zoologists classify animals according to structural similarities. By this method whales belong to the same class (mammals) as horse, cows, rabbits and mice. The layman would be more inclined to think of whales as belonging to the same class as fishes because they both live in water, but this proves to be a more or less in isolated characteristic—whales and fished do not have much else in common. The first kind of classification is known as natural and the second as artificial. For the scientist seeking maximum knowledge of the world this distinction is important, but for many other applications of classification it is not. The farmer is not trying to produce knowledge but food. His major division of animals would put horses and cows in the useful class and rabbits and mice in the pest class. That zoologists classify all four as mammals is of little interest to him. Similarly he would not think of whales as animals at all, since he would not expect to see them either keeping his cows company or eating his corn. The fishing industry, on the other hand, would regard whales as coming within their fold, since the activities aimed at making use of whales are similar to those aimed at fishes.

It should be noted that this distinction between two types of classification is important in some circumstances.

1.4 Concept vs Words

'Concept' is the most fundamental term in all studies related to classification. It is important to distinguish between concepts and words. Concepts are expressed in words but they are not identical with words. For example, a Bengali will use the word 'Aswa' or 'Ghora' where an Englishman will used the word 'horse', a Frenchman uses the word 'Cheval' for exactly the same concept. It may also be possible to have a concept of something for which there is no word, or for which we don't know the word.

Many, though not all, concepts are Class—Concepts. That is to say they are our idea of a particular group of objects. In library classification we are concerned with concept rather than with the objects themselves.

Understanding a class-concept can be demonstrated in two ways—by the ability to say whether or not a given object belongs the class, or by ability

to describe the properties (characteristic) by virtue of which it does belong. I may be said to have grasped the concept of Ghora if I understand the word 'Ghora'. I demonstrate this either by selecting Ghora or horse from a group of animals while rejecting a cow, sheep or goat, or by saying that a horse is a hooped mammal, etc. (that is, by defining the word 'Ghora' or 'horse')

1.5 'Class Membership' and 'Class Inclusion'

The two aspects of a Class—Concept give rise to the terms 'class-membership' and 'class inclusion'. The members of a class are the individual objects of which it is composed. For example, Ramakrishna, Rabindranath and others are members of the class 'Man'. The term 'class inclusion', on the other hand, is restricted to narrower classes included in a broader class. For example, the sub-classes of the class man are rich men, poor men, beggar men, etc.

1.6 Aspects of Classification

Aspects of classification are studied by different disciplines. Fundamental study of classification is closely related to the study and meaning and definition. Contributions have been made in different ways by psychologists, linguists and philosophers.

Psychologists investigate the process of classification as it occurs in the human mind. They pursue its development in children and observe its role in all thinking and learning. Linguistics and semantics are concerned with meanings, definitions and classifications manifested in particular languages. These are all scientific studies in that they descrve, describe and make generalisations about human behaviour. Philosophers, on the other hand, are concerned with the nature of these activities—with what precisely we mean when we talk of meaning, definition or classification. Logicians have recommended a rigorous procedure in classification, to ensure that arguments are valid. Scientists investigate logical and statistical methods to ensure the most effective classification of natural phenomena.

1.7 Logic and Principles of Classification

Since classification is an essential ingredient of thinking it should came within the province of logic. Traditional logic was founded by Aristotle, from which we derive two doctrines that are fundamental to the theory of classification. The first is the idea of categories, meaning the various kinds of concept that are possible or the most general classes to which all existence can be reduced. He recognised ten, of which the most significant was substance. This term refers to what we would call 'things' or 'entities'. Primary substances are individuals, such as a particular animal, building or person while secondary substances are the classes to which these individuals belong, such as mammal, house or Bengaliman. The remaing categories are other aspects of existence, such as quantity, quality, place or action.

The unit of analysis in traditional logic is the proposition, a statement expressed in a sentence consisting of subject and predicate. Aristotle went on to examine the relationship possible between these two parts of a proposition, producing the second important doctrine known as 'the five predicable' (that is, the various kinds of things that can be said of a subject). Of these, the most important are genus and species. We generally think of a genus as any class to be divided, and the species as the result of the division. For example, brick house, stone house and wooden house are the species of house

1.7.1 Logical division

Logical division is the process by which classes are divided into sub-classes by the addition of attributes. A distinction is sometimes drawn between classification and logical division. But in fact they are really two aspects of one activity. The basic rules of logical division are as follows :—

1. The characteristic or principle of division must produce at least two classes. For example, if we apply the characteristic of sex to the class 'persons in general' we get two classes 'male' and 'female'.

2. Each stage of division should be based on one principle of division. In other words, only one characteristic must be used at a time to produce mutually exclusive classes. Each characteristic should exhaust before another is introduced. If more than one principle of division is used at one time the result is likely to be 'cross-classification'.

For example, the question 'Is this animal herbivorous (eating plant substances) or is it aquatic?' is unanswerable because the animal might be both. The animal can eat plant substances and it can live in water. Classes which are derived by the application of one principle of division are called 'simple classes'. Those derived by the application of more than one principle are called 'superimposed classes'. Thus if the class 'animals' is divided, the class 'herbivorous animals' is simple class. The class herbivorous aquatic animals' is superimposed.

3. The subclasses must be completely exhaustive of their parent class. Otherwise we are left with an unknown element. Each class should be divided as minutely as possible. The sum of all the divisions and subdivisions should be as complete as possible.

4. If division proceeds beyond one step, then each step should be as far as possible proximate. Division should not make a leap otherwise important relations may be hidden.

1.7.2 Limitations of logical division in library classification

Logical division is limited to only one kind of relationship—that of a thing and its kinds. This relationship—that of a thing and its kinds. This relationship is also called 'genus species' relationship. It should be noted that the terms 'genus and species' are here used in a logical sense.

If we divide countries into those with a hot climate and those with a cold climate we are doing a logical division and showing genus/species relationship. Similarly Landscape painting is a kind of painting.

A confusion that crops up in logical division is about partition—division of a whole into its parts. A leaf is a kind of plant substance. It is not however, a kind of plant. This relationship is not a genus—species relationship. Other examples of partitive relationship include spatial and time relationships. For example, India / Burdwan, Eighteenth century / 1786. These two relationships in common with the types exemplified by plant / leaf are essential partitive relationship. Burdwan cannot be a kind of India, it is a part of India. Similarly 1786 cannot be a part of eighteenth century.

1.8 Extension and Intension

Extension is often used as synonymous with denotation but sometimes, more usefully, to mean all the species of a genus. The denotation of term is the members of the class represented by that term. Simply stated, the extension of a term is the aggregate of objects covered by that term.

Intension is often used as synonymous with connotation. Connotation means the set of properties (Characteristics) which define the term for class. The intension of a term is the aggregate of qualities implied by that term. In intension we consider the term from the point of view of its meaning or qualities.

We can illustrate the use of these terms in relation to the class 'Library'.

Denotation : Each and every library that exists, did exist or will exist.

Extension : Every kind of library—public library, academic library, special library.

Connotation (Intension) : The small number of qualities that constitute the definition of a library that is, a place where books and other library materials are kept, where they may be read, used and borrowed. A term of wider extension is one which includes a wide field or contains many species within that class. As we proceed to divide classes into species and then divide each species into further divisions and so on, the divisions produced at each process in themselves cover a smaller group of objects than the original class; but each one possesses more specific qualities. It follows that 'greater the extension the smaller the intension' and the smaller the extension the greater the intension'.

If we take the term 'shoe'—a term of wide extension, covering every type of shoe and then divide into Men's, Women's, Boys' and Girls—we have produced four species, each covering a smaller field, but with-wider intension, as each of the four species has the particular added quality of being designed for a man, woman, boy or girl. In division, therefore, we proceed from the broad term to be divided. By a process of gradual division we proceed to smaller and smaller divisions until identity is reached. In terms of formal classification this can be expressed thus : 'classification begins with terms of great extension and small intension and proceeds to term of great intension and small extension'.

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1.9 Array and Chain

An array is a series of coordinate classes derived from one principle of division. The coordinate elements on each level or stage of division form an array. For example, when 'Literature' is divided according to characteristic of language we get English literature, French literature, German literature.

The term 'Chain' refers to a string of subjects, each of which represents a different level in the classification. Literature can be divided first by language and then by form and finally by period. For example,

