

Indira Gandhi National Open University (IGNOU)

Bachelor of Library and Information Science (BLIS)

STUDY MATERIALS

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***LIBRARY, INFORMATION AND
SOCIETY***



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UNIT 1 LIBRARIES, INFORMATION AND KNOWLEDGE-BASED SOCIETY

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1.0 OBJECTIVES

After reading this Unit, you will be able to:

- explain the characteristics of modern society;
- list the type of institutions founded by it to meet its activities;
- comprehend the need for and role of libraries to meet the different requirements of persons in society;
- discuss the expanding dimensions of libraries and new information institutions in a changing society;
- explain the concept of information society and its impact on information profession;
- discuss the meaning of Knowledge Society, its impact on economy; and
- explain the concept of National Knowledge Commission (NKC) and its recommendations.

1.1 INTRODUCTION

Modern society is a society of institutions. Peter Drucker observes that “every major task, whether economic performance, or health care, education, or protection of environment, the pursuit of new knowledge or defence, is today

being entrusted to big organisations, designed for perpetuity and managed by their managements. On the performance of these institutions, the performance of modern society – if not the survival of each individual – increasingly depends”. He further affirms that every institution comprises human beings – men and women, whose performance brings success or failure to the institution and thereby to the society.

Libraries rank among society’s most important and useful cultural institutions. They play a vital role in the world’s systems of communication and education. The numerous resources and services that libraries provide help people to carry out their work, studies and leisure-time activities. Libraries provide access to knowledge and information that has been accumulated throughout history. People of all walks of life – including students, teachers, scientists, business executives and government officials – use library resources for their work. Since knowledge and information are so vital for all round human development, libraries and other institutions that handle knowledge and information are *invaluable* to the society.

In this Unit, an attempt is made to introduce to you the important role that libraries play in the educational process of formal and non-formal learning, in research and development, etc. It may be noted that with spectacular advances in Information Communication Technology (ICT) and increasing groups of users and their information requirements in different situations, modern society is heading towards an information society in which the central instrument of change, force and direction of change, are knowledge and information. Proper understanding and assimilation of these ideas is essential for you to fully grasp the role of libraries in the emerging information and knowledge society.

1.2 MODERN SOCIETY: SOME CHARACTERISTICS

We are living in a new era in which a highly integrated and self conscious society is evolving. We give it the name of modern society. The consumer today is different from the consumer of yester years. We have seen how changing life styles have brought about a change in demands for goods and services, changing the consumer market. In the present day, with better education opportunities, both literacy and Information Technology (IT) literacy rates are improving. More and more homes have radios, telephones, television sets, and computers (signifying modernity). Even schools have introduced computers in teaching and learning. In fact, the consumer today is better informed and more aware of environment and global issues. In the modern society, the general trend is for organisations and nations to globalise and work in a burden less open manner. Geographic, time and culture barriers are no longer issues of concern. People are in a position to communicate with each other across boundaries. They are able to tap talent, expertise and content from a vast reservoir of resources. In education, variation from previous norm is becoming as something to be consciously planned. In addition to all these developments taking place in consumerisation of goods and services, and changes taking place in social and cultural arena, the modern society has varied needs not the least of which is education. Education helps to mould well-informed, knowledgeable and responsible citizens who will be able to contribute to the progress and advancement of the nation. There is the goal of the economic well being of the society. Certainly, activities towards this end must be sustained by technological developments brought about by research and the enormous amounts

of information it makes available to us. In other words, efforts are afoot to evolve into a society, which is modern and which enables us to lead a cultured, prosperous and full life laying emphasis on certain values. It is the collective responsibility of the members of the society to make suitable arrangements for achieving this ideal.

Society during the course of its existence founded different institutions. Educational institutions like schools, colleges and universities, research institutions, cultural organisations, institutions for arts and recreation, business and industrial establishments are but a few examples. In fact, of all the institutions founded by the society *library and its modern cognates* are potent in meeting a variety of needs of different users of modern society.

1.2.1 Role of Libraries in Society

“When thinking of libraries people have many different images in front of them. By stepping back from individual cases and examining the context in which library services are provided and the trends which are likely to affect them in future, it is possible to arrive at some conclusions about how libraries’ roles are likely to develop and to start to answer the central question “*do libraries have a central role to play or are they in fact simply anachronisms?*” [Brophy, 2007].

Brophy identifies four models in this context. These are:

- libraries as collection;
- the library as an organisation of resource sharing;
- the library as a provider of access; and
- the embedded or immersive library.

If we closely examine the dominant view through most of history has been that libraries were places where written, including printed materials were held together both for security and to create a collection organised for use. The collection was paramount and steps had to be taken to secure its development and representativeness. Also, besides collection, resource organisation became increasingly important. Along side the concepts of collection, the organisation of access to knowledge and the needs of the user as an individual, strengthened the view that the library was a social institution which played a role in the organisation of society. This is considered a progressive view, seeing the public library as a means to spread literacy and love for learning.

The current model of a library is relatively straight forward. The library is the *interface* between the users and the vast amounts of published and unpublished information available. Most libraries place great emphasis on their role in facilitating and supporting learning. The issue for libraries is to provide a range of services which support lifelong learners who choose to learn in any one of the many modes, and probably in a personal mix of all modes. Therefore, there is a considerable challenge for librarians, across most sectors, to develop their direct involvement in the delivery of learning. As a matter of fact, understanding of pedagogical principles will help librarians to be more effective in designing and delivering services and in demonstrating the relevance and importance of library. One thing must be emphasised, libraries are fundamentally service organisations. What they do is intended to benefit people of all ages and backgrounds. They are

quite clearly in the business of helping their users to develop knowledge and understanding. Both, services and knowledge, are firmly at the centre of community development, whether globally or locally. The offering of knowledge - based service and the continuous enhancement of its quality have provided business with an avenue for differentiation from their competitors. But, libraries do not conduct business. They are unique and need to progress in the 21st century empowering themselves to meet the changing needs of the society. The paradigm shifts taking place in libraries to effectively meet the changing needs of the society are indicated in the table 1.1.

Table 1.1: The Paradigm Shifts taking place in Libraries

From		To
Custodian of books	→	Service oriented information provider
One medium		Multiple media
Own collection		Library without walls
In good time		Just-in-time
In sourcing		Out sourcing
Local reach		Global reach
We go to the library		The library comes to you

Source: Sabarathnam, D. S. Transforming Libraries to Support Chance and Growth. Dempsey, L. et al. *Networking and the Future of Libraries*. London: Library Association, 1995.

There has been a debate in the literature questioning the future of libraries. Some experts express the view that the existence of libraries is under threat. They opine that faced with the challenges of the twenty-first century, the library users will demand *just-in-time* information to help them answer specific questions, address specific problems and strategise. Providing information in good time will no longer be an acceptable norm. The user will want the information made available at the push of a button and in the right form and right format. In order to stay relevant, libraries and librarians must realise this and cater to the new society and demands of knowledge-based economy. Librarians must *re-engineer* the library to serve changing needs and to offer more personalised and customised services. The answer to the question “what is our business?” will help to chart the new course and ensure that libraries stay *relevant and play central role* in the socio-economic development of the country.

1.2.2 Information and its Impact on Society

There has been an informatisation of contemporary society. The whole information environment or *info sphere* is understood to be of growing importance. Even at the untutored level of experience, there is wide spread awareness that information in some ways is effecting a transformation of the social world. All the three realms of society – polity, the economy and the culture are subject to major principles of innovation.

Information and knowledge are deemed to be social wealth. The benefits of this social wealth should be available to all the members of the society. This social wealth is available in a variety of physical forms (e.g. books, periodicals, microfilms, computerised databases, etc.). Ordinary citizens require a variety of information in their daily discharge of duties. Use of information certainly affects their mental growth and brings changes in their outlook as well as lifestyles.

The impact of information and knowledge may be noticed in a number of human activities. Some of these are: education, research and development (R&D), government activities and mass communications, etc. Society itself has undergone significant changes at different periods of human history and information use has been cited as one of the most important agents of this change. Three stages are generally identified in course of societal evolution. They are: the agrarian society, the industrial society and post-industrial society. In all these societal transformations, use of information played a vital role. The emergence of post-industrial society in the 20th century is based on the developments in technologies, and the revolution and processing of information and its subsequent use.