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                              Literature
(Language
            Bengali          English    French    Others
(Form)
            Poetry    Drama    Fiction    Essay    Speeches
(Period)
         Early    Pre-Elizabethan   Elizabethan   Post-Elizabethan
```
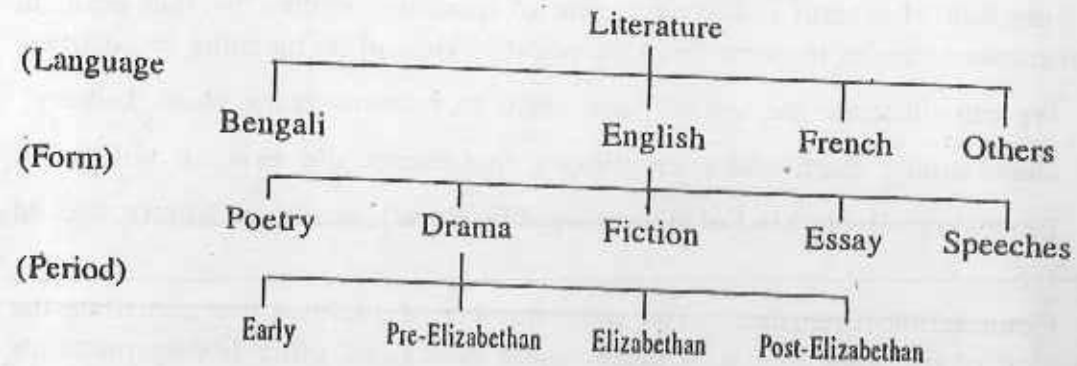
1.10 Exercise

1. Distinguish between natural classification and artificial classification.
2. What is the fundamental difference between concept and word?
3. Define array and chain.
4. What are the limitations of logical division in library classification?
5. Discuss the principles of logical division.

1.11 References

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Unit 2 ❑ Classification of Knowledge

Structure

2.1 Introduction

Knowledge is the sum of information conserved by civilization. In medieval Latin information had the sense of image instruction and formation while in classic French the word information was used in singular term 'Une information' to mean processing and collecting facts in legal investigation. In its everyday usage information is associated with a human situation, with a communication

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medium, with something that can be added and accumulated, with something factual, valuable, useful, or with knowledge.

The term 'Knowledge' includes only not those disciplines that make statements about the world such as science, philosophy and history, but also those that create such as arts, crafts-and professions. It is dynamic. New units of knowledge are being added to the existing knowledge. A discipline is a branch of knowledge. The fundamental disciplines provide the primary division of knowledge for educational purposes. These are described as intellectual forms of presentation of knowledge. Some prefer the term 'Forms of knowledge' to 'fundamental disciplines'. They are similar to forms of presentation in that they tell us what book is rather than what it is about. For example, A history of India is history; it is written in the discipline of history but it is about the events in the past life of Indian people. Subdivisions are areas of specialization within knowledge, for example, zoology, botany, physics, chemistry, etc., within natural sciences. In constructing classification schemes for knowledge the details of relationship between the various forms of knowledge need to be explored.

2.2 Kinds of knowledge

As noted earlier the one and the same set of objects or ideas may be classified in different ways for different purposes. Philosophers use various principles for dividing knowledge. For example, it may be divided according to the knower, as in the threefold division of animal knowledge, human knowledge and divine knowledge. It may be divided according to means of knowing such as the faculties of sense, reason, memory and intuition. It may be divided according to purposes such as practical, intellectual, entertainment and spiritual.

The modern philosophical writings of greatest relevance to library classification are those by philosophers of education. In particular they are concerned with identifying the fundamental forms of knowledge as a basis for curriculum design.

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2.3   Types of Classification

'Knowledge is classifications'—states John Dewey. In science, classification is co-extensive with knowledge. Scientists are always specialists and each group concerns itself with particular section of the world's phenomena. A phenomenon is anything that can be directly apprehended by the senses or an event that may be observed. In natural sciences, classification is systematic and most precise. In other fields of study the classification is necessary but its use is less exacting.

While scientists have simply the forms of nature to identify and the philosophers the forms of knowledge, librarians should take into consideration all significant aspects of knowledge as it is communicated. Their aim should be to present knowledge in such a way that it is easily accessible to users, and for this the overriding principle must be that of helpfulness. For the librarian, classifying knowledge implies two distinct activities. One is the making of the system and the person who does this is known as classificationist. The other is the specification of individual documents and their allocation to appropriate places in the classification system. This is done by classifiers.

2.3.1   Scientific classification

"Formulation of scientific laws presupposes classifications"—says Stephen Korner in the Encyclopaedia Britannica (15th ed.) article on "classification theory", "because to formulate a law of nature is to state relations between members of different classes". One way of defining the objective of the natural sciences is to say that it is to determine the principle underlying the classification of objects or events. In all the schemes the determination of the class to which a phenomenon belongs is one of the most important conclusions of piece of scientific research. In this sense all the natural sciences are classificatory.

2.3.2   Philosophic classification

Philosophers are concerned with the universe of knowledge. The nature of knowledge itself is a principle theme in philosophy. Librarians are not concerned with the epistemology which is concerned with defining what qualities for the title of knowledge. Insofar as philosophers attempt to define the divisions of knowledge proper, they have some relevance to the task of librarians. We cannot expect a consensus among philosophers as to whether the forms of

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knowledge represent the innate features of human mind. Philosopher of widely differing views have reached very similar conclusions as to the number and nature of these forms. Aristotle demonstrated the empirical approach. His criteria for distinguishing the forms of knowledge were aims, subject matter and mode of enquiry, which produced a primary division of theoretical knowledge, practical knowledge and productive knowledge. The divisions of these three primary forms in the modern context were natural sciences, mathematics and metaphysis for theoretical; ethics and social sciences for practical; and fine arts and useful arts for productive knowledge.

2.3.3 Bibliographic classification

The twentieth century has evolved the idea of classification as the detailed specification of individual works. In 1874 W. S. Gevons described the classification of books as a logical absurdity and a practical impossibility. On the first point he was correct but on the second history proved him wrong. The typical arrangement of library would consist of some 20 or 30 classes with their appropriate books arranged in a fixed order on the shelves.

It is necessary to examine the current social conditions in order to evaluate the requirements of classification at any period of time. The relevant factors include the number of books in existence, the rate of continuing publication, the size of libraries, the number of library users and the like.

2.4 Category

The term category is used in bibliographic classification to mean the broadest comprehensive classes of phenomena. A category is a grouping of phenomena applicable to the whole or a large part of knowledge. In other words, categories are the most general classes of phenomena. The most general set used for this purpose is that of Ranganathan's Colon Classification. It consists of five categories called Parsonality, Matter, Energy, Space and Time (frequently referred to as PMEST). Time includes any period limitation of centuries, decades, etc. Space includes geographical divisions of continent, country, etc. The others are probably more easily understood in the terminology of the Classification Research Group Entity, Property and Activity.

The use of the Categories may be illustrated by Library Science, where

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Personality is libraries (public, a academic, special, etc.). Matter is library materials (books, periodicals, etc.) and Energy is library practices such as cataloguing, classification, etc. The advantage of this set is that it can be applied to all areas of knowledge.

Categories for use in the whole, or a large part of knowledge are known as 'Fundamental categories'. Ranganathan did not attempt to apply these categories to knowledge as a whole, but looked for their manifestation in particular subject fields. B. C. Vickery has suggested another set of categories—whole thing—kinds (of a thing)—Parts (of a thing)—Materials—Properties—Processes—Operations—Agents—Space—Time. This detailed set is particularly appropriate to the fidds of Science and Technology.

A distinction is drawn between disciplines and phenomena. Phenomena or things are studied by disciplines. For example, there are two concepts in 'the psychology of child', Psychology is the discipline concept and 'Child' is the phenomenon being studied by discipline. This phenomenon can be studied by other disciplines such as Education, Medicine, etc. Thus the same phenomenon can be studied by different disciplines. Phenomena may be either concrete things or abstract ideas such as love, hate or beauty. In fact phenomena studied by disciplines play the role of subject concept. It tells us what the document is about.

2.5 Facet

When phenomena are studied in the context of a particular discipline they can be brought together into closely defined groups. In other words phenomena can be divided into groups or classes on the basis of shared characteristics. These groups or classes constitute the facets of that discipline.

Examples of phenomena with the subject area of Medicine are heart, lungs and liver. These phenomena are all parts of the body. They are called part of a body facet. Therefore, the facet of a subject field consists of a number of phenomena within that subject. They share some common characteristics in common.

Simply stated the facet is the whole group of sub classes produced when a subject is divided according to a single characteristic. For example, the class

Literature can be divided by the characteristic of form such as poetry, drama, fiction, etc. Within a facet an individual member or isolate is called a focus. Drama is the focus in the form facet of the class Literature.

2.6 Class

Any division of a scheme is a class. In logic the term 'class' is applied to a certain number of concepts, roughly what we know as 'Things'. In classification schemes, any division is a class but these divisions are of several kinds. Ranganathan distinguished between basic subjects on the one hand and their contents on the other. Basic subjects are areas of specialisation, traditionally defined and constantly increasing in number. They were the starting point for detailed classification, after which the category formula of PMEST could be applied.

2.7 Cultural aspects of Knowledge

If a particular religion is dominant in a particular culture, then it is accorded pride of place in the organisation of recorded knowledge. In a Euro-centric culture the dominance of Christianity can be explained historically. But this dominance in a classification scheme is difficult to justify to multi-cultural and multi-faith users. This problem has an acute practical side as publishing expands in the areas of comparative and non-Christian religions. Yet cultural bias in knowledge classification is not a western preserve. Ranaganathan describes the vedic system of knowledge thus :

1. Dharma : Concerned with the preservation of society a coherent organisation. It dealt with law, religion, philosophy d ethics.

2. Artha : The knowledge required by a state at material, economic and political levels. It covered economics and applied sciences.

3. Karma : Knowledge pursued for its own sake—or joy in artistic creation. It covered linguistics, literature and fine arts.

4. Moksha : The knowledge that only a small minority in any community find competence or leisure to develop or appreciate. It meant spiritualism and mysticism.

2.8 Classification Systems

Classification systems for knowledge may themselves be classified according to purpose. A complete map of any area of knowledge, displaying all its concepts and their relationships, is known as a classification scheme or system. Such schemes may be designed for different purposes. E.C. Richardson gave a useful classification of these purposes. He divided systems first into theoretical and practical. He arranged theoretical system into three classes :

1. The philosophical or scientific, concerned with the order of sciences or the order of things.

2. The pedagogic, organised with reference to courses of education.

3. The encyclopedic, akin to pedagogic but included some material as will as outline.

It may be noted in passing that the earlier general encyclopedias were arranged systematically by a classification of knowledge. Modern encyclopaedias have been suffering from the disintegrating effect of alphabetical arrangement.

Richardson divided practical system into bibliothetic and the bibliographic. The bibliothetic is meant for arranging books on the shelves of a library. The bibliographic is suitable for arrangement of titles in a bibliography. The latter is more flexible than the former. Nowadays it is more usual to use the term bibliographic to cover both these functions.

2.9 Universe of Knowledge

Universe of knowledge is the name now given to the study of knowledge from various viewpoints as a preparation for the more technical studies of librarians. The study was initiated by Ranganathan. This study consists of three important elements—historical, philosophical and sociological. The term 'knowledge' is here used in its widest passible sense. It includes not only those disciplines that make statements about the world, such as science, philosophy and history, but also these that create such as the arts, crafts and professions.

Librarians are not experts on the universe of knowledge. It is the province of philosophers, scientists and historians. Librarians are, however, interested in

their findings and on these must their work in the organisation of knowledge. To distinguish the work of librarians in defining areas of knowledge for bibliographic classifications, Ranganathan has introduced the term universe of subjects'.

2.10 Exercise

1. What do you mean by category? Illustrate.
2. Explain the term 'Facet'.
3. Discuss the different types of classification.
4. What is understand by the term 'Universe of Subjects'?

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Unit 3 ❑ Classification in Libraries

Structure

3.1 Introduction

The choice of classification is always related to purpose. The purpose c classification in libraries is to organise knowledge presented in various physic

forms. Since books have been for long the most important form for communicating knowledge, the term 'Bibliographic Classification' is often used as a synonym for library classification. The object of classifying the collections in the library is to get the book to the reader or the reader to the book, in the quickest possible time. In organising the collections in the library the librarian has to consider the needs of the users and the way they make their requests. Documents in libraries are physically collected and stored. Normally these documents are organised in a way that facilitates retrieval.

3.2 Documents

Documents are physical artifacts in which information has been stored for use beyond the immediate moment. Since the dawn of civilisation man recognised the need for collecting and preserving the records of human thought. These records are diverse in form and content. They are referred to by the generic term 'documents'. Documents include copies of romantic poetry in print, in braille or film, in sound and videotape. They include stone-age cave paintings, and photographs of stone-age flints. A book is a document. An article in a periodical is a document. A report, thesis, patent, a conference proceeding are all documents.

Traditionally libraries have been collections of books. Modern libraries have a wide variety of non-book materials. The inclusion of such materials in library collections help librarians to serve people in as many ways as possible. Today's multimedia libraries offer countless advantages. People interested in music can learn much by reading books in libraries. They can also listen to musical recordings which help a great deal in their understanding and appreciation. Peasants may not learn much from books about how crops are grown. But they can understand by watching a film on the process. In organising collections in the library all these varieties of documents are to be noted keeping in view the requirements of the community the library serves.

3.2.1 Types of Documents

It will be evident from the foregoing discussion that documents are available in various physical forms. In fact we find in libraries various types of documents such as manuscripts, printed books, periodicals, pamphlets, maps,

atlases, microforms, dissertations, patents, trade literature, government documents, photographs and illustrations, audiovisual and other non-book media. Through these various types of documents human thought is communicated. In fact, these records are collected and preserved in libraries for the benefit of present and future generations.

3.3 Arrangement of Documents : Determining Factors

We are aware that classification is the arranging of things according to likeness or unlikeness. In libraries documents are isolated on the basis of a common characteristics, systematically. In looking for a common characteristic in books we can consider both form and content value. Either of the elements can be used as a basis for arrangement. We may, for example class all books by size or by colour. It should be noted that only one characteristic has to be selected for arrangement at a time. If the arrangement is by colour, the other characteristics like author, title, subject, etc. have to be ignored. But these two criteria (size, colour) are ephemeral because rebinding can change both. The size of the book signifies only its dimension and the colour the hues. Such an arrangement would not answer questions related to subject, author or title. Books are not used because they are octaves or folios. They are used because they provide answers to specific questions. They are used by readers because they have text which gives information.

It should not be thought that in any library the physical arrangement of documents will follow one basic principle consistently throughout. Different factors determine the arrangement of documents in a large library. Jack Mills in his book 'Modern Outline of Library Classification' has noted the following factors.

(i)   The age of the reader : Children's books are distinguished from adults.

(ii) The conditions attaching to use of material : books for lending are distinguished from those which may only be referred to on the premises (reference books)

(iii) The frequency of use of a book : Current stock is openly accessible whereas 'reserve's stock may be shelved in a stock.

(iv) The size of the material : books of unusual size are shelved separately.

(v) Other physical characteristics : gramophone records, tapes, slides, audiovisual materials are shelved separately.

(vi) The thought content of the material : factual literature is arranged by subject, imaginative literature by language, or author or literary form.

(vii) The language of the material : forign works in their original languages may be separately arranged.

(viii) The value of the material : rare books are separately shelved.

(ix) Peculiarities of form of presentation : files of bound periodicals are separately shelved.

(x) Date of printing : early printed books are shelved separately.

From the foregoing it is clear that library classification must allow for physical characteristics of the stock. These characteristics constitute the form of an item as distinct from the subject. Form tells us what an item is, as distinct from what it is about. However, the thought content or the subject arrangement is still the dominant for deciding the sequence of documents. All other factors as noted in the aforesaid list are in fact functional. In view of the functional factors a library has to adopt more than one sequence. This gives rise to parallel sequences in various collections in libraries. In any library the reference collection is normally left separate from the lending stock and the oversize books are shelved separately from the normal size stock. There may be two sequences of books on one and the same subject. These two sequences are known as 'parallel sequences'.

3.4 Approaches of readers

A reader way demand a document by a particular author or of a particular title or on a particular subject. Let us explain these three approaches of readers and their impact on arrangement.

1. Author Approach : If the arrangement by author is adopted documents of the same writer will stand together irrespective of the subject. This is a good arrangement for those authors whose works belong to belles—letters. These works have more literary value than subject value. These are frequently grouped by language form and by the name of the author. By this method all Bengali poetry, for example, is brought together and individual works within that group are arranged alphabetically by author. Such documents belong to what is called in library parlance the Literature class. Author arrangement within that class will be useful to readers.

    On the other hand, if documents having decided subjects value are arranged by their authors, the reader who wants to see what the library has on Indian Architecture for example, will not find these documents together on the shelves. Author arrangement usually answers one of two questions :

    (i)   Does the library hold a work by a certain author whose name the reader knows?

    (ii) What works have been written by a certain author whose name the reader knows?

    But arrangement of documents on the basis of author is not always helpful to readers. Such an arrangement would not bring together documents on the same subject. In other words author arrangement cannot bring the same specific subjects together at one place.

2. Title Approach : Sometimes readers are likely to go to a library for a document having a certain title. If documents are arranged by title, it will meet the requirements of the reader who knows the title. But this arrangement will not finally helpful to readers. The title of a book is much less stable than the author's name. Titles may change from edition to edition. In books on science titles are often expressed under the headings 'study', 'Examination', etc. and since titles are arranged by the accident of the first word this method has the least claim of three criteria to consideration. Moreover, title arrangement like author arrangement, fails to bring together documents having the same specific subject at one place.

3. Subject Approach : A reader may not know many things about the

documents be wants; but he can approximately know what it is about. This is the subject approach. Majority of readers approach a specific document or documents on the basis of the subject. In looking for likeness in subjects of books a basis can be found for arrangement which will bring together large group of books. This arrangements will meet the majority of demands made on the collection of the library. Therefore, in will organised libraries, documents are arranged on the basis of subject matter. Books on astronomy, art, birds, history, law, philosophy, religion or science are wanted for the subject matter they contain, regardless of size, colour, title, publisher or even author. It is therefore most helpful and desirable to arrange books by subject. The subject approach is for the unknown items and only classification can satisfy this approach.

When we use the term subject we must always mean specific subject. The specific subject of a book is that division or knowledge which exactly comprehends all the major factors that go to its creation. When we have decided upon the subject with which a book deals how are to arrange it in relation to the subjects of other books? Let us consider the following subjects;

Sun, Moon, Planets, Earth, Solar system. On examination it will reveal that they are all parts of the larger subject Astronomy. So they should be placed together on the principle that a reader interested in one subject is likely to be interested in another.

3.5 Alphabetic Arrangement

Psychologically it is the simplest arrangement and can be immediately recognised. Everybody can work an alphabetical arrangement if it is not too elaborate. However, alphabetical arrangement is illological and unsystematic, everywhere dispersing related subjects. In fact the alphabetical arrangement defeats the very purpose of classification. The problems will be evident from the following points :

1. The names of the subjects are not always unique.

2. Synonyms often pose problems on alphabetic sequence.

3. There are problems of homonyms.

4. The names of a subject may consist of two or more words; for example, Geography of India (under G) Indian Geography (under I), or is it to be under G or I?

5. It badly scatters related topics. The linking see also references are not as effective a guide to the related topics as a map of logical classification. If there is a request on 'wheat' and if there is no item specifically on this, information may be found on cereals, food crops, etc. How will these connections be shown in alphabetical arrangement? Its use as the basic arrangement on shelves is therefore rarely attempted.

On the other hand the systematic arrangement is an economy to readers and librarians. It is suitable for library for the following reasons :

1. It brings like books together.

2. It saves time in finding them.

3. It reveals strength and weakness of the collection.

4. It results in a more consistent collocation of closely related subjects for convenience of reference and research.

5. It ensures easy insertion and replacement of individual books.

6. It helps in making of classified entries in catalogues.

7. It facilitates browsing in an open access system.

8. Along with the classified catalogue, it affords the readers a more comprehensive survey of the resources of the library.

3.6 Helpful Sequence

Subject matter is our main concern in library classification. The classification. should ensure collocation of related subjects. This can be achieved if shelf arrangement follows a helpful sequence. Helpful sequence displays subjects on the shelves in such a way that a reader approaching a group of subjects at any point is led by the order itself to the specified subject he wants.

3.6.1 APUPA (Alien—Penumbral—Umbral—Penumbral—Alien)

There are three types of documents. Umbral documents implies the totally relevant documents. This type of material is central to the subject interest of

the reader. Penumbral document is partially relevant and in some way related to the umbral document. It can satisfy the marginal interest of the reader. Alien document is totally non-relevant and is not required by the reader. According to Ranganathan, helpful sequence will not be achieved unless APUPA pattern is observed on the shelves in the open access system. This sequence puts the most relevant documents in the centre with shades of penumbral documents on both sides of umbral documents and the alien documents at out-skirt or as much away from the umbral documents. The helpful sequence, therefore, is said to the one which) follows the APUPA pattern.

3.7 Five laws and Library classification

The five laws of library science are supreme. According to Ranganathan canons and principles should never apply in conflict with the five laws. Experience in libraries shows that more readers ask for books on a particular subject than for books by a particular author. It follows that the subject of the book should determine the helpful sequence. This is what the first law—Books are for use— tells us. The term 'use' in the statement denotes the use of the subjects expounded in a book. In fact, books are used not as physical commodities. They are used for their thought content. Therefore, library classification is, in essence, subject classification.

If a reader seeks information on a given subject—Every reader his book— the arrangement of books in the library will be helpful to him only if the books on that subject are found together. If subjects are arranged alphabetically by their names, the books on the same subject will be scattered. This alphabetical scattering of subjects will increase the chance of the reader missing some of the subjects altogether. Few readers are able to name exactly the specific subjects of their interest. They think of a broader, or narrower subject. If the subjects themselves are arranged according to their degree of filiation and by looking along the shelves of the library, the reader may be able to realise exactly what is that he wants. The shelf arrangement should display the full field of reader's interest unexpressed as will as expressed and this is possible only by a classified arrangement.

The third law—Every book its reader—joins with the second law in demanding that subjects should be arranged according to the degree of their

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mutual filiation so that the probability of books getting their proer readers is at its highest.

The fourth law—Save the time of the reader—also turns our thought to the specific subject of books and to the need for a reasonably filiatory or helpful arrangement of them.

The universe of subjects is ever throwing forth new subjects here, there and everywhere. To meet the demands of the fifth law, it is essential to have guiding principles to accommodate new subjects in the preferred filiatory sequence. The fifth law—Library is a growing organism—also demands that the management should facilitate the service of books needed by a reader pinpointedly, exhaustively and expeditiously, whatever be the size of the library or rate of emergence of new subjects.

3.8   A critique of Subject classification

W. S. Jevans, a famous logician in the 19th century wrote a book 'Principles of Science' in 1874.

According to Jevous, subject classification in libraries is impossible because of the complex way in which knowledge is presented in books. It is difficult during classification to show relations between sciences, and it is problematic to classify literary works. In literature vigorous classification is still less possible because the same work may partake of the nature of poetry, biography, history, philosophy, etc.

Wyndham Hulme admitted that the subject classing of books in logic is an absurdity. But he countered Fevous' statement' the classing of books by subjects would be an exceedingly useful method if it were practicable, but experience or indeed a little reflection shows it to be logical absurdity— prudently by demonstrating that subject grouping is possible. According to Hulme this is an art of nearly inestimable value to readers and the librarian. The division of all sections of literature, wrote Hulme," is determined mainly on formal and non-philosophical lines. Books, in short, are concrete aggregate of facts selected from common stock of knowledge and are produced under the laws of supply and demand to meet the wants of various bodies of the community".

According to W. B. Sayers, the librarians have been classifying books according to subjects ever since overlooking the fears of Jevous. Ask to whome the book will be most useful. For whom it is meant? And according to answer place the books. In literature, it does not matter, if we do not know of the subjects of which they treat. Here, their importance is not in their subject matter but in their pattern or mode of expression. Jevous made this statement in 1874 when there were a few good library schemes. A classification does not try to place a book among others on the shelves according to all subjects with which it deals but only by the predominating or the most convenient of the subjects with which it deals.

3.9 Physical Characteristics of the stock

Normally books are collected in libraries for the sake of knowledge they contain and not for their qualities as artifacts. The most important feature of library classification is therefore its relation to knowledge classification. However, in arranging books (records, films, etc.) we need to take account of their physical characteristics, which require modifications to any pure knowledge classification. These characteristics constitute the Form of an item as distinct from its subject. Form indicates what an item is, as distinct from what it is about. There are several quite different kinds of form. They are of secondary interest to subjects.

In fact, physical form is the furthest removed from subject the physical form merely tells us whether an item in the collection is a book, a gramophone record, a film and so on. The most important point to be made about these forms is that exactly the same terms can occur as subjects. Obviously, there are books about books, about records and about films.

3.10 Physical Forms and Forms of Presentation

Within any given physical form knowledge can be presented in different ways. There are three distinct groups of these forms of presentation. The first refers to the symbols used for conveying information. These may be (1) pictorial, such as drawings, maps and plans; (2) mathematical including formulae and statistics; (3) languages such as English, Bengali, French and Germany.

The second describes the method of selection, arrangement or display. They may be grouped roughly according to whether they, indicate :

1. Order—alphabetical, Chronological, systematic

2. 'Literary' forms—lectures, essays, reports.

3. Reductions—abstracts, excerpts, digests, quotations

4. Collections—encyclopedias, readers, selections

5. 'Keys'—Indexes, Catalogues, bibliographies

6. Rules—Codes, standards, specifications.

A few words like this have both a subject and form aspect. For example, 'dictionary' implies the subject meanings of words in a given language' and the form 'alphabetical arrangement'.

As with physical forms, the forms of presentation can also occur as subjects of books. We can obviously write about alphabetical order as will as writing in alphabetical order. We can write about encyclopedias and we can write about them.

3.11 Knowledge classification and Library classification

In knowledge classification we arrange knowledge itself. But in library classification we arrange the expression of knowledge in written or other forms. A knowledge classification is abstract, for ideas only are arranged, whereas book classification is concrete and concerned with ideas in their written representation a much more complex form. It is said that the classification of books is the classification of knowledge conditioned by special features of the book. Can we assume that, apart from providing for forms, a library classification is identical to classification of knowledge? The answer would be yes, with some minor adjustments. In order to make adjustments we have to allow for way in which subjects are brought together in books. Books are actual indivisible objects. Their forms and purpose demand special treatment in an attempt to arrange them systematically on the shelves of a library. Library is therefore

concerned with concrete objects. It has to be one dimensional from left to right along the shelves. But knowledge classification is abstract multi—dimensional. Library classification therefore, sets a limit by reference to knowledge as published. This practical chuck is known as literary warrant. Here the 'literary' is used in its broadest sense of writings.

3.12 Literary warrant

E. W. Hulme was the librarian of the Patent Office Library, London. He published his 'Principles of Book Classification' in 1911-12 in Library Association Record. Hulme thought that all classifications could be arranged into two groups:

(1) Mechanical (2) Philosophical

Book classification is mechanical. Hulme's principle of book classification are the following :

1. Book classification is the plotting of areas pre-existing in literature and coincidence with a philosophical order is no guarantee of accuracy.

2. Book classification is mechanical assembly of material into classes.

3. The division and coordination of classes in literature is determined mainly upon formal and non-philosophical lines.

4. Classification should be based on literary warrant. Hulme used the term 'literary warrant' with some what different meaning. He did not believe that library classification should be based on pure knowledge classification. He suggested that a library classification should be built up gradually from observations of use made of books, rather than by following a preconceived map of knowledge. He thought that the aggregations of subjects in books was so peculiar that it was impossible to fit them into the divisions of knowledge conceived by philosophers. Hulme thought 'literary warrant' as a classification system of the subjects of books. According to modern experts Hulme's point indicated that some adjustments were necessary to make knowledge classification suitable for books.

Ranganathan also made use of this principle, but not in the sense Hulme made use of it. He suggested when the literature on a particular subject grows

in size, there may arise a need for providing a separate class for it in the scheme. Ranganathan's principle of literary warrant also requires that the various aspects of such a new subject should be so tested as to bring those aspects first on which more literature has been brought out. Ranganathan described the literary warrant thus, "the subjects in an array of subjects or the isolates in the array of isolates may be arranged in the sequence of decreasing quantity of the documents published or anticipated to be published on them except when any other overwhelming consideration rules it out".

3.13 Exercise

1. Explain with examples why alphabetic arrangement of books on the shelves by subject is not helpful.

2. Show with examples that second, third and fourth Laws of Library Science demand the arrangement of books in an open access library to be the one classified in the measure of degree of mutual filiation among the subjects of the books.

3. Classification of books by subjects would be exceedingly useful method if it were practicable but experience shows it to be logical absurdity. Write in brief your views on the statement.

4. What is the essential difference between knowledge classification and library classification?

3.14 References

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Unit 4 ▢ Postulational Approach to Classification

Structure

4.1 Introduction

Postulational method is adopted in mathematics to construct new tools and models. Mathematics merely sets up several methods with several systems of postulates as the basis. Classification too will gain in its efficiency if the postulational method is adopted. Postulational method admits of forging tools and setting up models in anticipation of actual need. As classification has entered the spiral of scientific method such anticipation work should become possible. It helps to see the discipline objectively and provides a safeguard against loose

or hazy thinking. The method of postulational approach offers systematic methodology for the intellectual organisation of knowledge. It serves as a set of useful guidelines for application in practical classification.

4.2   Meaning of Postulate

Postulates are principles or proposition or directives used as basis for the development of any system of thought or the for the forging and working of any system of technique. Postulates do not admit of being categorized as true or false. They can only be arranged as helpful a unhelpful to the purpose for which they are used. Any postulate may have to be changed if it is not useful.

A postulate may be theoretical or scientific or practical (moral). A postulate is theoretical when it is made use of for a performance of action. Postulates for classification as enumerated by Ranganathan serve as guiding principles for classification of subjects or designing of verbal and notational classification system.

4.3   Meaning of Postulational Approach

By approach we mean a step or steps taken in setting about as task, problem, etc.; a method to be used or a course of action to be followed to do something. Postulational approach to classification implies postulate—based method of proceeding in classification or a postulate—dependent course of action. In fact, the postulational approach to classification has put the theory and works of classing documents on a scientific basis.

Ranganathan formulated a set of postulates for designing a schome for classification. He presented these postulates at the International Study Conference on Classification for information retrieval, held at Dorking in 1957. Ranganathan was of the view that, "it is helpful to clear thinking and further development, if a scheme of classification can be based on system of explicitly stated postulates which lay bare the unexpressed assumptions implied in thinking". The postulates can be grouped under idea plane and notational plane. Postulates belonging to the idea plane are universal. They are intrinsic to the universe of knowledge / subjects and therefore should be helpful in designing any scheme

for classification. But the postulates of notatienal plane may vary from one scheme to the other.

4.4 Advantages of Postulational Approach

Some of the advantages of postulational approach may be as follows : It avoids confusion in the making of classification and in its practice;

One can examine the discipline objectively and to a certain degree postulate help mechanise the procedure;

Through this approach, each subject brings its own facet formula;

Through postulates, it is possible to compare the efficiency of various classification schemes;

The postulates help in the treatment of different features of the universe of knowledge in a suitable manner. However, the postulational approach can be applied only to synthetic schemes. No universal agreement on the postulates is possible and postulates differ from scheme to scheme. The remaining part of this unit deals with the postulate of Five Fundamental Categories and other related postulates and the Principles for Facet Sequence.

4.5 Postulate of Fundamental Categories

"There are five and only five fundamental categories—viz, Time, space, Energy, Matter and Personality". (Polegomena, p.399) These terms and the ideas denoted by them belong strictly to the context of library classification. Fundamental Category (FC) is a generic term denoting time, space, energy, matter and personality. These are only postulated categories without any metaphysical significance. It is possible to postulate on a greater number of fundamental categories which prove necessary and sufficient in designing a scheme of classification. The set of Ranganathan's fundamental categories is for brevity denoted by the initionym PMEST.

1. Time : The FC time is what we commonly understand by that term. The usual 'Time' isolate ideas such as millennium, century, decade, year and so on are its manifestations. Another kind is day, night,

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seasons, conditions caused by climate and weather such as dry, wet, storm, etc. For example,

Day journey by buses

Economic conditions in china during 20th **century** Rainfall in Assam during **summer** season.

2. **Space** : The FC space is also what we commonly understand by that term. The surface of the earth, the space inside it and the space outside it are its manifestations. Continents, countries, oceans, seas, deserts, forests, lakes, etc. are taken to be manifestation of space. For example,

Teaching of Bengali in **Bangladesh**

Agricultural crops in **semi arid zones**

Navigation in **Arabic ocean**

3. **Energy** : The manifestation of the FC Energy is the action of one kind or another. The action may be among and by all kinds of entities—ani ate or inanimate, concrete or conceptual, intellectual or intuitive. For example,

Treatment of dengu

Preparation of sulphuric acid

Storing of wheat.

4. **Matter** : Manifestations of 'Matter are of three Kinds—Matter Material, Matter Property and Matter Method'.

Matter Material consists of material used for construction. It may take a variety of forms. For example, in the sculpture **wood** and **stone** can be considered matter material. **Plastics** are also matter materials for manufacturing kitchen utensils.

Matter Property—Properties of things, persons and so on are deemed to be manifestation of matter property. For example, **density** of liquid, **stainless steel** vessels, **Diseases** of heart.

Matter Method—Categories are available in analytical chemistry. For example, **Volumetric method**. In fine arts, under the class drawing we have **pencil drawing, ink drawing**, and so on.

5. **Personality** : It is very difficult to describe. It is elusive, and

ineffable. After the manifestations of the categories—Time, space, Energy and Matter are determined, the residue may be regarded as Personality, whole, part, portion of a concrete entity, organ of a concrete entity, are all personality islates. For example,

Circulation of books in a **College Library**. Personality isolates are the central focus of a subject. Groups in a agriculture, **substances** in chemistry, **social groups** in sociology are some of the examples to conceive of the FC Personality.

4.6 Postulate of Basic Facet

"Every Compound subject has a Basic Facet" (Prolegomena, p.402) A general knowledge of the schedules of Basic Subjects is necessary in order to identify the Basic Facet of a compound subject. The title of a document may indicate the Basic Facet. The indication by the title of the basic facet may be either explicit or implicit or absent.

Here we cite examples of the first two possibilities :

	Indication	Title	Basic Facet
1.	Explicit	Text books of Indian History	History
2.	Implicit	Care of Cows	Animal Husbandry

If the title is catchy and does not express the subject at all, the content page or even the whole document may have to be scanned to determine the basic subject.

4.7 Postulate of Isolate Facet

"Each isolate facet of a compound subject can be deemed to be a manifestation of one and only one of the five fundamental categories" (Prolegomena, p.403).

The title itself might indicate the isolate facets of the subject. The basic subject of the document will help in determining which necessary facets of the compound subject are missing. One should examine the contents page or other parts of the document for the purpose.

	Explicit
Tittle	Basic and Isolate Facets
Coal Washing	Mining (BF) coal [p]. Washing [E]
	Implicit
The structure of Protein and electron microscope	Chemistry (BF) Structure [M]. Protein [p]. Electron microscope [M]. Determination [E]
	Hidden
Indian franchise in 2005	History [BF]. India [P]. Citizens [P]. Franchise [M]. 2005 [T].

4.8 Postulates of Rounds and Levels

Work on the classification of subjects of great intension brought forth the recognise the cycle of a recurring manifestation of the fundamental categories with regard to compound subjects. Thus the postulates of rounds and levels are formulated.

1. **Postulate of Rounds for Energy** : "The fundamental category "Energy" may manifest itself in one and the same subject more than once. The first manifestation is taken to and Round 1 of the manifestation of the three fundamental categories "Personality", "Matter" and "Energy". The second manifestation is taken to end Round 2 and so on". The manifestation of the FC "Energy" in Round 1 is represented by [1E], the manifestation in Round 2 is indicated by [2E] and so on.

2. **Postulate of Rounds for Personality and Matter** : "Each of the fundamental categories "Personality" and "Matter", may manifest itself in Round 1, Round 2, and so on". We can represent Round 1 Personality facet by [1P], Round 2 Personality facet by [2P] and so on. So also we can have Round 1 Matter facet, Round 2 Matter facet, etc. We denote them by the respective symbols [1M], [2M], etc.

3. **Postulate of Rounds for Space and Time** : The "Space" and "Time facets can occur only in the last of the Rounds in a subject and therefore, there

is no question of any round associated with them. They can be represented by the respective symbols [S], [T].

4. **Postulate of Level** : This postulate states "Any of the fundamental categories" Personality" and "Matter" may manifest itself more than once in one and the same Round within a subject; and similarly with "Space" and "Time" in the Last Round". The first manifestation of the fundamental category within a round is known as Level 1 and similarly, its second manifestation within that round as level 2.

1. **Personality** : The successive manifestations of the fundamental category "Personality" in different rounds may be represented by symbols as given below.

    [2P1] Round 2 Level 1 Personality Facet

    [2P2] Round 2 Level 2 Personality Facet.

2. **Matter** : The fundamental category "matter" can have successive manifestations in different rounds. They may be represented as follows:

    [1M1] Round 1 Level 1 Matter Facet

    [1M2] Round 1 Level 2 Matter Facet; etc.

3. **Space and Time** : Space and Time Facets can occur in the last Round of a subject. There is no need to indicate the Round in their symbols. The following are sufficient :

    [S1]= Level 1 space Facet

    [S2]= Level 2 space Facet

    [T1]= Level 1 Time Facet

    [T2]= Level 2 Time Facet.

4. **Energy** : The fundamental category "Energy" can occur only once in a round; therefore, it has no level.

4.8 Postulates for Facet Sequence

After determining the various facets in a compound subject the next step should be to arrange these facets in a helpful sequence. To derive a helpful and logical order of facets Ranganathan enunciated the following postulates :

1. **Postulate of First Facet** : "In a compound subject the basic facet should be the first facet". The basic facet should be given the first position among the facets of a compound subject. A helpful sequence requires that all the compound subjects going with the same basic facet should come together at one place. This is possible only if the basic facet is allocated the first position among the facets of a compound subject.

2. **Postulate of Concreteness** : "The five fundamental categories fall into the following sequence when arranged according to their decreasing concreteness as PMEST."

The above two postulates give the following sequence for a compound subject : (BS) [P] [M] [E] [S] [T].

Let us take an example :

Periodicals cataloguing in Public libraries in West Bengal in 2005.

Library Science	Public libraries	Periodicals	Cataloguing	West Bengal	2005
BS	P	M	E	S	T

If we move from Personality to Time the sequence of fundamental Categories is in decreasing concreteness. This move from general to specific would be acceptable to a majority of users.

3. **Postulate of Facet Sequence within a Round** : "In any round of facets of a compound subject in which each of any of the fundamental categories—Personality. Matter and Energy—occurs only once, their sequence should be : Personality Facet, Matter Facet and Energy Facet".

4. **Postulate of Facet Sequence within the Last Round** : "In the last rounds of facets of a compound subject, in which each of the fundamental categories other than energy may occur and occur only once, the sequence of facets should be Personality Facet, Matter Facet, Space Facet and Time Facet". In the last round energy does not occur but other four fundamental categories occur only once.

5. **Postulate of a Level—Cluster** : "Facets of different levels of the same fundamental category within a Round of facets in a Compound subject should be kept together".

We can discern from the study of five postulates mentioned above on the facet sequence, that Ranganathan offered a theoretical basis for fixing the facet structure of the schedules. While this theoretical basis may be subjected to

criticism, it is essential to have a theoretical basis without which the order of arrangement of classes would suffer.

4.9 Principles for Facet Sequence

1. **Postulate of Round** : As noted earlier, if the facets terms of a document are only five, each of them being regarded as the manifestation of one or other Fundamental Categories, we need not have any difficulty either in their analysis and in their synthesis. But if there are more than one facet term manifesting Ps or Ms or Ex, the facet sequence requires a few more additional postulates. Let us examine the following titles :

Diagnosis and **treatment** of diseases of children

Rehabilitating persons **suffering** from earthquake in Kashmir

In the above titles, the facet terms in italics manifesting the fundamental category energy are more than one. We need a postulate to decide the position of two energy isolates. This postulate is known as the 'postulate of round for energy' which states that "If the fundamental category" manifests itself more than once in one and the same specific subject, the sequence of two energy isolates is to be fixed on a general principle, referred to as Wall-picture principle".

Ranganathan formulated the wall-picture principle in 1962. This principle states, "If two facets A and B of a subject are such that the concept B will not be operative unless the concept behind A is conceded, even as a mural picture is not possible unless the wall exists to draw upon, then the facet A should precede the facet B".

In the examples cited above, "treatment" will not be operative until the 'diagnosis' is conceded. Similarly 'rehabilitating' will be possible if 'suffering' is conceded. In the first example, the first round energy is 'diagnosis' and the second round energy is 'Treatment'. Similarly, 'Suffering' is the first round energy and the second round is 'rehabilitating'.

2. **Postulate of Level** : As stated earlier, the first manifestation of the Fundamental Category within a round is known as Level 1 and the second manifestation within a round is known as Level 2. Let us consider "Shakespeare's Macbeth". Apply Wall-Picture Principle. The concept behind the term 'Macbeth'

is not operative unless the concept behind the term 'Shakespeare' is conceded. Again, the concept behind the term 'Shakespeare' is not operative, unless the concept behind the term 'Drama' is conceded. So also the concept behind the term 'Drama' is not operative unless the concept behind the term 'English' is conceded. English. Drama. Shakespeare and Macbeth are deemed to be manifestations of Ps. The sequence of facets, according to Wall-Picture Principle would be Language. Form. Author and Work.

It should be noted that the Fundamental Categories will operate only after the Basic Class is identified.

3. **Corollaries of Wall-Picture Principle :** There are three corollaries of the Wall-Picture Principle which can go along way in establishing the facet sequence.

1. **Whole-Organ Principle :** "If in a subject facet 'B' is an organ of facet 'A', then A should precede B. "Whole" in sense 1, applied to a Universe of entities means all the entities taken together. In sense 2, applied to a typical entity of a Universe of Entities it refers to the complete—the entire—entity. "Organ" is the functional part of a typicald entity of the "Universe of Entities". For example, the human body represents the whole. The different systems and organs—the digestive system, respiratory organs, circulatory organ and so on represent the functional organs.

2. **Cow-Calf Principle :** "If a facet A and another facet B belonging to the same subject are not to be separated though they are distinct from each other and thus separable, A and B should be kept together in the same Round, even as a milch cow and its unweaned calf are not separately sold out though they are distinct entities and thus separable, but are kept together in possession of the same owner." For example," Enforcement of the functions of the President of India. "Here three facets "India", "President", and 'Functions' cannot be separated. They should all be put together in Round 1—that is, before the Energy facet "Enforcement". Then we shall have 'India. President. Function. Enforcement'.

3. **Actand—Action—Actor—Tool Principle :** "If in a subject, facet B denotes action on facet A by facet C, with facet D as the tool, then the four facets should be arranged in the sequence A. B. C. D." For example, "machine cotton spinning by youth". Here, the action is 'spinning', the Actand is 'cotton', the Actor is 'youth', and the tool is machine. Therefore, when expressed in transformed skeleton from we shall have 'cotton. Spinning. Youth. Machine.

4.10 Exercise

1. Explain the postulate of Basic Subject.
2. How would you analyse subject with the help of postulate? Illustrate.
3. Discuss the postulate of five fundamental categories.
4. What is postulate? Discuss the advantages of postulational approach to classification.
5. Illustrate the facet sequence.
6. Explain with example the postulate of round.

4.11 References

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Unit 5 ❑ Canons of Classification

Structure

5.1 Introduction

Many theoreticians enunciated several principles of classification. William Charles Berwick Sayers used the term 'Canon' in his study of classification. He is called the grammarian of library classification. Sayers examined the classification schemes through canons and published them in 1915 under the title 'Canons of Classification'. S. R. Ranganathan presented a completely a new direction to the concept of classification originally enunciated by sayers. In fact, Ranganathan elaborated the canons of sayers and also formulated his own canons.

Henry Evelyn Bliss listed thirty two principles. Bliss! theories and principles of classification were expanded in his book titled 'Organisation of Knowledge and System of Sciences' published in 1929. He also published another basic work on the theory of library classification titled 'Organisation of Knowledge

in libraries and the subject approach to books' in 1933. It will be too long to mention all of the principles of various theoreticians. Only a brief account of principles of Sayers, Bliss and Ranganathan is attempted here.

5.2 W. C. B. Sayers

Sayers did not design any classification scheme, but he systematised the ideas of other classificationists. He simplified his theory of classification by enunciating 29 canons which could be grouped under the following categories.

1. **Definition** (6 canons) : Classification is the intellectual process by which our mental concepts or pictures of Things are recognised to have likeness or unity and by this likeness or unity they are set in relation to one another. The likeness which exists in the universe of things is called characteristic in classification.

2. **Division** (7 canons) : The process of division is the assembling things according to their degrees of likeness and separating them according to their degree of of unlikeness. The characteristic used to divide things may be natural or artificial. The division should proceed from greater extension and smaller intension to smaller extension and greater intension. The process of division should be gradual. The characteristic to be used must be consistent at each stage of division.

3. **Terms** (4 canons) : A term is used in a scheme of classification. It is the name for a class. Terms should be unambiguous, unique and non-critical.

4. **Book classification** (4 canons) : It is devised for and adapted to the arrangement of books by subject or form or both or by any recognisable logical order. Unless deliberately created for a special subject field only, they must be general. They must be capable of expansion to admit new topies or new subdivisions of old ones.

5. **Notation** (5 canons) : It is a systematic and logically ordered series of short signs representing the class-names in the system. It may consist of any symbols and should be brief, simple, flexible and mnemonic. The tendency is to use alphabetical symbols for main classes and to use numbers in addition to letters when subdividing the classes.

6. **Books classification Schemes** (3 canons) : A scheme of classification needs to be printed in columnar schedules in the order of precedence of subjects. There should be introduction explaining the methods and use of scheme. A classification scheme needs continuous study and revision to keep it up-to-date.

5.3 H. E. Bliss

The essential ideas of Bliss are that a bibliographical classification should be logical in its construction. It should show relations between classes. A class is divisible into subclasses by a specified characteristic. The basic concepts of classification recognised by Bliss may be categorised as follows :

1. **Consensus** : The classification should be consistent with the organisation of knowledge established in the consensus of scientists and educationists. Bliss coined this as **Scientific and educational consensus**.

2. **Subordination** : Care must be taken concerning the subordination of the special to the general and gradation by speciality. The former in referred to as the principle of decreasing extension. The order of the subjects in a classification scheme should reflect the sequence from general to specific.

Gradation principle is employed for organising a series of topies of equal rank into a rational sequence. Some subjects depend on the works or findings of others. Fer example, Chemical phenomena depend on the findings of physicists to some extent and therefore, chemistry should follow physics.

3. **Collocation** : It is necessary to bring together similar subjects which are closely related. Collocation generally refers to coordinate classes.

4. **Alternative locations** : Alternative accommodation should be provided for the arrangement of certain topies. A scheme of classification should provide for the adaptation of logical sequence to practical convenience in order to meet different views.

5. **Notation** : Notation is correlative to and subsidiary to classification. It should be readjustable, simple, short and have sufficient capacity. Mnemonics if used, should not distort the classification. It should use synthetic features.

6. **Index** : An alphabetical index is no substitute for a scholarly and will organised classification. However, the index is a very necessary auxiliary. A relative index is required.

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5.4 S. R. Ranganathan

Ranganathan in his "Prolegomena to Library Classification' divided the whole theory of library classification into three—General Theory of Classification, Theory of Knowledge Classification and Theory of Document classification. In the General Theory of Classification the design and application of classification schemes involve work in three planes—Idea Plane, Verbal Plane and Notational Plane. Ranganathan enunciated 43 canons and put them into three groups :

(i) Canons for idea plane (15 canons)

(ii) Canons for Verbal plane (4 canons)

(iii) Canons for notational plane (24 canons)

5.4.1 Canons for Idea Plane

In the idea plane, a scheme of classes involves five inherent concepts. So the fifteen canons are grouped into five :

1. Characteristics (4)

2. Succession of characteristics (3)

3. Array of classes (4)

4. Chain of classes (2)

5. Filiatory sequence (2)

1. **Characteristics :** Characteristic is attribute or complex of attribute with reference to which the likeness or unlikeness of entities can be determined and at least two of the entities of the universe are unlike. The canons of characteristics are :—

(i) Canon of Differentiation : The characteristic should differentiate some of its entities, that is, it should give rise to at least two classes. For example, height is the characteristic of the entities in the universe of man, that differentiates but not the possession of face.

(ii) Canon of Relevance : A characteristic used as the basis for the classification should be relevant to the purpose of the classification. In a library books can be classified by language, year of publication, author, etc. as they may be relevant

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characteristics but not the mode of stitching, covering materials for binding, etc.

(iii) Canon of ascertainability : A characteristic used as the basis of for classification should be definitely ascertainable. In the universe of dramatists, the year of birth is ascertained as the basis of its classification. On the other hand, year of death cannot be ascertained in the case of living authors.

(iv) Canon of Permanence : "A characteristic used as the basis for the classification of a universe should continue to be unchanged so long as there is no change in the purpose of classification". A classification of a country on the basis of physical features satisfies the canon while political and administrative divisions' may violate it.

Thus the four canons for characteristics as noted above deal with the process of division of knowledge.

2.   **Succession of Characteristics :** Three canons are meant for succession of characteristics. They decide the succession of characteristics when two or more characteristics are used for classifying a universe. Three canons are :

(i)   Canon of concomittance : The canon states that no two characteristics should be concomitant—that is, they should not give rise to the same array of subjects or of isolate ideas. No two characteristics should divide a subject into the same subdivisions. Care should be taken in the choice of characteristics for the division of a subject so that they do not give the same subdivision. For example, age and date of birth should not be used as two successive characteristics, for they will yield same sets of divisions. On the other hand, age and height can be used as two successive characteristics, for they will yield different sets of divisions.

(iii) Canon of Relevant Succession : The characteristics of the scheme are to be used in sequence relevant to the purpose of the classification. For example, in Dewey Decimal classification (DDC), Language, Form, Period and Author are regarded as the most relevant sequence of four characteristics used for classifying Literature.

(iii) Canon of consistent Succession : The sequence of applying the chosen characteristics should be consistently adhered to. Both in the characteristics and in the sequence, consistency is required. Once the choice is made about the sequence one should not deviate from it so long as there is no change in the purpose of classification. For example, in DDC, the main class History has chosen geographical and period characteristics for division in the sequence of place and time.

3. **Canons for Array :** An array is the sequence of classes of a universe derived form it on the basis of a single characteristic and arranged among themselves according to their ranks. There should be some logical order in the arrangement of arrays. For this purpose there are four canons.

(i) Canon of Exhaustiveness : The canon is enunciated as "The classes in an array of classes, and the ranked isolates should be totally exhaustive of their respective common immediate universe". According to this canon every entity comprised in the immediate universe should find a place in one of the classes in the array derived from the immediate universe. For this purpose there are four canons.

(ii) Canon of Exhaustiveness : This canon (Prolegomena, p. 158) states "The classes in an array of classes, and the ranked isolates in an array of ranked isolates should be totally exhaustive of their respective common immediate universe". According to this canon, every entity comprised in the immediate universe should find a place in one of the classes in the array derived four the immediate universe. For example, the first order of array of the Personality facet of the basic subject Medicine in CC6 is:

Human body

Regional organise	Digestive system	Circulatory system	Respiratory system	Genito-urinary system	Ductless gland	Nervous system	Other systems
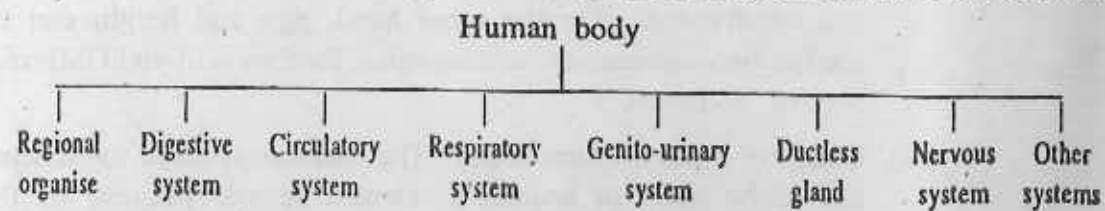
These eight classes are coordinate in status and are derived from the universe of human body on the basis of a single characteristic—System. The various regional and functional systems together belonging to the first order

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of array exhaust the universe of human body. The canon demands that while classifying a universe nothing should be left out.

(ii) Canon of Exclusiveness : The canon states that the classes in an array of classes and the ranked isolates in an array of ranked isolates should be mutually exclusive. It becomes clear that no entity belonging to an immediate universe should belong to more than one class of the array. Therefore, no two classes belonging to an array should overlap or have an entity in common. This is secured if the classes of an array are derived from the immediate universe on the basis of a single characteristic. For example, a universe of students can be divided on the basis of different characteristics like sex, age, height, weight, etc. If we apply more than one characteristic at the same time, it would result in confusion like the following :

Universe of students

Male   Female   Child   Adolescent   Adult
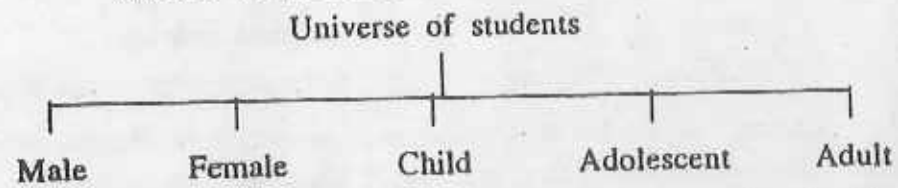
Such a situation will lead to cross-classification—an entity simultaneously belonging to two classes. If we apply two characteristics in succession we get the following :

Universe of Students

Sex

Male   Female   Age

Child   Adolescent   Adult   Child   Adolescent   Adult
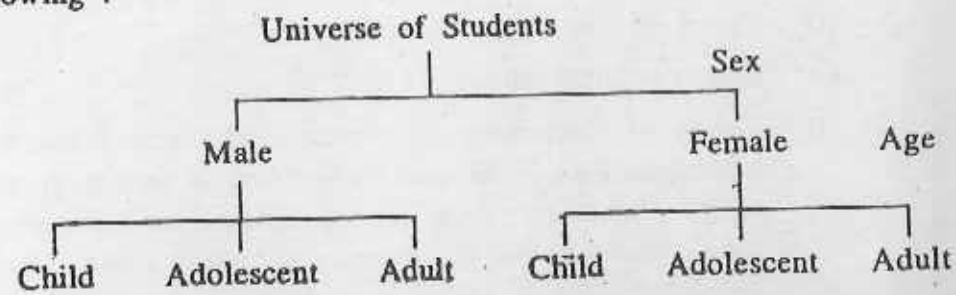
(iii) Canon of Helpful Sequence : The can states that "The sequence of the classes in an array of classes, and of the ranked isolates in an array of ranked isolates, should be helpful to the purpose of those to whom it is intended." There are eight guiding principles which have been discussed in later unit.

(iv) Canon of Consistent Sequence : The canon states, "whenever similar classes or ranked isolates occur in different arrays, their

sequence should be parallel in all such arrays, wherever insistence on such a parallelism does not run counter to other more important requirements". In order to satisfy this canon, some schemes have adopted certain practices and devices. The consistent sequence can be achieved in the following ways :

(a) The same schedule may be used to form an array in any subject, where required. This can be done with the help of schedules of common isolates or other devices.

(b) By means of the principles of helpful sequence, a parallel sequence can be obtained in different arrays. Example from DDC17

Human anatomy	Human physiology
Eye	Eye and vision
Ear	Ear and hearing
Olfactory Organs	Olfactory organ and olfaction

4. **Canon for Chain** : A chain is a sequence of classes made up of any given class which forms the last link of the chain, its immediate universe, its immediate universe of the second remove, of the third remove, etc. Each chain of classes or ranked isolates in a scheme of classification has to satisfy two canons :

(i) Canon of decreasing extension, and

(ii) Canon of modulation

(i) Canon of Decreasing Extension : The canon states, "while moving down a chain from its first link to its last, the extension of the classes or of the ranked isolates, as the case may be, should decrease and the intension should increase at each step".

Extension is a quantitative measure and intension is a qualitative measure of a class or ranked isolates. Consider the following examples :

World	Substance
Asia	Inorganic substances
India	Elements

West Bengal   Halogens

Kolkata   Fluorine

College street

(ii) Canon of Modulation : This canon is explained as "A chain of classes or of ranked isolates should comprise one class or one ranked isolate, as the case may be, of each and every order that lies between the orders of the first link and the last link of the chain." The implication of this canon is that no link in between a chain of classes should be left out. Each and every link starting from the first to the last in a chain of classes or ranked isolates should be identified and provided for in a scheme of classification. In the example from Chemistry noted above, the first link is substance and the last link fluorine. The intermediary links are Inorganic substances, Elements, Halogens. If any of the intermediary links is omitted then the Canon of Modulation is violated.

5. **Filiatory Sequence** : Filiatory sequence is a sequence which arranges the classes according to the degree of mutual relationship. Mutual relations are of two types : Coordinate and Subordinate. These two concepts lead to two canons for filiatoy sequence :

(i) Canon of Subordinate Classes

(ii) Canon of Coordinate Classes

(i) Canon of Subordinate Classes : The arrangement of subordinate classes should be similar to the genealogical arrangement of a family. The ancestor of the family is at the head of the chain and below him his sons, grandsons, etc. are arranged. Each son having his own sons are arranged immediately after him without the intervention of any other member of the family.

(ii) Canon of Coordinate Classes : Among the classes in an array no class with less affinity should come between the classes with greater affinity. The first order of array that is, the main classes in a scheme of classification are in one and the same array. They are of coordinate status.

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5.4.2 Canons of Verbal Plane

The terms used in the classification schedule not be vague and should not hide or confuse the original meaning. The term may be any word or phrase which expresses adequately connotation or meaning of the class it names. Terms should be unambiguous. Ranganathan enunciated the following four canons :

1. Canon of Context : The use of one the same term in many classes in different contexts necessitates this canon.

2. Canon of Enunciation : It is better to determine the denotation of the term by examining the classes in lower orders.

3. Canon of currency : There should be some arrangement by which terms can be changed over to current ones as and when changes take place.

4. Canon of Reticence : The term 'reticence' means evidence of giving out one's own opinion. Here it implies any opinion of the classificationist. The terms used in a scheme of classification should not be critical.

5.4.3 Canons of Notational Plane

Alphabetical arrangement fails as a means of mechanizing the arrangement of subjects in the helpful sequence. A notational system must be used as a means of mechanizing the arrangement. The work in the notational plane is dependent on the work in the idea plane. It should have the capacity and versatility to carry out all that idea plane decides. Ranganathan has prescribed 24 canons for the notational plane. These canons have been further grouped into four :

(i) Basic canons (12 canons)

(ii) Mnemonics (5 canons)

(iii) Growing universe (4 canons) : The notational system should be capable of accommodating emerging new subjects at the beginning, or at the end, or in the middle of an array or a chain. This is known as extrapolation (at the beginning or end) and interpolation (in the middle) in an array or chain.