1.3 INFORMATION SOCIETY

It has been often stated that we live in an era of change. But, how can one characterise the deep transformations that come with the accelerated insertion of artificial intelligence and new Information Communication Technologies (ICTs) in our present society? Is it a question of a new stage in the industrial society or are we entering into a new era? *Global village, technotronic era, post-industrial society, information society, or information age, and knowledge society* are just a few of the terms that have been coined in an attempt to identify and understand the extent of these changes. But, while the debate proceeds in the theoretical sphere, reality races ahead and communication media select the terms that we have to use. It is the case with the term Information Society. In the present decade, the expression *Information Society* has without doubt been confirmed as the hegemonic term, not because it necessarily expresses theoretical clarity but rather due to its baptism by official policies of the more developed countries and the fact that it merited a World Summit dedicated in its honour (2003 in Geneva and 2005 in Tunis). However, let us try to understand the concept and its development.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

1) Explain the role of libraries and information in meeting the requirements of modern society.

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1.3.1 Information Society: Evolution of the Concept

The concept of Information Society emerged during the 1970s and throughout the 1980s and rapidly gained popularity and currency, its proponents ranging from scholars and academic authors to popular writers. Prominent among the first group of writers were Masuda, who in the Japanese context, perceived an eventual transition of the society to the point at which the production of information values became the driving force for the development of the society. The second writer belonging to this group was Tom Stonier, who perceived the dawning of a *new age* for Western Society. He draws explicit parallels and contrasts between industrial and information societies. Although not very comfortable with the term information society, Daniel Bell did much to sustain it through his work on post-industrial society. Daniel Bell, the classical exponent of post-industrialism, also theorised the Information Society (Bell, 1979).

In *The Coming of Post-industrial Society* (1972) Bell argued that the increased part played by science in the productive process, the rise to prominence of professional, scientific and technical groups and the introduction of computer technology, are all the evidence of a new axial principle at the core of the socio economic system, namely, the centrality of theoretical knowledge. The emerging social framework of Information Society builds upon this base. Information increasingly becomes a source of added value and thus of wealth. A growing portion of workers is employed in the information sphere. The important factor, enabling discourse to shift from post - industrialism to Information Society is the massive growth in the economic significance of IT.

Although, in its current form it is something of a novelty, it would be a mistake to think that the idea of Information Society is entirely of recent origin. Alongside the analytical strands of thought about social change, we also find another theme, technological utopianism. In fact, the writings of Masuda, Stonier and Naisbitt depict a new kind of society which on one hand, to empirical analysis but, on the other, is full of good society imagery. Technological utopianism is especially powerful in the USA. It was felt that the USA would realise through marriage of nature and mechanics, an unprecedented solution to the problem of industrialisation, allowing us to transcend the typical evils of industrial society. The ideals of decentralised democracy, community participation, an end to hierarchy and class, and of plenty for all, which inspired an earlier generation of technological utopianism, reappear in the literature of Information Society.

Alvin Toffler and John Naisbitt have done much to popularise the concept of information society. Naisbitt contended that the United States made the transition from an industrial to an information society as early as 1960s and 1970s, and that in this process the computer played a significant role. On the other hand, Toffler talked of an information bomb exploding in our midst and a power shift in society, which will make it depend on knowledge.

The newness and attraction of these ideas and the vigour, with which they were expressed, fired the public imagination and helped to sustain the interest in the concept of the information society and its literature.

1.3.2 Definition and Meaning of Information Society

Information society is a much used expression. The term has been characterised by various dimensions. Several authors have tried to define and interpret this

term according to their own perceptions. What strikes one in reading the voluminous literature on the information society is that “so many writers operate with underdeveloped definitions on their subject. They write copiously about particular features of the information society, but are vague about their operational criteria. Eager to make sense of change in information, they rush to interpret these in terms of different forms of economic production, new form of social interaction, innovative process of production, or whatever. As they do so, they very often fail to set out clearly in what ways and why information is becoming more central today, so critical indeed that it is ushering a new type of society”(Webster, F). One wonders just what is about information that makes so many scholars to think that it is at the core of modern age. Let us try to examine some of the significant definitions provided for the term information society in literature and analyse their main attributes.

According to Branscomb (1986) “it is a society where the majority of people are engaged in creating, gathering, storage, processing or distribution of information”.