(iv) Book classification (3 conons) : The three canons for book classification provide a system for the construction of book numbers and collection number and the sequence of three components—class numbers, book number and collection number—making up a call number. The purpose served by the three components

are quite different from one another. Therefore they have to be written quite distinct from one another.

When written in a horizontal line, sufficient space is given between the class number and book number and the collection number is placed above the book number. When written in a vertical line, the three components are written one below the other in three different lines.

Thus Ranganathan's canons provide a scientific basis to library classification and are the foundation of library classification theory. They will serve as guidelines to classificationists as will as classifiers.

5.5 Exercise

1. What is the characteristics of classification? How does a classifier select a characteristic?

2. Enumerate the canons of characteristics and explain any three with examples.

3. Discuss the canon of modulation.

4. Explain the canon of exclusivenes with example.

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Unit 6 ❑ Formation, Structure and Development of Subjects

Structure

6.1 Introduction

In talking about a subject we generally mean a given area of knowledge. A subject might be considered to be defined by : an area of interest; an area in which an individual researcher or professional works; an area in which an individual writes; and an area of knowledge which is studied. When ideas get organised or systematised in the form of body of ideas, a subject is formed. The field of library classification is the universe of subjects. The universe of knowledge is the province of philosophers, scientists and historians. Librarians should, of course take interest in their findings and on these they must base their own work in the organisation of knowledge. To distinguish the work of librarians in defining the areas of knowledge for bibliographic classification, Ranganathan has introduced the term 'universe of subjects'. In order to construct and maintain the schemes of classification along proper lines, it is essential to make a systematic study of the formation, structure and development of universe of subjects.

6.2 Subject

As defined by Neelameghan, "A subject is an organised or systematic account of an idea or body of ideas whose extension and intension are likely to fall within the intellectual competence and field of inevitable specialisation of a normal person."

The subject of documents may contain any number of facets. If it contains one facet it must be a basic subject such as Physics, Chemistry, Botany. They may be called simple subjects. They imply that documents deal with the whole field named and does not identify any particular phenomenon for attention. The compound subject is composed of basic subject and isolates drawn from two or more facets of that subject. For example, "Development of Chemistry in the twentieth century"—Basic subject component "Chemistry" and the isolate components "Development" and "Twentieth Century" attached to it. "The Curriculum of Primary School"—here Education is the basic subject and isolates "Primary" and "Curriculum" are drawn from two facets of that subject area

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Education. Complex subjects are formed by complying two or more distinct subjects on the basis of some relation between them. For example, Psychology for Nurses.

6.3   Isolate

"An isolate is an idea or idea complex fit to form a component of a subject", but it does not by itself constitute a subject. Thus "Child" is an isolate. It is fit to be a component of such subjects as "Education of Child", "Psychology of Child". Compound isolate—"An isolate consisting of two or more isolates taken from one and the same schedules of isolates". We can form a compound isolate by combining a isolate and a speciator. "urban youth" is compound isolate. "Urban group" and "youth" are two independent isolate ideas belonging to the same schedule of isolates.

6.4   Formation of Subjects

Different specialists have recognised different types of relations between the components of a subject or the modes of subject formation in the universe of subjects. According to Ranganathan subjects in the universe of knowledge could be formed by five methods : Loose Assemblage, Lamination, Dissection, Denudation and Superimposition. Later his school of thought developed this view point. In 1975 M.A. Gopinath and S. Seetharama put forward the following modes of formation of subjects. Loose Assemblage, Lamination, Fission, Fusion, Distillation, Agglomeration, and Cluster.

6.4.1   Loose Assemblage

It is the assembling together two or more subjects (simple or compound) and isolate ideas. Assembling is done to express one or other possible relations between the components of the assembly. The result is a complex subject (Loose Assemblage 1), complex isolate kind 1 (Loose Assemblage 2) or complex isolate kind 2 (Loose Assemblage 3). Each component in the assembly is called a "Phase". There are six kinds of Phase Relations :— 1. General Phase Relation;

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2. Bias Phase Relation; 3. Comparison Phase Relation; 4. Difference Phase Relation; 5. Tool Phase Relation; 6. Influence Phase Relation.

	Loose Assemblage 1	Loose Assemblage 2	Loose Assemblage 3
	Inter-subject	Intra-facet	Intra-array
General	The general relation between political science and history	Relation between morphology and physiology	Relation between DDC and UDC
Bias	Mathematics for Engineers	Anatomy for Pathologists	The bias of UDC towards DDC
Comparison	Plants and animals compared	Anatomy and physiology compared	Psychology of man and woman compared
Difference	Difference between plants and animals	Difference between Jainism and Buddhism	Difference between psychology of man and woman
Tool	Literature through art, a new approach to Bengali Literature	German music through painting	Bengali music through Hindusthani music
Influence	The influence of Mathematics on Physics	Influence of Anatomy on Physiology	Influence of Hinayana Buddhism on Mahayana.

Tool Phase : One subject is used as a tool for studying another subject. The tool phase sometimes poses problems and requires further study.

6.4.2 Lamination

In this form of mode, "one or more isolate (I) facets are combined with a basic subject (BS)". When the basic layer is a basic subject and other layers are isolate ideas, a compound subject is formed. (Lamination 1)

> For example, History Indian constitution
>> History (BS) India (I) constitution (I)
>> Agriculture of Corn
>> Agriculture (BS) Corn (I)

In this form of mode, either "1. Two or more species of basic subjects going with the same primary basic subjects are compounded over one another, giving rise to a compound basic subject," or "2. Two or more isolates from

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the same schedule of isolates are compounded, giving rise to the compound isolates".

Examples :

Magnetism in Quantum Physics (Basic Subject Magnetism Combines with Quantum Physics)

Rural Youths (Isolate idea Youth over the isolate Rural)

6.4.3 Fission

Fission is the process of division or splitting or breaking up into parts. Subject specialists refer such a process as 'Fragmentation". The primary basic subject. "Philosophy" may be fissioned into the following secondary basic subjects : logic, epistemology, metaphysics, ethics and aesthetics. The fission of an isolate idea may be fissioned in the following ways : (i) As an array division or (ii) As the combination of a principal isolate and a speciator.

Examples :

(i) Fissioning of an isolate idea "Asia" gives us array division such as Iran, India, Nepal, Afganisthan and so on.

(ii) "Bicycle—Hind Brand" is combination of "bicycle" (Principle isolate) and "Hind Brand" is a speciator.

6.4.4 Fusion

Here two or more primary basic subjects are fused together in such way that each of them loses its individuality. This mode makes new primary basic subject.

Examples :

Biochemistry (Biochemistry is a primary basic subject achieved by the fusion of "biology" and "Chemistry) Geopolitics (Primary basic subject achieved by the fusion of geography and politics).

Others examples are : Medical jurisprudence, Medical cybernetics, Psycholinguistics, Econometrics.

6.4.5 Distillation

In this form of mode, "a pure discipline is evolved as a primary basic subject from its appearance-in-action in diverse compound subjects going with

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other different basic subjects or one and the same basic subject". For example, Management Science. Consider the following subjects :

> Management of Chemical Laboratory
> Management of School
> Management of industry.

The component idea "Management" in each of these subjects is an isolate. The there subjects go respectively with Primary Basic Subjects "Chemistry", "Education" and "Industrial Economics". In this way, the idea "Management", denoting practice-in-action, can occur in a variety of subjects going with different Primary Basic Subjects. On the bases of observations, experiments, and experiences of management-in-action in diverse fields, guiding principles which taken together can constitute a theory of management, may be distilled out. When this happened, persons began to specialise in the new emerging discipline. The ideas generated by the specialists in the new discipline could not be helpfully placed as an isolate idea. It was found necessary to deem the ideas to go with a new Primary Basic Subject.

In distillation of kind 2 the idea occurs in subjects going with a particular Basic subject only and there may be a trend towards the formulation of a new discipline with recognisable literary warrant. New Primary Basic Subjects formed by Distillation of Kind 2 are :

> Statistical calculus, Operations research, Demography

6.4.6 Agglomeration

Several subjects are sometimes treated integrally or disjunctively in a book. An agglomerate of Kind 1 (earlier called Partial Comprehension) consists of subjects treated integrally or disjunctively in one and the same document. An agglomerate results from the process of Agglomeration—that is, collecting together of entities into larger masses without cohesion among the components. Normally, an Agglomerate of Kind 1 Covers subjects going with successive Primary Basic Subjects enumerated in the schedule. Examples of Agglomerate of Kind 1 are :

> Natural Sciences
> Mathematical Sciences
> Physical Sciences

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Biological Sciences

The Humanities

Agglomerate of Kind 2 is an agglomerate comprehending subjects going with non-consecutive primary Basic Subjects with respect to the schedules of a particular scheme for classification. For example, Geology and Geography, History and Economics.

6.4.7 Cluster

Sometimes, to gather all possible information about a 'phenomenon' or 'entity', may require the attention of several specialists from different disciplines. This kind of research may involve interdisciplinary or multi disciplinary research. There is a core entity of study. Inputs or viewpoints from different specialists are gathered together into a field of study. This is explained as clustering around a core entity the core entity is the focus of cluster.

Examples :

(a) Area study (geographical area forms the focus of cluster)

    (i) Indology (Indian studies)

    (ii) Occidentalia (European study)

    (iii) Nipponology (Japanese study)

    (iv) Sinology (Chinese study)

    (v) Orientalia (Asian study)

(b) Generalia person study (multifaceted personality forms the focus of study) Gandhiana (Gandhi is the focus of cluster)

(c) Entity or phenomenon (entity or phenomenon of study forms the focus of study)

    Ocean science

    Soil science

    Space science

It may be noted that the typology of relations suggested by Ranganathan is helpful in determining the stages of development of a subject.

6.5 Structure of Subjects

The mode of formation of a subject leaves its impress on the structure of a subject. Ranganathan in his 'Prolegomena to library classification, 3rd ed., 1967 enunciated the following kinds of structures.

6.5.1 Dichotomy

'Dichotomy' means division into two. It is also known as 'Binary classification'. "Tree of Porphyry" is an example of binary classification. Here two divisions are formed in the first stage. In the second stage two divisions of each of these divisions are formed and so on. Early man must have found the use of dichotomy sufficient for his requirements. However, dichotomy is insufficient for designing a scheme of classification.

6.5.2 Decachotomy

Decachotomy refers to a division into ten. Melvil Dewey divided the field of knowledge into 9 main classes and the tenth class was formed of general documents. Each is again separated into 9 special divisions and a tenth division forming general works. A third division is then made by separating each of these divisions into 10 sections. This decimal subdivision is continued till it secures as many subsections as may be required in any topic. From the point of view of the nature of growth and development of knowledge, it is unrealistic to bind the universe of subjects to a decachotomy, because it grows in different directions and at different stages.

6.5.3 Polychotomy

Polichotomy means division into many. In 1893 C.A. Cutter in 'Expansive Classification' introduced limited polychotomy by making the number of divisions at each stage 24. However, within 50 years, the rate of growth of the universe of subjects found 24 divisions to be inadequate. This proves that the number of divisions should be at no stage be predetermined. The existing universe of subjects is "a turbulent ever-growing dynamic continuum". (Prolegomena, p. 363). Therefore, it is not possible to predict the maximum number of divisions to be provided for in a particular stage of division.

6.5.4 Proliferation

Ranganathan described various ways in which the universe of subjects going with a Basic Subject can get proliferated. For example, a complex subject

in that universe of subjects may be formed by additing some other Basic Subject as a phase. A compound subject may be formed by attaching one or more isolate ideas to the basic subject. Such isolate ideas can themselves proliferate by various ways.

We can will imagine the tremendous unlimited proliferation that is taking place in the universe of subjects. This poses a number of problems for the designers of classification schemes.

6.6 Development of the Universe of Subjects

Research in parallel : There was hardly any incentive for presuming an organised or cooperative development of the universe of subjects. There was lack of proper communication of ideas. A researcher carrying out research in one part of the world did not know about was being done in other part. Parallel research was being carried out in various parts of the world. The development of applied subjects was very slow and casual affairs. As a result, the universe of subjects was developing at a slow pace.

Relay Research : At the present time social pressure is leading to a conscious; organised and planned development of universe of subjects. Further research by isolated individuals is substituted by organising relay research. As a result the research potential of the world is less exposed to wastage. The result of such an organisation relay research gives rise to considerable increase in the formation of new subjects. At present organised relay research is creating a continuous cascade of new micro subjects, each stimulating another in succession in every area of subjects. The continuous cascade has made the universe of subjects a growing and depending continuum. We can say that the universe of subjects has acquired a dynamic continuum.

6.7 Exercise

1. How is a complex subject formed? Illustrate.

2. Explain with examples the different modes of formation of subjects.

3. Discuss the different kinds of structures of subjects as enunciated by Ranaganathan.

4. Describe the importance of relay research in the development of universe of subjects.

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Unit 7 ◻ Construction of Classification Schemes

Structure

7.1 Introduction

A classification scheme tries to indicate relationships between subjects by grouping them in particular order. This grouping process allows users to see the strength of relationships between particular concepts and should allow the user to identify a 'map' of all the various relationships within a particular broad subject area. This idea of a conceptual map of a subject has a number of

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advantages. It obviously reduces the need to know exactly what a specific subject is actually called for, if the user can identify the various relationships that each subject has. It should be possible to find the required subject area by browsing through either a physical arrangement of material or through some catalogue or index.

A classification scheme is defined as an orderly arrangement of terms of classes. The application of such a scheme to a set of documents into groups or classes of documents in a helpful order with respect to one another.

Classification schemes may be general or special. A general classification scheme provides for the whole universe of knowledge. It deals with all subject areas. General schemes are used in public libraries, academic libraries and national bibliographies. Special classification schemes deal with restricted areas of knowledge such as education, law, chemistry, library science, literature. A special scheme covers both a core subject and fringe subject areas. The fringe subjects constitute the related subjects with varying degrees of importance to the specialisation. In 'library science' the core subject is 'Libraries and their activities'. Fringe subjects are 'Bibliography' and a variety of social subjects. Special schemes are meant for special libraries, bibliographies, indexing and abstracting services.

7.2 Approaches to the Construction

Classification schemes have been constructed by one of two different approaches. The first approach is enumerative. It is the result of the traditional ideas and theories that emerged from the makers of the scientific and philosophical classification schemes reaching right back to the Greeks. Traditional library classification schemes tend to enumerate or list all subjects and their subdivisions and provide ready-made symbols for them. An alternative model for constructing a classification scheme is to use an 'analytico—synthetic' or 'faceted' approach. This approach has emerged during this century. It places emphasis on facet analysis and synthesis. It analyses and breaks up a subject into its component parts and reassembles these parts as required by the document to be represented. Although rotations which result from classification schemes using either of these methodologies may not look different from each other, the process of constructing the actual classification scheme is quite different.

7.3 Components of the Scheme

A classification scheme comprises four components :—

The schedules, in which subjects are listed systematically showing their relationships;

The notation which is the code for use in the index or catalogue, and has a self-evident order which helps in signalling the arrangement;

The alphabetical index which provides an entry vocabulary or a list of terms for consultation, and identification of the place of a subject within the scheme;

And finally there must be rules for using the schedule;

In order to ensure that schemes are updated it is important to have some organisation which takes responsibility for revision and publication.

7.4 Enumerative Classification Scheme

Enumerative classification schemes aim to enumerate or list all subjects present in the literature which the scheme is intended to classify. Thus all simple, compound and complex subjects are listed in the schedules. Inevitably all subjects present in the literature cannot be listed for this would generate very lengthy schedules, and therefore listing of subjects must be selective. Enumerative schemes are produced by postulating a universe of knowledge and by dividing this into successively narrower classes. A steady process of division will result in very specific detailed concepts which will be listed in the schedules. Let us take a simple example from the field of education. First of all we have to divide the subject field into a number of groups using a particular characteristic such as 'Level of education'. By using this characteristic we can divide the whole field of education into a first array of subjects. We can list the following:

Primary

Secondary

Higher

etc.

The first grouping of subjects should be done exhaustively, because if we omit a particular concept at this stage there will be problems in the scheme at a later time. The first grouping is then subdivided by a second characteristic "Curriculum" that is, subjects taught. All subjects taught must subdivide each of the 'Levels of education' produced in the first grouping thus :

Primary

    Art

    Geography

    History

    etc.

Secondary

    Art

    Geography

    History

Higher

    Art

    Geography

    History

A third characteristic of education is "Teaching method". This will create an array of concepts which include lecture, seminar, tutorial and so on. The third characteristic will divide each of the subjects taught. Thus the schedule will run as follows :

Primary	Secondary	Higher
Art	Art	Art
Lecture	Lecture	Lecture
Seminar	Seminar	Seminar
Tutorial	Tutorial	Tutorial
etc.	etc.	etc.
Geography	Geography	Geography
Lecture	Lecture	Lecture

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Seminar	Seminar	Seminar
Tutorial	Tutorial	Tutorial
etc.	etc.	etc.
History	History	History
Lecture	Lecture	Lecture
Seminar	Seminar	Seminar
Tutorial	Tutorial	Tutorial
etc.	etc.	etc.

Thus the schedule can be slowly evolved by dividing a subject up into groups of related subjects using one particular characteristic of a subject. Each of these groups can then be subdivided by a further array of subjects produced by another characteristic.

In constructing a schedule, therefore, a number of decisions have to be taken. Some of these decisions are given below :

1. The choice of characteristics to be used in dividing the subjects;

2. The order of characteristics to be applied in the process of division;

3. The order of concepts in each of the resulting arrays to be followed.

If the 'curriculum' had been the characteristic used in the initial process of division then each. 'Level of education' would have been subarranged under all the various subjects taught.

A classification scheme will therefore group together subjects that are the result of the first characteristic of division, while they will scatter subjects produced by subsequent characteristics. In the above example the various subjects taught are scattered amongst all levels of education, while teaching by lecture method in particular is scattered amongst all subjects which are in turn scattered amongst all the various levels of education. The decision over which the sequence of characteristics is chosen is therefore crucial to the whole orientation of a particular scheme. It is a problem of the citation order. The citation order will be discussed in later sections.

Once the schedule has been produced then a notation is assigned to it. The particular problem of this enumerative approach is that the emergence of

new concepts creates major difficulties. Within this enumerative approach there are always certain overriding generalist concepts such as time and place which recur continuously throughout any subject. Theoretically such time and place subdivisions should be added on as a final characteristic and used to divide every single concept that exists in the schedules. A nearer solution to the problem would be to have certain numbers always meaning a particular time or a particular place which can then be added on to any other number in the schedule.

Still, enumerative schemes are not ineffective in the organisation of knowledge. Most major libraries use enumerative schemes in order to organise their stock on the shelves. However, thise unsatisfactory aspects of the enumerative classification help to explain the rationale for the search for effective methods of designing classification schemes.

7.5 Faceted Classification Scheme

Faceted classification relies not on the breakdown of the universe of subjects but on building up from the subject statements of particular documents. Faceted classification rests on the definition of a facet. By this method subject statements are analysed into their component elemental concepts, called isolates. These isolates are listed in the schedules. We usually refer to such schemes as 'faceted' because isolates are arranged in groups, called facets; but an alternative name, 'analytico-synthetic', is more revealing of their nature. A facet, then, is the sum total of isolates forme by the division of a subject by one characteristic of division. In other words, in the literature of a given·subject area, it is normally possible to identify a number of facets, and by applying a number of characteristics of subdivision to divide a subject into the facets. Ranganathan was the originator of this technique. He demonstrated this technique in his 'Colon Classification'. The Classification Research Group (CRG) founded in 1952 was responsible for spreading the ideas in the West. Let us demonstrate this technique.

7.5.1 Analysis

Within subject field this requires the analysis of the subject into its elementary constituent terms or isolates. Before we start to arrange subjects systematically we have to establish what exactly are the subjects we wish to

arrange. In subject analysis we do not analyse the areas of knowledge in the broad sense. The subject content of a document comprises a number of concepts. In the subject analysis the classificationist selects these concepts. The analysis describes the overall theme of the document. For example, 'Teaching history in secondary schools by lecture method'. If we analyse the subject we can get concepts : Secondary school | history | lecture method.

7.5.2 Creation of Facets

We assemble isolates into homogenous facets. Within facets the isolates become foci. The order of foci within facets should be helpful. Thus from our education example we can cite the facets in the following ways.

Level of education	Curriculum	Teaching method
1. Primary	A Art	a Lecture
2. Secondary	B Geography	b Seminar
3. Higher	C History	c Tutorial

Here we have three facets : Level of education, Curriculum, and Teaching method. If we indicate each focus by a notational symbol then the individual foci can be gathered from the relevant facets and the notational symbols joined together to form class mark. Thus if we assign numbers 1, 2, 3 to the Level of education facet, capital letters A, B, C to the curriculum facet, and the lower case letters a, b, c to the Teaching method facet, we can synthesise a class mark for 'Teaching history in secondary schools by lecture method' to give a notation say 2 a C or 2 C a or C a 2 and so on. Thus in the faceted scheme we can synthesise the symbols by bringing the various foci together from different facets. In the enumerative scheme the concept for 'Teaching history in secondary school by lecture method' will be listed in the schedule. When a new concept arises we can easily insert it into the relevant facet in a faceted scheme. In an enumerative scheme this scope is absent.

In both systems certain key decisions are taken but in a different manner. In an enumerative scheme we need to be cautious about the application and the order of characteristics to divide the subject. In a faceted scheme we must make sure that we have all the relevant facts for every subject. The decision over the order of division by characteristics is replaced by an identical decision over the order of precedence of facets. This we call citation order or combination order of facets. Thus we may have :

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1. Level of education	2. Curriculum	3. Teaching method
Primary	Art	Lectures
Secondary	Geography	Seminars
Higher	History	Tutorials

If citation order is 1—2—3, a subject such as 'Teaching history in secondary schools by means of lectures' would have as its combination sequence of foci : Secondary schools—History-Lectures. The effect of the citation order is to group all related documents as far as the first facet to be cited is concerned, to provide much collocation but some scattering in the second facet and to offer a considerable separation in the fact cited last. Thus 'Lectures in secondary school' would be subordinate to 'Secondary school', while 'Lectures in higher education' would go under 'Higher education'. Thus the citation order or combination order of facets is a fairly fundamental decision to be taken in a faceted classification scheme.

7.5.3 Order of Foci within Facets

Decisions are also necessary to determine the order of the foci within each fact. Ranaganathan has suggested some principles for arranging foci in a helpful sequence :

1. Evolutionary order : Living things are arranged in this way.

2. Increasing complexity : Machinery for any purpose could be arranged in this way. In Geometry curves and surfaces could be arranged according to their degree of complexity.

3. Increasing quantity : Musical compositions could be arranged in the order of Solos, Ducts, Trios and Chorus. The opposite order is also possible.

4. Spatial contiguity : If we start at one point we can arrange adjoining countries thus : China, Japan, South. East Asia, India and Persia and so on.

5. Chronological or Later-in-time : Writers literature could be arranged in a parallel progressive time sequence according to their date of birth. This order may also be followed in cases where operations are considered sequentially.

6. Canorical order : This means a traditional order, such as Arithmetic, Algebra, Geometry. It will be reflected in literary warrant (as warranted by the actual publication. In text books of physics we often find the sequence Heat, Light, Sound, etc. It will be convenient to conform to this conventional sequence.

7. Favoured category : This is the limited sense of literary warrant. Meaning volumes of writings on a subject. This order would give precedence to the subjects in the array about which most are being published. Often we need to bring the most wanted item at the beginning of the.

8. Alphabetical order : Where none of the preceding methods is relevant we may adopt alphabetical order. Examples are found in Biography, where individual topics are people and Litnature where authors' names need to be arranged.

7.5.4 Citation Order

An essential quality of a classification scheme is consistency in use, and hence predictability as to the whereabouts of particular subjects. We must therefore assume that the constituent parts of a compound subject are always combined in the same order, other wise books an identical subjects could be put in different places. The scheme lists simple or single concepts which will have to be combined in order to accommodate compound subjects as they are encountered in documents. It should be noted that the citation order determines the main categories for shelf arrangement, and determines the nature of collocation. Classification scatters as it collocates. It can only group primarily by the features listed in one of the facets applied in classifying a document. For example, a document on history in secondary schools could be classified by the level of education facet or first by the subject facet. It is necessary to decide upon a citation order so that such documents are classified in a consistent manner.

Various principles for choice of citation order have been suggested. For determining the facet sequence Ranganathan enunciated three postulates :

1. (i) **Postulate of Concreteness** : We should cite more concrete before the more abstract as in the order of PMEST from the initial letters of Ranganathan's fundamental categories—Personality, Matter, Energy, Space and Time.

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(ii) Postulate of Round : "If the fundamental Category Energy manifests itself more than once in one and the same specific subject, the sequence of two Energy isolates is to be fixed on a general principle, referred to as Wall-Picture principle".

Wall-Picture principle : This principle may be stated as follows : "If two facets A and B of a subject, going with a basic subject, are such that the concept B will not be operative unless the concept behind A is conceded, even as mural is not possible unless the wall exists to draw upon, then the facet A should precede the facet B".

Let us consider the subject "Treatment of diseases of children". Here the concept of treatment depends on the concept of diseases. Unless we first recognise the existence of disease there is nothing to treat. Similarly the concept of disease depend on children. Diseases can exist only in the body. Therefore the citation order of the subject cited above would be : Children—Diseases—Treatment. The order is one of successively dependent concepts.

(iii) Postulate of Level : "Any of the Fundamental Categories Personality and Matter may manifest itself among the facets of a specific subject more than once in any one and the same round." Let us consider the title Criticism of Shakespeare's Hamlet. In this title English. Drama. Skakespeare and Hamlet are deemed to be manifestations of Ps. The sequencing of the Personality isolates is to be on the basis of Wall-Picture principle. The sequence of facets would be Language-Form-Author-Work.

2. **Whole-Organ Principle** : If in a subject, facet B is an organ of facet A, then A should precede B. For example, Bicyle-wheel, Automobile—Engine.

3. **Purpose / Product** : In many basic classes we find subjects in which the objective is to produce some particular product or achieve some particular purpose. In such cases the end-product or purpose should be treated as primary facet. For example, Crop in Agriculture. The purpose of agriculture is to produce crops.

7.5.5. Filing Order

This is also known as schedule order. We need to study the way in which we should write out the schedule which will show the whereabouts in the sequence any given subject—simple or compound—will be found. The most elementary principle of schedule order is the general-before-special. That is to say, the general subject would precede the specific subject. For example, a book on music in general would precede one on Rabindrasangeet.

Principle of Inversion : Let us consider the following three titles within the basic subject Education :

Teaching by Lectures

Teaching history by lectures

Teaching history in second any schools by lectures we can analyse the subjects thus

Lectures

History : Lectures

Secondary School : History : Lectures

Using the citation order : Level of education—curriculum—Teaching method—we can arrange the subjects thus :

Secondary School : History : Lecture   ... (1)

History : Lecture.   ... (2)

Lecture   ... (3)

In the first example level of education is specified, in the second no level is specified, but we have subject taught and in the third only method is specified. If we are to follow the general—before—specific principle we need to bring title with teaching method first and the title with level of education last. Thus the filing order would be in the order 3-2-1. That is to say, the schedule order is the reverse of the citation order. It is commonly known as the principle of inversion because this happens to be the opposite of the principle used for citation order. Unless it is followed there will be places in the schedule where the fundamental principle of general-before-specific will be violated.

7.5.6 Notation

Classification schemes adopt a system of symbols as class marks which represent the classes and divisions. The purpose of using such a device, called notation is to represent the subjects and sometimes their relationships. The purpose of using notation is to provide a sequential order for a logical arrangement. In other words, order in classification system is shown by notation. We therefore, need to choose a set of symbols with a conventional order. It is important to note that notation is not classification, Classifications are concerned with concepts. Notation is added to schedules.

7.5.7 Alphabetical Index

In schedules we arrange subjects or concepts in systematic order. But systematic order is not self evident. We add notation to schedules to show whereabouts of the subjects in the sequence. But the resulting class numbers lack meaning. Users need entry vocabulary. They use words in their approaches to the system. They need alphabetical index. The index lists all the words that users will need to search under and translates them into the notation of the classification scheme.

7.5.8 Organisation and revision

It is vital that there should be an organisational structure to support the scheme. The most important function of the organisation is to provide a mechanism for the revision of the scheme.

The rapid advancement of knowledge requires that schemes undergo frequent revisions and updating. Revisions is necessary to make provisions for emerging subjects. Revisions will be necessary but will take the form of extensions. In view of this, it is imperative that librarians should have complete understanding of the principles, the ories and concepts of classification so that they are in a position to amend, modify and revise any classification scheme within the normal limits of human error.

7.6 Exercise

1. What is enumerative classification scheme? Illustrate.

2. How would you arrange foci within a facet?

3. Explain the principle of inversion.

4. What are the functions of notation?

7.7 References

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Unit 8 ❑ Notation

Structure

8.1 Introduction

Notation is merely a coding device to facilitate arrangement of items in a classification system. The order itself is complicated and obviously none can be expected to remember all of it. We need, therefore, a set of symbols with a conventional order which can be made to represent the subjects in the classification system. The notation usually preferred in library classification is

right handed, linear and without suffixes or superiors. When a class number has to be written along the spine of a thin book, downward notation may be used. The only purpose which notation serves is to mechanise the sequence of terms. The symbols are such that, when they are arranged in ordinal order, the subjects they represent then fall into a preferred systematic order. Words themselves do not fall into this preferred order, because their structure is not closely related to their meaning (alphabetical scatter). Notation supplies the one feature—correspondence between systematic order and symbol order. It will be worth our while to note a few definitions of notation often encountered in the literature.

8.2   Definitions

H. E. Bliss defines notation as a system of marks and symbols in some order, denoting terms or members of a series or system of things.

Margaret Mann defines notation as the symbol which stands for classes and their subdivisions.

E. C. Richardson observes "The notation which is really a condensed word for each class but which nevertheless may and should convey representations not merely the divisions but also of the sequence and not only of the artificial sequence but of the logical sequence so far as can be expressed".

W. C. B. Sayers explains notation as a series of signs and symbols standing for the names of terms and forming a convenient means of reference to the arrangement in a classification.

S. R. Ranganathan defines the notational system as a system of ordinal numbers used to represent the classes in a scheme for classification.

The difference between Ranganathan's approach and that of Bliss comes out in their definition of the term. To Bliss, notation is "a system of symbols for maintaining the structural order of classification and for locating terms or subjects, in the classification". To Ranganathan, it is artificial language of ordinal numbers for the specific purpose of mechanizing arrangement. These deceptively similar definitions show one important difference : 'system of symbols' in one becomes an 'artificial language in the other. It is true that notation, like any other system of ·symbols, is 'a language, a mode of

communicating ideas. Nevertheless, the word "language" brings with it the assumption that notation, as an artificial language, must attempt to do all that natural language does, but in a more systematic way. Bliss simply defines the limited task that notation has to do—maintain structural order—and avoids the confusing implications of the word 'language'.

8.3 Types of Notation

There are two sets of symbols whose orders are universally recognised : the letters of the Roman alphabet (either small or capital), and Indo—Arabic numerals. Any symbols other than letters and numbers need to have their filing value defined. Apart from the different sets that can be used for notation there are two different types of notation : pure notation and mixed notation. A pure notation contains only one kind or set of symbols, for example, Indo—Arabic numerals or Roman capitals or Roman smalls. A mixed notation contains two or more kinds or sets of symbols such as, for example, a mixture of letters and numbers.

8.4 Need for Notation

Notation abbreviates and standardizes subject names. It mechanises the process of sorting and replacement since it consists of ordered series of symbols. Ranganathan has pointed out the following reasons to justify the use of notation in classification.

1.   Unhelpfulness of Alphabetical Sequence : Alphabetical arrangement of subjects by their names, as a means of mechanizing their arrangement, must be ruled out as the sequence it gives is not helpful. Related subjects will be scattered through alphabetical arrangement.

Alphabetical	Classified (as in CC_6)	
Biology	C	Physics
Botany	D	Engineering
Chemistry	E	Chemistry
Economies	F	Technology

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Engineering	G	Biology
Fine arts	H	Geology
Geography	I	Botany
Geology	K	Zoology
History	L	Medicine
Literature	N	Fine arts
Medicine	O	Literature
Physics	U	Geography
Political Science	V	History
Technology	W	Political Science
Zoology	X	Economics.

It is obvious that alphabetization by names of subjects will cause the utter destruction of helpful sequence.

2.   Effect of change in the name of subject : Alphabetical arrangement of subjects by their names, as a means of mechanizing their arrangement, must be ruled out, as the names of subjects are not stable. The name of the subject is often changed from time to time. For example, what we call today as "Economics" was earlier named as "Political economy". Lack of stability in the names of subjects rules alphabetization as a means of mechanizing helpful arrangement.

3.   Effect of synonyms on alphabetical sequence : As the names of subjects are not unique alphabetical arrangement of subjects by their names must be ruled out. For example, 'Fuse' and 'Cut out' are equivalent words for the same idea. One takes it to the 'F' group and the other 'C' group. Alphaletization does not help the mechanization of arrangement.

4.   Effect of multiplicity of languages on alphabetical sequence : The alphabetical position of a subject would vary with the language from which the name is taken. For example, in English 'Dry cell" would go to the 'D' group and 'Tuning fork' to the 'T' group. In French the former (Pile Seche) will go to the 'P' group and the latter (Diapason) to the 'D' group.

5.   Effect of homonyms on alphabetical sequence : Alphabetical arrangement of subjects by their names, as means of mechanizing the arrangement,

must be ruled out, as the subjects denoted by term are not unique in any natural language. For example,

   Pitch— bituminous and resinous substances

     — tree yielding pitch

     — to thrust or fix in the ground

     — ground between the wickets (cricket)

     — degree of acuteness of sound.

From the foregoing discussion, it becomes clear that alphabetical arrangement fails as a means of mechanizing the arrangement of subjects in the preferred helpful sequence. Therefore we should use ordinal numbers as a means of mechanizing arrangement of subjects.

8.5 Functions of Notation

We must distinguish between the functions and the qualities of a notation. There is only one function that a notation must perform and that is preservation of the desired order. This is achieved by a set of symbols with their own conventional filing order.

A second function that a notation frequently performs is to act as a locating device or link between the catalogue and the stock.

8.6 Qualities of Notation

Qualities of notation fall into two groups : Those which affect the ease of use and those which ensure the inclusion of any new subject in its correct place in the scheme. The qualities represented by the first group are called psychological and the qualities represented by the second group may be called technical. After all notation must be acceptable to users. The psychological qualities of notation are summed up by the term simplicity.

The notation must be easy for users to remember, write, type and match. The qualities in the first group are : Purity Brevity, Hierarchical, Mnemonic

and Flexible. Purity is both psychological and a technical quality since the users must be able to follow the order of the notation.

The second group represents the essential function of a notation. That is to say the notation must provide a conventional order. The notation must be able to add new subjects as they arise in the correct place in the overall order. The quality required for this aspect of function is known as hospitality.

8.6.1 Pure Vs Mixed Notation

In pure notation the users need not have to learn the filing value. Mixed notation does not have any accepted filing value. But it provides more symbols for use than does pure notation. In other words, mixed notation gives a longer base than does pure notation. The base means the number of symbols available in the system. For example, if we use Indo-Arabic numbers (0—9) in a system the base is ten. If we use letters (A-Z) the base is twenty six. If we mix both numbers and letters the base will be thirty six. With a longer base the system can provide shorter notation for classes.

8.6.2 Brevity

Bliss argued that a notation should be as short as is feasible. The notation requires to be written on many records such as spine of the book, the catalogue cards. The brevity in notation is desirable. A number of factors determine the length of the notation in a classification scheme. These include :

1. The base of the notation. The number of symbols available in the notation is known as the length of the base. The longer the base the shorter the notation tends to be.

There is a conflict between brevity and purity. A pure notation is simple, but it gives longer notation for subjects than does a mixed notation. If we use mixed the brevity is assured. But we get brevity by losing purity.

2. The allocation of spans of symbols to subjects. Some subjects are static, some are dynamic. A poor allocation of spans of symbols to dynamic subjects cause long notation. For example, in DDC 19 a static subject Logic is allocated the span of numbers from 160—169. The scheme has only seven classes in Logic and each of them has a notation of three digits. For dynamic subject Electrical Engineering it has allowed only 621.3. The scheme has over 300 sub-classes in Electrical Engineering. As a result, most of them have

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notations more than twice as long as these in Logic. Therefore, dynamic subjects should be allocated a large share of spans of symbols.

8.6.3 Synthesis

The synthesis of notation affects brevity. In synthetic classification schemes only single concepts are listed. Each single concept must have its own individual piece of notation. In order to specify any composite subject the classifier has to combine these individual pieces of notation according to the specific citation order.

A synthesised class number is, therefore longer them the one for its enumerative counter part. To shorten the synthesised class number a device known as retroactive notation is used. Because the elements must be combined in order beginning at the end and working backwards, it is known as retroactive notation.

8.6.4 Structural Notation

The structural notation displays the structure of the scheme. Such a notation is known as a hierarchical kind, as will as expressive. Structural notation tends to be longer than non-structural notation. For example,

Structural		Non-structural
B	Mathematics	B
B_2	Algebra	B_2
B_{25}	Higher Algebra	B_3
B_{252}	Binary Algebra	B_4

The hierarchical notation displays relationship of subordination by adding a new subject for each successively subordinate class. It displays generic structure. Expressive notation displays syntactical structure. In other words it expreses the relationships among the subjects. Expressiveness is difficult to maintain as new subjects are added. Expressiveness often relies on decimal subdivision, and this may become less systematic with the addition of new subjects. Thus in DDC we find :

620	Applied Physics
621	Mechanical Engineering

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621.3	Electrical Engineering
621.48	Nuclear Engineering
624	Civil Engineering

The need to insert Electrical Engineering and Nuclear Engineering at a later time, subsequent to the original drafting of scheme, has detracted from the original attempt to make an expressive notation.

The hierarchical notation tends to be longer than non-hierarchical notation. But it helps the user to broaden or narrow down searches easily.

8.6.5 Hospitality

As stated earlier, schedule lists subjects or concepts in a helpful way and notation is appended to the schedule to show the order. Since knowledge is dynamic, schedules must accommodate new concepts in the correct place in the overall order. This ability to accommodate new concepts in the correct place is known as hospitality.

A notation must therefore, be hospitable. It should be noted that expressiveness and hospitality are mutually exclusive. Sooner or later one or other breaks down. In fact expressive notation limits hospitality. If we insist on hospitality we have to sacrifice expressiveness. If we insist on expressiveness we are likely to find ourselves abandoning hospitality.

There are two kinds of hospitality : hospitality in array and hospitality in chain.

Hospitality in array : This is hospitality to new coordinate concepts. Sometimes we need to interpolate new coordinate concepts into an existing array. Sometimes we need to extrapolate new coordinate concepts into an existing array The former calls for interpolation between any two already existing consecutive numbers in the array and the latter calls for extrapolation at any of its ends of the array. Two devices have been adopted by different schemes of classification for extrapolation in array :

1.   **Gap device** : Here some digits in an array may be left unused at the beginning as will as at the end of the sets of digits used. This method allows extrapolation only to a certain extent as the unused digits may be used up at some point of time. These gaps are purely accidental.

2. **Sector device** : Ranganathan tried to provide means for the extrapolation of an array by what he called be Sector Device (originally named Octave Device). The first and the last symbols in each array may be reserved for the purpose of extending that array. In numerical the digit 9 would never stand alone, it would be used to introduce more coordinate concepts. It is a device used for increasing the capacity of an array with the aid of any empty digit. An empty digit is a digit with ordinal value and without semantic value. Similarly, letters Z, z can be used as empty digits. For example,

1 2 3 4 5 6 7 8 9 1 9 2 ... 98 991 992 ...   so on.

A B C D ... Y Z A Z B ... ZY ZZA ZZB ... so on.

a b c d ... y z A z B ... zy zzA zzB ... so on.

Interpolation in array : Four different approaches have been adopted by different schemes of classification : gap device, mixed base, introduction of new species of digits, emptying digits and empty-emptying digits.

Introduction to new species of digits : In Colon Classification the digit Δ representing 'spiritual experience and mysticism' is interpolated between M 'useful arts' and N 'Fine arts'.

Emptying digits : "Emptying digit is a digit with its usual ordinal value also semantic value, and further having the power to deprive the preceding rich digit of its power of representing an idea" [Prolegomena), p.314]. T. V. and X have been postulated as emptying digits. Thus the digit pair KX is coordinate in status with the digit K. KX. Animal husbandry has been interpolated between K Zoology and L Medicine.

Empty-Emptying digits : The digits U, W and Y are prescribed to be both Empty and Emptying digits. They have to be followed by a rich substantive digit. In CC (7th ed) interpolation of more basic subjects is possible by such digit triads :

L	Medicine
L U_3	Public health
L U_6	Hospital
L U_7	Sanitorium
L UD	Medical technology
M	useful arts

Hospitality in Chain : This is hospitality to new subordinate concepts. A decimal fraction notation has infinite hospitality in chain.

Interpolations will be discussed in the unit on colon classification.

8.6.6 Flexibility

The ability to accommodate new concepts is hospitality. The ability to accommodate alternatives to suit certain needs is flexibility. In other words a notation may be hospitable to alternative locations and treatment.

Alternative locations : Life of a chemist may be classed either at Biography or at chemistry to suit the needs of the library. We find such examples in DDC.

Alternative treatment : We can alter the filing order to suit our needs and in that case we need the citation order also. UDC has a very flexible notation. The scheme has suggested filing order for the facet indicators but that is not mandatory.

8.6.7 Mnemonics

Mnemonics in notation are aids to memory. The term means that when a certain concept recurs in the scheme it is represented by the same symbol. Ranganathan has suggested four kinds of mnemonics : Alphabetical, Scheduled, Systematic and Seminal.

Alphabetical Mnemonics : The initial letter of a subject can be an aid to memory. They are often called literary mnemonics. For example, in Bibliographic Classification 'C' stands for Chemistry, 'U' stands for Useful arts. It can be applied to brands of cycles, motor cars, aeroplanes, etc.

Scheduled Mnemonics : A scheme for classification should use one and the same symbol, as the case may be, to represent an isolate idea, array isolate idea, in whatever subject it may occur. Colour Classification conforms to the canon of scheduled mnemonics. The repetition of schedules has been reduced to a great extent. It is economic. In Ranganathans terminology the scheduled mnemonics satisfies the law of parsimony.

Systematic Mnemonics : In systematic mnemonics the following types of sequences are achieved : Time sequence, Complexity sequence, Evolutionary sequence, spatial sequence, Quantity sequence, Canonical sequence, Literary warrant sequence. In fact, the faceted scheme is fraught with mnemonic

3. Which qualities would you look for in a satisfactory notation?

4. Give the relative advantages and disadvantages of using letters and figures for notation.

5. Describe with examples the major advantages of mixed notation.

6. What part does notation play in making a classification scheme?

8.8 References

1. Langridge, D. W. : Classification : its kinds, elements, systems and applications. Booker—Saur, 1992.

2. Ranganathan S. R. : Prolegomena to library classification. 3rd ed. Bombay, Asia Publishing house, 1967.

possibilities, as each basic concept listed within a class will be continually represented by the same symbols.

Seminal Mnemonics : Here the same concept is represented by the same number in all places of its occurrence but with different terms. The same digit should denote seminally-equivalent concepts in whatever subject they may occur. For example,

1. Wholeness, unity, God, one dimension
2. Two dimensions, plane, anatomy, morphology
3. Three dimensions, space, analysis, function
4. Pathology, disease, physiology, synthesis
5. Energy, light, liquid, water, women, organic substance, ecology.
6. Mysticism, money, phylogeny, evolution, genetics.
7. Personality, autogeny, public finance.
8. Travel, organisation, development.
9. Manipulation.

This sort of mnemonics is a powerful apparatus which enables the individual classifier to anticipate new class marks. The idea behind seminal mnemonics is to provide classifiers with the power to anticipate revision correctly. Ranganathan applied the concept of seminal mnemonics intuitively in developing the schedules of Colon Classification. It is valuable feature of a notational system but a sound theoretical basis of the concept is stile lacking.

It is worth to note that notations are always written down and so memorability of notation is of minor importance. Still if it can be achieved it will be one more advantage. In fine all we can say with certainty is that two vital qualities of notation are ability to convey order clearly and the power to accommodate new subjects in their correct place in the existing classified arrangement.

8.7 Exercise

1. What is notation? Describe the desirable qualities of notation.
2. Discuss the conflicting qualities of notation.

Unit 9 □ Alphabetical Subject Index

9.1 Introduction

In schedules we arrange subjects or concepts in systematic order. But systematic order is not self-evident. We add notation to schedules to show whereabouts of the subjects in the sequence. But the resulting class numbers lack meaning. Users need entry vocabulary. They use words in their approaches to the system. They need alphabetical index. The index lists all the words that users will need to search under and translates them into the notation of the classification scheme. The study of alphabetical indexes to classification schemes has been a neglected area in classification theory. Generally students are taught to classify materials directly from the classification schedules and not from the indexes. One British Librarian observes that teachers of classification have always advocated that the classifier should work directly from the schedules, using the index only as a check.

9.2 Functions

The index to the classification scheme should carry out two definite functions. It must :

(a) locate topics within systematically organised classification.

(b) show related aspects of a subject which the classification has scattered.

The index should complement the classification scheme and the relationships shown in the index should supplement those in the main classified sequence. The index to a classification scheme represents the rearrangement of a systematic or classified array into an alphabetical array. It might seem that such an index would be a very easy index to generate. Subjects and topics with their notation could be removed from the systematic order and rearranged alphabetically. Indexes are truly indexes to the schedules and not to the functioning classification scheme. Subjects derived lay synthesis are not included in the index. Of course the 18th edition of DDC is an exception to this general pattern. Compound and complex subjects are only indexed if they appear in the schedules and are not derived by synthesis. This is a major difference between the index to a classification scheme and the index to a classified catalogue. The other difference is that the index to a classified catalogue reflects the subject holding of a particular library while the index to a classification scheme does not

9.3 Problems

There are a number of problems to be solved before we can claim that we have provided a good index. The first problem is synonym. In the schedules we normally use only one term for a particular subject, but there may be others. For example, Birds / Ornithology—both these terms must be provided in the index.

The second problem is homonym. It means the same word with different meanings. For example, Order. The term 'order' may mean Command, indent, arrangement and so on. All these meanings should be specified within brackets. Otherwise confusion may crop up.

All nouns have a plural and a singular form. But there are instances when it is necessary to treat the plural and the singular forms as distinct. For example, Exercise and Exercises.

Some subjects require two or more words for their specification. For example, 'Information retrieval', 'Origin of species'. Access must be provided via all significant words in the multi-word term. Usually references can serve to direct users from words not used as the primary entry word to the word that does not have this status. For example, Exceptional girls, if this is the preferred term, when the user looks under girls he must be able to trace a route to the document. Sometimes terms are presented in direct order, for example, Police Hospitals, but on other occasions the terms may be inverted, for example, Hospitals, Police. Inversion may offer the advantage of grouping like subjects. The disadvantage of inversion of words is that inversion order reduces the predictability. How is a user to know which multi-word terms in a system have been inverted and which have not?

A major difficulty facing the indexer is the problem of indexability. What should be included and what should not be included? Writing on the index to a faceted classification sachem B. C. Vickery states, "This index should include (i) all single words and phrases used as class terms in the schedule and (ii) cross-references from synonyms and from inversions of phrases".

9.4 Relative index vs Specific index

A distinction is sometimes drawn between 'relative index' and a 'specific index'. The 'specific index', a name given by Berwick Sayers to the index to the "Subject classification", gives only one entry per term. The 'relative index', a name given by Dewey displays relationships by bringing together under the name of a concept all the relations under which it is scattered in the schedule.

9.5 Interpretations of the relative index

Berwick sayers defines the relative index in his canons—"A relative index shows every aspect and relation of a topic".

Jack Mills states that "the relative index gives against each term class numbers for all the different aspects of the topic which are in the classification".

Melvil Dewey Says of his own relative index, "the index gives similar or sinonimons words, and the same words in different connections, so any intelligent person will surely get the ryt number". Dewey felt that indexing is more of an art than a science.

Benjamin Custer gives his views in the 18th edition of DDC : "the index is considered relative (and is traditionally known as the 'relative index') because of its inverse relationship to the schedules. Whereas in the schedules the different aspects of a subject are scattered according to the discipline, in the index they are brought together under the name of the subject, with various locations in the schedules indicated".

It should be noted that only significant terms will appear in the relative index : The definitions as noted above demonstrate a wide disparity of meaning for the concept of a relative index.

9.6 Distributed relatives

Distributed relatives are concepts which are related but scattered. These distributed concepts are shown clearly in the index. The index to a classification scheme has a dual role to play. It enables us to find the notation for a particular topics and thus its place in the overall arrangement; it also shows all of the several places where a particular concept is to be found even though they are scattered throughout the arrangement.

The index is thus much more than a convenience. It is an essential, integral part of a classification scheme. It is vital that we should not underestimate the importance of the alphalutical index.

9.7 Exercise

1. Which classification scheme has used specific index?
2. What are the functions of relative index?

3. What is the difference between the index to a classification scheme and the index to the classified catalogue?

4. Who started the use of relative index?

9.8 References

1. Chakrabarti, B. : Library classification theory. Calcutta, World Press, 1994.

2. Foskett, A. C. : The Subject approach to information. 4th ed., London, Clive Bingley, 1982.

3. Maltby, A. Ed : Sayers' manual of classification for librarian. 5th ed., Deutsch, 1973.

Unit 10 ❑ General Classification Scheme

Structure

10.1 Introduction

Any general classification of knowledge must imply beliefs about the nature of reality and of knowledge itself, but it is difficult to reconcile the views of different religions and philosophies. This is the biggest problem of consensus

which can only be resolved on a majority principle. In western countries this means working within the broad liberal humanist tradition stretching from the time of the Greeks to the present day. A Marxist or Islamic scheme in the west would constitute a special scheme as much as those limited by subject matter.

Within that tradition the various forms of knowledge must be treated as equal. In different eras the status of particular forms of knowledge has varied. Before the twentieth century, for example, religion was generally held in higher esteem, whereas science has enjoyed most favour during the twentieth century. The first principle in constructing a general classification scheme must be to treat all forms of knowledge according to the ideas of their exponents, not according to hostile critics.

A general classification schemes deals with the universe of subjects comprising the whole body of knowledge. It r flects a single or unified view of general structure of knowledge. The success of a scheme depends on the coverage in it of different subjects and their order, the degree of specification of subjects mapped and the ability to accommodate the emerging subjects.

10.2   Main class

The basis for the overall structure of all general classification schemes is the main class. A main class is one of the broad classes into which knowledge is divided before further analysis starts. Main classes are conventional divisions of the universe of knowledge. They may be regarded as coordinate classes which together exhaust the universe, Ranganathan defines main class—"any class enumerated in the first order of array of a scheme of classification of the universe of knowledge. This definition is valid only for the scheme concerned". Elsewhere he suggest that main classes are conventional, fairly homogeneous and mutually exclusive groups of basic classes. He also introduces the idea of 'partially comprehensive' main classes as a means of differentiating the 'super—groups' such as physical sciences, biological sciences and so on.

All modern general classification schemes are disciplinary schemes. Their main classes reflect specialisations. Disciplinary main classes have 'a very fixing effect' on the structure of knowledge found in general classification schemes while knowledge itself is not fixed. However, in respect of main classes we note the following requirements :

1. All disciplines must be represented.

2. Main classes in a scheme should be balanced in size. The space for a discipline should be proportional to the size of the literature of the discipline.

3. The order of main classes should bring related subjects together.

4. There should be provision for major change in the main classes.

10.3 Order of main classes

There must be a comprehensive system of order in main classes. The common symbol for knowledge is tree. From the trunk emerge the main branches and from them the smaller branches and twigs, the whole image producing a complex pattern of interweaving. Major divisions or areas of knowledge, as noted earlier, are known as main classes, with the emphasis distributed equally between the various sciences, social studies and humanities. The possible number of total orders for a general scheme is infinite, and even the number that might claim a maximum degree of helpfulness would be very large indeed. Different schemes have offered different structure of main classes. Let us examine some of them.

10.3.1 Dewey

The structure of main classes in DDC is based on the order of Francis Bacon's 'Chart of Learning' as inverted and modified by W. H. Harris in 1870. Dewey points out that 'everywhere filosopic theory and accuracy have yielded to practical usefulness'. However, in many ways the order in DDC is not satisfactory, separating language (400) from Literature (800), and history (900) from other social. Sciences (300). DDC scheme reflects the state of knowledge of the latter half of the nineteenth century, for example, psychology treated as a division of philosophy.

10.3.2 Brown

The arrangement of main classes in Subject Classification (SC) follows the order of "scientific progression". James Duff Brown's theory is that in the order of things, matter and force came first, which gave rise to life, and life was followed by mind. Finally mind was followed by the making of of its record.

Matter + Force
Life
Mind
Record.

Brown introduced a principle which is somewhat controversial but seems to be useful : the grouping, of science and its technology. Dewey grouped all 'sciences' together and all 'technologies' together (except medicine). Brown placed each technology with science upon which it depended. However, he linked music and acoustics, horse-racing and zoology in a way which is clearly unhelpful.

10.3.3 Ranganathan

Knowledge is divided into more or less traditional main classes. He maps the universe of subjects by broadly dividing it, at the first instance on the basis of traditional divisions of knowledge—natural sciences, humanities and social sciences, which are called partial comprehensions. Each broad division of the universe of subjects is further divided into a set of main classes. Ranganathan has argued the case for his own order in his scheme, but without conveying any great conviction. He is in any case more concerned with order within classes. Each main class is divided into facets by the application of different trains of characteristics.

10.3.4 Bliss

According to Bliss "Knowledge should be organised in consistency with the scientific and educational consensus, which is relatively stable and tends to become more so as theory and system become more definitely and permanently established in general and increasingly in detail". He believes that such an order would be the most helpful to users. To establish the order of subjects within the educational and scientific consensus Bliss used three principles. The first of these is the collocation of related subjects. For example, Bliss considers that Psychology is related to both Medicine and Education, so that the relevant part of his outline is as follows :

> Anthropological Sciences
> Medicine
> Psychology
> Education
> Social science

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However, it may also be noted that Bliss did not follow his own second principle : subordination of specific to general, for in order to collocate it psychology, education has to precede the more general heading social science. In the ordering of coordinate topics in an array, Bliss employs the principle of gradation in specialty. The premise of this principle is that certain derivative subjects draw upon the findings of other subjects. In a classification scheme, the subject that borrows from another is considered to be more specialised than the latter and should follow it. For example, mathematics is a science that many other sciences draw upon and is therefore, placed at the beginning of the classification.

10.3.5 Others

A part from all those schemes as noted above we find few efforts to produce a philosophically justifiable order of main classes. The Library of Congress Classification scheme does not have any sort of theoretical basis. It reflects the holdings and use of that library and is thus justified for its own purpose. The structure of Universal Decimal Classification is based on DDC. But it is trying to arrive at a more satisfactory order by a slow process of change. So far there has been one major re-location, placing language together with literature.

10.4 Classification Research Group (CRG)

The CRG was formed in 1952. It has been a major force in the development of classification theory. It contributed significantly towards the work on a new general classification scheme. Early work was concentrated on the construction of over 20 special schemes in various ways of knowledge. The experience thus gained provided a grounding for work on the development of a new general classification scheme. In this context the first step was to identify the main classes. The search for main classes was concentrated on "entities' or things. The theory of integrative levels emerged.

10.4.1 Theory of Integrative Levels

The theory of integrative levels is that the world of entities evolves from the simple towards complex by the accumulation of properties or influences from the environment. Each entity preserves its integrity by means of the

relationship between its parts. But as the relationships between the entity and the environment become more complex, the entity grows itself and in due course an aggregation of entities or properties become a new whole with a more complex nature. That is, the original entity, by setting up relationships with other entities gradually establishes firmer connections and eventually binds the other entities to itself inextricably, thus forming a new entity with its own unique properties and relationships between its parts. Of these parts, the original entity will form one. Thus each whole entity is greater than the mere sum of its parts, the reason is that the relationships between the parts are as important as the parts themselves.

Integrative levels is an evolutionary idea. It produces an absolute order of entities based on their increasing complexity, which results from the addition of qualities. A vertebrate is more than just an invertebrate with the addition of a backbone.

How, then, did this relate to our problem of a general classification scheme? If we start from the real world we see that there is a series of levels of 'things'.

<pre>
                    Fundamental particles
                            |
                         Atoms
                            |
                        Molecules
                            |
                         Masses
                            |
        +-------------------+-------------------+
  Organic substances   Inorganic substances
        | |
      cell   mineral
        | |
     tissue   rock
        | |
     organ   geology
        | |
     Animal   geography
        | |
      Man   Astronomy
        |
</pre>

```
                    |                    |
                 Family              Language
                    |                    |
                 Society               Arts
                    |                    |
                                     Literature
                                         |
                                     Philosophy
```
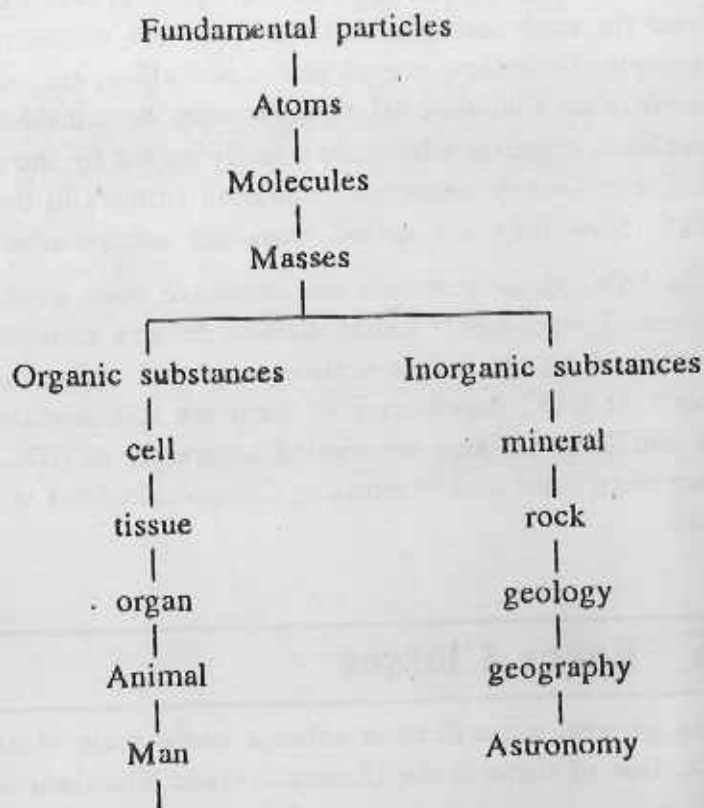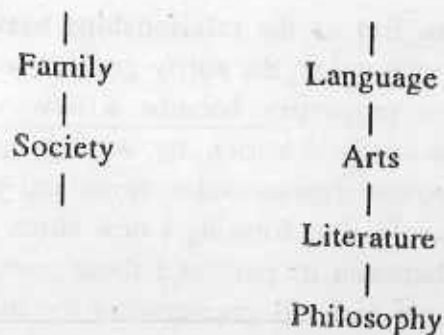
The CRG set about trying to define a series of integrative levels upon which it should be possible to base the main classes and their order for a new general classification scheme.

10.5   Common Isolates

There are certain kinds of concept which keep recurring, and which may be found in any basic class. In fact, all general classification schemes recognise the need for such common isolates. They are common to all subjects. We find for example, dictionary, encyclopedia, periodical, etc.; all kinds of bibliographical from. We also find that all subjects may be considered in the historical and geographical contexts which are usually called by the terms 'time' and 'space', respectively. Dewey introduced common isolates in the second edition of DDC in 1885. Now they are called 'standard subdivisions'.

In DDC these common isolates have been explained as "a special kind of patterned repetition'. Ranaganathan defines common isolates as "an isolate idea denoted by the same isolate term and represented by the same isolate number". In UDC Auxiliaries of form are like standard subdivisions of DDC. Space and Time isolates are treated separately in UDC. In Colon Classification they are recognised as Anteriorising Common Isolates and Posteriorising Common Isolates.

10.6   Form Classes

In general classification scheme some main classes are not arranged by subject. One of these is the Generalia class. The Generalia Class accommodates

works of so composite a nature that none of them can fit into any main class. As its name implies, this is general works class provided to accommodate such books as encyclopedias, dictionaries, etc. which cover knowledge in general, or such a portion of it and that it is impossible to place them under any one other main classes. Since they cover everything we need to use the physical from of document (for example, periodical) or its form of presentation (for example, dictionary) as the basis of arrangement. The Generalia class is therefore called a form class.

Literature is the other form class. Literary works may be arranged by their subject but it is more useful to collocate by language and by from, so that all English works are together and within that all English poetry.

10.7 Phase Relations

One of the notable features of the ever expanding universe of knowledge is the emergence of interdisciplinary subjects. Ranganathan identified the formation of these new subjects and called them complex subjects. Let us consider the following examples :

> Relation between literature and religion
> Mathematics for Engineers
> Comparison between plants and animals
> Difference between economies and history
> Music for plant growth
> Influence of religion on literature.

We can use the term phase relationships to denote them. There are three types of phase relationships, indicating relation between :

1. Two or more subjects, known as inter-subject phase relations.

2. Two isolates in the same facet, known as intra-facet phase relation.

3. Two isolates within one and the same array of isolates, known as intra-array phase relation.

Each type has six kinds, namely, General, Bias, Comparison, Difference, Tool and Influence. All general classification schemes need to provide rules and guidelines to classify complex subjects.

10.8 Parts of General Classification Scheme

There should be three parts to any general classification scheme.

1. The schedules : These list the various classes of the scheme, which may be used to represent the subjects of documents, ordered by notation. Schedules give adequate coverage and specification of the subject (s).

2. Instructions for use : These may be given in an introduction or partly distributed throughout the schedules at appropriate places.

3. The Alphabetical Subject Index : This is an index of classes in the schedules, not an index of all subjects that could be specified by the scheme. It is meant for classifiers, not for the use of readers.

10.9 Exercise

1. What is understood by 'main class'?
2. Explain the concept of 'Integrative Levels'.
3. Explain Bliss' concept of 'Scientific and educational consensus'.
4. What is understood by 'form Classes'?
5. Describe the parts of a General Classification Scheme.

10.10 References

1. Foskett, D. J. : Classification and indexing in the social sciences. 2nd ed., Batterworths, 1974.

2. Maltby, A and Linda, G. : The case for Bliss. London, Clive Bingleg, 1979.

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Unit 11 ▢ Dewey Decimal Classification (DDC)

11.1 Introduction

The publication in 1876 of a pamphlet entitled **A classification and Subject Index for Cataloguing and Arranging the Books and Pamphlets of a Library** marked the beginning of the Dewey Decimal Classification (DDC) system. Today, in its twenty second edition, DDC has become the most widely-used library classification system. The 1876 edition, consisting of merely forty four pages and published anonymously, contains a brief preface outlining Dewey's principles, the schedules of ten main classes subdivided decimally to form a total of 1,000 categories numbered 000—999, and an alphabetical subject index.

Melvil Dewey (1851—1931), the founder of the system which was named after him, was assistant librarian at Amherst College when he developed the scheme. In 1876 Dewey became the first Editor of the Library journal. In the same year he became a founder member of the American Library Association and its first Secretary. In 1887 he became the founder of the first library school in Columbia university. His full name was Melville Louis Kossuth Dewey. Because of his passion for spelling reform he changed his name to a simpler form—Melvil Dui. From twentieth edition DDC is being published in 4 volumes.

11.2 Innovative Features

Dewey introduced in his classification scheme the following four features in subject arrangement.

1. **Relative location :** The scheme offered for the first time the ability to arrange books in a subject order that allowed differing levels of growth in different subject areas. Prior to Dewey books were numbered according to their locations on the shelves. In other words, each book had a fixed location. Dewey introduced the idea of using notation to books themselves, not the shelves. Notations are assigned to books in terms of their relationship to one another without regard to their locations. New books on a given subject could be inserted anywhere in the existing sequence. Dewey's concept of relative location was indeed revolutionary! This revolutionary idea could be easily achieved because of the introduction of decimal notation.

2. **Decimal notation :** Added to the main subject classes is a generalia class. Each main class is divided into ten subclasses which are further subdivided into ten and soon. The principle in dividing each class into subdivisions and each of these subdivisions into another ten sub-subdivisions equipped DDC with an enormous capacity for expansion.

3. **Detailed subdivisions :** When Dewey introduced the idea of moving books at any point to accommodate newcomers, it became possible to specify detailed subdivisions.

4. **Relative index :** In the relative index, Dewey brings together under one term the locations in the scheme of a subject which in many cases falls in several fields of study. The relative index has two advantages : (a) it shows exactly where to locate a given topic; (b) it displays those aspects of a subject which the systematic order. has scattered throughout the scheme. The relative index has an impact on indexing practice and many of its principles are incorporated into indexing methods, such as chain indexing.

11.3 Basic Principles

To say that classification groups together materials on the same subject is an oversimplification. In fact, the Dewey Decimal Classification is classification by discipline.

11.3.1 Classification by discipline

The division of main classes and subclasses is based on academic discipline, or field of study, rather than subject. As a result, the same subject may be classed in more than one place in the scheme. For example, the subject "family", depending on the author's approach, may be classed in ethics, religion, sociology, social customs, family planning, home economies, or genealogy.

11.3.2 Hierarchical Structure

In general, arrangement is first by discipline, then by subject, with various levels of subject subdivisions, then by geographic and period specification, then by form of presentation. Exceptions to this pattern are found in the Literature (800) and the Generalia (000) classes. In the Literature class, arrangement of belles-letters is first by the discipline (literature) then by original language, then by literary form, then by period of composition. In the Generalia class, certain categories of materials, including general encyclopedias (030), periodicals (050), newspapers (071-079), collections (080) and general publications of general organizations (061-068), are arranged by form, then by language or place as provided by the schedules.
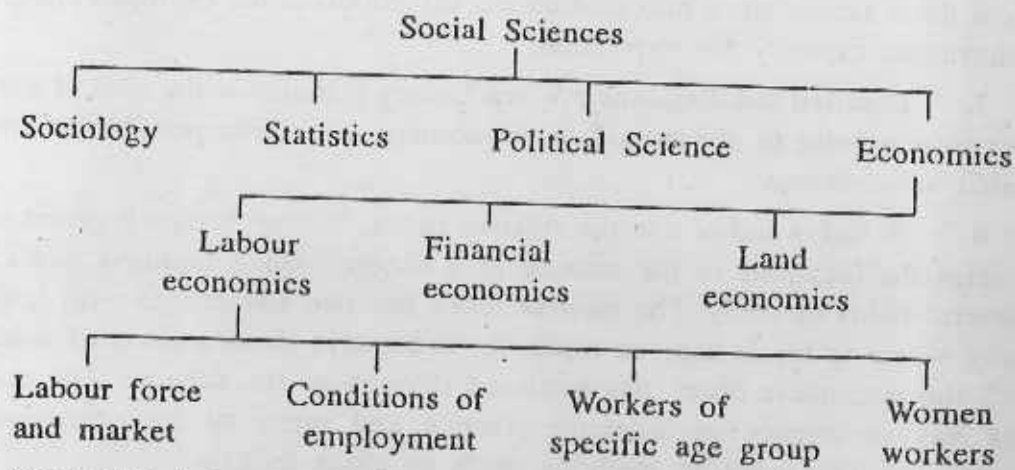
Hierarchical structure going from general to specific.

11.4 Main Class Structure

The division of the main classes was based on a classification system devised by W. T. Harris in 1870. Harris based his scheme on an inverted order

of Francis Bacon's classification of knowledge. Bacon divided knowledge into three basic categories—history, poesy, and philosophy—Corresponding to the three basic faculties of the human mind—memory, imagination and reason. Dewey divided the whole of knowledge into ten main classes, and then divided each of these into ten subdivisions and then each of these subdivisions into ten sections.

The main classes are :

000 Generalities

100 Philosophy and psychology

200 Religion

300 Social Sciences

400 Language

500 Natural sciences and mathematics

600 Technology (Applied sciences)

700 The arts

800 Literature and rhetoric

900 Geography and history

The limited notational base has required that all subjects be fitted into ten main classes. This has given rise to some unlikely liaisons. For example, Music and Sports both are treated in the Arts. Agriculture and Medicine both find themselves in the Applied sciences. Some examples of strange separations are :

1.   Language 400 is separated from Literature 800.

2.   Technologies are separated from their underlying class : for instance, Chemistry 540 but Chemical technology 660.

3.   Buildings at 690 is separated from Architecture at 720 within main classes there are instances of unlikely collocation, One of them is Psychology at 150, within the Philosophy class 100.

The fact that six out of nine main classes belong to the area of Humanities reflects the state of learning in the 19th century. Dewey gave each of them equal status as that of Social sciences, Pure sciences and Applied Sciences. This

phenomenon has resulted in the unevenness in the scheme as it stands today. Classes such as Philosophy and Religion have remained fairly stable throughout successive editions; which others such as Sociology (later social sciences) and useful arts (later Technology / Applied Sciences) have undergone tremendous development and expansion.

11.5 Notation

The notation in DDC is simple and pure. The notational base is 0—9, which is rather short and therefore results in long numbers. The notational system has the advantage of being universally recognised and of overcoming any language barriers. A base of ten, which is the primary characteristic of the Indo-arabic numeral system, has also become the major characteristic of the DDC. In application, a three digit number is used by employing Zeros to fill out the base number of three digits. For example,

500 Pure Sciences

510 Mathematics

530 Physics

etc.

For numbers containing more than three digits, a point is placed after three digit, for example 512.56.

11.5.1 Hierarchical Order

Another major characteristic of the notation is its hierarchical structure. The notation expresses the relationship between each unit of knowledge and its subordinate elements. Each main class is divided into ten divisions. The second position in the notation represents the division. Each division, in turn is divided into ten sections. The third position of the notation represents the section. For example,

510 Mathematics

511 Generalities

512 Algebra

513 Arithmetic

514   Topology

540   Chemistry and allied sciences

541   Physical and theoretical Chemistry

542   Chemical laboratories, apparatus, equipment

543   Analytical Chemistry

The system allows further subdivision into various degrees of specificity by means of a continued decimal notation. The point is always placed after the third digit, followed by as many digits as required by the subject matter. The notation never ends with Zero after the point.

The following example illustrates the hieravchical structure present in both the notation and the classificatory categories :

500   Pure Sciences

  510   Mathematics

    516   Geometry

    516.3   Analytical geometries

    516.37   Metric differential geometries

    516.372   Euclidean

As the classification progresses from the general to the specific, each level of division is indicated by the addition of one new digit. There are a few exceptions to the hierarchical structure, for example, 574 (Biology), 580 (Botanical Sciences), and 590 (Zoological Sciences). On the whole, the hierarchical classificatory structure is reflected in the hierarchical notation.

11.5.2 Mnemonics

In DDC there are several mnemonics which fall into systematic category, but in a limited way. For example, in Literature, within a particular language "poetry" is always represented by 1, thus 811 American poetry, 821 English poetry, 831 German poetry, etc. However, 1 does not always mean poetry, even within Literature. Italy is represented by the notation 5 which recurs in numbers related to that country : 945 history of Italy; 914.5 Geography of Italy; 450 Italian Language; 554.5 Geology of Italy; 195 Italian philosophy; 075 a newspaper in Italian language.

In DDC the common isolate has been explained as "a special kind of patterned repetition". Any subject can be presented in several forms—outline, history, theory, dictionary and so on. It can also be a presentation of how to study and teach that subject. These common forms both outer and inner, and modes of presentation recur throughout the scheme of classification. Such recurring concepts are standardised in the DDC in the list of standard subdivisions. This standardisation lends mnemonic value to the recurring concepts, as these are consistently expressed by the same set of symbols.

11.5.3 Synthesis

Probably because of the influence of modern classification theory, DDC has become less enumerative and increasingly analytico-synthetic in recent editions. Many numbers exist which are not enumerated in the schedules. A considerable degree of synthesis is required in order to obtain the desired specific numbers, particularly with the provisions of the anxiliary tables. The base number should always be taken from the schedules. The additional elements may come from either the schedules or the anxiliary tables or both. The order of elements in each case is to be determined by instructions in the schedules or tables.

Adding an entire number to a base number

A bibliography of physics   0.16.53

1.   The index provides a number for subject bibliographics 016

2.   Turning to the schedules, the classifier finds under 016.1—016.9 a note saying "Add 100—900 to base number 016", which means that any number within that range can be added to 016 to obtain a number for the bibliographies of that subject.

3.   Look up the number for Physics   530

4.   Add this number to the base number   016.530

5.   Insert point and remove any terminal 0   016.53

Adding from the part of the classification as instructed

A general Russian periodical   057.1

1. · Index provides number. for all serial publications 050

2.   Schedules enumerate subdivisions of 050 by languages among which

is one for Slavic languages, with instruction 057

"Add to base number 057, the numbers following 037 in 037.1—037.9".

3. Determine the appropriate number in the sequence 037×1

4. Add the number following 037 to (2) 057×1

5. Insert the point 057.1

11.531 In the nineteenth edition of DDC, there are seven auxiliary tables.

Table 1 : Standard Subdivisions.

All notations for standard subdivisions begin with a 0 preceded by a dash, indicating that these are not complete class numbers, but must be used in conjunction with numbers from the schedules.

For example, —01 Philosophy and theory; —02 Miscellany; —03 Dictionaries, Encyclopedias, Concordances; —04 General special; and so on. There is a schedule for time but still inflexible. With the exception of —04, the classifier doesn't need any specific instruction in order to add the notations for standard subdivisions. The standard subdivision —4 is reserved for special concepts which have general application throughout the regular subdivisions of certain specific subjects. Therefore, it varies from subject to subject and is to be used only when the special concepts are spelled out in the schedules.

Example, 540 Chemistry

—09 History

History of Chemistry 540.9 [not 540.09]

Dictionary of pyschology 150.3. Before adding a standard subdivision to base number the classifier should remove all the Zeros which are used as fillers.

Restrictions on the use of Standard Subdivisions : In addition to individual restrictions appearing in the schedules relating to specific numbers (for example, do not use 362.09, class in 362.9) certain general restrictions are set forth in the Editor's introduction :

1. Unless there are instructions in the schedules permitting their use, the classifier should be cavtions about adding a standard subdivisions to the number chosen for a work that deals with a subjects more specific than the content of the number, that is, when the subject represented in the work does

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not have its own specific number. For example, a history of classification system is classed in 025.4309, but a history of BBK (Russian scheme) which does not have its own number is classed in 025.43 instead of 025.4309.

2.   The classifier should not add standard subdivisions when they are redundant. For a history of India we need not add —09 to 954, which already means history. Likewise , we need not add —03 to 423 which already means Dictionary of English language.

3.   "The editor recommends that the classifier should not add one standard subdivision to another standard subdividion unless there are specific instractions to do so". When more than one standard subdivision is applicable to a work, the classifier should choose one. In choosing a standard subdivision, the table of precedence given at the beginning of Table 1 should be consulted. For example, 020.7 for journal of Education for Librarianship rather than 020.5 or 020.705.

At notation 611 (Human Anatomy, Cytology, etc.) instruction is given for the use of standard subdivision. Use 001—009 standard subdivisions for Human Anatomy, Example,

A dictionary of human·anatomy 611.003

A journal of human anatomy 611.005

At notation 350 Public administration instruction is given—Use 350.0001—350.0009 for standard subdivisions. Hence a history of public administration 350.0009. Such type of notes should be honoured before using standard subdivisions.

In the 20th edition, the following kinds of instructions indicate when a different number of zeros must be used :

1.   Notation in the number column, for example, 620.009 for history of engineering.

2.   The instruction at 324.241 to use 324.241001 – .241009 for standard subdivisions gives us 324.241009 for history of political parties in the United Kingdom.

3.   Footnotes directly under an add instruction the use of extra zeros. For example, the footnote to the add note under 327.3—.9 gives us 327.41009 for the history of foreign policy of the united kingdom.

11.532 Table 2 : Areas

Areas notation specifies the geographic subdivision of a subject and may be used with numbers throughout the schedules as instructed.

Music Festivals 780.79. We are invited to subdivide further if need be, via the Area table.

Muşic Festivals in India 780.7954 (– 54 India from Table 2).

Foreign relations between Japan and Great Britain. 327.41052

1. Base number for foreign relations between specific nations as listed under 327.3—327.9 327

2. Areas notation for Japan — 52

3. Areas notation for Great Britain — 41

4. As instructed, add areas notation for one nation to the base number, add 0 and to the result add area notation for other nation. The order of areas notation is determined by the emphasis of the work.

5. If Japan is emphasised 327.52041

6. If Great Britain is emphasised 327.41052

7. If emphasis is equal, give priority to the nation coming first in the sequence of notations 327.41052

If no instruction is given and the classifier wishes to divide a subject by a geographical region, he must introduce the regional number by 09. For example,

Railroad transportation in Great Britain 385.0941

To obtain numbers for geography of a specific location, area notations are added to 91. For example,

Geography of India 915.4 [– 54 India]

Geography of China 915.1 [– 51 China]

11.5.3.3 Table 3 : Subdivisions of Individual Literatures

Notations from table 3 are used when applicable with the base numbers for individual literature identified by* under 810—890 in the schedules. In the 20th edition we have basic number building facilities for works in an individual language by or about individual authors (with the use of Table 3A) and by

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or about more than one author (with the use of Table 3-B). The following elements are used to build the numbers : base number; form; period; kind; scope or medium; notation 08, collection. or notation 09 Criticism (plus additional 0s in some cases); subform; additional notation from Table 3-C and other tables.

For example, An anthology of American literature   810.8

1.   Base number for American literature   81
2.   Subdivision for collection from Table 3-B—08

Works by or about an individual author : restricted to a specific form and period (Table 3-A).

Spencer's Fairie Queene   821.3

Base number for English literature 82

     Form number   – 1

     Period number   – 3

Literature for and by persons resident in specific continents, countries, localities. (Use Table—3C)

A collection of French poetry by Swiss authors of the later 19th Century: 841.80809494

11.5.3.4   Table 4 : Subdivisions of Individual Languages

Notations from Table 4 are used with base numbers for individual languages marked* in 420—490 in the schedules.

     German phonology 431.5

[– 15 Phonology from Table 4 to base number 43]

Bilingual dictionaries (– 32 – 39 from Table 4)

Class the bilingual dictionary first with more foreign language and secondly with the language clear to the user. If classification with either language is equally useful, class with language coming later in the sequence 420—490. In the 20th edition the instruction reads "The Decimal Classification's Division classes a bilingual dictionary with entry words in both languages with the language coming later in the sequence 420—490".

     Sanskrit-English dictionaries   491.2321

[For English speaking regions]

(1) Sanskrit dictionaries   491.23

(2) English language — 21 from Table 6 add (2) to (1).

Polyglot dictionaries are assigned to 413.

11.5.3.5 Table 5 : **Racial, Ethnic, National groups**

The notation from this table may be used with those numbers from the schedules and other tables to which the classifier is instructed to add "Racial, Ethnic, National groups notation".

Decorative arts of Chinese 745.089951

1. Base number for Decorative and minor arts   745

2. Standard subdivision for treatment among specific racial, ethnic, national groups with instruction to add notation from Table 5   — 089

3. Notation for Chinese from Table 5 — 951

11.5.3.6 Table 6 : **Languages**

Notation from this table may be used with base numbers from the schedules and other tables to which the classifier is instructed.

Translation of the Bible in German Language 220.531

Translation of the Bible   220.5

German language — 31 from Table 6

11.5.3.7 Table 7 : **Persons**

Notations from this table may be used with those numbers from the schedules and other tables to which the classifier is instructed.

Mathematies for engineers 510.2462

From Table 1 — 024 works for specific types of users

Mathematics 510.24, Engineers — 62 from Table 7

Children as artists to 704.054   [– 054 from table 7]

11.6 Revision

The main method of revision has been by the publication of new editions. Revisions usually take following forms :

Expansion, Relocation, Reduction and Phoenix schedules (now the completely revised schedules). The last form is the most drastic form of revision. However, 'D C & : Decimal Classification : additions, notes and decisions' is a useful means by which modifications can be announced in advance of a new edition.

11.6.1 Organisation

Dewey set up the Lake Placid Club Education Foundation to carry on his work. In 1923 the Editorial office was moved to the Library of Congress. The Forest Press published and marketed the DDC. Consultation with users was achieved via the Decimal Classification Editorial Policy Committee, the British Liaison Committee and Australian Liaison Committee. The OCLC from the 20th edition has acquired the Forest Press, the publisher of the DDC.

11.7 Abridged DDC

For many years there has been a parallel series of abridged editions intended for small libraries not requiring greater degree of specificity. An abridged edition was first issued in 1894. At present, the abridged version is in its fourteenth edition.

In the beginning, the abridged edition was revised when the need arose. Later, it was considered desirable to follow each full edition with an abridged edition. In general, the notation rarely exceeds five digits. In fact, it provides a broad classification without minute details. The abridged edition has four auxiliary tables. (Table 1 to Table 4).

11.8 Uses of DDC

DDC was accepted by libraries widely both at home and abroad. Prominent users are Booklist (ALA), Publisher's weekly (R. R. Bowker), Book Review

Digest, British Book News (British Council) and the annual Indian Books in Print. National bibliographies such British National Bibliography, Indian National Bibliography, Australian National Bibliography, Sri Lankan National Bibliography and the Canadian National Bibliography use the DDC. It is used in all Commonwealth Countries, Latin America, Norway, Italy, Greece, Israel, the Arab Countries, Southeast Asia and the Far East.

Its use in international bibliographic records including MARC (Machine readable cataloguing) tapes are other factors contributing its popularity and durability. Features of the Electronic Dewey include advanced online search and windowing techniques. Library of Congress subject Headings linked to DDC numbers, full text indexing sample bibliographic records and a personal note pad.

The compact dise incorporates the schedules, tables, index and manual from DDC-20, with published updates.

11.8 Index

The final and significant part of the scheme is the relative index. Dewey said that his relative index was the most, significant and important part of the DDC. The name is derived from the fact that this sort of index displays relationships by bringing together under the name of a concept all the notations under which it is scattered in the schedules. In the schedules different aspects of a subject are scattered according to disciplines. In the relative index they brought together under the name of a subject with their various locations in the schedules indicated. The relative index has been influential in indexing practice such as chain indexing.

11.9 Evaluation

Being a pioneer scheme it is widely used because of the time factor rather than intrinsic merit. But it is no use denying the fact that it has survived many storms in the past several decades and is still the most popular scheme in the world today. A great deal has been written about the advantages and disadvantages

of using the system. Following is a brief summary of the some of the opinions:

11.9.1 Advantages

1. It is a practical system. It has a simple, pure notation. The pure notation of Indo-arabic numerals is universally recognised. People from different cultures and language background can adapt to the system easily.

2. The self-evident numerical sequence facilitates filing and shelving. The class numbers are easy to read, write and remember.

3. The hierarchical nature of the notation express relationships between and among the class numbers.

4. The scheme uses the decimal system which allows for expansion and subdivision so that new subject can be accommodated.

5. The scheme has an excellent relative index which brings together the different aspects of the same subject scattered throughout the schedules.

6. Alternative locations are allowed for many subjects so that differing libraries can cater to the needs of their own clientele.

7. The periodic revision at regular intervals makes the scheme up-to-date.

8. Schedules can be acquired easily and quickly.

11.9.2 Disadvantages

1. The separation of related disciplines has been criticised. For example, Social Sciences from History; Languages from Literature; Psychology and Medicine.

2. The base of ten results in lengthy classification numbers. It also limits the hospitality of the notational system by restricting nine divisions the Capacity for accommodating subjects on the same level of hierarchy.

3. No new subjects can be inserted between coordinate numbers. In many cases a new subject has been included as subdivision under an existing subject. For example, 621.3 Electrical engineering.

4. The different rate of growth has resulted in the uneven structure. Some classes have become overcrowded. For example, Social sciences, Sciences and Technology.

5. Relocations and the completely revised schedules or phoenix schedules create practical problems in reclassification.

6. The improper placements of certain subjects have been criticised. For example, Psychology as as subdivision of Philosophy, sports and Amusements in Fine arts.

7. In Literature class, literary works by the same author are scattered according to literary form. But most scholars would prefer to have them grouped together.

11.10 Segmentation

DDC class numbers can be long and unwieldly. In smaller libraries some of these long numbers are found to be undesirable. Since the notational structure is hierarchical, it allows various degrees of specificity by reducing the length of the numbers. But it is not desirable to cut the numbers arbitrarily. To help librarians determine the appropriate places to cut a DDC number, these points are indicated on Library of Congress Cataloguing copy by means of prime marks, for example, 621.36′ 7, 338.7′ 62 515. This practice is called segmentation. DDC numbers in LC Catalogues and on MARC tapes appear in the form of one to three segments. A number which is printed in one segment should not be shortened. When a number appears in two segments, the small libraries can consider using the first segment. When a number is printed in three segments, the first segment is recommended for use in small libraries, the first two segments by medium-sized libraries, and the entire number by large libraries. The use of segmentation demonstrates the unique value of hierarchical notation in DDC.

11.11 Call Numbers

Call number is the ordinal number which fixes the position of a document in a library and the position of its entry in the catalogue. No two or more documents should have the same number. Structurally the call number comprises three parts : class number, book number and collection number. The call number

has two-fold purpose : 1. to individualise a document, and 2. to act as the number for calling it.

11.11.1 Cutter Numbers

It was developed originally for use with the Expansive Classification, but is now widely used the DDC. A simplified form is used with the Library of Congress Classification. In this system the author number is derived by combining the initial letter or letters of the auther's last name with numbers from a numerical table which has been designed to ensure an alphabetical arrangement of names, for example, D556 (Dickens), D557 (Dickenson) and D558 (Dickerson).

There are now three Cutter Tables : Two-Figure Auther Table, Three-Figure Author Table and the Cutter-Sawborn Table.

11.11.2 Unique Call Numbers

Many libraries adopt the principle of unique call numbers. Each item in the library is assigned a unique number different from any other call number in the collection. In this sense the call number serves as the true address of the item. When two authors with the same last name wrote on the same subject they are assigned different author or Cutter numbers. For example, D557 for David Dickenson and D558 for Rebert Dickenson. When the same author has written more than one book on a particular subjects, further devices—work marks, edition marks, and copy and volume numbers—are used to create unique call numbers.

Work marks :

'The Portrait of a Lady' by Henry Fames 813.4..In some cases, when books in a series by the same auther on the same subject all begin with the same word, it is customary to use the first letter from each key word in the titles, for example,

Hayden's 'Chats on English China'   738.2

    H 324 Ce

Hayden's 'Chats on Old China'   738.2

    H 324 Co

Hayden's 'Chats on Royal Copenhagen Porcelain'   738.2

    H 324 Cr

Edition mark :

Many works appear in different editions, which share the same class and cutter numbers. An edition mark in the form of a number added after the work mark or a date under the Cutter number is usually used. For example,

025.431	025.431	025.431	025.431
$D515d_{16}$	$D515d_{17}$	$D515d_{18}$	$D515d_{19}$

or,

025.431	025.431	025.431	025.431
D515d	D515d	D515d	D515d
1958	1965	1971	1979

Copy and volume number :

When a work is published in more than one volume or when the library has more than one copy of a work, volume or copy number or in some cases both, is added to call number on the physical volume in order to provide a unique address in the collection. For example,

025.431	025.431
$D515d_{18}$	$D515d_{18}$
V.2	V.1
	Copy 2

This copy designation does not appear on the catalogue entry.

11.11.3 Prefixes to Call Numbers

When a particular work is to be shelved in a special collection or out of its ordinary place, a prefix is added to the call number. The most commonly used prefix is the letter R for books in the reference collection, For example,

R	or	R
031		031
En 19		BRI

Prefixes are also used for large-size books, books in special collection and nonbook materials.

11.12 Exercise

1. Discuss the innovative features of DDC.
2. How is synthesis effected in DDC?
3. Discuss the revision policy of DDC.
4. Illustrate the uses of more than one zero in DDC Table 1
5. How do you account for the popularity of DDC?

11.13 References

1. Dewey Decimal Classification and relative index, 19th ed. edited by Benjamin Custer, Lake Placid club, Forest Press, 1979.
2. Turner, C : Organizing information : principles and practies, London, Clive Bingley, 1987.

Unit 12 ❑ Universal Decimal Classification (UDC)

12.1 Introduction

Universal Decimal Classification (UDC) was an adaptation of Deway Decimal Classification. UDC was originally developed for the purpose of compiling a classified index to a universal bibliography which would list all publications including books and artides in periodicals. This project was initiated in 1895 by the Institute International de Bibliographic (IIB) located in Brussels, which later became Federation International de Documentation (FID). Paul Otlet and Henri La Fontaine of Belgium, who were responsible for the initial development of UDC. The IIB obtained Melvil Dewey's permission to expand and modify DDC to suit the purpose of a universal bibliography.

The credit for introducing and popularising UDC in the United kingdom goes to S. C. Bradford. The responsibility for publishing a full edition in English was initially taken by the British Society for International Bibliography and Aslib together. They published several parts. The full English edition has now been completed, published in separate pamphlets parts for all the various divisions and subdivisions of the main classes. This is published by the British Standard Institution (BSI). BSI has produced an abridged edition. The latest in the series of publications is BS 1000M : 1985—UDC International medium edition. The index to this edition was published in 1988. A trilingual (German, English and French) edition was published in 1958. In 1986, FID added the word 'Information' to its name. It became. Federation International pour information at Documentation. FID has relinquished its responsibility and formed UDCC (Universal Decimal Classification Consortium) which is now looking after UDC. The features which characterise UDC are its extensive synthetic devices and its detailed specification

12.2 Basic Principles

Since UDC is an adaptation of DDC, it follows the basic outline of DDC in the main classes and major subdivisions. Both are general classification schemes. The degree of detail in UDC through Common and special auxiliaries makes it suitable for bibliographic use. It is because of this reason UDC is known as bibliographic classification as against DDC which is called library

classification. Both are basically cunmerative schemes. But UDC is a faceted scheme because of its auxiliaries. These auxiliary tables give the analytico-synthetic character to the scheme. The main class structure is as follows :

12.2.1 Main classes

0   Generalities, Science and knowledge, Organisation, Information, etc.

1   Philosophy, Psychology, Morals.

2   Religion, Theology

3   Social Sciences, Law, Government, Education, Commerce

4   Vacant.

5   Mathematics and Natural Sciences

6   Applied Sciences, Medicine, Technology, Agriculture

7   Arts, Recreation, Entertainment, Sport.

8   Language, Linguistics, Literature.

9   Geography, Biography, History.

It may be noted in passing that Language has been merged with Literature in 1961 after the publication of abridged edition : to make room for future development. Based Originally on an early edition of DDC (DDC 5th ed), it has developed along different lines and now has a number of significant and unique features. The detailed specifications of topies in science and technology has always been one of its particular aims. In fact UDC allows a much more detailed analysis of wide-ranging ideas within a particular item. In order to do this scheme has become very synthetic. It provides a greater degree of synthesis by means of auxiliary devices.

The classification scheme is published in both a single volume, abridged edition which is British standard 1000A : 1961 and also in fully detailed pamphlet parts that are called fasciculus. There are more than 100 such fasciculus. Each fascicule covers a particular part of the main schedules. Both DDC and UDC are essentially enmerative. In both; the main class order can be criticised on the grounds of separation of Sciences from their respective technologies.

12.3 Notation

The notation is similar to that of DDC. Dewey's three-figure minimum is not required for main classes and their sub-classes. In other words, UDC does not use the Zero as a filler. For example, Literature is represented by 8 instead of 800. Divisions and subdivisions of main classes are represented by additional digits. For example,

51 Mathematics 511 Arithmetic 512 Algebra. A point as in DDC is inserted after the third digit. For example, 591.185 animals. The UDC notation consists of the following sets of symbols :

1. Ten Indo-Arabic numerals 0, 1 to 9.

2. The Roman alphabet, both capital and lower case.

3. Punctuation marks : point, semi-colon, colon-and inverted commas.

4. Mathematical signs : The plus and the equals.

5. Some other symbols like parenthesis, square brackets, stroke and apostrophe.

UDC is more capable than DDC of representing relationships. It has considerably more opportunity for synthesis, providing the facility for combining notations, not only by using a set of anxiliary tables of common concepts, but by the use of a special symbol. Because the notation is like DDC, numerical and decimal, UDC can accommodate new concepts, where appropriate, ad infinitum. The notation is, thus hospitable and capable of reaching the required level of detail and specification. The representation of subject relationships is achieved through the use of facet indicators, or symbols, which identify the component parts of a class number. These are numerical or nonverbal and nonnumerical signs. These common anxiliaries are applicable throughout the scheme. The common auxiliary subdivisions and the parallel division are the two principal mnemonic devices used in UDC.

12.4 Abridged Edition

In English first edition of abridged edition was published in 1948 and the third edition was bought out in 1961. The publisher was the British Standard

Institution (BS 1000A : 1961), the full edition is BS 1000. UDC divides the whole of human knowledge into ten broadest classes. These are called theoretical classes. Each of these theoretical classes is further divided to form ten narrow classes. For example,

   51   Mathematics

   52   Astronomy, Astrophysies, Space research, etc.

   53   Physics

There are two kinds of anxiliaries : Common and special anxiliaries

12.4.1   Auxiliaries

The auxiliaries are considered the most innovative feature of UDC. They permit much more scope for synthesis than can be achieved by the DDC. The auxiliaries are, in fact, a set of facets and facet indicators which enable the classifier to synthesise freely. Common auxiliaries affect the whole scheme and special auxiliaries are concerned with the specified parts of the scheme. These are located under the Tables of auxiliaries beginning on page 10 (3rd Abridged Edition, 1961).

12.4.11   Common Auxiliaries

The common auxiliaries denote generally recurrent characteristics meaning features common to all subjects. They may be divided into two groups : those that are simply signs that join other notational elements together and those that are signs that introduce explicit tables of subdivisions.

The first auxiliaries are essentially signs which permit the combination of two or more numbers from the main schedules. These are the plus, the stroke, the colon, the square brackets. These signs are :

(a)   The addition sign + (plus) is used to join together two subjects not adjacent in the schedules. For example,

   54 + 66 chemistry and chemical technology

The stroke / sign is used to join the first and the last of a series of consecutive UDC numbers to indicate a broader subject for which no single number exists. For example,

   23/28 Christianity.

624/628 Civil Engineering.

(b)   The relation sign : (colon) is the most powerful consuceting symbol in UDC. It is used to link two or more UDC numbers. It does not indicate anything about the nature of relationship between two subjects. Here colon means reversible relation.

17 : 7 Relation of ethies to art

or,   7 : 17 Relation of art to ethies

[ ] Square brackets means Algebraic subgrouping.

31 : [622 + 669] statistics of mining and metallurgy

(c)   Equals = sign is used for languages. This common facet derives the notation from the schedule of linguistics. For example,

622 = 30 A book on mining in German Language.

(d)   Brackets-nought (0...) is used to indicate the common auxiliaries of form. This is derived from the DDC. In DDC the list of common form subdivisions (now called standard Subdivisions) is mixture of "inner" and "outer" forms. For example,

93(03) A dictionary of history—'history' is the subject concept and 'dictionary' the form concept.

05(091) A history of periodicals. 'Periodicals' represent the subject of the document. 'History' is the form concept.

(e)   Brackets one-to-nine (1/9) represents common auxiliaries of place which are similar to area tables of DDC. For example,

385(43) German Railway System.

Relationship between countries may be shown by the use of colon within brackets—327(43 : 54) International relations between Germany and India.

(f)   The Common auxiliaries of race and nationality allow particular races and nationalities to be identified by in texts. They are based on common auxiliaries of language and are shown by (=) Brackets equals. For Example,

624 (= 3) Civil Engineering among the German people.

(g)   Time anxiliary is shown by " " (Quotation marks). For example,

61 "19" Twentieth century medicine.

820 "20" twenty first century English literature.

Dates are expressed in UDC as numerical statements.

(h)   Sometimes occasions may arise when it will be useful to name individuals or to list items denoted by a number. This can be done by alphabetical and·(non-decimal) numerical subdivisions. For example,

025. 45 DDC 22 Twenty second edition of Dewey. Individual members of a class are identified thus :

1 (Hegal) Philosophy of Hegal

92 (Wells) Life of Wells.

(i)   The point of view facet is indicated by. 00(point-nonght-nought) and allows concepts to be split up by particular points of view. It indicates the broader aspect of particular subject. For example,

622.003 Mining industry—commercial and financial aspect.

622.007 Mining personnel.

12.4.12 Special Auxiliaries

The special anxiliaries denote locally recurrent characteristics. The special anxiliaries are in fact subdivisions that deal with limited range of subjects only. They are 'special' in the sense that their use is restricted to those classes of which they form an integral part. Special auxiliaries are identified by the facet indicators, − 1/ − 9 hyphen series, 0 point-nought series and apostrophe series.

For example,   621-77 Safety Devices

7.01   Art aesthetics

(Apostrophe) is synthetic, not analytical in function. These are integrative in function and denote compound subjects. Its use in Abridged edition is closely seen in parts of the Chemistry class.

546.33   Sodium

546.13   Chlorine

546.33'13 Sodium chloride

Example from International medium edition is given below :

329.12' 13' 23 Liberal—Progressive and Republican parties Synthesis of

401

329.12	Liberal atlitude
329.13	Progressive altitude
329.23	Republican attitude

12.4.13 Parallel Division

There is another device which is similar to special anxiliaries in that it results in the same notation being used to denote a given concept in more than one place. It is called parallel division, signalled in the tables by the subdivide as sign ≅. This means that the number preceding ≅ may be subdivided in a manner analogous to the number following it. This will give rise to an exactly analogous array, with the same concepts expressed by the same sequence of digits. A simple example is in 611, 'Anatomy', parts of which are parallel to 616 'Pathology', where both are subdivided into particular organs. To enumerate the organs fully in both places would be waste of effort. For example,

611.11/.14 ≅ 616.11/.14	
611.11	Pericardium, Epicardium
12	Heart, Endocardium, Myocardium
13	Arteries
14	Veins.

12.5 International Medium Edition

UDC International medium edition (BS 1000M) Consists of two parts :

Part 1   Systematic tables (published in 1985)

Part 2   Alphabetic Subject Index (published in 1988)

The medium edition contains about third of the material of the full edition. The medium edition with sixty thousand entries was published in 1993.

UDC (M) has been thoroughly revised, enlarged and reorganised. The following principle developments may be noted :

UDC Abridged edition has nine common auxiliary tables and three types of special auxiliaries. In the UDC (M) we have eleven common auxiliary tables

with the addition of Table I (k) – 03 common auxiliary of materials and Table I (k) – 05 common auxiliary of persons and personal characteristic. It may be noted that – 05 divisions were used in some classes of the Abridged edition as special anxiliary numbers. In UDC (M) Double colon (: :) meaning irreversible relation is introduced e.g. 77.044 : : 355 war photography.

12.5.1 Auxiliary Subdivisions

The common anxiliary subdivisions fall into two groups : the independent and dependent anxiliary tables. Both can be affixed to any UDC number where appropriate. However, the independent anxiliaries are tables 1(c) to 1(g)—the auxiliaries of language, form, place, race and time. For example

Independent   Dependent

Language = 30 German language 622 = 30 documents in

German about mining.

The dependent anxiliary tables have always to be affixed to a UDC number : these are tables 1(i) to 1(k)—anxiliaries of point of view, materials and persons. For example,

Person — 05   294.3 is Buddhism; 294.3—05

Buddhist.

12.5.2 Intercalation

Intercalation is a device that facilitates infixing. Infix is an element or a number that interrupts another number. Intercalation of auxiliaries may lead to class numbers with infixes at any point in the hierarchy. Intercalation is the use of an auxiliary as an infix rather than a prefix or suffix.

622.341.1 (540) Iron ore mining in India

622. (540).341.1 Mining—India—iron ore

So creating an order such as

622

622 (540)

622 (540). 341.1

The intercalation device changes the citation order of facets with a view to creating more helpful sequence.

12.6 Filing Order

UDC does not prescribed a citation order, it has suggested a citation order in the introduction to English Abridged Edition. (BS 1000A—1961; page 9). This citation order is broadly in the order of decreasing concreteness. The filing order produces an approximately general—before—special sequence Libraries may settle their own filing and citation order.

In the UDC (M) too the filing order is based on a progression from general to the particular. The International medium edition (. BS 1000 M : 1985) contains the filing order on page xi.

12.7 Alphabetical Index

The UDC index is relative. The index to the abridged edition is satisfactory. There are about 20,000 entries. The index includes synonyms and cross-references.

UDC (M) has a computer—generated index, produced by permutation of terms, intervention has been kept to a minimum. This means that entries in the index, in the main, reflect the wording in the tables. As this fact was kept in mind during the compilation of tables, a large number of synonyms were included, which will compensate for the absence of cross-references. The alphabetical arrangement is by word-by-word.

12.8 Uses

UDC is used in special libraries. Its use in abstracting periodicals is remarkable. Its popularity all over the globe is praisewothy but its application in Europe deserves special mention.

12.9 Maintenance and Revision

Before the end of 1991 the responsibility and updating of UDC was lying with the FID. The FID used to work in conjunction with national organisations having consultative arrangements with uses of UDC.

It was the Central Classification Committee of the FID that maintained the master version of the scheme incorporating all approved amendments. The amendments proposed by users through subject committees were circulated as P-notes (Provisional or Proposed alterations) to subscribers. After they became acceptable they were published in UDC's annual periodical Extensions and Corrections to the UDC.

From the end of 1991, responsibility and updating was assumed by a new organisation, the UDC Consortium (UDCC). The UDCC published Extensions and Corrections to the UDC vol 17 in November 1995. It includes a 'Report of the UDC Editor-in-Chief and the "Restructuring of class 61—Medical Sciences".

12.10 Evaluation

Although UDC has inherited an unscientific structure from the DDC, it has evolved an extensive synthetic apparatus on an enumerative base. It certainly has more merits to its credit. It has consciously aimed at classifying micro-thought—the world of specialised packages of literature in periodical articles, reports, standards and the like.

UDC is a general scheme covering the whole field of human knowledge. The required degree of detail is achieved with the help of anxiliaries. Because of the use of anxiliary tables the UDC is an analytico-synthetic scheme.

'Universe' in title refers to the subject coverage. But it has never laid down rules for international usage. As a result, there are as many interpretations of UDC as there are users of it. The notation often to be long and appears clumsy—its use on the shelves becomes difficult. Despite its many defects the UDC is stile the most widely used system of classification.

12.11 Exercise

1. Distinguish between common auxiliaries and special anxiliaries in UDC.
2. Illustrate the intercalation device in UDC.
3. Discuss the dependent and independent anxiliaries in UDC.
4. For which library would you prefer UDC and why?
5. Illustrate the use of double colon in UDC.

12.12 References

1. Foskett, A. C. : The Universal Decimal Classification : The history present status and future prospects of a large general classification scheme. London, Clive Binglay, 1973.
2. UDC English Abridged Edition (BS 1000 A : 1961), London, BSI, 1961.
3. UDC International medium edition—English text (BSI 1000 M : 1985). London, BSI, 1985/1988.

Unit 13 □ Colon Classification

Structure

13.1 Introduction

Shiyali Ramamrita Ranganathan is considered to be the foremost theorist in the field of classification. Colon Classification (CC) is a manifestation of his theory. Although Ranganathan's scheme of classification has not been widely used his theory has influenced in one or another, all currently used classification schemes. The Colon Classification received its name from the colon : sign that Ranganathan used in his constructed facet formulas. In his first edition this colon was the only sign used.

Ranganathan's philosophy of free combination of subjects was form when he came in contact with a 'Meccano' set in a toy shop in London. If a child can put together the same pieces in different objects, then this principle could be equally applied for the formation of subjects. What was needed were the framing of rules for the construction of formulas for concept combination in the most versatile way : Inspired by books of H. E. Bliss, Ranganathan wrote his 'Prolegomena to Library Classification' in 1937 (3rd edition, 1967) in which

he presented the theocratical basis for his classification. Over the years Ranganathan refined and redefined his thinking about classification. The first edition was published in 1933. The sixth edition was brought out in 1960 and the seventh in part appeared in 1987. Each edition reflected his progress of thinking. Sometimes drastic changes took place between editions. The stability was sacrificed for the sake of keeping up with knowledge.

13.2 Basic Principles

Like many other schemes, the Colon Classification starts with a set of main classes. Each class is broken down into its basic concepts according to different trains of characteristics called facet. All facets are regarded as manifestations of five fundamental categories. The sequence of these facets are determined by the principle of facet sequence. Each facet is further divided into elements, called isolates, according to certain principles. These are known as principles of helpful sequence. Since knowledge is dynamic the process of division continues.

Colon Classification has been developed as freely faceted scheme. Unlike enumerative classification schemes it does not give complete ready-made numbers in its schedules. The scheme is not subject to a predetermined facet formula for compound subject going with a basic subject. The compound subjects are analysed into facets.

The facet term is translated into facet number. The facet numbers are synthesised with the help of appropriate connecting symbols. A combination or synthesis of notation is tailored for each word being classified. Ranganathan developed canons, principles and postulates for guidance.

13.2.1 Basic Laws

Ranganathan's five laws of library science are called fundamental laws. These laws govern the process of thinking and are involved when two or more canons or principles of classification lead to conflicting or equally valid alternate decisions. In fact they can resolve any problem in the fields of library science, library practice and library service. Basic laws are used at the level of basic process of thinking. Ranganathan has identified six basic laws :

1. Law of interpretation : 1006 principles of interpretation of the

Nyaya—Kosa to be used to interpret schemes of classification.

2. **Law of Impartiality** : preference should be given on sufficient grounds, not arbitrarily.

3. **Law of symmetry** : symmetrical counterparts should be given due weightage.

4. **Law of parsimony** : Overall economy of manpower, material, many and time should be considered.

5. **Law of local variation** : provisions should be kept for local use.

6. **Law of osmosis** : re-classification and re-cataloguing of newly accesioned material should be carried out according to new scheme or code.

These basic laws govern the process of thinking in general and that of classification in particular.

13.2.2 Three Planes of Work