Manfred Kochen (1987) writes that the simple notion of a society in which information rather than material flows constitute most of its “communication and control” exchanges is extended to stress that:

- i) Most members generate knowledge by knowledge-based procedures that are knowledge-intensive;
- ii) Information consistently reflects basic social variants;
- iii) Reason and human values *rather than strength and expediency* manage conflicts between pressures to conserve invariants and pressure to adoptive change.

Having stated all this, Manfred Kochen adds that “an information society is a stage in the evolution of *community brains*, towards a *world brain!* This is probably most likely to be the essence of the *great transition* that futurists seem to agree on. When enough people begin to believe it as likely to happen, if it is a stage in natural cultural evolution, then this belief may contribute to its self fulfilment. It will take some decades before this idea is sufficiently widespread and until the first information society appears”. Ronfeldt (1992) is of the opinion that “*information society* is one which sees the steady blurring of the boundaries, which presently separate computer hardware, communication systems and satellites, global networks and more”. While none of the above quoted definitions is wrong, they serve to emphasise the fluidity of present situation, one which suggests that what is likely to emerge – and certainly in short term – *is a series of parallel information societies, between which users switch according to their need.* The convergences these separate structures may, or may not, come according to the type of information society which finally emerges.

Another expert Martin, James (1978) maintains that “the term (information society) has come to represent societies at an advanced post-industrial stage, characterised by high degree of computerisation, large volume of electronic data transmission and an economic profile heavily influenced by the market and employment possibilities of information technology”.

The Information Society concept has close affinities with the theory of post-industrial society of Daniel Bell. In *The Coming of Post-Industrial Society* (1973)

Bell argued that the increased part played by science in the productive process, the rise to prominence of professional, scientific and technical groups and the introduction of computer technology are all evidence of a new *axial principle* at the core of the socio economic system, namely, the centrality of theoretical knowledge. The emerging social framework of Information Society builds upon this base. Information increasingly becomes *a source of added value and thus wealth*. A growing portion of workers is *employed in the Information Sphere*.

1.3.3 Factors Determining the Arrival of Information Society

When we use the phrase Information Society, we usually mean society as a whole. The problem is how to distinguish an information society and whether it has arrived. We have but to listen to the commentators and leaders to perceive the signs all around us. The Information Society is a direct consequence of:

- the data explosion;
- the growing information consciousness and information dependence of society at large; and
- accelerating developments in computing and communication technologies.

However, Cawkell (1987) opines that “the pre-requisite for an Information Society is a telecommunication based information service infrastructure, which gradually builds up until at some point a critical mass of terminal users will be connected to a more or less universal network”. According to Bell “the term refers mainly to the social structure of the post-industrial society. It describes the characteristics and the structure of the society of which *the driving force will be the production of information values and not material values*. In considering when it will be realised it is necessary to look at the four stages of technological development which have to be achieved:

- science based computerisation, where computer is used extensively in national scale projects;
 - management-based computerisation in both government and business;
 - society-based computerisation in which computers will be used for the benefit of the society as a whole;
 - individual-based computerisation where each individual will have access to the terminal and computer information to solve problems, creativity will flourish in this high mass knowledge creation society.

In other words, the most advanced stage of Information Society appears to be high mass knowledge creation society.

From the above discussion, it may be inferred that a high degree of computerisation, large volumes of electronic data processing and employment of information technology with telecommunication-based information service structure, are the main criteria, that signifies whether a society or nation has become information society or not.

1.3.4 Different Perceptions of Information Society

Even though schemes are possible, we may categorise the literature on Information Society into broad groups each group representing a unique perspective. In this

connection, it is worth noting that Webster distinguishes and presents five different perceptions of the Information Society on the basis of technological, economic, occupational, spatial and cultural criteria. Let us try to understand these perceptions of information society.

A) **Technological Perception**

The most common perspective of information society lays emphasis upon spectacular technological innovation. The important idea is that breakthroughs in information processing, storage and transmission have led to the application of information technology (IT) in virtually all the areas of society. Although IT occupies a central role in all the literature on information society, this perspective emphasises the technological infrastructure *to the exclusion of other social, economic and political attributes*. Martin provided a number of scenarios detailing life in the information society specially, the spread of digital networks *as the key element*.

The convergence of computing and telecommunications resulted in the linking of computers enabling the establishment of global networks. The development of ISDN (Integrated Service Digital Network) will provide the infrastructure supporting the key ingredient of post-industrial-society-information. The rapid growth of the Internet appears to bring about precisely this change.