The formulation of dynamic theory of classification was marked by the recognition and separation of three planes of work—idea plane, verbal plane and the notational plane. The scheme of library classification passes through three planes of work. In the idea plane the scheme first enumerates the universe of subjects, states their interrelationships and fixes their order. The findings of the idea plane are represented in terms in verbal plane. Finally these terms are transformed into notation in the notational plane. The idea plane is supreme, other planes are subordinate to it. They should carry at the findings of the idea plane.

13.2.3 Canons

Canons are used in the context of divisions of the first order of the discipline of library science such as book selection, classification, cataloguing and so on. Ranganathan formulated 43 Canons and put them into three groups according to the planes of classification :-

1.	Canons of idea plane	15 canons
2.	Canons of Verbal plane	4 canons
3.	Canons of notational plane	24 canons.

These canons are normally involved in the design of library classification. In Colon Classification they lay down the rthythm of the system.

13.2.4 Facet

Ranganathan considered the denotation of the term to be different depending on the context. At least there are two such denotations. Firstly in the context of a scheme for classification, "the totality of the divisions of a Basic Class based on a single train of characteristics is said to constitute one of its facets". Secondly, "in a class number, the part of it corresponding to a single train of characteristics is said to constitute one of its facets". A facet has been taken to be the totality of one division of a Basic Class based on a single train of characteristics as will as one component of a class number on of a compound subject corresponding to such a division. In the class Literature, all enumerated languages, after which national literatures are known, constitute the language facet of that class. In the same class, all literary forms (poetry, drama, etc.) constitute from facet. Within a facet an individual member is called a focus. English literature, for example, is a focus in the language facet of the class Literature.

13.2.5 Fundamented Categories

Fundamental Categories, being a generic term denote Time, Space Energy, Matter and Personality. The concept of facet analysis led Ranganathan to devise the postulates of fundamental categories. These are only postulated categories without any metaphysical significance. A postulate is an assumption which is never put to test. It is a basis for argument and hence the veracity of the assumption cannot be questioned. According to Ranganathan, in any given subject, there are maximum five fundamental categories. There can be less, but in no case, more than five. These are commonly referred to by their initial letters PMEST, according to their decreasing concreteness.

Time and Space have the usual meaning. The usual time isolate ideas such as century, decade, years and so on are its manifestations. Another kind is day night, seasons and so on. If the subject is stated as political conditions of India in the 20th century, we can identify the time element in it.

Space isolate ideas such as the surface of the earth, the space inside it and the space outside it are its manifestations. Continents countries, deserts, seas, etc. are taken to be the manifestations of space. In the title in connection with time India is space facet.

'Energy' is action of one kind or another. The action may be among and by all kinds of entities, inanimate, animate, conceptual, intellectual and intuitive.

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In the subject Library Science—cataloguing, classification, etc. are examples of energy. Similarly, in agriculture, ploughing, and in education teaching are manifestations of energy.

The manifestations of 'Matter' are of three Kinds—according to the seventh edition—Matter Material, Matter Property and Matter Method. Upto the sixth edition, matter was present in a few main classes. Matter Material usually implies material used for construction. Matter Material in Library Science books, periodicals, maps, etc., are considered Matter Material. In the sixth edition, in few cases, what was considered energy now forms part of matter facet. In Medicine, anatomy, physiology, diseases are now viewed as Matter Property. Magnetic method, Chemical method are matter method isolates to be found in Analytical Chemistry.

Personality has evaded definition. It is elusive and ineffable. It can only be said to be that which is not time space, matter, energy. The residue may be regarded as Personality. In Library Science, types of libraries are personality isolates.

13.2.6 Rounds and Levels

The fundamental Categories may manifest themselves more than once in subjects of great intension. It is obvious that a subject area may will have more than just five facets. It might possess more than one personality facet or more than one energy facet, etc. This led to the postulates of Rounds and Levels.

13.3 Notation

Colon Classification adopts mixed base. The notation consists of :

1. Indo-Arabic numerals (1-9)

2. Roman alphabets, both capitals and lower case, A to Z and a to z.

3. Parenthesis ( )

4. Indicator digits

5. A Greek Letter Δ (Delta)

The capacity of base is 60. The total number of indicator digits is 14. The total number of digits is 74.

13.3.1 Packet Notation

The Subject Device (SD) part of a class number is enclosed in parenthesis (circular brackets), that is, packeted. Hence it is known as packet notation. For example,

Engineering college library is 2, J3(D). 2, J3 represent college library to which added the main class D Engineering to derive Engineering College library by Subject Device.

13.3.2 Indicator digits

Iarlier the term was known as connecting digit Indicator digits are divided into three groups :

Group A :		Anteriorising Indicators
	*	Asterisk indicates agglomeration and interpolation
	←	Backward arrow indicates backward time range
	"	Double inverted comma : Common isolates (ACI) according to 7th Edition of CC.
Group B :		Posteriorising Indicators
	&	Ampersand indicates phase relations (7th Ed)
	'	Single inverted comma indicates time facet
	.	Dot indicates space facet
	:	Colon indicates energy facet
	;	semicolon indicates matter facet
	,	Comma indicates personality facet
	–	Hyphen indicates speciator of Kind 1
	=	Equal indicates speciator of Kind 2
	+	Plus sign indicate addition
	→	Forward arrow indicates time range.
Group C :		Indicators for levels of Phase relations.

When arranged in the ascending sequence of their ordinal values, all the digits used in CC 7 will stand in the following sequence :

) & . ; : — = → a to z 01 to 9 A to Z (* (asterisk), + plus), " (inverted comma) and ← (Backward arrow) have anteriorissing value and therefore their values are not necessary.

13.3.3 Empty digit

An empty digit is a digit which has no semantic value but does have it ordinal value. Usually the last digit of a species of digits is made an empty digit. In the sequence 1, 2, 3, 4 ..... 8, 91, 92, ..., 98, 991 ... 998, etc. (though the number has two digits and three digits, they are coordinate to digit 1 to 8, 91 to 98, etc. 9 or 99 themselves have no meaning. They are semantically empty).

Similarly, the array A ... Y can be lengthened with the use of Z as empty digit. So also the array a, ... y can be lengthened. Thus this device provides for infinite extrapolation in any array. An empty digit has been used as a sectorising digit and in CC it is used to form sectors.

13.3.3.1 Sector Device

It is a device used for increasing the capacity of an array with the aid of an empty digit. It provides for infinite extrapolation in a given notational system. With this device we can add unlimited numbers to represent coordinate ideas. The range 1 to 8 of the array is denoted by sector (S—A) and so on. We can have sectors using the packet notation. The Subject Device (SD) part of a class number is enclosed in circular brackets, that is picketed. These sectors are (S—(a)), (S—(1)), (S—(A)).

13.3.3.2 Zone Analysis

The introduction of sector device led Ranganathan to develop the concept of Zone Analysis. In fact sectors have been grouped into Zones. The use of different digits has given rise to the formation of zones in an array. In CC7 the following abbreviations are used to denote Zones, in which no quasi digit has more than 3 digits :

1. (Z—a)—read as "Zone a"
2. (Z—0)—read as "Zone 0"
3. (Z—1)—read as "Zone 1"
4. (Z—A)—read as "Zone A"
5. (Z—(\))—read as "Packeted Zone"

The Zone Analysis brings forth enormous hospitality in array. The concept of Zone Analysis proves the full necessity of mixed notation.

13.3.4 Emptying digit

Any new ideas may crop up and requires a position between any two existing consecutive ideas. This is known as interpolation. Ranganathan has developed the concept of 'emptying digit' to have interpolation between any two Main Subjects or any two Space Isolates falling consecutively in the already existing array. The digits T, V, X are emptying digits. An emptying digit is a digit that empties the preceding digit of its semantic value, but allows it to retain its usual ordinal value. Examples from CC7 :

L	Medicine	4 4	India
LX	Pharmacognosy	4 4 T	Nepal
M	Useful Arts.	4 4 V	Ceylon
		4 4 X	Pakistan
		4 5	Iran

13.3.5 Empty—Emptying digit

The Concept of 'empty—emptying' digit has been postulated to allow a large number of interpolations between any two consecutive ordinal numbers in an array. In other words this device makes infinity of interpolations possible. Each of the digits U, W, and X is postulated to be 'empty-emptying digits'. Examples from CC7 :

L U 5	Public health
L U 6	Hospital
L U 7	Sanitorium
L U D	Medical technology
M	Useful arts.

13.4 Telescoped Array

Telescoped array is an array of classes in a schedule of classification, made of coordinate and subordinate isolates, as viewed from the Idea plane, but whose class numbers appear to be coordinate, as viewed from the Notational plane!

CC often practices Telescoping in array. Let us consider the following classes from the Space Facet of CC7 :

1.   World :   As viewed from the Idea Plane. 'World as a whole belongs to class of order 1

4.   Asia :   Continents come under order 2 since they are subdivisions of 'world'.

5.   Europe :   Another example

6.   Africa :   the world and the continents appear to be coordinate from the Notational Plane

7.   America :

8.   Australia :   If they are subordinated to order 1 the other digits 4 to 9 remain vacant. Therefore, the array of order 2 has been telescoped into array of order 1. Telescoping of two consecutive arrays saves one digit in the class number. This is done to satisfy the Law of Parsimony (overall economy).

13.5   Devices

Ranganathan suggests five devices for formation or sharpening of foci in a facet. In fact, within a basic subject we may have to make provision for new foci from time to time. In CC this may be in five ways. They are chronological device, geographical device, subject device, alphabetical device, and enumeration device. Each of these devices is applicable both in the idea plane and the notational plane. The use of the first three devices shorten the length of the schedule. The advantage of these devices are that they : 1. Avoid enumeration and thereby shorten the schedule; 2. give autonomy to the classifier; 3. secure automatic conformity to the canons of consistent sequence, helpful sequence, scheduled mnemonics, hospitality in array as will as chain.

13.5.1   Chronological Device (CD)

It consists in using appropriate chronological number for the formation or the subdivision of isolate which is capable of Chronological subdivision. Sometime we need to specify a new focus by means of its date of origin. The

cases where this device may be employed are generally indicated in the schedules. For example, CC uses this device in Literature where authors are specified by this date of birth. The number for Rabindranath Tagore is 0, 157, 1 M 61. Here M61 stands for 1861, the year of birth of Tagore.

13.5.2 Geographical Device (GD)

The Geographical Device simply means the use the place facet other than its normal way. Employing a geographical number from the schedule of space isolates is a mechanism of doing this. For example, GD is employed to individualise certain religion. In Q (Religion) Sikhism 8441 (7th Edition).

13.5.3 Subject Device (SD)

The Subject Device consists in using the appropriate class number for the formation or subdivision of a class which is capable of such formation or subdivision. Many illustrative divisions by (SD) are given in the schedules. This device has been used in several main classes. The part of the number derived by SD should be enclosed in parenthesis. For example, R4 (Ethics) 4 Professional Ethics [Divisions by SD] 4(2) Librarian, 4(L) Medical man. (CC7)

13.5.4 Alphabetical Device (AD)

It consists in using the first or the first two or the first three, etc. initial letters or proper names, trade names, etc. Schedules generally indicate where (AD) has to be applied. In case of name with two words (AD) should be applied to each component word and the two components should be connected by '+' (Plus) sign as indicator digit. For example, Home and the World, a novel by Tagore (H + W).

13.5.5 Enumeration Device (ED)

The Enumeration Device in the idea plane is employed to from focal ideas in an array of a schedule by their enumeration. The sequence of focal ideas is based on seminal mnemonics. In the notational plane the numbers of the base of the notational system are used continuously or with gaps for forming isolate numbers in an array of a schedule. CC uses this device less frequently than other schemes.

13.5.6 Classic Device

A classic is a quasi subject. Classics are not confined merely to main subjects Religion and Literature. Other main subjects may have classics of their

own. CC was given a special treatment to book of this nature by means of classic device. In the idea plane this device forms a cluster around classic by bringing together all the editions and translations of (a) a classic; (b) each of its commentaries, next to it; (c) each of the sub-commentaries of every commentary next to it; and so on. In the notational plane (CC7) this device consists in adding after the class number (host subject) denoting the ultimate class of the following : 1. the indicator digit; 2. the (ACI) digit 'X'; 3. the Author facet (no indicator digit); 4. the work facet. But a sacred book or a classic in literature is treated in a separate way (Chapter CZA of CC7).

13.6 Common Isolates

Common isolates are applicable to all areas of knowledge. A common isolate (CI) is an isolate idea which is densted by the same isolate term in the verbal plane and is represented by the same isolate number in the notational plane whatever be the host subject to which it is attached. Common isolates can be categorised in three ways : (a) CI dealing with subject matter; (b) CI dealing with subject matter; (b) CI dealing with book numbers (Language, form of expositions, etc.); and (c) CI dealing with physical forms of documents (Sequence number).

Common isolates dealing with subjects are of two types : Anteriorising Common Isolates (ACI) and Posteriorising Common Isolates (PCI). PCI Consist of Personality, Matter, Energy, Space and Time isolates. CC7 has provided the following schedules of common isolates : (a) Time Isolates; (b) Space Isolates; (c) Common Energy Isolates; (d) Common Matter Property Isolates; (e) Common Personality Isolates; and Anteriorising Common Isolates.

13.6.1 Anteriorising Common Isolates (ACI)

ACI are regarded as "approach materials". Documents such as bibliography, concordance, encyclopedia, etc. are called approach documents. We need to approach materials before taking up the study of a regular treatise or book on a subject. They are, therefore, arranged anterior to documents on the subject of concern. In other words approach materials get anterior position. They are of three types :

(a) ACI applicable before Space facet. For example, a bibliography, C Concordance, etc.

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(b) ACI applicable only after Space facet. For example, or periodical administrative report, s statistics (serials).

(c) ACI applicable after Time facet. For example, to commission report, t_4 survey, etc.

CC_6 does not provide any connecting symbol for their attachment to a host class. CC7 provides the indicator digit "(double inverted commas) for ACI. For example, Bibliography of mathematics B "a and not Ba; Encyclopedia of mathematics will be B''_k and not B_k.

It may be noted that ACI posses their ordered facet structure.

13.6.2 Posteriorising Common Isolate (PCI)

PCI narrow down the extension of the subjects to which they are applied. Therefore, the subjects with these isolates get the posterior position. They are arranged after the documents on the subjects to which they are attached. Use of connecting symbols is necessary for their attachment to the class numbers. For example, 2.44, b Library profession in India.

1. Personality common isolate : They stand mainly for institutions. For example, Indian Mathematical Society founded in 1931—

   B. 44, g, 931 [g—Learned body, 9N 31—a national body is represented by 9 and N31 is 1931.

2. Matter property common isolate : A list of matter property common isolates is given in CC7. For example, An intrinsic value of painting N_6; a 72 [N_6-painting, ; an indicator digit for matter, a 72 an intrinsic value].

3. Energy Common Isolate : A list of energy common isolates appears on page 93 of CC7. For example, observation of solar eclipse B_x, 3; 57 : a R_2 [B_x-Astronomy, 3—Sun, 57—Eclipse, aR_2—observation, : Indicator digit for energy].

4. Space Common Isolate : Space isolates are treated as common isolates. They are listed separately in the scheme. For example, College libraries in India 2, J3. 44 [J3-College libraries, 44. India. (stop) indicator digit for space].

5. Time Common Isolate : Time isolates are listed separately in a scheme. For example, Mass communication in India in the 1990s 4.44 'N9 [Mass Communication 4, 199s N9, 'indicator digit for time].

13.7 Special Isolates

Special isolates constitute the components of several compound subjects going with more than one basic subject but not with many basic subjects. Some examples of special isolates are family of substance isolates in Chemistry, form isolates in Literature, educand isolates in Education. Special isolates also include language isolates (Chapter DG in CC7), Environment Divisions (Chapter DD in CC7). An extract from Environment Divisions is given below :

L	By Environment
M	By Physical nature
M27	By Pressure
M5	By Radiation
N	By Chemical nature

13.8 Phase Relations

In classification relation may occur between subjects (Inter-subject), between facets of subjects (Intra-facet) and between isolates of the same array (Intra-array). Such relations are called Phase Relations. The Colon Classification has given a full treatment to this area of classification. In CC7 there are three types of phase relations and each type has six kinds of phase relations. The schedule of digits for phase relations is given below :

Kinds of phase relation	Inter-subject	Intra-facet	Intra-array
General	a	j	t
Bias	b	k	u
Comparison	c	m	v
Difference	d	n	w
Tool	e	p	x
Influencing	g	r	y

It may be noted that in CC_6 Tool phase was omitted and in CC_7 it was restored. The Indicator digit for phase relation is '&' (Ampersand). In CC_6 it was Zero 'O'

1. **General Phase** : It denotes a complete relation between the primary and secondary phases. The sequence of phases will be the same as the sequence of component phases in the sequence of classes, isolates or arrays, as the case may be. For example,

   Relation between Political Science and Economics W & X(Inter-subject)

   Relation between Anatomy and Physiology L; 2 &$_j$ 3(Inter-facet)

   Relation between rural folk and city folk Y31 &$_1$ 5

2. **Bias Phase** : Here the exposition of Phase 1 is biased towards Phase 2. Phase 1 is called the biased phase, phase 2 is named the biasing phase. For example,

   Mathematics for Engineers B &$_b$ D (Inter-subject)

   Here Mathematics has been made phase 1

   Anatomy for Pathologists L; 2 &$_k$ 4 (Intra-facet)

   Import biased towards export duty X72, 951 & 5 (Intra-array).

3. **Comparison Phase** : Here the subject with smaller ordinal value will be phase 1. For example,

   Botany compared Zoology I &$_c$ K (Inter-subject)

   Anatomy compared Physiology L; 2 &$_m$ 3 (Intra-facet)

   Comparative study of spring and autumn U2, 761 &$_v$ 3 (Intra-array).

4. **Difference Phase** : Here the subject wth earlier class number is treated as Phase I. For example,

   Difference between Plants and Animals I &$_d$ K (Inter-subject)

   Difference between epistemology and metaphysics R2 &$_n$ 3 (Intra-facet)

   Difference between undergraduate and postgraduate education T, 181 &$_w$ 2(Intra-array).

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5. Tool Phase : Here the subject used as a tool is treated as phase 2. For example, Literature through art O_{122}&$_e$N..

6. Influencing Phase : Here the influence of phase 2 on phase 1 is expounded. For example,

   Influence of Geography on Agriculture J&$_s$U (Inter-subject).

   Influence of logic on ethics R4&$_r$1 (Intra-facet)

   Influence of direct tax on indirect tax X72, 01 &$_y$2 (Intra-array)

13.9 Systems and Specials

Upto the sixth edition systems and specials were enumerated with the concerned main classes. In the seventh edition they have found place in the schedule of basic subjects.

13.9.1 Systems

The terms 'system basic subjects' denote a division of a main class expounded according to a school of thought. The class number is derived.by the chronological device that is, the year of birth of the system. For example,

L-K	Allopathy	K	stands for 1600 to 1699 A. D.
L-L	Homeopathy	L	stands for 1700 to 1799 A. D.
X-J	Capitalism	J	stands for 1500 to 1599 A. D.
X-N_1	Communism	N_1	stands for 1910s

13.9.2 Specials

The terms 'special basic subjects' denote a division of a main class in which the subject of study is restricted in certain special manner. The class numbers are derived by enumeration, For example,

L-9E Adult medicine

L-9G Male medicine

L-9H Female medicine.

13.9.3 Alphabetic Index

The index of CC refers only to elementary terms, never to compound subjects. The relative aspect of a subject are provided only in the form of class numbers, not being named as in DDC or UDC. CC_6 has provided the following four indexes : General Index, Geographical Index; two indexes to Natural groups in Botany and Zoology. Index volume for CC7 is yet to be published.

13.10 Book Number

The classification specifies the construction of book number as part of the scheme. The following facet formula is prescribed by CC_6 for the construction of book numbers (CC_7 follows the same with minor modification).

[L] [F] [Y] [SN]. [V]—[S]; [C] : [EVN] where L = Language in which the book is written. The language Number is taken from part 2 Chapter 5 of CC_6 or Chapter DG of CC_7.

F = Number for the form of exposition, taken from. Form schedule given in Chapter O_2 of part 2 of CC_6 or Chapter CC of CC_7.

Y = Year of publication, taken from. Time schedule.

SN = Serial Number. This is serially made to begin with 1 for the second book received in the library. In CC_7 it is termed as Accession Facet.

V = Number for the volume, taken from the book itself.

S = Supplement Number, taken from the book itself.

C = Number for copy other than the first serially made as for SN.

If the BN of the first copy is N 88, the BN of second copy N 88; 1 and so on.

EVN Evaluation. The digit 'g' is used as the evaluation 'number'. In CC7 it is denoted as 'Attachment Facet'. In case of version followed by "y"; in case of evaluation or review : followed by "g".

It should be noted that Colon Book Number is essentially based on the year of publication of the book. The connecting digits used are : dot (.) for volume; hyphen (-) for supplement; semicolon (;) for copy ; and colon (:) for evaluation.

13.11 Collection Number

Collection number is the mark added to the class Number cum Book Number of a book to indicate collection containing it. In other words, it denotes the collection in which it is placed in the library. For example.

Under-sized : Underline the Book Number D N88

Over-sized : Overline the Book Number D N88

Worn-out book : Encircle the Book Number D N88

Rase Book : RB.

Reading Room : RR.

13.12 Call Number

The Class Number, the Book Number and the Collection Number together form the Call Number. The components of a Call Number may be separated in the following ways :

When written in a horizontal straight line a double space should be left between the class Number and the Book Number. For example, B 43, N 88. The Book Number may be written below the class Number. For example,

<div style="text-align:center">

B 43

N 88

</div>

13.13 Evaluation

This is the great universal classification scheme to be designed by one person—mathematician-turned-librarian. The Colon Classification stands in a class of its own for coherence and system making it the easiest of the general schemes to use properly. It has constituted an almost complete break with the traditional method of classifying. In fact, Ranganathan's Colon Classification fully manifests the theory of facet analysis and synthesis. The systematic order and the degree of detail due to analysis, and synthesis are two merits of CC.

Although CC is used relatively in few libraries its underlying theory has had a major impact on all classification schemes. Revision of DDC, particularly in recent editions, reflects the influence of facet analysis and synthesis.

The revision policy of the scheme has been criticised. Major changes have been incorporated in the seventh edition for obvious reasons. The changes are so numerous that many libraries using CC may not be in a position to change over to the current edition. But still the Colon Classification will certainly make the strongest appeal to the seekers of perfection.

13.14   Exercise

Unit 14 ☐ Classification : Developments and Trends

Structure

14.1 Introduction

Library classification has become increasingly noteworthy. Its impact will increase further, due to greater emphasis being put on the provision of information services in libraries. For the retrieval and organisation of information we need powerful tools and techniques. Thus the design of classification scheme has marched from workshop stage to the laboratory stage. An organisation of knowledge which tuned the philosophical temper of the Greeks could not maintain the mythological cosmologies of Babylon, the rushing rhythms of the

Renaissance or the Industrial revolution of the 19th century. Knowledge advances ceaselessly. Classification has been gaining a momentum since the World War II.

The formation of the Classification Research Group (CRG) in Britain in 1952 may be formally linked with the recommendations of the Royal Society Scientific Information Conference of 1948, but it should also be stressed that the group came into being essentially out of the enthusiasm of individuals, plus the growing awareness of the inadequacies in the existing methods of subject organisation. During fifties the members of this group were intimately concerned with the creation of classification schemes for special subjects. Although they had no commitment to any one scheme their early creed expressed their conviction that the classification of fully faceted line is advantageous for the purpose of information retrieval. Indeed, Ranganathan's ideas formed the basis of much of the progress made in classification theory during the early days of its formation. In fact, during fifties the CRG devoted their attention towards a citation order derived from more easily defined notions—Thing (concrete or abstract), Kind, Part, Material, Property, Process, Operation, Agent, Space and Time. This formula clarifies the categories of relations involved. It is almost consistent with PMEST. The citation order displays what Ranganathan called in the context of PMEST, 'rounds' and 'levels'. In fact, impact of ideas which Ranganathan has developed is incalculable.

14.2   Conferences

Each age has its own flavour. The development of knowledge has made an impact on the development of classification. As a result more researches have been conducted by the research group. In 1955 the CRG published a memorandum where faceted classification system were recognised. Thus started International conferences one after another.

14.2.1 Dorking Conference

The first Study Conference Research at Dorking in 1957 was a convenient take-off point for an attempt to discover, if there had been, over the last two decades, any coherent trend in the direction of classification activity and in the manner in which it had been viewed by the information and library profession. If we compare this period with that which preceded it we notice two striking

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features. The first is that since the Dorking Conference there has been no further break through in understanding of classification at a fundamental level comparable to that achieved earlier by Ranganathan. Secondly, there has been the updating of considerable expansion of practical activity in the making of new classification, old ones and in the generation of indexing of tools which include classificatory elements, either explicitly or implicitly. In fact, during the Dorking period we witnessed hectic activity in the March of Classification. Ranganathan's ideas became widely known in the West, Particularly in England and the design of faceted classification systems for special fields of knowledge became more common.

14.2.2 Elsinore Conference

The Second International Study Conference on Classification Research was held at Elsinore in September 1964. It was the international get-together of all those who had been concerned with modern problems of classification. The conceptual frame was found to be sufficiently sophisticated and comprehensive as the basis of classification practice.

Categories posed a problem earlier. Ranganathan's Categories were followed by other sets of Categories. The Elsinore conference covered topics like general theory of classification, research in mechanised classification, selected specialised schemes, evaluation techniques and showed guidelines for future studies, and research in classification.

Thus the Dorking was dominated by the increasing need manifested during the forties and fifties for more adequate documentary classifications, in particular specialised, faceted systems. Since then considerable improvement had been made in both theory and practice. In the seven years since Dorking much progress was made in the design of classification systems and in the application of machine in information retrieval.

14.2.3 Bombay Conference

The Third International Study Conference on Classification Research was held in Bombay in January 1975. The general theme of the conference was 'Ordering Systems for Global Information Networks'. It covered three main areas : linguistic research in classification and information processing, developments in the theory of classification and role of classification and other switching mechanisms in global information networks and the impact of modern technology in information systems.

In the sphere of general classification the appearance of Bliss Bibliographical Classification (BC2) in parts is definitely an event of note. In the sphere of general classification some signs of the trend towards syntactic sophistication are evident in the revision of policies of both DDC and UDC and in the arrival of one classification system, the Broad System of Ordering to serve as a switching language in 1978.

14.2.4 Augsburg Conference

The Fourth International Study Conference on Classification Research was held at Augsburg, Federal Republic of Germany, June 28—July 2, 1982. The general theme of the conference was "Universal Classification—Subject Analysis and Ordering System". It marked the 25th anniversary of the First Classification Research Conference at Dorking. It gave an idea of the remarkable progress that has been made towards the establishment of classification as an autonomous field of science during the last 25 years. Since the Bombay Conference there has been growing recognition of transdisciplinary character of classification research, extending to such activities as mathematical (statistical) methods for data analysis and classification, biological taxonomies (especially cladistics) and network analysis in the social sciences.

Besides the idea of universality and universal ordering systems it had long been felt that the following needed to be considered :

(a) a new understanding of the principles of universality of concept system, classification system and indexing languages;

(b) a new approaches to universal organisation of knowledge contained in concepts and topics;

(c) new demands from the points of view of different groups of users of universal systems.

The conference put forward some logistical recommendations concerning the teaching of classification, the terminology of classification, elaboration of comparable glossaries in different languages in the field of classification and indexing and the compilation of multilingual dictionaries for classification concepts, contacts to scientific unions and societies and others.

14.2.5 Toronto Conference

The Fifth International Study Conference on Classification Research was held in Toronto, Canada, June 24-28, 1991. The theme of the Conference was

'Classification research for Knowledge representation and organisation'. Forty papers were presented and they fell into three general categories : general principles and policies, structure and logic in classification and empirical investigation.

14.2.6 London Conference

The Sixth International Study Conference on Classification Research was held in the University college of London, June 16—19, 1997. The theme of the conference was 'Knowledge Organisation for Information Management'. The conference was sponsored by University College, London, CRG, International Society for Knowledge Organisation and ASLIB. The following topics were discussed : (a) the role of classification in the organisation of information; (b) the research of classification in the electronic information service; (c) automatic indexing, and (d) Data modelling, etc.

The six international conferences as described above suggest that classification today is on the right track, namely on one leading to a combination of its activities with the interests of other disciplines. In fact, the classification has sufficiently matured and grown into a science of its own.

14.3   The Broad System of Ordering

Classification has been gaining a new momentum since World War II, partly through the potentialities of the computer and partly through interests of philosophers, logicians, historians, historians of science, psychologists, semioticians and scientist-taxonomists. However, slight be the achievement of the Royal Society and Scientific Information Conference in 1948, its intention was significant. In fact, it marked the beginning of a new era and concentrated on the concern of the scientific community to cope with the ever increasing flood of scientific and technical publications. There was a thrill of suggestions in the Washington conference in 1958. A new vista opened up during the 1960's. A joint control of committee was set up by UNESCO and ICSU (International Council of Scientific Union) in 1967 to carry out a feasibility study of a World Science Information System, to be called UNISIST. A detailed report was largely approved at an international conference in October 1971.

It was suggested that a standard list of broad subject headings might prove useful to locate and transfer large blocks of information. Wysocki presented

a summary of what should be expected of a Broad System of Ordering at the FID conference in Budapest in September 1972 and the FID was entrusted with the task of developing such a system. Following the Budapest conference a new combined group was formed. In May 1975 this group presented to the Advisory Board of UNISIST at its meeting in Paris, a scheme to be called the Broad System of Ordering (BSO).

Thus a paper presented on behalf of UNESCO at the FID meeting bore its first visible fruit in 1978 in the form of published Broad System of Ordering: Schedule and Index'.

The work has been delegated to three member committee consisting of Eric Coates, Geofrey Lloyed and Dusan Simaudl.

The Scheme has been devised to function as—

(a)   a tool for interconnection of information systems, services and centres.

(b)   a tool for tagging (that is, shallow indexing)

(c)   a referral tool for identification and location of all kinds of information sources and services.

14.4   Special classification Schemes

Special classification schemes have been the chief product of modern research. The period from 1876 to 1945 was the golden age of general classification schemes. They met the needs particularly of libraries catering for rapidly expanding education and leisure. Any special schemes made during this period were usually based on one or other of general schemes. Since world War II, the emphasis has been on science, technology and social problems. Special libraries and information services have expanded and the rate of publication has accelerated.

In the UK, a Royal Society Conference in 1948 drew attention to the need for improved classification methods in science and technology. One result was the foundation of the CRG in 1952 as noted earlier. Many of the original members were special librarians with practical problems of organising collections of detailed literature in various scientific and technical subjects. In 1964 Ranganathan developed his 'design of depth classification schedule! The

Documentation Research and Training Centre (DRTC) Constructed many special classification schemes on various subjects.

14.5 Automatic Indexing

For several decades there has been a widespread idea that classification is rendered obsolete by the powerful capacities of computers, as if they alone can solve all the problems of organising Knowledge. Exceptions can be found in many on-line databases with subject descriptions controlled by thesauri constructed on classificatory principles; but there has been a general tendency to question the need of controlled vocabularies, and therefore of classification, for indexing the subject content of documents. A point often overlooked is that, even if controlled vocabularies are not used in a computer based system, it is still necessary to apply classificatory thinking, principles and devices in formulating effective search strategies. There can be no doubt, therefore, that classification is necessary element somewhere in the total process of subject indexing and retrieval.

The KWIC (Key Word in Context) and KWOC (Key Word out of Context) indexes arrange the titles of documents in alphabetical order of their key words ignoring conjunctions, prepositions, etc. This use of key words merely establishes classes defined by single words without showing any Kind of indexing. It is thus a very elementary form of classification, justified by its producers on grounds of economy in human effort and speed of production through computer sorting and printing.

Availability and increasing power of computers has led to other experiments with automatic indexing. Index entries are produced through computer programmes based either on frequency of occurrence of certain words (Statistical methods) or on occurrence of particular kinds of words or phrases (linguistic methods). Once again it is obvious that these are merely different ways of establishing classes of documents.

14.6 Exercise

1. When the CRG was formed?
2. What is the theme of the Bombay Conference?

3. Enumerate the objectives of B.S.O.

4. Discuss the contributions of Ranganathan on the construction of special classification scheme.

5. Write a short note on KWIC and KWOC indexes.

14.7 References

1. BSO—Broad System of Ordering : Schedule and Index. 3rd rev. ed. The Hague, FID, 1978.

2. Chakrabarti, B : Library classification theory. Calcutta, World Press, 1994.

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BLIS-IV
Library Cataloguing Theory

MODULE—1

Unit 1 ☐ Objectives and Definitions

Structure

1.1. Objectives

Library calalogues are composed of bibliographic information of the total library holdings containing general staterments of the library collections as well as specific statements about individual documents and their locations in particular libraries. The mission of a library is to support the mission of the institution or the organisation it serves by giving service to the user community. The role of library service is to facilitate access to documents in the best possible way. During the twentieth century the library, the library catalogue and the library service have undergone a radical change in all directions but the objectives and functions of the library catalogue are almost the same except the changes in dimensions.

1.2. Introduction

If we consider the history of human civilisation we find that at the very early period the human knowledge was so little that man could remeber everything he knew. But with the progress of human knowledge it was felt that the knowledge and experience should be recorded. In the early period the recorded knowledge was so

scanty that the records of knowledge could be found easily. Gradually with the progress of civilisation the records of knowledge and experiences increased enormously and it was found that some sort of order was absolutely essential for keeping the records of human knowledge. So, a 'record of records' was found to be of absolute necessity. Thus emerged a catalogue, which was at first a simple list but gradually it grew in complexities and varieties.

1.3. Meaning of Cataloguing

Cataloguing may be described as the art of making records in such a manner that they may be readily identified, located and examined. Catalogue provides the records in such an order which enables the user to know what those things are, where they are, and to determine their character and suitability for using them. To be reliable, the recordings must be in accordance with definite rules, which constitute a cataloguing code.

1.4. Purpose of Cataloguing

Catalogue is the interpreter between the author and the reader. It interpretes the resources of the library to the users. The purpose of cataloguing is to give the user a comprehensive view of either the entire book stock, or of sections of it, and also to make it possible for him either to find a particular book or to select one which will best serve his purpose or to give the information that he requires.

Catalogue is not merely a copy of the title pages. The catalogue is prepared for definite purposes. The cataloguer must not only record the names of authors and the titles of their books, but he must also draw attention to the purpose of these publications, their contents and their relations to other works. Accordingly, the cataloguer should bring together other book of the same nature and arrange the record of the whole collection so that the books may be used for comparative study.

The purpose of cataloguing is to put order into a collection of books so that the volumes may be located and used by the readers and staff members alike. Catalogue locates a particular book by its author, title and subjects, to bring together the works of an author in its different editions and translations, and to relate and bring together works on the same subjects. The main entry, the added entries, subject entries and

the references are all methods to attain these objectives. The purpose of catalogue is to make the library resources available to the users. It is the key to the library collection. Catalogue communicates information about the books it records. Cataloguing is the technique for the organisation and arrangement of library resources. Catalogue may be described as a record and a finding list which indentifies, traces and locates a book in the library. The library catalogue helps the user to search a particular book and to get primary information of the book or the bibliographic information such as, the author, title, edition, imprint, collation and additional information.

The catalogue helps to find the location of a particular book on the shelves. The books are arranged on the shelves according to a classification scheme and author number. The notation and the author number combined together make the call number of a book. This is recorded in the main entry.

By catalogue one can find books grouped together by author and subject. If he is interested in the works of a particular author or works on a particular subject, he can get the information from the catalogue. It also shows the relation between the work and the author as well as work and the subject.

1.5. Definition of Catalogue

A library catalogue may be described as a list and record of books and other library materials in a particular library, arranged according to a recognised scheme and systematic order containing bibliographic information.

The term 'catalogue' originally meant merely a list or inventory, but in modern times the meaning of catalogue has been changed and "now usually distinguished from a mere list or enumeration, by systematic or methodic arrangement, alphabtical and other order, and often by the addition of brief particulars, descriptive, or aiding identification, indicative of locatity, position, data, price or the like".

According to James Duff Brown, "a library catalogue is properly defined as an explanatory, logically arranged inventory and key to the books and their contents, and differs from a bibliography in being confined to the books in a particular library." Let us listen to what W. W. Bishop has said about library catalogue : "It

is a working tool that I would have you consider the catalogue. It is not primarily a record. Libraries keep some sort of accession-record for business-ends. But they make catalogues for the use of their readers. This point is vital. Unless you think of the catalogue as an instrument, you loose entirely the point of view of modern cataloguing practice. It is an instrument, a means to an end wherely one can find out—if he knows how—

1. Whether the library has the book he wants, or,

2. Whether it has any book or some topics he is interesed in.

It may be used for scores of other purposes, but these two are the prime reasons for its existence.

A library catalogue may be defined as a list and a record of the books, periodicals, maps, pamphlets, musical compositions, illustrations, prints, slides, films, nicroforms, gramophone records, tape records, digital records, manuscripts, etc, in a particular library arranged in a recognised order and containing specified items of bibliographical information presented in a given form, preferably in the form and order presented in the generally accepted codes of cataloguing rules. A library catalogue is not merely a record, it is a working tool to utilise the library resources properly.

1.6. Function of Catalogue

Catalogue is the key to the resources of the library. It acts as an interpreter between library materials and the users. It is a working tool for using the library collection properly. A library catalogue is a means to an end and not an end itself. It is a means through which the resources of the library are made to yield in the shortest possible time. A library catalogue cannot function properly if it becomes a list. A list is prepared and used in one way only. A library catalogue is prepared and used in many ways. A reader may search for a document in more than one ways as he requires, either under name of the author, editor, compiler, or under title, under real name or pseudonym, or under subject or under co-author, or under series or in any other way. Therefore, there should be many entries for a particular book in the catalogue.

A good catalogue should be able to answer the following questions :

1. Has the library a certain book by a given author ?

2. What books the library has by a given author ?

3. What books the library has on a given subject ?

4. Has the library books belonging to a certain series ?

5. Has the library a book bearing a certain title ?

6. Has the library books by a certain editor ?

7. Has the library books by a certain translator ?

The readers may ask some other additional information. These are the items of information regarding bibliographical details such as, edition, imprint, collation, tables of contents, notes, annotation, and the like.

The functions of a catalogue are fulfilled with the help of the following entries or recordings or by the following methods :

1. By recording each work in a catalogue under author, joint author, editor, complier, translator, illustrator, or any other person or body, or under uniform title, as the case may be.

2. By recording titles of works, when necessary.

3. By making entries under the appropriate subject heading.

4. By recording under series title, where necessary.

5. By recording even parts of a book under authors, title and subject, where necessary.

6. By making cross-references—a reader may be guided from one entry to another entry in the catalogue.

7. By providing a description of each book—the name of the author, title, edition, imprint, collation and notes, where necessary.

8. By recording call number of each book so that a book may be located and obtained.

9. By arranging author entries in such a way that all the works of a particular author will be found together.

10. By arranging subject entries in a particular order, so that similar topics will fall together and related topics will be co-related.

A catalogue should furnish the above items of information, but it does not necessarily mean that all catalogues are made in such fullness. The purpose of the library, the category of readers, the needs of the users, number of books and library budget should be considered when planning a library catalogue. Whatever may be the shape of the catalogue it should perform the following functions :

1. It should serve as a basic tool for communication of human knowledge dealt with in the books and other library materials of a particular library for the users of the library.

2. It must record, describe and display the entire resources of a library with a view to making them easily accessible to readers.

3. It must provide dependable bibliographical information for systematic study and research. A library catalogue should be designed in such a way that it will be able to meet the diverse needs and requirements of the readers of different categories.

Charles A. Cutter in his Rules for a Dictionary Catalogue (4th eidtion, 1904) was responsible for the transformation of the library calaloguing to its present form, that is, from author list to multi-approach working tool to identify, locate and have access to documents in various physical formats. The objectives and functions of the library catalogue, as are understood today, were set by him by making added entries, cross-references, complex subject headings and bibliographical access.

Twentieth century witnessed various physical forms catalogue book, card even electronic form, but the objectives and functions set by C. A. Cutter are very much relevant even today.

The objectives and functions of the library catalogue have been defined by Cutter in the following way :

OBJECTS

1. To enable a person to find a book of which either

    (A) the author

    (B) the title   } is known

    (C) the subject

2. To show what the library has

    (D) by a given author

    (E) on a given subject

    (F) in a given kind of literature

3. To assist in the choice of a book

    (G) as to its edition (bibliographically)

    (H) as to its character (literary or topical)

MEANS

1. Author entry with necessary references (for A and D)

2. Title entry or title reference (for B)

3. Subject entry, cross-references, and classed subject-table (for C and E)

4. Form-entry and language entry (for F)

5. Giving edition and imprint, with notes when necessary (for G)

6. Notes (for H)

Cutter mentioned elaborately all the points both from the cataloguer's consideration as well as users' point of searching the catalogue entry. In addition to that his approach was so user-friendly and result oriented that he gave emphasis on users approach to the catalogue. He stated in the Preface to the fourth edition (1904) a significant comment that "The convenience of the public is always to be set before the ease' of the catalogues. In most cases they coincide. A plain rule without exceptions is not only easy for us to carry out, but easy for the public to understand

and work by. But strict consistency in a rule and uniformity, in it sometimes lead to practices which clash with public's habitual way of looking at things. When these habits are general and deeply rooted, it is unwise for the cataloguer to ignore them, even if they demand a sacrifice of system and simplicity". Cutter explained the objectives and functions of the catalogue very significantly.

J. H. Shera and M. E. Egan stated nature and functions of the catalogue in the Classified Catalogue (1956) as "The conclusion from both experience and analysis seems inescapable that there are two basic functions of the catalogue that are of Autstanding importance :

1. Accurate and speedy determination of whether or not an item known by author and title is in the collection, and if so, where it may be found ; and

2. What materials the library contains upon a given subject and where they may be found".

Discussing the functions of the catalogue Dr. S. R. Ranganathan states in Classified Catalogue Code (ed. 5, 1989) that "It the reader's interest is for a particular book or a book by a particular author, the alphabetical part is sufficient by itself to satisfy his want. But if it is interest in a subject which takes him to the library, his wants will be better served if the catalogue can spread before him a full, connected, panorama of all the materials on his specific subject, in all its subdivisions, and all border subjects of which it is itself a subdivision." Not only that he states also that "it is the duty of the library to meet such unexpressed wants, particularly because an ordinary reader does not know how to give shape to them and state them." Therefore, the objectives and functions of the catalogue are not only keeping the record of the existing collection, but to inspire the readers also to search for the documents he is not aware of.

The International Conference of Cataloguing Principles (ICCP) Paris, 1961 suggested the functions of the catalogue as follows :

The catalogue should be an efficient instrument for ascertaining whether the library contains a particular book specified by (a) its author and title, or (b) if the auhtor is not named in the book, its title alone, or (c) if author and title are

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inappropriate or insufficient for identification, a suitable substitute for the title ; and (a) which works by a particular author and (b) which editions of a particular work are in the library.

The functions stated by ICCP ignored two aspects of the functions of the library catalogue, first, how much information the catalogue entry should provide to identify a document, and secondly, no provision of subject entries has been made.

Semour Lubetzky enumerated the author part of the catalogue in the way that "the catalogue of a library must be designed not only (i) to show whether or not the library has a particular item or publication, issued under certain name of the author or under certain title, but also (ii) to identify the author and the work represented by the item or publication and to relate the various works of the author and the various editors and translations of the work."

Considering the opinions state above regarding objectives and functions of the library catalogue it may be enumerated that the library catalogue is a record of the library collection prepared and arranged in a way that the individual documents can be readily indentified, located and examined by the users for a particular purpose at a point of time. The arrangement of catalogue entries must be convenient to the users to adopt any particular search strategy. The users must know the characteristics and nature of the documents to utilize the library resources. The search of the user may be under any kind of author, any kind of title or any specific subject area for specific document search. His search may also be under a group of documents under author and subject and the arrangement of catalogue entries must be made in such a manner so that interlinking of the catalogue entries in a group can be ensured.

The catalogue is prepared as a working tool, so the cataloguer must draw the attention of the users to the purpose of their publications, their contents, the scope and nature of treatment, target group of the publications and their quality and suitability of the users. The users must be able to identify and examine a particular document by its author, title and subjects, to get all the entries of an author brought together in different editions and translations and to have access to all the interrelated

documents on a particular subject as well as its allied and related subject areas. The main entries, added entries, subject entries and cross references constitute the library catalogue.

Basically the library catalogue is a kind of bibliographic file. It represents the total holding of a single library usually. Now a days, library service cannot be limited to the documents of a particular library. Additional bibliogaphical information is essential for users services. Any library catalogue must have wider bibliographic support to meet the users requirements by interlibrary loan or document copies. Union catalogues and other bibligraphical files should be kept in the library as an aid to the library catalogue.

The library catalogue consists of a set of bibligraphic files which provide data about the items of the library holdings the catalogue represents. The data of each record must include (i) a bibliographic description giving the identification, publication, and physical characteristics of the documents, (ii) additional information about subject, scope of the work, treatment, quality, intelectural standard, assessment of intellectual contribution, and the like, and (iii) call number that indicates the location of the document in the collection.

The catalogue must be composed of multiple-access files. It should offer many ways to retrieve a particular record—by author, title, subject, even parts of the document by making analytical entries, and other search points as necessary. In a card catalogue, there are several cards for the same document, each filed under different headings or access points. There may be cards to guide the users from one heading to another related heading under author or title. There should be elaborate arrangement of reference cards to correlate identical subject headings, allied and related subject headings. All these are filed in the catalogue under different headings that represent different access points. Such method of providing information about individuad documents in the collection having multiple choice and access facilitates the users search. They can get the identity of the document, nature and characteristics of documents, locate particular item or select relevant documents for specific purposes.

In manual catalogue one entry is designated as basic source of identification of a document or chief access point usually known as main entry. In most cases the main entry is based on the name of the author, corporate body or title as determined by the cataloguer. The main entry contains both essential bibligraphic information and descriptive bibliographic information consisting physical characteristics and intellectual content. In a card catalogue other entries of the same document are search points or access points.

The main entry practice has some advantages. It is the most efficient way to record and manage library catalogue to be maintained manually. The main entry contains full bibliographic information and other entries, whatever may be the number, are recorded in abbreviated form. In case of printed card sets, the entry was made like main entry and the card was duplicated. On the top of the duplicate cards additional search points were recorded and the cards were arranged accordingly. In computerised catalogue, where the main entry added entry distinction has no meaning, all the machine readable entries of a particular document contain full bibliographic information as in case of main entries in manual card catalogue. All the access points in machine-readable catalogue refer to the text. It is the most effective way for keeping citation standard, either for searching individual documents or for data transfer.

The objectives and functions of the catalogue are the organisation of knowledge recorded in the form documents. As the quantity of knowledge expands organisation become more complex. The organisation of knowledge through library catalogue becomes effective and result-oriented by specific and speedy retrieval. There are various categories of users in the library, the individual requirements may also differ and different persons may wish to retrieve a document or unit of information for different reasons. Therefore, catalogue search strategy and retrieval approach may differ person to person and purpose to purpose.

The search strategy may be divided in two categories, 1. Known-item searching and 2. Browsing. Known item searching is done by the users when they know what they are searching for, whether single item or number of items. In such cases users know the documents and can identify them. Browsing is done when the user do not

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know specific information or have a precise view about the information or the document. Browsing may also be of two kinds. It may be general or purposive. General browsing is done when the user does not know the clue and he has no idea about his requirements. Purposive browsing is performed by the user when he has the idea of specific requirement and can identify the part of the library catalogue where the information will be available and how to interlink the information sources.

One user may identify a document for use as a result of known-item searching, whereas another user may identify the same document through general browsing. The objectives and functions of the library catalogue are to support both types of users in their searches. The library catalogue must be most effective for different users with different requirements.

The purpose of the library catalogue can be fulfilled in the following way :

1. It should serve as a basic tool of communication of human knowledge dealt with in the books and other library materials of a particular library for the users of the library.

2. It must record, describe and display the entire resources of a library with a view to making them easily accessible to the users.

3. It must provide dependable bibliographical information for systematic study and research.

1.7.   Summary

A library catalogue is a record of books and other library materials in a library primarily for the users of the library to utilise the library resource according to their need and requirement containing bibliographic information using the catalogue the catalogue the user can find books grouped together by author and subject. It also shows the relation betwen the work and the author as well as work and the subject. Catalogue provides the bibliographic information such as author, title, edition, imprint, collation. Location of the books in the shelves is indicated by call number.

Catalogue gives the user a comprehensive view of either the total resources of the library holding or a section of it under author or subjct as well as any book to serve his purpose. It is a mutli-faceted record prepared as a working tool so that the readers can understand the contents, qualify and intarrelationship of the subject areas treated in the books. A catalogue must be composed of multiple access files with a number of entries under different search points.

1.8. Exercise

1. Define a library catalogue. What are the essential attributes ?

2. What are the functions of the library catalogue ?

3. What are the aims and objects of library calalogues ?

4. Catalogue should serve a basic tool for communication of human knowledge. Discuss briefly.

5. What is the purpose of giving a number of entries for a book ?

1.9. Reading list

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Unit 2 ❑ Parts of a Book and the Cataloguing Process

2.1 Objectives

Major holding of the library is collection of books. Primarily a library catalogue means the catalogue of books. A book has two aspects : (a) the physical entity and (b) the intellectual content given in a systematic order. The physical entity or the external aspect of a book is determined by the publisher. For printing of the books there are certain rules and norms. The publishers follow these rules and norms for printing of books, may be with some variation in certain cases. The content of the book is printed in particular order to make the intellectual content in an organised way so that the content of individual books as well as content of a number of books in a particular group are available to the users for a particular purpose. The physical aspects and the intellectual presentation must be revealed in the individual catalogue

entries to be identified by the readers. In the cataloguing process the content of the books and their recording in a recoguised order are vital in the construction of the catalogue.

2.2   Introduction

The aims of the libraries are fulfilled in two ways, first—collection, storage and conservation of library materials and secondly utilisation of the materials to the highest extent. Cataloguing, as a technical process is concerned with both of these. Cataloguing is the basic step of organisation of knowledge. Library catalogue is a record of the total collection of the library keeping record of each bibliographic item arranged in useful order with several approaches, each record being represented under several different headings known as catalogue entries. The amalgamation of all the catalogue entries arranged in a recognised order constitute the library-catalogue. The basic entry for a particular record with full bildiographical information is known as main entry. Main entry is prepared usually under the name of the author or main author and in some cases under the title.

2.3   Catalogue Entries : Structure and Functions

Library catalogue is the useful organisation of all types of catalogue entries. Each document in the library must have more than one entry. There are the search points or access points to search for a particular document as known by the users. In cataloguing each book or library material is considered as an unit and the bibliographic information of that unit showing the identity of the material is known as entry. A list of books may be a list but it cannot be considered as library catalogue it does not contain all the search points except one particular order. Every document, book or any type of material is usually recorded at several different points in the catalogue to cater for a variety of approashes or search points, usually (a) Author, including writer of the document as well as editor, co-author, translator or the like, (b) title, and (c) subject. All the catalogue entries are arranged together in a particular order. The order of arrangement may be either alphabetical or classified accerding to class number or notation.

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In a library catalogne. The bibliographical information of a particular book, both physical and intellectual, should be given in the entry to enable a reader identify and examine a book. Catalogue entries are also prepared to find a book from various search points. So, more than one entry should be made for a particular book according to the probable search points.

Usually there are three kinds of entries :

1. Main entry

2. Added entry

3. Subject entry.

Main Entry

As the name indicates the main entry is the basic entry which is of prime inportance. The full bibliographical information, both physical and intellectual, should be given in the main entry. It is usually made under name of the author, sometimes title.

Main Entry : Structure and Elements

Primary information of the main entry are taken from the title page of the book to be catalogued. The title page has two sides, front or recto, and back or verro. Basic information are taken from the title page. Additional essentrial information are taken from Preface, Indroduction, Table of contents and some other sources.

Usually there are three types of information in the main entry—

A. Heading, generally name of the author or first mentioned name of the author if the book is written by more than one author. The arrangement of main entries is made according to alphabetical order of the main entries.

B. Descriptive part of the main entry. This part starts with the title of the book. It includes physical structure of the book and the intelleclual contribution of the author. The merit and speciality of the book are also given here. This part is a guide to the readers to select a particular book which will ·rve his purpose.

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C. Call number, which is the identity symbol of the book. Books are arranged in the shelves strictly according to call numbers. Call number indicates the location of a particular book on the shelves. So, the books can be taken out of the shelves whenever needed and can be placed in their proper locations. It is the bridge between the users and library staff. The main entries play the most crucial role in the library particularly in three ways, (a) physical characteristics and intellectual content of each book can be obtained, (b) the main entries in the library catalogue collectively show the resources of the library on a particular subject, allied and related subjects are located in close proximity and a particular book can be taken out for use and can be located in its proper place.

Parts of the main entries are given below :

Call number

Heading

Title statement

Imprint

Collation

Series Notes

Call number

Call number has two parts, (a) the classification number decided by the classifier strictly following the Classification Schedule used in the library, and (b) author mark, the unique symbal given in the Author Schedule for a particular author.

Heading

Heading is the search point or access point for a particular document or book. This may be the name of the author if written by single author or first mentioned author if written by more than one authors. In case of corporate body the name of the corporate body is to be considered as author and not under the name of the official of the corporate body. This is known as corporate authorship applicable in case of Institution, Society or Assocation. In case of periodical or serial, the title of

the periodical will be considered as heading and main entry will be made under the title. There are certain categories of books which are catalogued under the title, for example. Dictionary, Encyclopaedia, etc.

Title Statement

Basically it is the name of the book in the form as given on the title page, so it helps in identifying the subject and form of presentation. It may follow any sub-title or alternative title as given on the title page. There may help identify a specific form of the work, also these may help explain the subject, approach and intellectual level of the work as well as it may assist in the choice of the book as to its scope, character and treatment of the subject.

Edition Statement

This is vital in selection of the exact edition required. It is expected that each new edition of particular book incorporates certain addition. alteration or change which make the particular edition different from previous editions.

Imprint

It comprises the place of publication, name of the publisher and the date of publication (year). A book may be published simultaneously from more than one place.

Collation

It comprises number and sequences of pages, illustrative matter like plates, illustrations. In multi-volume works, number of volumes is given. It contains spine height in centimetres. The intention of this information is to describe concisely the physical nature of the book.

Series Note

Certain series come to be well-known, and the physical and intellectual characteristics of such series can be applied to an individual work in evaluating it for a particular purpose.

Notes

Notes are used to assist the choice of the book as to its characteristices. The basic purpose of the notes is to given information not available elsewhere in the

entry. It is the cataloguer's choice to show the merit of the book and its specal features and treatment in a succinet manner.

Annotation

It is the cataloguer's comments on the appraisal of intellectual content.

Series Note

Title of the series and number if the book belongs to a particular series.

Annotation

Annotation incorporates either or both physical characteristics and intellectual content with treatment. It contains appraisal of the book to draw the attention of the readers regarding subject of the book, its area of treatement, special features, quality and standard, comparative study with like subjects, target group of readers may be given by the cataloguer.

Added Entry

Added entries are the additional entries which are supplemtary to the main entry. Main entry is made under the main author of the book by consulting the main entry. But, if there are any supplementary search points such as, joint author, editor, illustrator, translator, title, etc added entries are made under these access points. The purpose of making added entries is that if a reader does not know the name of the main author under whose name the main entry has been made, he can trace the book under the name of joint author, editor, illustrator, title, series, etc. In the added entries the name of the main author is given and the reader can consult the main entry and get all the information of the book required. Detailed information, as in main entries are not given in the added entries. They bear only the basic information.

In the following situations added entries may be considered.

1. Author-type entries, such as joint author, editor, translator, illustrator and the like.

2. Outstanding names, specially mentioned in title pages, such as person honoured in a pestchrift volume.

3. Series title, if it is important.

4. Distinctive titles supposed to be access point.

5. Analyticals, especially previously published as independent publications and then published in a collective works.

In preparation of main entries headings begin from first indention and in all other entries headings begin from second indention.

2.4   Subject Entry

Subject entries are made for a book while it is expected that the readers may search for the book under subject heading. Sometimes readers want to know how many books are there in the library on a particular subject. The arrangement of subject heading indicates the number of books under a given subject. The subject entry is made under appropriate subject heading selected by the cataloguer. Other information include the name of the author and the title. From the subject entry the reader gets the name of the author and he then consults the main entry to get detailed information for his purpose. Subject entries are one kind of added entries having subject entries as access points.

2.5   Parts of a Book

A book has various parts and each of the parts has its useful functions. It is not the fact that all the books or all kinds of books will have all the parts. But there are certain common elements in all the books. The other parts of books or the additional parts of books depend on the kind of book, kind of edition, the period of publication, the subject, the purpose for which the book is published, and some other factors. Main entry of the catatogue incorporates the essential information of the book to be catalogued. So, the cataloguer must read the book teachnically as the prime source of information as a physical object. The intellectual content is given in the text but the text of a book is not the book itself. A book has a lot of additional information and physical properties. Text or the intellectual content is printed at the centre of the book. Other parts are very important to the cataloguer for technical information.

As physical entity a book is divided in three broad parts and each part has several sections. A book may be wrapped with a detachable jacket known as book jacket with certain information about the book, author or other works by the author.

Authors qualifications, positions held, distinctions and contributions may be printed. Sometimes contents of the book is given. As physical object a book may be divided in three parts as given below :

A. Preliminaries

B. Text or intellectual content, the main part

C. Subsidiaries

Literary works do not contain all the parts but scholarly works contain almost all the parts.

A. Preliminaries

Preliminaries are given at the beginning of the book before the text. This part may have the following sections :

1. Cover title

Cover title is printed on the cover of the book. It may have subtitle, if any, the author's name and the publisher's name.

2. Binder's title

This title is printed or lettered on the spine of the book with abbreviated title and author's name.

3. Half title

It is a brief title of the book printed usually without the name of the author and imprint preceding the title page. If a book is a part of a series, the title of the series is printed on this page.

4. Title page

Title page is the basic and prime source of bibliographic data for preparing main entry, the key entry in the catalogue. The name of the author printed on title page is the official form of the author which is most important particularly in alphabitical arrangement. Both the sides of the title page are vital for cataloguing data. Author added entries are determined by the author-like information printed on the title page such as joint author, editor, illustrator, translator, commentator and the like.

Cataloguing data are printed also on the verro of the page like name of the copyright holder, the copyright date, statement of editions, impressions and reprint. In modern books, the full cataloguing data are given with ISBN, International standared Book Number.

5. Preface

Preface is a note given by the author himself for introducing the book. He gives the intention of writing the book, his objectives and plan of the work. It also contains the scope of the subject and how the subject has been treated in the book.

6. Foreword

Usually foreword is a note written by an eminent person or an authority on the subject concerned, other than the author himself, who intends to introduce the author, the book and the subject and author's treatment of the subject to the readers. Sometimes it is called introduction. But it is comptely different from the introduction given by the author himself.

7. Introduction

Introduction to a book is given by the author himself to discuss his purpose in writing the book, scope and treatment of the subject area, his angle of vision, materials and documents used, his point of view and everything in favour of his academic contribution. In case of a book edited or compiled the introduction is written by the editor or compiler.

8. Table of contents

It is a list of the headings of chapters with page numbers of the beginning of the chapters. It may contain some items of preliminaries and subsidiaries. The elaborate list of contents guides the reader as well as the cataloguer the specific areas and points covered in the chapters concerned.

9. Text or body of the book

Text or body of the book is the principal part of the book. It is the intellectual content written by the author. The parts of the text are indicated by chapter headings.

C. Subsidiaries

1. Appendices

These are printed at the end of the chapters of the textual matter. These are supporting reading matter of the text.

2. Glossary

It is an alphabetical list of words considered by the author for special mention.

3. Bibliography

It is a list a books, journals and other documnets given after the text with short description of each item. The books and other materials listed in the Bibliography either have been referred to in the text by the author, or are meant for further reading.

4. Index

Index is the detailed alphabetical list of words used in the text with corresponding page numbers.

5. Plates, Maps, etc.

The illustrative materials which connot be printed in the text but are bound at the end of text in support of the textual matter. Sometimes illustrative materials are printed within the text. These should be mentioned in the catalogue entry.

The study of parts of a book is a very important job of the cataloguer. The job is known as 'Reading a book technically'. This is essential to show the resources of a document in catalogue entry to guide the reader to select the right book for every reading.

2.6   Physical Forms of Catalogue

The primary information source for making the main entries is the title page of the books to be catalogued. If necessary other parts of the book may be consulted to get essential information. Catalogue entry is the record of bibliographical information of a particular book or other library materials prepared under an appropriate heading containing items of biblographic information arranged in a recognised order. The entry is a single unit record of ilnformation either detailed or selective. In a library catalogue the bib iographic information of a book, both physical and intellectual, should be given in the entry to enable a reader identify and examine a book.

Catalogue entries are also prepared to find a book from various search points. So, more than one entry should be made for a particular book according to the probable search points.

Three kinds of entries such as, main entries, added entries and subject entries are known as catalogue entries. If the physical form of the catalogue is card form, a set of cards are used almost similar to entries. These are not catalogue is card dorm, a set of cards are used almost similar to entries. These are not catalogue entries in true sense of the term because these do not contain any information. These are reference cards used in the catalogue as a guide from one heading to another. Usually *see* and *see also* reference cards are used.

A library catalogue contains these catalogue entries and the reference cards. But this is not the all in the perparatoin of catalogue. The arrangement of catalogue entries is also equally important. Catalogue entries can be arranged in two ways, either in the alphabetical order or in the classified order. In the alphabetical order of the main entries the call number is ignored in arrangement of entries and entreis are arranged in alphabetical order strictly. In classified catalogue the alphabets in the headings are ignored in arranging the cards and cards are arranged according to the call numbers.

For all reasons a library catalogue is not just a list or merely a record of books. It is a complete information source for the total collection of library. The user may search for and find a book under various search points—author, joint author, editor, compiler, translator, illustrator, title, series, etc. He may also get complete bibliographical information of individual book. In the arrangement of a catalogue, cards for all the works by an author are placed in one place. The preparation of the catalogue entries and the arrangmenet of the entires make the catalogue an effective working tool to utilise the resources of the library.

Apparently the work of cataloguing may seem to be very simple. But the various methods of printing and publications, publication of the same book in various forms and editions, choice and form of the author heading, more than one form of names of the same author, headings of corporate bodies, etc. create many problems in

prepatation of the catalogue. Cataloguers themselves cannot solve all these problems. They have to solve these problems with the help of definite rules codified. Such rules have been complied in recognised international catalogue codes. In our country most libraries follow Anglo-American Cataloguing Rules (AACR) British text, 1967 or its second edition, first published in 1978 (AACR 2).

The catalogue entry is written, types or printed on a physical surface. The surface of the material indicates the physical form or the outer form of the catalogue. Both the preparation of the catalogue entries and arrangement of catalogue entries are equally important in case of the library catalogue. The arrangement of entries and methods of such arrangement depend on the physical form. The library catalogue is prepared for the use of the readers. The presentation of the entries on a physical form and finding out such entries at the time of need is of great importantance.

The lirarian has to decide withat outer or physical form of catalogue is suitable for his library and is convenient for the use of the readers and library staff alike. He should bear in his mind the criteria of good catalogue in deciding which physical form is to be preferred. Each physical form has its own advantages and disadvantages. The librarian has to consider all the aspects and to decide the particular physical form of catalogue to be selected in his library.

There are three generally accepted physical or outer form of catalogue :

1. Book form

2., Card form

3. Sheaf form

Any of these physical form as stated above may be selected for a library. But the following factors should be considered to select the particular physical form for the library concerned.

(a) All the entries of the newly accessioned books can be easily placed and methodically arranged from time to time as required.

(b) Similar entries can be easily grouped together.

(c) Entries can be withdrawn easily from the catalogue if needed.

(d) Entries can be newly prepared and rearranged if there is any change in book-collectoin.

(e) Catalogue can be used conveninently and effectively both by the readers and the library staff.

(f) Any change, rearrangedment and withdrawal of catalogue entries will disturb the library service and the catalogue will reamain working all the time.

The physical form used form library catalogue are—

(a) Book form

(b) Card form

(c) Sheaf form

Book form

A catalogue in book form is one in which entries are hand-written, typed or printed in page-form and bound into a volume or volumes. It resembles a book. There many be one or more entries on a page in a book form of catalogue. Blank space is kept in the book form to accommodate new entries for newly accessioned books. The advantage of book form of catalogue are : it can be used just like a book ; the preparation of entries and arrangement of entries are not complicated jobs ; when a catalogue is made open for consultation both the pages, even-numbered and odd-numbered are open to look into; several entries can be consulted at one time; least space, even a table top is enough for keeping a book form of catalogue; multiple copies can be prepared and may be used for exchange.

The disadvantages of book form of catalogue are : entries in this form cannot be shifted from one place to another : entries for new books, either books written by an author or books written on a particular subject, cannot be arranged together, because the space in pages is very limited; if a book form of catalogue is printed, the catalogue cannot be updated; printing of book form of catalogue is very expensive; since the entries are not individual untis, these cannot be arranged according to conventient and useful order; offers no scope for insertion or interpolation of entries from new mateirals, and it is closed records practically.

Card form

A catalogue in card form is the amalgamation of cards containing individual catalogue entries. Each card is a separate and individual unit. Each entry is presented on a card separately. For this reason each card or each entry can be shifted, sorted and arranged in any way desired. The cards are filed in trays which make up the catalogue cabinet. Such a file allows endless inter-insertion, because each card contains only one entry and arrangement of individual cards means arrangement of individual entries. The internationally recognised standard size of catalogue card is 12·5 cm × 7·7 cm. approximately 5" × 3", which is slightly bigger.

Cards are usually ruled with horizontal lines in light blue colour. At the top of the lines a double red lines are horrizontally printed. At the left side a double red lines are vertically printed keeping about one inch space at the left side. Cards cannot be kept independently. These are placed on the wooden or metal trays. About 800–1000 cards are arranged in each tray. The trays are kept in the catalogue cabenet. At the bottom of each card there is a hole. A metal rod is inserted within the holes of the cards inside a tray to protect them ; usually four trays are kept in the catalogue cabinet vertically. So, cabinet bears the number of trays which may be multiple of four such as, 24, 36 or 48-tray cabinet.

The advantage of card form of catalogue are : since cards are flexible units each card is a separate and individual unit and on each card is a separate and individual unit and on each card only one entry appears. The physical unit and entry unit are identical and arrangement of cards means arangement of entries. No entry is dependent on another entry. Therefore, entries can be arranged in any way desired. The overall arrangement of the card catalogue will not be affected if new entries are inserted in the catalogue or entries are withdrawn from the catalogue. Infinite flexibility is assured by this form. In a library new books will be added to the collection and books will be weeded out and withdrawn from the catalogue as a continuous process. Card catalogue can cope with this process. The disadvantages are : this form of catalogue requires cabinet which is expensive; it can be consulted only in the place where it is located; again, more space is requried to place the card catalogue.

Sheaf form

A sheaf catalogue is composed of thin slips of paper put into a loose-leaf binder. The size of a slip is usually $7^1/_2 \times 4"$. About 300–400 slips are bound in one binder. The slips are tied by screws at the left hand side, which can be taken out or placed in their orginal positinos in the loose-leaf binder. There may be one or more entries in one lip. The flexibility of card catalogue is available in shef catalogue to some extent. It has also the advantage of portability like a book form of catalogue. It is also not so expensive. Disadvantages are : the binding mechanism of the sheaf holder and the flimsiness of the paper slips make the operation of insertion and withdrawal of entries less convenient ; there is a lot of wastage of space on slips ; if printed entries are mounted on slips the volume with bulge; sequential scaning is not all that easy ; and guiding is not satisfactory. So, it has not been used as the physical form of the catalogue.

2.7   Kinds of Catalogue

Kinds of catalogue refer to the inner form of the catalogue. It means the inner arrangement of catalogue enctires by which the nature of the catalogue is determined. The main entries are almost identical ill all kinds of catalogue. Main entry incorporates the heading, usually the name of the author, the title and other information of the book, both physical and intellectual. The main entry must contain the call number of the book catalogued. The particular kind of catalogue is. determined by the particular arrangement of the main entries in a catalogue.

In a library any one of the physical forms of the catalogue may be accepted. It may be book, card or sheaf form. But considering the advantages, usefulness, effectiveness and disadvantages of all the physical forms, the card form of catalogue can be selected for the library. No doubt, initially it is expensive but in the long run it proves its worth while the library is fast grown. Book form of catalogue may be accepted in small libraries because it is less expensive. But for large libraries it is better to use the card form of catalogue.

When the particular physical form, usually the card form is selected in a library, dicision must be taken as to the inner form of the catalogue. The following kinds of catalogue may be mentioned in this respect :

1. Dictionary catalogue
2. Classified catalogue
3. Alphabetical subject catalogue
4. Alphabetico-classed catalogue
5. Author catalogue
6. Name catalogue
7. Union catalogue

There are two fundamental and basic order of arrangements of the catalogue entries, the alphabetical arrangement and the classified arrangement. The dictionary catalogue is arranged in the alphabetical order and the classified catalogue is arranged in the classified order. Other kinds of catalogue are arranged in the alphabetical order.

2.7.1 Dictionary Catalogue

It is a catalogue made by amalgamation of all kinds of catalogue entries in one file for author, titles, subject, series, and also entries under joint author, editor, compiler, translator, etc., and cross-references from subject to subject or from one form of name to another. It means the directionary calalogue is a compilation of all the main entries, added entries, subject entries and reference cards.

All these headings are arranged in one alphabitical sequence as follows :

Anatomy	sub
Arnold M.	auth
Asian Drama	title
Biology	sub
Bushnell T.	jt auth
Chatterjee, S.	ed.

Ganguli, O.C.	illus
History	sub
Jackson S.	com
Law	sub
Medicine	sub
Nara o.	auth
Psychology	sub
Shakespeare W.	auth
Travel in India	series

These headings are quite unrelated to each other as they stand. Their positions in the catalogue are determined by the alphabets used in their spellings. This type of catalogue is called a dictionary catalogue because of its resemblance to a dictionary in arrangement, that is, it follows the simple alphabetical order of a dictionary.

It appeals particularly to people who want very specific information, or who are not pursuing detailed investigation of a wide branch of knowledge. If anybody wants to know about plants and roses only, he can be served very quickly and simply by this kind of catalogue, whereas, the student of Botany or Horticulture, who is interested in his subject in all its different aspects will not be properly served by this kind of catalogue. Because the individual entries stand in the catalogue strictly according to the alphabetical order irrespective of their relationships with other entries.

The main reason for the popularity of the dictionary catalogue is that it is so simple to use, as any one who can spell, may use a dictionary, so he may easily use a dictionary catalogue. It is really a prime advantage of a dictionary catalogue that if the reader knows the name of the author, or the title, or the subject heading, he can find the catalogue entry in this kind of catalogue. If the reader knows the name of the author, he will not only find a particular book written by the author, but he

will also find entries of all the books written by that particular author one after another arranged alphabetically. Sometimes entires are made under the titles of the books where the titles are more interesting. If the reader does not know either the name of the author or the title of the book but knows the subject, he can get the catalogue entry under the subject in alphabetical order. Even, he can get entries under a series. All the entries he will find under simple alphabetical order. Users need not know the technical aspects of library science.

In a dictionary catalogue the main entry is made under the individual author or the main author of a book. Added entries are made under the additional authors, joint authors, editor, compiler, illustrator, etc., and also under the title. So, in this kind of catalogue the author gets the prime importance. It has been experienced that most of the readers' enquiries are made under the authors and titles. The dictionary catalogue has two basic advantages, the importance of authors and titles, and the simple alphabetical order. Besides these entries, subject entries have also important role to play in a dictionary catalogue. A dictionary catalogue will not be a dictionary catalogue as such unless it has imcorporated the subject part.

Since the arrangement of entries in a dictionary catalogue is strictly according to alphabetical order, the subject entries are made under specific subject headings. It means the narrowest term should be used to indicate the subject area. While a reader wants to get a subject heading in a dictionary catalogue, he has in his mind the alphabets used in subject heading. Therefore, when a reader wants a book on geometry he will find the subject heading 'geometry' and when he wants a book on algebra he will find under 'algebra'. The books on geometry should be entered under the subject heading 'geometry', books on algebra under 'algebra', and books on arithmetic under 'arithmetic'. The entries wil be placed under the alphabets 'g' 'al' and 'ar' respectively. These should not be entered under the wider subject heading 'mathematics', because in that case the entry will be arranged under the alphabet 'm'.

The headings in a dictionary catalogue are arranged by the accident of alphabets. So, there must be some method by which related subject headings can be correlated

with one another. This is done by the use of references, *see* and *see* also reference cards. For example,

Folk songs	Printing
See	*See also*
Folk music	Colour printing

A dictionary calalogue with references is called syndetic (connective) ; without references it is called asyndetic (non-connective).

The dictionary catalogue depends ultimately for its success on any elaborate scheme of cross-references, which is aften incomplete. Even if it is complete, the process is boring both for preparation of reference cards and use of such cards by the users. If anybody attempts to get an overall picture of class on a wide subject field, there is always a possibility of missing some important headings from one sequence of a dictionary catalogue. It is possible to find a specified book by a certain author, a particular editor or a translator or volumes in a certain series, or books on a given subject or aspects of a subject. But it is not possible to see the extent of the book stock on one subject because the rule of a specific entry separates the branches of a subject as well as related subject fields. The simple alphabetical sequence can become extremely complex as the catalogue grows.

The allied and related subjects are scattered all over the dictionary catalogue and they have to be correlated by the system of cross-references. It is also possible to group similar subjects together by the method of inversion of subject headings. For example,

in place of	inverted headings used
Commercial geography	Geography-commercial
Economic geography	Geography-economic
Human geography	Geography-Human
Political geography	Geography-Political

Thus, all the aspects of geography can be grouped together under the subject heading 'Geography', otherwise all of them would have been scattered under the headings 'Commercial', 'Economic', 'Human' and 'Political' respectively.

The advantages of dictionary catalogue are :

1. It is very easy to consult.

2. No knowledge of classification scheme is required to use this kind of catalogue.

3. It is useful for specific information and ready reference.

The disadvantages of dictionary catalogue are :

1. Usefulness depends on references and cross-references.

2. Allied and related subjects are scattered all over the catalogue.

3. Not much helpful for research workers.

It is worth to note that in public libraries the nature of the majority of requests, is for specific information, and a dictionary catalogue finds favour. But in academic and special libraries users require detailed information on a wide branch of knowledge in all its ramifications. Dictionary catalogue may not be very effective in these libraries. In generic search and detailed investigation it is slower in yielding information and less satisfactory in its results.

2.7.2 Classified Catalogue

Classified catalogue is a subject caltalogue in which the entries are arranged by some recognised system of classification symbol, the notation. The arrangement of catalogue entries follows the classification scheme adopted in a library. In the main entry card these must be the call number of a book. The call number indicates the subject treated in the book. In the arrangement of catalogue entries in a classified catalogue, the name of the author or the heading is ignored and the main entries are arranged according to the call numbers of the books as noted in the main entries. Thus, the main entries are arranged according to classification scheme, in other words, according to subject fields of the books. So, basically classified catalogue is a subject catalogue.

With the introduction and use of bibliographical classification in libraries and with the introduction of open access system in libraries, the classified catalogue has become popular. Another important reason is the subject arrangement of the entries.

In modern times, most of the users' enquires in libraries are subject enquiries, whether the readers know specifically the subject fields or not. In that case classified catalogue will be of much help to them because in the classified catalogue all the entries for the books on a particular subject are placed in one place one after another, as well as, the allied and related subjects will be found in close proximity. Obviously, the classified catalogue presupposes the use of classification scheme in a library and the success of a classified catalogue depends upon the soundness of the classification scheme used.

The classified catalogue should be composed of three separate parts or files, although strictly speaking the subject file or the calssified file is in itself the classified catalogue proper. The three parts are :

1. Subject or classified file or classified catalogue proper.

It is usually arranged according to classification scheme followed in the library. The arrangement of entries is determined by the call number of the books or the notation marked in the catalogue entry, both the main entries and added entries.

2. Author-title file or alphabetical author index.

The index entries are prepared under the names of the authors or the titles as the case may be and arranged in the alphabetical order. Every entry should bear the call number of the book to locate the main entry.

3. Subject file or alphabetical subject index.

The index entries are made under specific subject headings in natural verbal language and arranged in alphabetical order.

Whatever added and analytical entries are appropriate for a dictionary catalogue are equally applicable to a classified catalogue. The main entry is precisely same in both kinds of catalogue. A reasonably intelligible abbreviated entry must be made and filed in the alphabetical author index. Title entry, if required, may be made and filed in the same index. Subject entries under verbal language terms are to be made and filed under alphabetical subject index together with the notations written against them. This arrangement will help to know what notations stand for which subject headings. With the rotations readers will be guided to main entries.

It is an advantage of classified catalogue that the main entry not only falls under the subject with which the book deals, but it also falls in close proximity to entries for books on related subjects. This gives what is called a logical or systematic order. In a classification scheme a broad class is subdivided into divisions and the divisions are subdivided into subdivisions, and subdivisions are further divided into sections. The like subjects are grouped together in a classification scheme and related subjects are grouped in close proximity in a classification scheme. This order of grouping of like subjects is inherited in the classified catalogue because the arrangement of entries follows the classification scheme.

In the classified catalogue the forms of literature are found as closely as possible following the classification scheme. But these are scattered throughout the length of the dictionary catalogue. For example, the works of the English poets are brought together and closely placed in the classified catalogue.

821	English Poetry
	Browning
	Byron
	Keats
	Shelley
	Wordsworth

But these will be scattered according to the vrariation in spellings, that is, alphabets of the names of the poets in the dictionary catalogue. Various forms of Englith literature are also grouped together in the classified catalogue. For example,

820	English literature
821	English poetry
822	English drama
823	English fiction
824	English Essays

and so on.

Added entries in classified catalogue would be required for the books dealing with more than one subject or topic, and these would be given as many class-symbols

as are needed to catalogue fully by the subject content of the books. A book dealing with two subject such as, organic and inorganic chemistry will have two cards, one filed under 547 (organic chemistry) and another filed under 546 (inorganic chemistry). The first card will be the main entry card and will be filed under 547. The second card will be an added entry card with abbreviated information to identify the book such as, name of the information to identify the book such as, name of the information to identify the book such as, name of the author, title, etc. This second card must have the call number written on it to be correlated with the main entry. Just above the call number of the added entry card 546 will be written in a different ink. This added entry card will be filed with all other cards under 546, but the call number will indeicate that although the card is filed under 546, the main entry card is filed under 547. At the bottom of the added entry card 'shelved at' must be written, so as to inform the reader that the card is filed under 546, but the book is shelved at in the stack room together with all other books bearing the notation 547.

The classified catalogue cannot be properly used without statement of an explanation of its arrangement and the help of proper index. Lack of index entries and bad indexing of subjects and their synonyms are fatal to the successful working of a classified catalogue. The guide cards are used in classified catalogue to indicate the subjects grouped under a particular class, division, subdivision or section. Guider cards are coloured cards with a part of upper portion slightly elevated. In the elevated portion the class number or notation is printed and in the guide cards all the subdivisions of that notation and their corresponding subjects are printed. All the catalogue entries are filed under that notation behind the guide cards. In this say the guide cards give the readers the idea of the ramifications of the subjects.

It is said against the classified catalogue that this kind of catalogue is too complicated for the ordinary people to use it. The user has to understand the calssification scheme first and then he may use it. But it is not so. The user can understand the arrangement of the catalogue very easily with the guide cards. if he does not know the notation but he knows the name of the author or title he can consult the alphabetical author index. There he will find the call number of the book

and thus he will find the main entry. If the reader knows the subject, he can consult the alphabetical subject index and then, getting the notatoin, he may find the main entry. Thus, in the classified catalogue there are various points to get a particular entry.

The advantages of classified catalogue are :

1. The main entries are arranged systematically and logically.

2. The respective fields of subjects can be seen in the catalogue, because the subjects are arranged one after another and the allied and related subjects are placed in close proximity.

3. The forms of literature are arranged in one place.

4. It has both the arrangements, classified in the main file or the classified file and alphabetical in the author index and subject index.

5. It is very helpful to subject approach.

The disadvantages are :

1. Readers may have psychological aversin to this kind of catalogue considering its complicated character.

2. It will take more time to find a particular entry in a large catalogue.

3. It does not supplement the order of arrangement of books on the shelves.

4. Subjects not enumerated in the classification scheme may not be available easily in the catalogue.

Other kinds of Catalogue

Alphabetical Subject Catalogue

Alphabetical Subject Catalogue is a subject catalogue arranged in alphabetical order. It is limited to an alphabetical list of subjects together with cross-references necessary to correlate the subjects headings. In this kind of catalogue entries are made under specific subject headings. The subject entries are, then, arranged in alphabetical order.

Alphabetico-classed Catalogue

Alphabetico-classed catalogue is a subject catalogue arranged alphabetically, in

which entries are made under their appropriate classes, each being subdivided alphabetically to accommodate the subjects under broad classes. In this kind of catalogue the entries are not made under specific subject headings as in alphabetical subject catalogue. The subjects are at first grouped in broad classes and then again subdivided with numerous alphabetic subdivisions.

Author Catalogue

Author catalogue is an amalgamation of author entries under authors, joint authors, editors, compilers, illustrators, translators etc., and also titles. The entries are arranged in the alphabetical order. It attempts to bring together all the works of an author at one place instead of scattering them throughout the catalogue according to their subject or form.

Name Catalogue

Name catalogue is a useful variation or expansion of the author catalogue. It is a mixed kind of catalogue in which entries under authors and subjects limited to the names of the authors are kept. It addition to author entries entries under subject while names of the authors are used as subject headings, are made and arranged in form of biographic, memories, criticism of their works etc. The entries are arranged alphabetically. Name catalogue is thus a mixed form of catalogue—a combined author catalogue and a suitable catalogue in which the subject entries are limited to personal and corporate names.

2.7.3 Union Catalogue

All these above mentioned catalogues are meant for a particular library. Each library must have a catalogue and any library may select a particular kind of catalogue for its own users. Union catalogue is somewhat different. While, for any reason, a number of libraries maintain a combined catalogue to record all the resources of participating libraries, the catalogue is called a Union Catalogue. It is made usually in addition to the individual library catalogues prepared for individual library users. The union catalogue is made up of entries supplied by participating libraries to furnish a record of their resources. Usually union catalogue is made for

a library system ranging from that of a central library with several branch libraries to that of a regional library system.

2.8 Summary

Library catalogue is the source of information of the total library collection as well as all the individual documents. It should be prepared and arrangedc in a useful way to make it guide for access to individual documents, parts of document and documents grouped under authors, subjects and any other order useful for readers searching and access to the right documents. Catalogue has two aspects—the physical form and the inner arrangements. The records of individual documents are entries. A document must have more than one entry to fulfil the purpose of searching.

The physical forms are book from, card from and sheaf form. Any one of these should be selected first. Because the inner arrangement of catalogue entries-will depend on the particular physical form. Generally card form is used as physical form because this form has the advantage of individual entity and the catalogue can be organised in any way without disturbing the order of the catalogue. Individual records of documents are the entries. Three kinds of entries are main entries, added entries and subject entries. The parts of a book is very important to read a book technically for cataloguing purpose.

Kinds of catalogue depend on the inner arrangement of catalogue. Kinds of catalogue are dictionary catalogue, classified catalogue, alphabetical subject catalogue, alphabetico-classed catalogue, author catalogue, name catalogue and union catalogue. Entries can be arranged either alphabetical or classified.

2.9 Exercise

1. What do you understand by reading a book technically ?

2. What are the kinds of catalogue?

3. State advantages and disadvantages of dictionary catalogue.

4. What is the structure of classified catalogue ?

5. Define a catalogue entry.

2.10 Reading list

1. Shera, J.H. and Egan. M.E. : The Classified Catalogue, 1956
   B : Cataloguing, its theory and Practice, 1924

2. Hunter, E.J. Bakewell, K.G.B. : Calaloguing, 1983

3. Tripathi, S.M. : Modern cataloguing Theory and Practice, 1982

4. Horner, John : Cataloguing, 1970

5. Quigg, p. : Theory of Cataloguing, 1971

Unit 3 ☐ Analytical entries ; References ; Filing

Structure

3.1 Objectives

The card form of catalogue should be selected as the physical form of the library catalogue considering the advantages, usefulness and effectiveness. It has the flexibility, mobility and manoeuverability for planned movement of the catalogue card for any kind of planned arrangement. The catalogue is a working tool both for the users and library staff. In addition to the catalogue entries discussed under kinds of catalogue a different group of cards are used in the catalogue particularly in alphabetical arrangement. These types of cards are essential to make the catalogue an efficient working tool

3.2 Introduction

The analytical entries are entries but these entries are not meant for a whole document. These are used for parts of a document based on particular aspects of a document. Such parts of a document must have their own separate entity different from other parts. In strict sense of the term these are not catalogue entries but a guide or direction to the particular part of the document. Filing is making the arrangement of the cards in particular order in an organised method to facilitate the repeated use of the cards and keeping them in the same order for further use.

3.3 Analytical Entries

Melvil Dewey defined analytical entry as "added entry for a distinct part of a

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work or collection, which may be either a part or the whole of a volume or volumes with or without a separate title page." According to American Library Association Cataloguing Rules (1949) Analytical entry is "the entry of some part of a work or of some article contained in a collection (volume of essays, serials etc.)." Analytical entry must incorporate the basic information and identity of the book from which the analytical entry is being made.