In other words, the technological perspective effectively draws attention to the potential benefits of information technologies for the society.

However, with such emphasis on technology, generally removed from a social, cultural and political context, it is unable to provide adequate foundation for defining the attributes of information society. Also, the problem of measurement, and the associated difficulty of stipulating the point on technological scale, at which a society is judged to have entered an information age, is surely central to any acceptable definition of a distinctly new type of society. It is ignored by popular futurists. The authors of this school of thought are content to describe, in general terms, technological innovations, presuming that this is enough to distinguish the new society. "There are some serious scholars who encounter two problems. First, how does one come to measure the rate of technological diffusion, and, second when does a society cease to being *industrial* and enter into the *information* category?" (Webster, 2003)

B) **Economic Perception**

Some of the authors who write about information society point to the growth of the service sector in the industrialised nations and the decline of employment in manufacturing. For some of the authors, the dominant characteristic of an information society is the nature of its economy. Machlup (1962) initiated this research perspective by analysing the growth of the "knowledge sector" in the US economy. In Machlup's analysis, industries primarily concerned with production and distribution of knowledge (knowledge industries) were examined separately, rather than as a part of the overall service sector. The knowledge industries included such areas as educational system, the media and other communicative activities, libraries and other information activities, and research/institutes. The contribution of

this sector to the Gross National Product (GNP) was found to be significant (estimated at about 40% for the early 1960s) and growing at a rate considerably higher than the industrial sector. Machlup concluded that knowledge industries would soon outpace the industrial sector, leading to the rise of a *knowledge society*. A similar conclusion was reached at about the same time in Japan, as Umaseo (1963) predicted the rise of the *spiritual industries* over material and agricultural sectors in economies that were more developed. These earlier studies distinguished knowledge or information sector from other economic sectors.

The best known and often cited study on the emergence of an information economy conceived on these lines is the report from Marc Porat (1977). Porat initiated much of this work, by broadening the view of information work to apply to more than those jobs falling within the information or knowledge sector as defined by Machlup. Porat began by defining information activities as including all resources consumed in producing, processing, and distributing information goods and services. He defined the primary information sector as including all those businesses involved in the exchange of information goods and services in the market place. In addition, however, Porat noted that a great many jobs in other sectors of economy can be thought of as information work. Nearly, every organisation produces, processes, and distributes information for its own internal consumption. Thus, a secondary information sector includes these information activities. Porat estimated that overall information activities accounted for 45% of the gross national product in 1967, and that half of the labour force was employed in information-related work. This study has been used to justify references to United States as an information society. Several authors have attempted to refine Porat's analysis and apply it in other contexts (Komastujaki, 1986, Schement, Lievrouw, and Dordick, 1983). This perspective focuses on the economy as the primary attribute of the information society. It may be stated that examining the economic structure alone provides only a limited view of the social and cultural implications associated with information societies. Also, several critics contend that Porat's classification of information workers is too broad to be meaningful, and does little to suggest social implications of the shift to an information society (Bates, 1985, Wizard, 1984). Bates, for example, has noted that according to Porat, factory workers assembling information transmission equipment are considered information workers; just as are university researchers. This does not appear to be logical.

He felt that such a categorisation may weaken the social distinctiveness of the information sector. There are other types of objections and criticisms on Porat's analysis. However, such objections may not entirely invalidate the findings of Porat and are not intended to do that.

Marc Porat has been able to distinguish two information sectors: primary and secondary, then to consolidate them, and separate out the non-informational elements of the economy. Porat, by re-aggregating national economic statistics, is able to conclude that 46% of the U.S. GNP is accounted for by the information sector. "The United States is now an Information based economy". As such, it is an "Information Society (where) the major arenas of economic activity are information goods and service producers, and the public and private (secondary information sector) bureaucracies".

C) Occupational Perception

Another popular measure of the emergence of an information society is the one that focuses on occupational change. The contention is that we have achieved an Information Society when the predominance of occupations is found in information. That is to say, in Information society, the number of people employed in occupations such as teaching, research and development and activities associated with creative industries (media, design, arts) outnumber those employed in factories. The main characteristic of these people is high level of education. The occupational definition of information society is often combined with an economic measure. Porat calculated that the late 1960's, a little under half of the US labour force was to be found in the information sector. Porat connects the growth of economic significance of information with changing occupational patterns. Most identifiers of an information society draw on occupational changes as indicators of the approach of a new age, which reflects the introduction of new technologies. In other words, the shift in distribution of occupations is at the heart of the theory of the information society.