Anglo-American Cataloguing Rules (1967) states "An analytical entry is an entry for a part, or a number of parts, of a publication for which a comprehensive main entry has already been made. Its purpose is to describe those parts of the publication that cannot be treated adequately (by either/author or subject approach) in the entry for the whole publication. If the part analysed is a bibliographically independent work, it is catalogued according to the rules for separately published monographs, with a series statement indicating its relationship to the more comprehensive work." International Conference on Cataloguing Principles (I.C.C.P.) Paris, 1961 defines that analytical entry is "An entry for a part of an item for which a comprehensive entry has been made."

Analytical entry is treated as a kind of added entry. It gives additional information and someties more dat to the users. Analytical entries gives generally three kinds of information by three types of entries.

These are—

1. Author analytical

Author analytical entries are used for books, such as collection of the works of an author, collection of contributions of more than one author, collection of essays of a number of authors, collections of seminar and conference papers, festchrist volume in honour of a person and in such type of books where individual contributions are to be catalogued separately as independent entity where title of the book does not represent individual contributions. In these cases the main entry is made under the name of the author as printed on the title page of the book., The main entry does not reflect the total contents of the book. In case of collection of seminar papers or conference papers, the main entry is made under the editor and analytical entries will be made under the names of the authors of individual papers.

Author analytical entries should be made while

1. a part of the book is written not by the author himself but by a different person under the second author, and

2. two or more titles of the same author are collected in the same book.

Title analytical

Title analytical entries are made under the titles of contributions distinctly different from each other, such as collection of one act plays or short sltories by the same author or different authors, under the titles of seminar or conference papers.

Subject analitical

Subject analytical entries are made under subjects of specific areas of a work while the broad subject heading of the work does not reflect the independent specific subject areas.

It is to be noted that these three kinds of analytical entries have to be made for all these contributions. While the cataloguer considers it necessary to prepare one or more analytical entries for a particular publication as a special case entries can be made. In such cases the requirement of the users, importance of the author, title or subject part, methods of cataloguing in the library, kind of the library concerned should be considered for making one or more analytical entries. In all analytical entries information of the main book must be mentioned as reference to get the relevant material. The reference should be made with the prefix 'in' so that the user can understand in which book concerned material is available.

The following is an example of author analytical entry.

Phillips, John

Folklore of Great Britain (in Folklore of the world, by Susan Burke ed., London, York Press, 1982. 22 cm. p.p. 132-158)

Title analytical entry (example)

Folklore of Great Britain

Folklore of Great Britain by John Phillips (in (Folklore of the world, by Susan Burke ed. London, York Press, 1982, 22 cm, pp. 132-158)

The analytical entry will contain the analytical part, descrition of the original book, author of the book and other description. In the preparation of analytical

entreis author analytical entry is the first priority, then as required title and subject analytical entries. The description of original book is known as analytical note.

'References'

All the catalogue cards are arranged strictly according to alphabetical order in the dictionary cataogue. In the alphabetical arrangement cards are placed first by initial letter than by other letters in the first word and then other words in the heading and so on. When a reader uses the catalogue he proceeds to enqurie first by initial letter first word and other words. The the reader knows specifically the alphabets used to compose the words, he will get the entry definitely. But if he does not know the entry word, it is very difficult to get the entry, even he may not find it. It is the weakness of the alphabetical arrangement. Moreover, there may be more than one synonym of a particular word composed of different alphabets. The readers will not be able to get the entry if he does not know the specific term used in the heading. If an author has both real name and pseudonym, it will be a problem, under which form of name the reader has to enquire.

These problems are to be faced whenever one has to use, the catalogue in alphabetical order in particular. 'Reference' cards are used in the alphabetical arrangement to solve these problems. 'Reference' card is not a catalogue entry card because it does not contain any sort of information about the book catalogued. This is only a sort of guide card which guides the reader from one heading to another heading under which it is expected to be found out. Usually 'reference' card guides the reader from the heading unused to the heading used. The used heading will be found in the catalogue as an entry. If the reader enquires the book under the unused heading he will be guided that the book is not entered under the heading he enquires but it is entered under the heading guided to.

As a direction from one heading to another heading The 'references' are made in two situations. 'References' can be made between the headings that are synonymous, and between the headings that are related. Between synonymous headings *see* references are made and between related headings *see also* references are used.

See references are used to refer from a heading not used in the catalogue to the heading used in the catalogue. For example,

Kindergarten

See

Primary schools

It means that all the books on both kindergarten and primary schools are entered under the subject heading 'Primary schools'. The readers, who enquire the books of kindergarten are being informed that books will be found under the subject heading 'Primary schools' and those will not be found under 'kindergarten'. In this case if the library does not make the *see* reference under the heading 'kindergarten', the readers enquiring the books on kindergarten would not find the books although the books are there in the library.

See also references are used to refer from one heading used in the catalogue to another heading used in the catalogue for further reading because the two headings are related in any way. *See also* references refer to additional materials and particularly to correlate subject headings. For example,

Drawing

See also

Painting

Here it is indicated that books are there in the library under the subject heading 'Drawing' as well as books are there under the subject heading 'Painting'. Both the subject headings, will be separated from themselves because of alphabetical order. But readers interested in drawing may be interested in painting also. So, the readers interested in drawing are guided to the subject heading painting for further study or additioinal information.

See also references may also be made from general or broader subject to specific subject or branches of the subject. For example,

Physics

See also

Heat

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Another kind of *see also* references used are known as subject cross-references. In this case the references are made both ways. For example,

Taxation	Revenue
see also	*see also*
Revenue	Taxation

Subject cross-references move both ways and correlate both the headings.

Filing

While the catalogue entries have been perpared the next very important job is to arrange the cards in the catalogue trays of the cabinet. The preparation of catalogue cards as well as the filing of cards or arranging of the cards in a particular order in the cabinet are equally important. The preparation of catalogue cards is imporant because the entries show the identity of individual items, a number of materials in a group and materials under a subject in linear order where like and related subjects are arranged in close proximity. The entries reflect the resoruces of the library as a whole. But the resources of the library cannot be utilised by the users if the entries are not arranged and filed properly. If the filing is faulty the readers would not be able to find the required catalogue entries.

Users are primarily concerned with the filing or the arrangement of catalogue entries. Within a particular filing order he gets the catalogue entry first, then he consults the entry for infomraion. If he is unable to find a particular catalogue entry in the filing order the information in the entry has no value to him. In classified catalogue the filing is rather simple because cards are filed according to notational order. Filing is difficult in alphabetical arrangement. Uniform arrangement should be made in filing the cards. There are two fundamental methods by which the cards can be filed in alphabetical order. These are (1) word by word filing (Nothing before something) and (2) letter by letter filing (All through). The same alphabets or words may change their positions if they are arranged in a different way. For example,

Word by word	Letter by letter
Book	Book

Book collecting	Book binding
Book of English poems	Book collecting
Book of famous discoveries	Bookish
Book worms	Book of English poems
Book binding	Book of famous discoveries
Bookish	Books
Books	Book sellers and publishers
Book sellers and publishers	Book worms

The phrase 'Nothing before something' is a way of describing word by word filing. The space between words is regarded as nothing

Each word is considered to be a single unit in word by word filing, whereas each letter is taken as single unit in letter by letter filing. Letter by letter filing ignores presence of space, punctuation marks, etc. It is convenient to follow word by word filing. The instructions are—

"When the same word, or combination of words is used as the heading of different kinds of entries, arrange the entries alphabetically by the word following the entry word. Disregard kind of entry and form of heading except as follows : Arrange personal surnames before the other entries beginning with the same word ... Subject entries under a personal or corporate name are to be filed immediately after the author entries for the same name ... file the title entries after the subject entries."

For the subejct arrangement the following order should be followed.

"1. Subject without subdivision.

2. Form, subject and geographical subdivisions, inverted subject headings, and subjects followed by a parenthetical term interfiled in one alphabet, disregarding punctuation.

3. Period subdivisions, arranged chronologically.

4. Phrase subject headings, interfiled with titles and other headings beginning with the same word."

"Title entries are arranged alphabetically, considering each word in turn ; the initial article is disregarded, but all other articles and prepositions are to be regarded."

3.4   Summary

Filing is no less important than preparation of catalogune entries. Catalogue entries are individual record of the books and other library materials and as a whole the information resource of the total collection of the library for the users. For proper and effective use of the catalogue the individual entry or group of entries arranged in an organised order must be made available to the concerned user for instant access to the catalogue entries whenever required. Filing of entries directs the user to the right point in least possible time. Good filing helps the the library staff to arrange the information resource or the library catalogue in proper order and it helps the users to get access to the right entry in least possible time.

Analytical entries are information sources for particular parts of a book under author, title and subject not reflected in main entry, added entries and subject entries. 'References' are the guide cards for access to the right sources otherwise not accessible.

3.5   Exercise

1. State the importance of analytical entries.
2. What are the kinds of analytical entries?
3. Discuss the usefulness of 'references'.
4. What is the importance of filing?
5. State the filing order.

3.6   Reading list

1. Hunter, E.J. and Bakewell, K.G.B. : Cataloguing, 1993.
2. Horner, John : Cataloguing, 1970
3. Tripathi, S.M. : Modern Cataloguing Theory and Practice, 1982
4. Sengupta, B. : Cataloguing, its Theory and Practice, 1974.
5. Quigg, P. : Theory of Cataloguing, 1971.

MODULE—2

Unit 4 ❑ Subject Cataloguing, Descriptive Cataloguing, Shelf list

Structure

4.1 Objectives

Main entries and added entries help the user to find a book if he knows the name of the anthor and sometimes the title. But if he is interested to get a book on a particular subject or subjects, he will not be able to get those books without specific subject entries. The dictionary catalogue is composed of author-title part and subject part. The preparation of subject part of the catalogue is known as subject cataloguing. Shelf list is the current record of total library holding prepared and maintained by the Cataloguing Department.

Subject cataloguing refers mainly to the preparation of subject part of the dictionary catalogue. Basically, there are four types of subject need :

(a) Reader is unterested in a particular subject and he remembers the subject but neither the author nor the subject.

(b) A specific self-contained subject is required, then the reader will select one or more books.

(c) A range of related subjects is required to select a number of books.

(d) One subject in relation to one or more other subjects (phase relationship) may be required.

Primarily the subject part of the dictionary catalogue helps the readers to get the required books.

4.2   Subject Cataloguing

Preparation of subject part of the dictionary calalogue is known as subject cataloguing. A dictionary catalogue needs a subject part in addition to its author-title part, and the cataloguer has to prepare and arrange entries under specific subject headings with which the book deals. The cataloguer has to see that each subject heading is connected up with correlated ones by means of a scheme of cross-references. Various factors need to be considered in order to obtain a clear picture of the arrangement of subject headings. Among these the following are important.

1. The number of books on a subject needing subject heading.

2. Subjects or aspects of the subjects treated in a book with their relationships.

3. The categories of readers.

4. The kind of library.

5. Whether the library has open access or closed access system.

The size of the library has an important bearing on subject cataloguing as well as on the upkeep of a catalogue. In a big library the subject headings need to be subdivided and new or more complex subject headings will be required as the library grows. In an open access library the classification symbols provide much reflections of subjects and their ramifications, but in a closed access library the subject cataloguing is very important to show the ramifications of subjects with subdivisions and correlations among subjects dealt with in the books.

The subject cataloguing in alphabetical order is made in three stages. The first step is the determination of the subject or subjects of a book and a number of books of similar nature. The second step is the selection of subject heading or the term chosen to represent that topic in the ctalogue, under which the subject heading will be made. The third step is the subject entry or making the entry under the subject

heading chosen for a particular book and a number of books of similar nature to indicate the subject contents of the book or books. Subject cataloguing is made in order to show what books the library has on a given subject.

A book should be carefully examined to determine its real subject contents. The cataloguer must see :

1. What it is about ?

2. What was the author's intention in writing the book ?

3. What class of readers will find it most useful ?

In some cases a glance at the title page is sufficient to determine the subject, where this falls or when it may seem desirable to confirm, the cataloguer should read the title page or he may have to turn to the preface or introduction. Sometimes the list of contents may be the useful guide or even in some cases of extreme doubt the cataloguer should read the text of the book.

When the subject of the book is determined the next step is to decide the subject heading which most truely represent the contents of the book or a considerable part of it. The subject heading selected should also fit into other books of similar nature, as well, because a subject heading is used for a number of books. There is no heard and fast rule regarding the selection of subject heading. Books are not alike and subjects change as the field of knowledge advances. New political groupings bring about different geographical divisions or regions. Scientific inventions make it necessary to coin new words or terms as subject headings.

4.3   Selection of Subject Heading

There cannot be any hard and fast rule regarding the selection of subject headings as the situation varies from library to library. But certain norms should be maintained to be uniform and consistent in the work. The following guidelines should be adhered to for the selection of subject headings.

1. Subject heading terms should be used by which the subject can be truely represented. The term should be uniform and clear and should not

be ambiguous. Terms selected should not overlap in meaning. For example,

    Cricket—game

    Cricket—insect

2. Most specific term should be used. The subject heading should signify accurately and rightly the subject area. For example.

    Marine Biology

    Agricultural Economics

3. Subject heading chosen must represent common usage. For example,

    Incunabula > Early printed books

4. Common and popular subject headings rather than scientific and technical headings should be used except in a special library. For example,

    Ornithology > Birds

    Toxicology > Poison

5. Plural rather than singular terms should be used. For example,

    Farms

    Canals

6. Terms should be used which express correct point of view. For example,

    Preventive Medicine

    Educational methods

7. Combined terms should be used for related subjects. For example,

    Banking and Finance

    Mines and Metals

8. Subject headings should be subdivided as and when necessary. For example,

    Poetry—Collection

    Poetry—History

    Poetry—Techniques

Formation of the subject headings

The following examples illustrate the different forms used for the formation of subject headings.

1. Simple or single noun

    Economics

2. Compound headings

    Market and monopoly

3. Adjective with noun

    Mechanical printing

4. Inverted heading

    Chemistry—physical

5. Sub-heading

    Industry—investment

    —manpower

6. Regional division

    Archaeology—Western India

7. Subdivision of a place

    U. S.—Constitution

8. Heading with form

    Philosophy—bibliography

9. Period subdivision

    Indian history—ancient period

10. Personal name as subject heading

    Shakerpeare

11. Phrase heading

    Geographical at distribution of plants

12. Qualified heading

    Restless Africa

13. Opposite heading

    Organic and inorganic chemistry

4.4   Descriptive Cataloguing

In modern times publication of the books has become a complex job Characteristics of book publication, intricacies of treatment of subjects, interwoven subject areas, anthor's style of writing the books put the cataloguers in a difficult position to record the exact nature of the books in the catalogue entries. Basic information given in the main entries are found inadequate for proper exposition of the intrinsic value and quality of the book. Analytical information are to be given in addition to basic information in the main entries depending on the nature of the book both for physical aspect and intellectual content as well as treatment and style of writing. These additional information given by the cataloguer are known as descriptive cataloguing. According to C. A. Cutter the objectives are "to assist in the choice of a book as to its edition (bibliographically) and as to its character (literary or topical.)"

ALA 1967 developed Cutter's idea. The objectives are :

1. To state the significant features of an item with the purpose of distinguishing it from other items and describing its scope, contents, and bibliographic relation to other items.

2. To present these data in an entry which can be integrated with the entries for other items in the catalog and which will respond best to the interests of most users of the catalog."

The purpose of descriptive cataloguing is to identify a book in hand by establishing the identity of the book. Books really differ in two ways :

1. Books differ from one another if they contain different works.

2. Books containing the same work differ from one another if they are different editions, different printing, or different issues.

The main entry contains Title and Edition statements. The Imprint transcription, the Collation and additional information to establish the identity of a book catalogued.

Below the collation paragraph notes are given as additional information. Notes may deal with such things as the book's authorship or the book as physical object or the books relation to other book's, e.g. editions and translations. In some instances, notes may even list the contents of the book and other special features, even subject of the book.

Descriptive cataloguing is a wide subject area. From the physical characteristics in detail to the content and its treatment in the book with anthor's intellectual contribution and style of presentation are the part of descriptive cataloguing. On the basis of the subject area and characteristics of the books the descriptive part may be short, medium or detailad depending on the additional information available and need of the users. The cataloguer has to consider the particular stage of the book to be catalogued. The three stages are :

1. Notes

2. Annotation

3. Descriptive cataloguing

These three stages of description include both physical features of the book as well as intellectual contribution with the treatment of the subjects and aspects of the subject. There is no hard and fast rule for their limits.

Notes

The basic and essential items of information of a book are given in the main entry such as, author, title, imprint and collation. All these indicate the identity of a book. But in many cases it is found that these essential items of information are inadequate to identify a book properly. Additional information are required for this purpose. Such factual additional information given in the main entry in addition to the basic information is known as notes.

Anglo-American Cataloguing Rules (AACR) 1967 define notes in the way that, "All information in the catalogue entry after the formal description (that is, after the body of the entry) is given in the form of notes. Notes are made to assist in identifying a publication to record information about the library's own copies of it, or to present any other information that may be useful to those consulting catalogue

entries for publication. Notes amplify or qualify formal description when the rules for the body of the entry do not permit the inclusion of the needed information in any other form than a note, or when the incorporation of the information in the body of the entry would be misleading, cumbersome, or inappropriate. They explain a heading when the explanation is not apparent elsewhere in the description. They may also indicate the nature and scope of a work, and its literary form."

Notes may be given in the main entry for the elucidation of information given regarding the author and his work, of information under the imprint and collation with reference to its physical make up. Although notes are regarded as something auxiliary to the main entry information, but within limits they are actually an integral part of the main entry. Notes may be about bibliographical details such as, imperfections, presence of cancelled leaves, peculiarities of arrangement, etc. and they may also contain information which is not explained in the basic part but are required to be given in the main entry.

Notes are given in the form of explanatory information regarding the author, his name and position, the title to understand, the subject rightly, the edition and imprint for further details, collation for further physical information, as well as further note on series and contents of a book. Notes are intended to be in the nature of bibliographical information only and not in the nature of annotation regarding intellectual contribution.

Annotation

The bibliographical or physical information of a book is given in the notes and the information is factual without any comment or review. Such factual information does not throw light either on the subject and its treatment or on the author's particular viewpoint, which is the author's intellectual contribution. At the time of reading a book the reader may like to know whether this particular book will serve his purpose rightly at the point of time. There are numerous books written on particular subject as well as many books written by particular author. A reader wants a particular book at a point of time for a particular purpose. So, the reader must get the right book.

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The basic information in the main entry and the notes together may not indicate the intellectual content and its treatment, standard of the book, scope of the subject treated, author's point of view and the like, because these pieces of information do not convey the intellectual treatment made by the author in a book. This is done by annotation. Annotation is the process of describing the leading features and ideas of books in a concise manner, whether by analysis or criticism or both together. It is also a descriptive extension of the title page of a book in which the qualifications and authority of the author, scope of the subjects treated, purpose and place of the book are indicated.

Annotation characterises the book more elaborately by adding information and description about the author, his qualifications, experience, status and mastery over the subject and the like and about subject matter, scope, level, treatment, point of view etc. and also about relationship with other books of the same nature.

The objects of annotation are two fold. Annotation may be made to arouse interest in books that the reader would otherwise pass by, and to give the reader sufficient information to enable him judge the value and usefulness of a book for his particular purpose.

Annotation may be information or elucidatory, critical and evaluative or a combination of these. Informative annotation means exposition of certain point or aspects regarding the author, subject and treatment. Critical annotation means a critical review of the intellectual contribution mentioning both the qualities and shortcomings. Evaluative annotation signifies detailed assessment of the author, subject area treated, treatment of the subject, viewpoint of the author, special features to be mentioned, relationship with other publications of the same nature, assessment of the standard of the book, and the like, made by the cataloguer in an unbiased way. Annotation should not be lengthy or emotional. It should be brief using selected meaningful words and should heighlight the salient intellcetual contribution.

4.5   Descriptive Cataloguing

Descriptive cataloguing includes both notes and annotation which are the main body of descriptive cataloguing. These are given below the essential part of the main entry as basic information source. Descriptive cataloguing incorporates additional information and critical analysis of any item of main entry in addition to the notes and annotation without affecting their form and structure.

Anglo-American Cataloguing Rules (AACR) 1967 states that "The object of the description is cons'stently to describe each item as an item, to distinguish it from other items (especially from other items in the library), and to its bibliographical relationship with other items". The limit of description is stated as, "The item is described as fully as is necessary to achieve the object stated above, but with economy of data and expression."

Shelf List

Whatever may be the kind of catalogue used in a library, every library must take a shelf list. The shelf list is maintained in the card form just like the card form of catalogue, although shelf list is not the catalogue. In the true sense of the term shelf list is the official record of the library collection. It is not meant for the readers or users of the library. It is for official use only. Shelf list is prepared and maintained by the processing or the cataloguing section of the library

Shelf list is kept in card form according to the arrangement of books on the shelves. In the shelf list each book is represented by a shelf list card giving the name of the author, title and other necessary information of a book. The shelf list card must have the call number and the accession number of the book. If a book is complete in more than one volume and all the volumes are there in the library, the accession numbers of each volume must be recored in the shelf list card. If a book has more than one copy, all the accession numbers of all the copies must be given in the shelf list card. The call numbers determine the arrangement of the shelf list cards in the same way as it has already determined the arrangement of books on the shelues.

Each book must have one shelf list card, whatever may be the number of copies or volumes. The arrangement of books on the shelves and the arrangement of cards in the shelf list are identical. So, by the location of the shelf list card it is possible to locate the books on the shelf. Each shelf list card contains the accession number of the book newly arrived and the accession numbers of the subsequent copies. In this way each and every copy of a book is recorded in the shelf list. Each shelf list card records all the copies and volumes of a particular book kept in the library. As a whole the shelf list is a complete record of all the library books.

Whenever a book is withdrawn or weeded out from the library the corresponding shelf list card is withdrawn from the shelf list. If a particular copy of a book is weeded out or withdrawn it is noted against the corresponding accession number. In this way the shelf list is an up-to-date record of the library collection. Whenever a book is accessioned in the library it is to be verified whether a shelf list card is kept in the library or not. If the shelf list card is not there a new shelf list card is prepared for the book and if the shelf list card is there, the accession number is noted in the card.

A shelf list record is an essential instrument of the library for access to its collection. It shows the material assigned to a particular classification number. It is an invaluable aid to classification. The shelf list is a very important record for all the departments in a library.

The main purpose of maintaining a shelf list is to keep an updated record of the library materials. It records each and every material in the library. So, it is the essential and indispensible tool for the stocktaking in the library. Stock taking is to be done in the library periodically. Each item in the library holding is to be verified with the offical record and the shelf list is the only record for the purpose. It also helps to understand how the sections of the library stock is being developed and how the library is developing as a whole.

Although the main purpose is stock taking, the shelf list helps the library administration in many ways, such as it is a key to the call numbers and a check against duplicate call numbers, an aid to the classifier and an inventory recrod. It

can act as a classified catalogue if the library maintains a dictionary catalogue. It can act as a measuring stick for book selection, it is a historical and statistical record of the book stock, also can be used as the insurance recrod. It can be used for many other administrative purpose.

Thought the classified catalogue and the shelf list follow the same arrangement according to the calssification scheme used, the shelf list cannot replace the classified catalogue. Certain sections of the book stock like rare books, reference books etc., are usually separated from their logical positions in the classification scheme and separately shelved. The shelf list will only represent the actual physical location and in this respect will vary the sequence from that of the classified catalogue. Moreover, unlike shelf list the classified catalogue will have one entry for all copies of the same book.

4.6   Summary

The dictionary catalogue, as a complete catalogue, consists of two parts, author part and subject part. Preparation of subject entreis under appropriate subject headings, methods of showing interrelationships of subjects, interconnecting the subject part by way or references are the area of subject cataloguing.

Decriptive cataloguing is the exposition of significant features of a book to which the attention of the readers must be drawn so that the right reader gets the right book for his right purpose. The reader must identify the right book from among the books of similar nature.

The shelf is the unit record of the books irrespective of number of volumes and number of copies. The shelf list holds the full record of total collection of the library identifying each item as separate physical entity.

4.7   Exercise

1. Discuss the importance of subject cataloguing in a library.

2. State the methods of subject cataloguing in alphabetical order.

3. Define descriptive cataloguing.

4. Discuss the differences of Notes and Annotation.

5. What is shelf list ?

4.8   Reading list

1. Hunter, E.J. and Bakewell, K.G.B. : Cataloguing, 1993

2. Quigg, P. : Theory of Cataloguing, 1971.

3. Tripathi, S.M. : Modern Cataloguing Theory and Practice, 1982.

4. Girja Kumar Krishan Kumar : Theory of Cataloguing, 1986.

5. Mahapatra, P.K. and Chakrabarti, B : Organising Information in Libraries, vols. I & II, 1999.

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Unit 5 ☐ Economy in Cataloguing

Structure

5.1 Objectives

Ever-increasing cost of cataloguing in the libraries in terms of stationaries, manpower, expertise of cataloguers for the constant flow of books as new arrivals pose a constant problem in libraries. In case of card form of catalogue this is particularly true. Some method of economy measures must be taken to avaid arrear in cataloguing department. Books arrived in the library but without cataloguing these cannot be used by the readers and they are deprived of the library services—such situation is denial of library services. Therefore, some economy measure has to be taken to improve readers' services.

5.2 Introduction

Economy measures can be taken in the libraries at two levels, individual library cataloguing and cooperative library cataloguing. Selective and simplified cataloguing can be practised in individual libraries as independent institution. Cooperative and centralised cataloguing can be practised by a number of libraries by sharing the cost of cataloguing and in this way cost of cataloguing in individual libraries can be minimised.

5.3 Selective and Simplified Cataloguing

The librarians are confronting the problems of increasing cost of cataloguing.

shortage of skilled staff, ever-increasing volumes of additions, necessity of getting the books through technical process without delay. Readers need the books immediately they are published. The arrear in the cataloguing department deprives the readers of using the books and it is also against the objectives of the library. No library can give the proper service if its cataloguing department contains arrears.

Full catalogue entries and less used entries make the catalogue bulky. The larger the catalogue, the longer will be the time requried to consult it. The entries for important works might be overlooked among those for less important ones. If full cataloguing is practised in a library the whole cataloguing process becomes more cotstly in money, time and manpower as the catalogue grow. The jobs of checking of catalogue entries, filing of catalogue entries and maintenance of catalogue to keep it updated become time consuming and more complicated.

Selective cataloguing is adopted to reduce the size of catalogue and cost of complilation. When selective cataloguing is practised the entire book stock is not catalogued. The books are sorted into the following groups :

1. Items requring full cataloguing,

2. Items requiring partial cataloguing, and

3. Items of transitory nature that need not be catalogued, but only to be kept in stack for some time.

The first group contains all reference works, upto date manuals and text books, standard works, good editions of classics and the authoritative works on all subjects.

The second group contains obsolete text books or editions, monographs on obscure subjects, books of secondary improtance and books not used very much.

The third group consists mainly of pamphalets, ephemeral literature and items of current topical interest. These materials may have no permanent value, but may be kept in the library. These may be helpful for answering some questions of current affairs and topical interest on which books have not yet been published. The subject interest of those materials may have no value after certain period.

Full cataloguing should be made for first group. For the second group the number of entries may be reduced in the following ways :

1. An author entry only to be made for

    (a) works of author-interest,

    (b) out of date text books,

    (c) non-fiction books except the latest publications,

    (d) previous editions of the standard works.

2. An author and one subject entry to be made for popular non-fiction books Added entries may be omitted.

3. No analytical entry under author and subject.

It is very difficult to suggest exactly how, and in what circumstances it is to be practised. It is a method that imposes a great responsibility on the individual judgement of the cataloguer to decide the criteria of selection in cataloguing. There is no hard and fast rule to be followed in selective cataloguing. It rests entirely on the cataloguer. But no method of selection in cataloguing should be followed without careful consideration. The size and kind of the library, the category of readers and their requirements must be considered.

Full cataloguing should be made for reference department. Selective cataloguing may be made for lending department. Special library must not adopt any form of selection. Methods of adopting selective cataloguing may vary in open access and closed access library.

In simplified cataloguing the economy is effected by reducing the number of entries for certain books and by reducing the length of entries by omission of certaion details laid down by the cataloguing rules. Simplification in the main entry may be made but it should be looked into that the method will not impair the purpose of the main entry to identify a book. Generally simplification in the main entry may be made in the following ways—

Using initials of forenames of the authors,

Mentioning only the title, not sub-title or alterntive title,

No repeat of author's name,

Omitting imprint except date of publication,

Abbreviation in collation,

Omission of notes and contents,

No annotation

In another way simplified cataloguing may be made by reducing the number of entries for a particular book. Main entries must be made for all the books but added entries may be omitted as far as practicable and number of subject entries may be reduced.

Therefore, in simplified cataloguing the entire stock of materials in a library is catalogued but economy is made in number and length of entries, whereas in selective cataloguing the entire stock is not catalogued. But as the catalogue is the working tool in the library for access to documents, nothing should be done which will impair the efficiency of the catalogue. Economy should be done very carefully and cautiously.

Both selective and simplified cataloguing have advantages and disadvantages. The advantages are—

1. It saves time of cataloguing,

2. It reduces the cost in terms of space, money and manpower,

3. Work is done with more speed,

4. Amount in arrear in cataloguing is nil or much reduced,

5. Convenient to maintain the catalogue,

6. Users also save time in consulting the catalogue.

The disadvantages are—

1. Readers may not get full view of the library collection,

2. Some important books may be ignored by the cataloguer and overlooked by the readers.

3. Readers may miss the materials not catalogued.

4. Readers may not get all the materials they are interested in.

5.4   Cooperative and Centralised Cataloguing

Cooperative cataloging is the sharing by a number of libraries the work and expense of cataloguing, so that each library in the cooperating library system as member library may get the benefit of such cataloguing. Centralised cataloguing is organised by a central library or organisation so that all branch libraries may make use of the cataloguing and thereby avoid duplication of cataloguing work. Cooperative and centralised cataloguing may be organised at national, regional or local level. It may consist of a scheme of which every library of a region may make use ; or it may be a scheme whereby the central library in a large system catalogues the entire book stock of all its branches.

The success or failure of these two systems depends very largely on an agreement among the participating libraries as to the rules to be followed in the making of entries and in the choice of headings. Besides the necessity of uniform rules, uniform type of cards is necessary. There should be an agrement in every details of the scheme and its implementation. The catalogue prepared by these systems is a union catalogue because it holds the records of the resources of a number of libraries.

As stated earlier the very purpose of the union catalogue has been the promotion of library cooperation. It is the record of all documents in two or more libraries giving the names of all libraries where copies of each document can be found. As regards compilation there are two approaches : one is to ask the participating libraries to send regularly their holding data to the centralised agency which will consolidate them on master copy and circulate it to participating libraries for marking out the items held by them. Experience has shown that former method is better.

The advantages of these systems are—

1. Individual libraries may be relieved of the necessity for cataloguing a large proportion of the their additions, and thus permitting them to do other works.

2. Duplication of routine jobs and making catalogue entries may be avoided.

3. Better standard of cataloguing is assured.

4. Uniformity in cataloguing is secured even in ordinary and small libraries.

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The disadvantages are—

1. The cost of such scheme and delay in securing catalogue cards may render it impracticable.

2. The libraries will be deprived of a valuable part of their technical work.

3. In the present library situation it is very difficult to come to an agreement for such scheme and its implementation.

5.5 Summary

Cost of cataloguing, card form of catalogue in particular, is increasing in high ratio but the library grant is coming lower comparatively. Some measures have to be taken to minimise the cost of cataloguing. The economy measures can be taken by selective and simplified cataloging in individual libraries, and by cooperative and cantralised cataloguing with the purpose of library cooperation.

5.6 Exercise

1. State the reasons for economy in cataloguing.

2. How can selective cataloguing be implemented?

3. What are the disadvantages of simplefied cataloguing?

4. Discuss the operational aspects of cooperative cataloguing.

5. What is centralised cataloguing?

5.7 Reading list

1. Hunter, E.J. & Bakewell, K.G.B. : Cataloguing, 1983

2. Sengupta, B : Cataloguing, its Theory and Practice, 1974.

3. Quigg, P. : Theory of Cataloguing, 1971.

4. Tripathi, S.M. : Modern Cataloguing Theory and Practice, 1974.

5. Horner, John : Cataloguing, 1970.

Unit 6 ☐ Organisation and Administration of Cataloguing Department Utility of Cataloguing Codes

Structure

6.1 Objectives

Library catalogue is the most essential tool in the library. It records the total library resources. At the same time catalogue is the only working instrument to explore and utilise the resources. Library catalogue and the shelf list, which is the most improtant administrative record in the library, are prepared, maintained and kept updated in the cataloguing department. Planning and organisation of cataloguing department as well as administration and management of this department are the lifeline of the library management as a whole.

6.2 Introduction

In every library there should be a Cataloguing Department, under the supervision of senior and experienced library officer. The department is not necessarily restricted to cataloguing and classification. Some departments are closely related to it, such as acquisition (book selection, ordering, receipt and accessioning) reference service, bibliographic service, stock verification and stock taking, union catalogue project, physical verification and binding. Reclassification and recataloguing, technical administration and other related works.

Henry A. Sharp mentioned that "Cataloguing is one of the branches of library work in which there is room and need for specialization. It is something that requires a certain type of mind, a wide knowledge, not only of books and their authors but of past and present events and subjects, and above all, the possession of a flair for something more than accuracy." The effectiveness and success of the catalogue depend on the capability, training, devotion, expertise and knowledge of the cataloguers.

It is to be kept in the mind that the catalogue is prepared for the users of the library. Success of the catalogue depends on the effective use of the catalogue by the users. So, their requriements must be fulfilled. The nature and character of the catalogue should depend on the kind of the library, nature of the total holding, users approach to the catalogue. The cataloguers must have professional education, technical knowledge of book publication, authorship, characteristics of the authors, progress of knowledge, advancement of science and technology, growth of the world of subjects and knowledge, technicalities of book publication and overall idea of world of books.

6.3 Programmes of Cataloguing Department

Programmes for the schedules of work activities must be well thought and well planned. A programme or an activity once implemented cannot be changed or rescheduled because the flow of the will be adversely affected. Catalogue is a permanent record and it will grow continuously. Generally, the work schedules of the department are :

1. Classification of the books incoming from Accession department, assigning classification number, author marks and preparatoin of call numbers after checking whether a new acquisition or a copy of book already in the holding. In that case copy number with accession number should be recorded.

2. Preparatoin of shelf list entry for a new book or adding accession number in the shelf list entry.

3. Filing of main entries, added entries, subject entries and shelf list entries as the case may be.

4. Preparation of the books for stack room and circulation.

5. Maintaing and updating the catalogue.

General principles of the Cataloguing Department

1. Physical form of the catalogue.

2. Kind of catalogue.

3. Classification scheme and the particular edition to be followed.

4. Choice of catalogue code and the edition.

5. Methods of subject cataloguing.

6.4 · Planning and Organisation

Activities of the cataloguing department may be divided in two ways. First, collection of the documents of human knowledge in various branches, identification of single unit of documents, organisation of documents according to subject areas and their subdivisions so that the readers can be able to select a book as well as a number of books as required for the time being.

This part is known as organisation of knowledge in libraries. Secondly, activities of readers' services such as, author information sources, subject information sources, using the catalogue, circulation, reference service, readers' assistance, users' guide, bibliographical service, information service, current awareness service. The two types of activities are created, implemented and controlled by the cataloguing department.

Considering the responsibilities of this department the followiong aspects are to be considred,

1. Planning

Setting the aims and objectives and for implementation of that short-term, medium-term and long-term programmes should be implemented.

2. Organisational activities

Creating the organisational infrastructure, identification of activities, assignment of duties and responsibilities, creating good and efficient work enviornment, continuing

communication with other departments of the library, monitoring and evaluation of activities to activate the work flow.

3. Work force

Adequate number of workers at various levels should be arranged considering their academic and professional qualifications and technical knowledge with adequate professional knowledge and duties and responsibilities to individuals must be assigned.

4. Coordination

Coordination must be made at two levels, internal and external. Internal coordination between classification and catalogning, catalogue and shelf list, preparatoin of catalogue entries for circulation should be made and monitored. External coordination between catalogue department and stack room, circulation counter, reference department, readers assistance periodical section, bibliography section, information service etc. must be made.

5. Control

Continuous monitioning and control is essential to keep the activities and workflow properly functioning. Wrokflow should be in chain system so that no lapse or overlapping hapens and workflow moves time bound.

Setting the Principles of Cataloging Department.

The following principles should be set up for routine work of cataloguing—

(1) Whether the catalogue will follow any kind of economy in cataloguing ;

(2) Physical form of the catalogue ;

(3) Kind of catalogue

(4) Classification scheme to be followed and and its edition ;

(5) Catalogue to be followed its edition ;

(6) Filing rules to be followed ;

(7) The method of subject cataloguing considering heading, structure and 'referemces' ;

(8) If needed, method of using the classification schemes in the cataloguing job, using rules and interpretation of rules in the code by recording extent of work for such jobs.

Principles of technical work

(1) Extent of modification of the classification scheme and the code for the interest of library uses.

(2) Selectoin of headings of authors and tixtes and their structure.

(3) The extent of descriptive cataloguing as required for various types of books.

(4) Selection of books for selected cataloguing and extent of description in different cases.

(5) Methods of keeping official records of cataloguing department such as, authrity file, manual for catalogures, statistcal record, and the like, mcataloguing staff and their responsibilities

The kind of the library, size of the library, annual intake of materials will govern the number and level of staff. Generally the staff pattern may by followed.

1. Chief Cataloguer, usually an assistant librarian in the university library.

2. Duputy chief cataloguer.

3. Cataloguers, senior and junior as technical staff

4. Non-technical staff.

Technical staff must have Masler's degree in academic and professional education. It is better to know more than one Indian and foreign languages. They must have extensive and intensive knowledge in the world of books, trend of publication, scholarly publication houses in India and abroad reputed for scholarly and subject publications. They should know the current trends of the world of subjects, growth and ramification of subjects, scholarly journals on specialised areas. Good memory is an asset of good cataloguers. They should know the ever-expanding world of knowledge in all ramifications as well as interrelationships among the new subject areas. Honey A Sharp mentions that "a cataloguer must be something more than a scholar and man of the world; be must he an organiser, an ardent and patient worker, and the possessor of more than usual modifum of tact, common sense and good humour."

Statistical report

Periodical statistical report must be kept in the cataloguing department. The workload of the department will be reflected in the statistical report periodically. It will show the progress of the work, quantum of workload within a particular period, qualitative work done within a period; the progress and regress of work and the reasons for that will be reflected in the report which will guide the rectification of such situation. All the data of the activities of the cataloguing department will be placed to the librarian for his perusal and the chief cataloguer will be able to make the elibrarian aware about the reality of the situation and can suggest to improve the situation. This will act as guidline of future course of action. The statistical report should be prepared every day and it will lead to weekly and monthly report.

The data of the statistical report may be as follows :

1. Number of books classified,

2. Number of main entries prepared,

3. Number of added entreis, subject entries and reference cards prepared.

4. Number of cards filed,

5. Number of books prepared for circulation and sent to that section.

6. Books calalogued subject-wise.

7. Number of shelf list entries prepared and arranged,

8. Jobs done for the maintenance of the catalogue.

6.5   Authority file

Authority file is most important record in the cataloguing department. It must be prepared and maintained properly. Any formal decision taken at a meeting and any official order relating to the cataloguing department must be recorded in the authority file for future guidance as well as to be uniform and consistent in all kinds of activities. This will be a guideline for future work. Nobody can remember what he has done earlier, even if he is the same person. So, every decision, steps taken in a situation must be recorded officially. Persons working in the cataloguing department may be promoted, transfered to another department or leave the job. The

authority file will guide the next person who will assume the change or perform the activities. Whenever any problem occurs the authority file will act as the guidance.

The decisions recorded in the authority file for guidance to the cataloguers may be as follows :

1. Author heading-form and structure,

2. Title heading-form and structure, whether alternative and explanations name will be used.

3. In case of pseudonym the main entry is made under pseudonym or real name. If under pseudonym what is the real name and vice versa.

4. Subject heading-form and structrure.

5. In case of corporate body which name has been used. ..

6. Whether uniform title has been used.

7. Subject heading list.

8. In simplified cataloguing what is the area and limit.

9. In selected cataloguing the basis of selection process.

10. In case of India names which spelling has been used.

11. If not included in international subject heading list, a list of those subject headings particularty India subject headings.

12. Spellings, punctuatoin marks etc. as used in the catalogue entries.

13. Any other matter.

Authority file can be arranged in card form or in vertical file.

Report

Weekly and monthly report of all the activities and jobs done should be in report form. By cumulation these will be included in the Annual Report. Work done, activities performed, problems encountered, and how these have been solved. The quantum of work done and their quality and standard, suggestions for better

performance, equipment and facilities required for better performance. This departmental report can be plaed before librarian to record in the Annual Report of the library as well as Annual Report of the parent organisation.

Utility of Cataloguing Codes

Good cataloguing is a part of the very essence of the librarian's job. When the cataloguers are uniform in their practice it is possible to help the readers to find their way amongst the entreis easily and quickly. Catalogue codes is a set of rules for the guidance of cataloguers in establishing headings and in preparing entries for a catalogue. Sometimes it includes directions as to the filing and arrangement of entries. Without a code there will be no system and no key. This does not mean that the reader must learn the code. But it does mean that when he is referred from one heading to another, there is a method behind it, which with all the references is for the advantage of the reader.

Cataloguing is essentially a laboratory art. It cannot be learnt by memorising a code or studying it. It must be applied from the very beginning. One can only become a cataloguer by cataloguing. The difficulty is that there are so many rules to apply that sometimes a cataloguer is bewildered.

Although there are many rules in a comprehensive code which may be of special applications of a wider range. The basic rules are to be followed in cataloguing to be uniform in the work and to be consistent in consulting the catalogue entries. The purpose of the cataloguing code is to enable the cataloguer to be unform in his treatment, but it is also to help the reader to find what he wants from the catalogue as easily and quickly as possible. For this the codes are the 'rules of road' or the 'rules of conduct' and are based on the past experience of many eminent cataloguers.

It is easier and senible for the cataloguers to follow the cataloguing code to be consistent in their work. The code helps the cataloguer to avoid his own flair and judgement in his decisions and to base them on set rules for achieving uniformity and consistency. Cataloguers may change in course of years, but the rules of conduct for preparing the catalogue must not change frequently. Moreover, if the code is

followed in various libraries in a region it would be convient for the readers who generally go to different libraries of the region to follow and understand the details of the catalogue.

6.6 Summary

Cataloguing department is the most important department in the library. Most of the technical activities are performed in this department. Persons in this department must have technical knowledge and professional expertise. There must be experienced persons to perform technical jobs and senior level professionals to guide and supervise all the activities in a coordinated way. The activities of the department not necessarily restricted to classification and cataloguing. Several departments are closely associated with this department such as, acquisition department, reference department, Readers' services, stack room, bibliographical service, and the like. Success of most library services depends on the efficiency of cataloguing department. Cataloguing is essentially a laboratory art. Catalogue code must be followed to be uniform and consistent in the cataloguing job.

6.7 Exercise

1. What are the programmes of the Cataloguing Department ?

2. What are the organisational activities in the Cataloguing Department?

3. State the setting the principles in the department.

4. Write a note on cataloguing staff and their responsibilities.

5. Define authority file.

6.8 Reading list

1. Sentupta, B. : Cataloguing, its Theory and Practice, 1974·

2. Horner, John : Cataloguing, 1970

3. Quigg, P. : Theory of Cataloguing, 1971

4. Tripathi, S.H. : Modern Cataloguing Theory and Practice, 1974

5. Girja Kumar Krishan Kumar : Theory of Cataloguing, 1986.

MODULE—3

Unit 7 □ Cataloguing Codes

Structure

7.1 Objectives

In the preparation of the library catalogue the cataloguers must follow uniformly the standard of rules to be consistent in their work not only in a library but in a good number of libraries also so that the same users can find entries of books in any other library. This is possible only if the format of catalogue entries are indentical. The cataloguing codes have been prepared for this purpose. Thlere may be slight variations in the approach in different codes but the principles of uniformity and consitency are present in all the cataloguing codes.

7.2 Introduction

Library catalogues are as old as the libraries, the storehouse of human knowledge for the posterity. The evolution and histyory of human civilization and culture is

evident from the recorded knoweldge what they preserved for the generations to come. The physical base of keeping records, the language. The script, the methods of recording created the documents. These were practically storage record or inventiories. After the invention of printing any number of copies could be available. Format of documents was standardised. Copies of documents or books were available in a large number of libraries. Records of library holdings changed the character from inventories to finding lists for users search. During eighteenth century library catalogues were someties classified and someties alphabetical and indexes were considered useful.

From the ancient period to the first half of the nineteenth century the rules for the library catalogue were formulated primarily for individual libraries or by individuals as conceptual framework which were not practically used in the libraries. But there was an evolution of the shape of the catalogue and cataloguing practice.

The theory of cataloguing is the exposition of the basic principles of the library cataloguing, the underlying factors in cataloguing and the various alternatives and methods, which may be adopted in cataloguing. The libraries are of various kinds and sizes, they may be general or on specific subject areas, library materials may be used for various purposes, and the particular aims and objectives may vary from library to library.

Not withstanding these differences, the basic principles of library catalogue are the same, and these are based on the theory of cataloguing. The differneces in the shape of the library catalogues are the local variations depending on the nature and character of the particular library, size of the library, needs of users, library collection and such other factors.

Such variations in the library catalogues should not be the result of arbitrary situations and decisions of isolated individuals. There must be uniformity and consistency in library cataloguing for the present at any point of time and also for the future growth. Such guidelines or rules conduct are given in the catalogue codes. Catalogue codes are formulated to put order into library cataloguing having considered the various problems of cataloguing. The libraries, whatever may be the size, kind or nature follow a particular code to prepare the catalogues on the basis of the theory

of cataloguing. The theory of cataloguing and the cataloguing practice are thus complementary to each other.

Attempts have been made, from time to time to formmulate the catalogue codes in the past centuries, and whatever new problems were found, new code emerged. During last one and half centuries a good number of cataloguing codes have been formulated based on the changing situations of library cataloguing. For the sake of uniformity, consistency and library cooperation the use of many codes in defferent parts of the world has been replaced by the use of single code as far as practicable, although local variations are there.

7.3   The British Museum Code, 1841

The first catalogue code to suit the comprehensive and modern labrary cataloguing is the **Rules for compiling the catalogue of printed books, maps and music in the British Museum,** first published in 1841 and popularly known as British Museum Code. There were 91 rules in the first edition. The current edition contains 41 rules with additional unnumbered rules for maps and music. This code was primarily designed to prepare an alphabitical catalogue consisting of main entries under the names of the authors with full bibliographical details and added entries with short bibliographic description.

The code has rules for heading for main and added entries, description and references. Although it deals with the printed books, non-book materials like maps and music are also taken care of. Main entry is made on the basis of the title page of a book and the relationship with the book in hand with the other books are made by added-references. The prime importance of this code is that it was used for the organisation of knowledge in a great national library of the contemporary world as well as, it was the basic code or source code for the future cataloguing codes.

7.4   Cutter's Code, 1876

Rules for a Dictionary Catalogue by Charles A. Cutter, first published in 1687, and fourth edition in 1904, is a very important code. It is usually known as Cutter's code. The first edition had 205 rules and the fourth edition has 369 rules. The code

consists of author entry, title entry, description, form entry, alphabetical subject entry and filing rules. In the true sense of the term it is a code for a dictionary catalogue.

Cutter set forth a good compromise between cataloging theory and practice. He had a very pragmatic approach to library cataloguing practice. He envisaged that 'convenience of the user should be preferred to the ease of the cataloguer ; and he recommended 'best known' form of the author's name in case of alternative forms of names. These principles have greatly influenced the latter codes. His theory of specific subject entry and subject cross-reference laid the foundation of the subject cataloguing in the dictionary catalogue. His rules for the corporate authorship, choice of headings etc., and the provision for short, medium and full cataloguing to suit different types of catalogues created a new era in library cataloguing. Cutter's code is a comprehensive code with all kinds of catalogue entries such as, author, title, corporate body, subject, form, etc. as required in a dictionary catalogue.

Cutter had a new concept for library cataloguing. His main contribution was that he gave full freedom to the cataloguers to design the catalogue suited to the users of particular libraries. He defined all the principles of cataloguing and provided ample notes and illustrations for the guidance of cataloguers. He has provided well-defined rules for rubject cataloguing.

7.5   A. A. Code, 1908

All the previous cataloging codes were created either for a particular library or by an individual. The Cataloguing Rules : Author and title entries, popularly known as A A Code or Anglo-American Code or Joint Code, published in 1908 was an attempt to a catologuing code across national borders. The British Library Association and the American Library Association came to an agreement to cooperate in preparing a joiont cataloguing code mainly for the English-speaking world.

AA Code was influenced by almost all the previous cataloguing rules but it had its own character. With 174 rules the code gives emphasis on choice and form of personal and corporate authors, title main entry headings, added entries, references. It also gives emphasis on description in the main entry. Although the code does not

have a statement of principles, it gives a list of definitions, list of abbreviations showing how and where to use and transliteration of alphabets. The code has many entries as examples and main entry format layout. The code emphasises on intellectual reponsibility for the main entry.

It is a code for author-title catalogue and formulated 'chiefly by the requirements of large libraries of a scholarly character'. Therefore, it gives emphasis on real name of the author in case of authors having pseudonyms and on earlier form of name in case of change of name of authors and change of titles of periodicals. Natwithstanding certain shortcomings this code had been used in many libraries all over the world for a long period.

7.6 ALA Code, 1949

With the use of Library of Congress printed catalogue cards in American libraries and the experience of cataloguing for about three decades there was considerable pressure for the modification of the AS code. A subcommittee was set up for the revision of the code. The preliminaty work was in progress by the two Library Associations but because of the outbreak of the Second World War the British Library Association could not participate as desied.

The American Library Association made the preliminary Edition of revised code in 1941. The full Edition was published in 1949 as the American Library Association Code, since it was not a joint endeavour with the British Library Association. For the main and added entries the code has 158 rules, yet the code is more elaborate and better-arranged than the A A Code. The A A Code, 1908 consisted of 88 pages while the ALA Code contained 265 pages. The rules have been simplified in a better way with good and latest examples.

The ALA Code was based upon the A A Code. The number of rules were less but under almost each rule there were many sections and sub-sections. The structure and the enumeration of this code inherited the tradition of A A Code. The elaborate rules and rigid character were the causes for criticism. In fact with some deviations and modificaions it was the extension of the A A Code.

7.7   Classified Catalogue Code, 1934

The great doyen of library science Dr. S.R. Ranganathan formulated the Classified Catalogue Code, popularly known as C C C. It was first published in 1934. The colon classification and the Classified Catalogr   made the cycle complete for the organisation of knowledge in libraries.

The Classified Catalogue Code is not just a Catalogue Code, it is the contribution of Dr. Ranganathan to the fundamental principles and theoretical basis of cataloguing. The principles enunciated by Dr. Ranganathan throws a new light and give new interpretation to the theory of cataloguing. The canons of cataloguing and the general normative principles give the subject a sound theoretical base on which the library catalogue can be properly functional.

7.8   Canons of Cataloguing

The canons of cataloguing are the specific normative principles. The canons are important, first, to interpret the cataloguing rules "to meet new situations brought up by a particular document or by changes in the practice of book production, and secondly, to provide suitable guidance for cataloguing work." Ranganathan enunciated the following canons for cataloguing : Ascertainability, Prepotence, Individualisation, Sought-Heading, Context, Permanece, Currency and Consistency.

The Canon of Ascertainability directs the information given on the title page of the document and other pages of the same should determine the choice and rendering of the main entry and its different parts as well as the other entries including subject entries and references.

The Canon of Prepotence indicates that the position of an entry should be concentrated among the various entries in a catalogue. If the same words are used in the headings these entries should be clustered beginning from high potency to low potency in a linear order. The potency should go on decreasing rightwards and downwards from the first letter, in case of dictionary catalogue or first digit, in case of classified catalogue.

The Canon of Individualisation means that the heading of any entry, name of person or corporate body, or geographical area, or title, or series should be made to

denote one and only one entity having uniqueness. The entry element should be individualised by any means. The synonyms or homonyms may.be fatal in catalogue searching.

The Canon of Sought-Heading envisages that right decision should be taken for the heading to be used in the library catalogue regarding the type of heading, choice of heading, rendering of the choice of heading and particular added entries arising out of the heading of the main entry.

The Canon of Context presupposed that the rules in a catalogue code should be formulated and used keepoing in mind the physical features of a book, the nature and kind of library, the existing and anticipated publications of the same nature. It is also important to amend the rules from time to time to cope with the changes in the context.

The Canon of Permanence gives emphasis on the principles that the entry elements in the catalogue entries, particularly the heading should not be changed unless rules concerned are changed in the catalogue code.

The Canon of Currency makes it clear that the term used to denote a subject in a class index entry of a classified catalogue or subject heading in a dictionary catalogue should be of current usage. The common term may be preferred to special term because such term is understood both by specialist and common people.

The Canon of Consistency ascertains that the rules of catalogue code should make provision for all the added entries to be consistent with the main entry. It should also be ensured that the entries relating to the documents should be consistent with one another in certain essentials such as choice rendering and layout of the heading and other entry elements.

Formulating the canons of cataloguing as specific normative principles Dr. Ranganathan stated that these canons have the implications of the Five Laws of Library Science in the sphere of cataloguing for specific use. In case of any conflict in between the canons, the implications of the Five Laws should be considered to solve any problem. Thus, the canons of cataloging should be studied in the light of the five laws of library science.

Besides these specific normative principles Dr. Ranganathan has suggested General Normative Principles. These principles are the fundamental laws of cataloguing. These laws or general normative principles should be considered very carefully in taking any decision in cataloguing. The General Normative Principles are given below—

The Laws of Interpretatioin suggest the interpretation of the catalogue code as a legal text. Sometimes there may be conflict between two rules or the rule may seem to be inadequate to make a catalogue entry properly, particularly in case of composite documents. These problems should be solved by the laws of interpretation.

The Law of Impartiality signifies that if there are more than one alternatives, the decision should be taken on sufficient grounds after considering carefully all the aspects and no decision should be taken arbitrarily. For example, whether it is a case of joint authorship or multiple series the choice of heading should be made on equal status.

The Law of Symmetry indicates that if there are two situations or entities having symmetrical counterparts, e.g., Joint authorship, and one of the situations or entities is given weightage on a particular context, the other situation or entity should be given equal corresponding weight. The canon of sought-heading may be considered in this respect.

The Law of Parsimony envisages that if there are two or more alternative rules bearing on a particular situation the one leading to an overall economy of manpower, money, material and time. The Law of Symmetry and the Law of Parsimony may seem identical, but there is subtle difference.

The Principle of Local Variation is the most important one in cataloguing. It signifies that the international code should make room for factors to be considered by a national catalogue code and make provisions for linguistic catalogue code for multilingual country like India. The National Catalogue Code or Lingustic Catalogue Code should take care of rules to be applied in local library situation in individual libraries. The format of catalogue entry, arrangement of entries, rendering of

personal names, entry elements, script and transliteration, selective and simplified cataloguing and such other factors should be based on local needs and requirements of individual libraries.

The Principle of Osmosis suggests that whenever there will be a change in catalogue code or new catalogue code will be introduced, all the documents newly arrived should be catalogued according to new code and retrospective cataloguing should be made as early as possible. The old system should be changed immediately and the existing collection should be processed according to new catalogue code at an early date.

The specific and general normative principles formulated by Dr. Ranganathan are based on pragmatic approach and make the library catalogue an effective working tool for the users.

It may be mentioned that Dr. Ranganathan also brought out the Dictionary Catalogue Code in 1945 and the second edition appeared in 1952.

Towards an Intrnational Catalogue Code

The preliminary edition of the ALA Code drew the attention of the librarians all over the world. Andrew Osborn reacted very sharply on this edition of cataloguing rules. He wrote "The Crisis in Cataloguing" in 1941 in which he criticised the strucure of the rules. He argued that the cataloguing rules were too many and complicated for using in a library catalogue. The rules were legalisatic and these would not serve the practical purpose. He advocated that the cataloguing rules should be relatively less in number, simple and pragmatic in approach. According to Ranganathan the cataloguers should be given more freedom to interpret the rules and to make the catalogue based on the requirements of individual library.

After the publication of the ALA Code in 1949 the American Library Association invited Seymour Lubetzky in 1951 to review and to make a critical study of the ALA cataloguing rules. Lubetzky analysed the ALA Code and was of the opinion that the rules were too many in number, many rules were too long, sometimes confusing

because of duplication of rules to meet an identical condition and too many specific rules for almost same type of documents. The rules were based on the type of work and the code was enumerative. Thus, it became lengthy, complicated and far from satisfactory working tool.

Lubetzky published his cataloguing rules and principles in 1953. He spoke in 1953. He spoke against the codification of cataloguing rules via elaborate enumeration of so many types of work and complicated lengthy rules. He argued that catalogue code should be a less complex one and it should be based opon well-defined principles. He infused new thoughts in the formulation of cataloguing rules and practically changed the concept of cataloguing. Lubetzky's arguments and suggestions were incorporated in his code of cataloguing rules : author and title entry ; an unfinished draft published in 1960. He advocated a conceptual change in formulating cataloguing rules by recognising the fact that the cataloguing rules should be based on the principle of generalised 'conditions' of the authorship and should not be based on in umerable 'cases' of the types of documents. By this way the number of cataloging rules would be less in number, less complicated and more functional.

The analysis and criticism of the existing cataloguing rules emphasised the need for new cataloguing rules in the light of these discussions. Catalogue code revision subcommittees were formed both by the American Library Association and British Library Association. Discussions were held for several years on the formulation of new set of cataloguing rules. Dr. Ranganathan was a great advocate for creating an international catalogue code. He envisaged that there would be one international catalogue code but the code should have provisions for rules to be applicable according to local variations with supplementary rules for national catalogue code, liguistic catalogue code for need of individual library.

The International Federation of Library Associations (IFLA) set up a Working Group on the coordination of Cataloguing Principles in 1954. This was a step towards international agreement in cataloguing rules. A preliminary meeting was held in London in 1959 and it was decided that an inlernational conference would be convened for an agreement on basic principles of cataloguing. Thus the internatioinal Conference on Cataloguing Principles (ICCP) was held in Paris in

1951. After many discussions the cataloguing principles were accepted. The International conference was well represented by the delegates from many English-speaking and non-English speaking countries and there was an agreement to accept the principles of cataloguing for uniformity at international level.

7.9   AACR 1967

The Anglo-American Cataloguing Rules, 1967 popularly known as AACR, 1967 or AACRI is the first international catalogue code based on the cataloguing principles of ICCP, 1961 and aimed at uniformity in catalogue entries. But due to disagreement on very limited areas there are two editions of AACR, one is the British text and another is the North American text, although the basic structure is the same. Usually the British text is used in India.

AACR, 1967 has been formulated on the conceptual framework of Lubetzky making it a 'condition' code. It means that the conditons of authorship have been considered for choice and form of main entries and headings, and not the type of work or the document. In formulating the cataloguing rules the authorship is of prime importance, whether the work is under personal authorship, shared authorship, concealed authroship or under the corporate body, editorial direction and the like. In some inevitable situation type of work has been mentioined but this has been done for group heading.

The rules in AACR have been formulated primarily keeping in mind the needs of general research library but for the sake of uniformity these can be applied to all kinds of libraries. There are rules for both heading and entry element as well as bibliographic description. The rules are comprehensive covering a wide variety of materials, books and serials, documents and microforms, published works and manuscripts. There are also rules for maps, motion pictures, filmstrips, music, phonorecords, graphic materials, etc. The rules for various types of materials have been designed in such a way that the entries for book and non-book materials may be compatible, and thus, all types of materials can be included in the same catalogue.

AACR differs from all the previous codes in its general approach to cataloguing. Previous codes emphasised specific rule for various types of publications and various classes of persons and corporate bodies. So, when no rule is provided the entry would have to be made by analogy which someties becomes misguiding and inadequate. The lack of underlying principles as guiding force impairs the effectiveness of catalogue as a finding tool. AACR is based on certain fundamental principles and it is superior to all previous codes in structure, design, arrangement and effectiveness.

The attributes of AACR may be summarised in the following ways :

1. The rules are based on a set of cataloguing principles after reaching common agreement at international level and these have been followed as consistently as possible.

2. The choice and form of heading for entries have been treated as separate problems, except when form subheadings are involved.

3. The choice of entry is based on the determination of authorship responsibility. The rules for entries have been designed after analysing the various patterns of authroship responsibility distributed between persons, corporate bodies etc.

4. The particular form and construction of heading of main entry has been treated as a problem of name, the choice of particular name, the form of that particular name and the conformation in which the name should be presented.

5. The rules have been designed in conformation with the requirements of mutiple-entry alphabetical catalogues which will incorporate all entries under names of persons or corporate bodies under a uniform heading or are correlated by references.

The rules in AACR, 1967 are divided into three main parts. Part I is concerned with entry and heading and Part II with description. Part III is concerned with specific types of non-book and special types of materials with rules for main entry and rules for description. The structure and arrangement of the rules are logical and systematic.

Chapter 1 deals with the determination of heading of the main entry. Chapter 2 deals with the correct form of heading under names of persons and chapter 3 for

headings under corporate bodies. In case of title entry chapter 4 deals with uniform titles. References have been covered in chapter 5. Chapter 6 deals with separately published monographs and other non-serial publications. Chapter 7 covers the serial publications. Chapter 8 deals with incunabula and chapter 9 with photographic and other reproductions. Chapter 10-15 deal with other non-book and special types of materials. The code has six appendices—glossary, rules for capitalisation, abbreviations, rules for numerals, punctuation and diacritics and rules for entry and heading that differ with the North American text.

It was intended that the rules would undergo continuous revisions and modifications. A good number of modifications have been made and the amendment bulletins have been issued from time to time.

AACR 2

The Anglo-American Cataloguing Rules, Second edition, 1978 is popularly known as AACR 2. The AACRI was widely accepted by the librarious all over the world as a broad-based effective catalogue to be used in all kinds of libraans. The limitations of AACRI were overcome by the amendments made by the suggestions of users. AACR was primarily meant for manual cataloguing on cards. During late sixties automation came to library field and during seventies computer application in large libraries in dveeloped countries became enevitable. A changeover was imperative from manual cataloguing to machine-readable cataloguing.

The growing impact of computerisaation in library management and the need for standardistion in cataloging entry format created a situation where standard catalogure entry format and description in catalogue entry were directed to international standard. In addition to this situation, the growth of centralised and cooperative library networks, creation and exchange of bibliographic information at national and international levels, exchange of information format among different countries necessitated an interriational cataloguing code to be used in all kinds of libraries in various countries having standardise catalogue format.

The American Library Association and the British Library Association were already in the argument to revise the AACRI by appropriate amendments and additions on the basis of the experiences in library cataloguing and changing

circumstances. The Descriptive Cataloguing Committee of American Library Association got formal representation from the Canadian Library Association and the Library of Congress. All these organisations came to an agreement to formulate uniform catalogue code. Thus, the differences in the British text and North American text were diminished. During the period of discussion the International Meeting of Cataloguing Experts (IMCE) held in Copenhagen, 1969 took a programme of International Standard Bibliographic Description (ISBD). It was incroporated in two texts of AACR in 1974 as amendments. All these paved the way for a new edition of AACR under changed cricumstances.

In AACR 2, there have been many changes but there are external, usually in the entry format and presentation of description to make them suitable for computer application, because every item to be catalogued must be described in a standardised format. The description in the entry format must have several basic components. These basic components must be entered in the same order and to be preceded by a consistent method of punctuation. In computerised cataloguing such standard format facilitaties local, national and international exchange of information. In cataloguing the book A Midsummer Night's Dream by William Shakespeare the cataloguer knows the name of the author and the title and where to put these items of information in the catalogue card if he makes it manually. The computer cannot distinguish between author and title, since these are simply strings of characters to the computer. So, the format, description and the entry must be made in machine-readable standard format, where the locations of descriptive records are pre-indicated.

There have been some conceptual changes in AACR 2. For example, in AACR 1 the heading of entry is the most important factor, whereas in AACR 2 description or entry format is of vital importance. Such conceptual changes also indicate the external format of the entry to make it standardie. By all these changes the second edition does not supersede the first edition but continues the work by modifications, amendments and additions. The second edition it its presentation, is based on the same underlying principles of the first edition with the same objectives and functions of library catalogue. The second edition has extended the objectives and function by providing extensions of catalogue processes, bibliographic services

and international exchange of data. Moreover, in modern times libraries are more dependent on non-book, graphic, non-printed documents, audio-visual, micrographics and other special types materials.

There have been some changes in terminology in AACR 2 not used in AACR 1. Heading (usually author) has been termed as Access point, 'A name, term, code, etc.,' under which a bibliographic record may be searched and identified'. Imprint has been replaced by 'publication, distribution, etc., area' ; collation has been termed as 'physical description area' and some other new terminologies have been used, such as, 'statement of responsibility', 'other title information', 'statement of extent' and the like. Statement of responsibility denotes the 'author' of a work and statement of extent indicates the pagination of a printed book or the playing time of a sound recording. The general material designation (GMD), to be included if required, designates the broad class of material to which the item being catalogued belongs, such as, map, graphic materials, manuscript, microform, motion picture, music, video-recording, etc.

There is a very important provision in AACR 2 specifying three possible levels of description in the catalogue entry. It allows standardisation, flexibility and uniformity in catalogue entries. The description at each level conforms to the international standard bibliographic description. The levels are the first level, second level and the third level. The area of description and the data to be included are increased according to level of description.

AACR 2 has been designed for all kinds of libraries and all sizes of libraries having all types of library materials, book and non-book. The code is divided in two parts. Part I deals with the rules concerning the description of entries for the items being catalogued, and Part II deals with the rules concerning the determination and ertablishment of headings or access points in the catalogue entries under which the users are expected to Bind the entries. The rules proceed from general to specific in both the parts. Part I relates to physical description of the item catalogued and the level of detail required for each element of description. Part II relates to choice of access points, heading for persons, corporate bodies, uniform titles and also references. In this part rules are provided for one main entry and added entries as and when required.

The description of an entry is divided into the following eight areas—1. Title and statment of responsibility ; 2. Edition ; 3. Material (or type of publication) specific details ; 4. Publication, etc ; 5. Physical description ; 6. Series ; 7. Note ; and 8. Standard number and terms of availability. Each of the above mentioned areas has been divided into a number of elements set out in the rules.

One of the important aspects of AACR2 is that the necessity for judgement and interpretation by the cataloguer has been well recognised in cataloguing. The judgement and interpretation may be based on the requirements of a particular catalogue or the items being catalogued. The rules envisage the use of judgement by cataloguers for local requirements. But such judgememt must be applied in a uniform and consistent manner within a particular context and must be recorded properly.

It is worth to note that AACR 2 Revisicns 1985 came out in 1986. The primary chapters of AACR 2 affected by changes, additions, or deletion include chapter 1, "General Rules for Description" ; chapter 6, "Sound recordings" ; chapter 8, "Graphic Materials" ; chapter 11, "Microforms" for "Description", and chapter 25, "Uniform Titles under" "Headings, Uniform Titles, and References". Rules that have been changed substantially appear on separate sheets of paper that can be tipped into the main text. Each sheet is dated 1985 to distinguish it from earliar revisions. This looseleaf format is undoubtedly desirable.

7.10   Summary

There are various factors in cataloguing the library materials. The sizes of libraries, kind of libraries, the library materials of different nature, requirements of individual libraries, users' approach to library catalogue and such other factors necessitate cataloguing code to be uniform and consistent in cataloguing work. Catalogue codes have been formulated to identify the search terms for main and other entries and their arrangement with essential description of each document. For codification of the cataloguing rules the "rules of roads" or "rules of conduct" emerged during last two centuries in particular.

The British Museum code, 1841, Cutter's Code 1876, Anglo-American Code, 1908, ALA Code, 1949, Classified Catalogue Code, 1934, all these were formulated by individuals or in a country. First international catalogue code was AACR, 1967. It was based upon card form of catalogue. AACR 2, 1978 was formulated for computerised catalogue, now widely used all over the world.

7.11 Exercise

1. Write a note on cataloguing codes.
2. State the features of Classified Catalogue Code, 1934.
3. Write the importance of AACR 1967.
4. Write the note on Cutter's Code.
5. What are the main features of AACR 2 ?

7.12 Reading list

1. Olding, R. K : Reading in Library Cataloguing, 1966.
2. Dunkin, Paul : Cataloguing U. S. A, 1969.
3. Escreet, P. K. : Introduction to the Anglo-American Cataloguing Rules, 1971.
4. Gorman, M. : A Study of the Rules for Entry and Heading in the Anglo-American Cataloguing Rules, 1967.
5. Indian Standards Institution : Glossary of Cataloguing Terms, 1967.

Unit 8 ☐ Catalogue Search : Author and Subject

Structure

8.1 Objectives

The primary searching of the readers in a library may be of two groups, (i) the reader knows the name of the author and he wants a particular book or a number of books by the author ; (ii) the reader is interested in some subject area and he wants books on the subject area having focus on the subject and not on the author. Generally in the libraries most of the searching of book are made on these two aspects. Keeping in mind these requirements, the library collections are organised, arranged and are given the single identity tag for each book. This is classification. Cataloguing is the record of library callection as a whole having identity for each book with the identity of the intellectual contribution which will satisfy the readers'. requirements. The result of cataloguing, the catalogue of a library is the gateway to the total resources of the library collection.

8.2 Introduction

During past thousands of years the records of library holdings had the inventorial functions beause the records were so scanty that interested persons could identify a document easily. During the sixteenth century it was evident, because of the

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multiplication of records and more generation of records, the record of records as catalogue was transformed to a finding list or index to literature for the convenience of the readers to find the desired document. The works of courad gesner (1545) Florianus Trefferus (1560) and Andrew Maunsell (1595) laid conserable emphasis on the value of author indexes. Their attempts were to highlight the authors' names as search points by the readers and the rules for an authors' catalogue germinated. During the seventeenth century emphasis was given on author and surnames were used as entry words.

The concept of catalogue as finding list has persisted till the present day as the important function of the catalogue. Panizzi of the British Mueum, Jewett of Smithsonian institution and Cutter of Bostan Athenaeum established the concept of intellectual responsibility. During the twentieth century all the catalogue codes were formulated keeping intellectual responsibility as the prime and most important factor. Author became the main search point and author entry became the main entry with all bibliographic information and all other entries were considered sarogates. Cutter, in his structured catalogue code, used the author entry as the main entry to ascribe intellectual responsibility for the work being catalogued and used the added entries with abbreviated information as auxiliary search points in the catalogue.

The concept of authorship is deeply rooted in intellectual tradition since the ancient period both for the indentity of documents and for making inventories of the documents. Tittles were also the main element of the bibliographic identity particularly in the Orient. In the western world the classical works have been identified by their authors. Sometimes the authorship was knwon and sometimes unknown during the mediaeval period. In such cases documents were identified either by author or by title. After the invention of printing multiple copies were available, the concept of authorship was strengthened to establish the right of the authors on the intellectual contribution. The practice of preparing the main entries under the names of the authors in library catalogues has been made in conformity to the age-old tradition. Main entries were prepared either under the author or under the title in the catalogue.

The concept of authorship was confined to personal authors unitil the middle of the nineteenth century. Corporate authorship was first identified and recognised by the Brithish Muscum Code as the entry element for bibliographic indentification. Personal authors are responsible for the intellectural contribution and intellectual responsibility can be assigned. Corporate authorship has no relationship with intellectual responsibility because a corporate body cannot think and write. The main entries under corporate bodies go against the concept of intellectual responsibility. However, a corporate body with the group of individuals that compromise the body under a particular official authority, has been recognised as the leading of the main entry to be used like identification tag in all the catalogue codes except the Prussian Instruction. The reason behind this is that users are expected to search the documents under the name of the corporate bodies and not under the individuals associated with such bodies because the individuals cannot be identified with such bodies and they might not be associated with such corporate bodies.

Author approach was specified by Cutter more than a centry ago as—

1. To enable a person to find a document of which the author is known or the title is known.

2. To show what the library has by a given author.

His author approach was corroborated by the almost identified set of principles stated in the ICCP principles of Paris in 1961 as 1. whether the library contains a particular book specified by its author, title or suitable substitute for the title, and 2. which works of a particular author are kept in the library.

In the process of cataloguing the cataloguer has to determine the form of the name of the author among all the alternatives which will be used as author heading. He has to face the problem whether he would give emphasis on objective 1 or objective 2. The first objective considers a book as an individual entity and the second objective considers a book as one of the group of books. The inherent conflict and the collection of entries in the catalogue have become a perennial problem for cataloguing.

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8.3 Literary Unit and Bibliographic Unit

There is a distinction between the work and the book in cataloguing. This distinction has tremendous impact upon author identity as to the form and choice of author heading. The distinction lies whether the author heading for the main entry will be based on the concept of intellectual responsibility or title page tag. The inventory concept of cataloguing, which means whether a particular book by a particular author is available in the library, assumes interest in the book, the individual volume in hand at the time of cataloguing. The concept of intellectual responsibility refers to all the bibliographic units of a particular literary unit in all physical formats and intellectual expression. In this situation the work is of more permanent interest and importance to the users. The conflict between these two concepts has given rise to inconsistencies within the code of rules for author cataloguing.

The distinction between a work and a book is also inherent in the identification of bibliographical unit and literary unit for the purpose of cataloguing. The literary unit assembles under one heading in the catalogue of all the entries for works by one author without considering the forms of name the author uses in the title pages of his books. The bibliographic unit refers to the collection of all entries for various versions of the same work under one uniform heading. Some users may be interested in literary unit of books and some others may be interested in bibliographic unit. The rules in the catalogue codes are not uniform for choice and form of main entry headings for all the cases either literary unit or bibliographic unit.

The confusion has been expressed with examples by James A. Tait. He states "The bibliographic unit is generally accepted cataloguing practice because of acceptence of the work as the unit in cataloguing rather than the book. This principle is frequently ignored in AA(1908) and ALA (1949). It becomes particularly important in the case of title entry for anonymous works. Both AA (1908) and ALA (1949) have a long series of rules covering the entry of anonymous works, for examples, where the first word of the title may be spelled in more than one way ; translations of anonymous works ; anonymous classics ; works known by a standardised form of title, for example, the Bible. The fact that AA (1908) and ALA (1949) make these

elaborate provisions merely emphasises the importance of the concept and it is a surprising element in all these two codes in view of the fact that they ignore its preseence in all rules for works by named authors."

8.4 Authorship Patterns

All the catalogue formulated during the twentieth century and widely followed in the English-speaking world and other countries are author-title code and all the rules in all the codes are based upon author-title entries. All the cataloguing procedures and processes evolved the main entries and added entries. In cataloguing two steps are vital, first, determination of the author of a book or work and second, choice of the particular form of name under which the main entry will be made. In such situation authorship identification creates many problems and the calatoguer has to take decision even between contradictory situations. Whether the rules are based on individual document or particular nature of document as in 'case' code or are based on codition indicating a number of documents having same nature and characteristics, the cataloguing process is the same and the problems are indentical. The last 'case' code is ALA (1949) code and the condition code is AACR (1967). The problems arise because of the variant forms of names of the personal and corporate authorship, more than one names of the personal authors, changed names of corporate bodies, entries required under subordinate bodies, variations of the users search strategy by different types of users for different purposes as well as the cataloguers' own judgement in particular library situations. The problems have been aggravated by the diverse and complex nature of the publications as well as publication of the same document in different means.

The types of problems have been discussed by John Horner in "Cataloguing". He has discussed the nature of problems in groups under particular heading. These are given below :

1. Personal names :

(a) Form .

(b) Change

2. Multiple authorship	(a) Shared authorship
	(b) Mixed authorship
	(c) related / dependent works
3. Concealed authorship	(a) Pseudonymous
	(b) Anonymous
4. Title entry, including uniform titles	
5. Corporate authorship	· (a) Form
	(b) Change
	(c) Subordinate/related bodies

In cataloguing practice the basic problem confronted by the cataloguers is that they have to work out with the general rules given in the code are to be followed in all individual cases and in each individual case the choice of heading can be problematic or sometimes confusing. The conflict between book and work, literary unit and bibliographic unit as well as intellectual responsibility, and 'sought label' to be given by cataloguers create a bewildering and confusing situation. Other problem is the keeping and maintaining uniformity and consistency in preparation of the catalogue. Cataloguers should interpret the rules and use their judgement but such interpretation and judgement may vary library to library as well as cataloguer to cataloguer in a library.

8.5 Subject Search

Subject search indicates that the reader may require a particular book or books on core subject or related subjects. It is imperative that the library catalogue must have a well-organized, correlated and comprehensive subject part. Most of the catalogue users give emphasis on subject approach because the universe of knowledge is ever expanding having proliferation of subject areas in interdesciplinary and multidisciplinary discipline. Since the subject approach of the users is in natural verbal language the subject part of the catalogue in alphabetical order is the essential tool for dissemination of information.

For the subject search the needs of the users may be grouped in the following ways :

1. The user needs a specific document on a specific subject but he does not know the name of the author or the title.

2. The user needs a number of documents on a specific subject to select one or more for his requirement for the time being.

3. Documents are required on the core subject as well as allied and related subject areas.

4. Documents on particular phase or aspects of a subject.

5. Documents on application of a subject on one or more subjects, e.g. statistical application in economics and sociology.

Therefore, the primary objectives of the subject part of the catalogue are (a) to guide the user to identify the documents on a given subject, and (b) to show the user all the subject entries on core subject as well as related and allied subjects with all subdivisions.

To fulfil the primary objectives the cataloguer should prepare the subject entries, arrange them and establish correlation among the subject entries so that the specific documents can be retrieved. The subject means

(a) the areas of knowledge on which documents are kept in the library,

(b) a specific area on which the authors have written,

(c) areas on which the users need documents,

(d) all the ramifications of knowledge on which documents have been published.

J. H. Shera and M. E. Egan have made the following gruidelines for the cataloguers to prepare the subject part of the catalogue :

1. To provide access by subject to all relevant material.

2. To provide subject access to materials through all suitable principles of subject organisation such as matter, application.

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3. To bring together references to materials which treat substantially the same subject regardless of disparities in terminology ; disparities which may have resulted from national differences, differences among groups of subject specialists, and or from the changing nature of the concests within discipline itself.

4. To show affiliations among subject fields, affiliations which may depend upon use or application of knowledge.

5. To provide entry through any vocabulary common to any considerable group of user specialists or layman.

6. To provide formal description of the subject content of any bibliographic unit in most precise, or specific terms possible whether the decription is in form of a class number or symbol.

7. To provide means to the users to make selection from among all terms in any particular category ; according to any chosen set of criteria such as : most through, most recent, etc.

In subject search the user wants to retrieve a group of items collocated with respect to their subject content under specific subject heading. To guide the users in proper directions the job of the cataloguer has to be done in three steps.

1. The first step is the determination of the subject or subjects by subject analysis of a book or books on the same subject areas.

2. The second step is the selection of subject heading or heading to group the identical subject fields under which the subject entries will be made.

3. The third step is the collocation of subject entries and establishing correlationships among the related subject headings.

The assigning of the subject heading terms to the newly acquired books should be correlated to the terms used in the existing collection. The users will use the same search terms for the subject part as a whole. The determination of the

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subject and choice of subject heading terms are complex jobs because of the following reasons :

(a) Acquaintance with the whole of human knowledge is limited.

(b) Determination of the author's intention and actual scope of the subject may be difficult.

(c) The documents may have a number of subjects with alomost equal status.

(d) There are basic subject dealt with in a document but there may be basic subjects as application, e.g. statistiecs in economics.

(e) Difficulty in determining specific purpose and point of view of the users in making subject search.

There are two ways of searching the subject entries in the catalogue,

(a) Natural-Language or free-text searching, and

(b) Controlled-vocabulary access.

Natural-language searching is done under words in the titles, contents and bibliographic descrption. The subject entries may be retrieved on the words used by authors mainly which usually reflect the most current terminology in a particular subject field. It is expected that the users also have the same terms in their mind at the time of search. The limitation of this method is that when the user wants to retrieve as much information as possible on a given subject, he must search all the synonyms or identical subject headings arranged in different alphabatical arrangement. Sometimes, titles and contents do not contain subject heading terms and the choice of terms is left to the consideration of cataloguers and the choice may not be uniform.

Controlled vocabulary access indicates that specific subject heading terms are designated as subject index terms for a document and documents having identical nature. Each term, thus used by the cataloguer under structured indexing method, is unique to represent the specific subject field uniformly in the subject part of the catalogue. One term is chosen as subject heading term under the indexing method for a specific subject and the users have to search under that term for all the

documents on the subject. Indexed terms eliminate all the ambiguities in using words, terms and their meaning.

If the natural language words of common usage are used as subject heading terms, searching of the subject heading terms may not be specific. The subject headings may be single word, multiple words or a phrase. Usually word represents concept but these two are not always identical. A particular word may have different meaning or the same word may be used signifying different meanings having different connotation or context. Multi-word term or a phrase has to be used to signify a concept. In such cases the first word in multi-word term or a phrase is crucial for alphabetic arrangement. Different words may be used to represent the same concept. While the total arrangement of the subject part depends on the subject heading terms consisting of alphabets, the entry word and the entry alphabet dictates the alphabetical arrangement. If the words used in a subject heading term are used in a different way the alphabetical order will be different and, thus, the users will be confused. The catalogue must have user-oriented approach. Therefore, the subject heading terms used by the cataloguer must be synchronised with the terms of users search. Various potential approaches of different users' must be considered. It is probable that the same document is being searched by different users under different subject heading terms. The cataloguer must be aware about such situations.

8.6   Summary

In pre-modern period the holding of a library, was considered as a storage record, inventory of the library collection. As the collections of the libraries became larger, it was difficult to find a document easily and time-consuming. The inventory approach could not work well and finding list approach of the records of library holding became imperative. The library catalogue, in the true sense of the term became the search engine to know the nature of the library collection and the storage arrangement as well as to know how these documents can be available to the users individually according to specific requirements of individual user. The library catalogue offers two way search, the author search and the subject search. The history of catalogue code depits the rules for cataloguing for uniformity and consistency for the preparation of the library catalogue.

8.7 Exercise

1. Discuss the evolution of authorship as main entry heading.
2. State the conflict between literary unit and bibliographic unit.
3. What is intellectual responsibility ?
4. Discuss the authorship pattern.
5. What are the problems of subject search ?

8.8 Reading list

1. Horner, John : Cataloguing, 1970
2. Olding, R. K. : Reading in Library Cataloguing, 1966
3. Gorman, M : A study of the rules for Entry and Heading in the AACR, 1967, 1968.
4. Dunkin, Paul : Cataloguing U.S.A., 1969
5. Hunter, E. J. and Bakewell, K. G. B : Cataloguing, 1979.

মানুষের জ্ঞান ও ভাবকে বইয়ের মধ্যে সঞ্চিত করিবার যে একটা প্রচুর সুবিধা আছে, সে কথা কেহই অস্বীকার করিতে পারে না। কিন্তু সেই সুবিধার দ্বারা মনের স্বাভাবিক শক্তিকে একেবারে আচ্ছন্ন করিয়া ফেলিলে বুদ্ধিকে বাবু করিয়া তোলা হয়।

— রবীন্দ্রনাথ ঠাকুর

ভারতের একটা mission আছে, একটা গৌরবময় ভবিষ্যৎ আছে, সেই ভবিষ্যৎ ভারতের উত্তরাধিকারী আমরাই। নূতন ভারতের মুক্তির ইতিহাস আমরাই রচনা করছি এবং করব। এই বিশ্বাস আছে বলেই আমরা সব দুঃখ কষ্ট সহ্য করতে পারি, অন্ধকারময় বর্তমানকে অগ্রাহ্য করতে পারি, বাস্তবের নিষ্ঠুর সত্যগুলি আদর্শের কঠিন আঘাতে ধূলিসাৎ করতে পারি।

— সুভাষচন্দ্র বসু

Any system of education which ignores Indian conditions, requirements, history and sociology is too unscientific to commend itself to any rational support.

— *Subhas Chandra Bose*