D) Spatial Perception

This perception of the information society has at its core the distinctive stress on space. Here the major emphasis is on the information networks that connect locations and as a result have great effect on the organisation of time and space. This aspect has been considered as an index of information society in recent years. The centrality of information networks linking together locations within and between towns, regions, nations and continents and indeed the entire world, is an important consideration for spatial perspective. In many writings, the technological bases of the information networks is emphasised because these networks provide the infrastructure that enables information to be processed and distributed. These developments may lead to an emerging *networked society*. The salient idea here is of information circulating along electronic *highways*. But, no one has been able to quantify how much and at what rate information must flow along these routes to constitute an information society. Though, no one could deny that information networks are an important feature of modern societies and do facilitate instantaneous communications round the globe, databases can be accessed from any place to any place, still some people would ask "why should the presence of networks lead analysts to categorise societies as information economies?". It may be stated that the question of what constitutes a network is a serious one and raises the problem of how to distinguish different levels of networking as also how we stipulate a point at which we have entered a network/information Society.

E) Cultural Perception

Developments such as invention of radio, television, and computers coupled with the recent advances in telecommunication networks and media technologies are having great impact on the life styles of people as a whole. It is stated that presently we are living in a media-laden society and the informational features of our world are thoroughly penetrative now than in earlier times. In fact, the informational environment is a great deal more intimate and more constitutive of us. For example, the informational

dimensions of the clothes we wear, the styling of hair and faces, the very ways in which we work makes one aware that social intercourse nowadays involves greater degree of informational content than before. According to Webster (1996), “contemporary culture is manifested by more heavily information laden than any of its predecessors. We exist in media-saturated environment that means life is quintessentially about symbolisation, about exchanging and receiving messages about ourselves and others. It is acknowledgement of this explosion of signification many writers conceive of our having entered an Information Society”. But no writer attempted to measure this development in quantitative terms and only describe our living in a sea of signs one fuller than at any other epoch. In the other words, “we are surrounded by more and more information and less and less meaning.”

Reviewing the different definitions of information society, it emerges that these definitions are underdeveloped or imprecise. Whether it is technological, economic, occupational, spatial or cultural perspectives, we are confronted with highly problematical notions of what constitutes, and how to distinguish, an Information Society. It is essential that we be aware of these difficulties. Though, as a heuristic device, the term Information Society might have some value in helping us to explore and analyse the features of the contemporary world, it can not be accepted by all as a definitive. In other words, though one may acknowledge that information plays a vital role in the contemporary society, one has to remain cautious as regards the information society scenarios and in asserting that information has become the chief distinguishing feature of modern times.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of the Unit.
- 2) Briefly explain the essence of *Information Society* concept as reflected in the conceptual analysis of literature.

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- 3) State the attributes of an Information Society.

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4) What are the economic implications of an Information Society?

F) **United Nations World Summit on the Information Society**

The United Nations and International Telecommunications Union (ITU) hosted the first phase of the World Summit on the Information Society (WSIS) in Geneva during Dec. 10-12, 2003. The summit concluded at its second phase meeting in Tunisia during Nov. 16-18, 2005, its results should be assessed in the light of the question whether a common vision on the future information society emerged that empowers the citizens of those societies of to be the architects of their histories.

One of the goals of the first phase of the WSIS was precisely to develop a common vision of information society. Although a large part of the government delegations and the private sector attributed little importance to this aspect, for many organisations in civil society, *it was dealing with a key issue*, for it was there the controversy regarding its meaning took place, evidencing the clash among projects of society.

In fact, the entire process of debate ended up in two separate approaches, which can be briefly summarised as follows:

In the first approach, to talk about the information society refers *to a new development paradigm* that assigns *technology to a causal role* in the social order, designating it *as the drive of the economic development*. For the developing countries, this discourse implies that the transition towards information society is essentially a matter of time and of political decision to create adequate *empowering conditions*. Something similar occurred with regard to the social sectors affected by the digital gap, which would have to be included via universal access programs. By placing technology at the core of this model, the telecommunications industry is convoked to lead this development; while industry *that produces services and digital content* assumes a hitherto unheard of influence.

The second approach, which contested the first in the Summit process, sustains that the new phase of human development that we are entering into is characterised by the predominance of information, communication, and knowledge in the economy as well as human activities. According to this standpoint, technology is the support *that has unleashed* the acceleration of this process; but it is not a neutral factor, nor is its course *inexorable*, since technological development is guided by *games of interest*

Following this perspective, policies for information society development should *focus on human beings* and *should be conceived* in terms of their

needs and within a *benchmark of human rights and social justice*. The developing countries and the social actors should play a key role in the orientation of that process and the decisions. In other words, for this second approach, what is fundamental is not *information* but *rather society*. While the first approach *refers to data, transmission channels, and storage space*, the second *talks about human beings, cultures, forms or organisation and communication*. The information is determined in terms of society and not the inverse. That is why the campaign for Communication Rights in the Information Society – CRIS – points out in the document on the WSIS, *The Question for Civil Society*. If Civil Society is going to adopt and remove the notion of an information society, it should return to these basic notions, posing the correct questions:

- Who generates and processes information and knowledge? How is it valued?
- How is knowledge spread and distributed? Who are the custodians?
- Who restricts and facilitates the use of knowledge on the part of the people to attain their goals? Who is best and least positioned to take advantage of the knowledge?

G) **Alternate Definitions or Proposals**

The concept of information society, born under the percepts of neo-liberal globalisation, infers that henceforth it will be the *technological revolutions* that will determine the course of development. Social conflicts would be things of the past. For the same reason, this concept is no longer the most appropriate to qualify the new trends in societies, nor much less to describe a counter-hegemonic project society. The present position is that beyond debating the appropriateness of one term or another, what is most important is to contest and de-legitimise any term or definition that reinforces this technocratic conception of society. Therefore, it is better to consider criteria to foment the debate. As a first step, we must welcome the suggestion that any reference to *societies* should be plural, recognising the heterogeneity and diversity of human societies. This also implies reaffirming the interest of each society appropriating technologies for their specific development priorities, and not simply adapting to them in order to be part of a supposed pre-defined Information Society. The second step is to affirm that “any definition that uses the term *society* cannot describe a reality circumscribed to the World Wide Web or ICTs, the Web may be a new social interaction scenario, but this interaction is strictly integrated to the physical world, and the two spheres are mutually transformed. We should back a project of the society where *information is a public good, and not a commodity*; communication, a participative and interactive process; knowledge, a shared social construction, not private property; and technologies, a support for it all, without becoming an end in itself”. (Burch, 2005).

1.4 KNOWLEDGE SOCIETY

Change is the essence of a growing society. Information and Communication Technologies (ICTs) are seen as the facilitators of change. The current revolution around the importance of information and knowledge is profound. In fact, a new class structure is being created around the wealth of information and knowledge. Nowadays, knowledge has come to be constitutive of the way that we live.

Historically speaking, it is correct to say, to a greater or lesser extent, knowledge has always followed the development of man and mankind. It has been seen as a kind of measurement to the success and achievements of society or mankind. Nevertheless, no society *until the present one* has ever been called or referred to as *knowledge society*. This term developed relatively shortly after the term information society was introduced in the last decades of the 20th century. (Stipanov, 2005). The reason for this might be the technology-related developments which have fundamentally transformed the degree to which knowledge is being integrated into economic activity to the extent that we are witnessing a shift in the very basis of competitive advantage. The expression *knowledge society*, recognisable more as social project than as sign of times, is not without substance. In 1960s the debate on industrial society raised the question whether there can be considered a *paradigm* shift towards a *knowledge-based society*. Some prominent authors already foresaw knowledge as the main indicator in order to displace *labour* and *capital* as the main driving forces of capitalistic development. However, the notion *Knowledge Society* emerged towards the end of the 1990s and is particularly used as an alternative by some in academic circles to the Information Society. UNESCO in particular, has adopted the term *knowledge society*, or its variant, *knowledge societies* within its institutional policies. There has been a great deal of reflection on the issue, which strives to incorporate a more integral conception that is not only related to the economic dimension. For instance, Dr. A.W. Khan, Former Assistant Director General of Communication and Information, UNESCO writes: “Information Society is the building block for *Knowledge Societies*, whereas I see the concept of Information Society as linked to the idea of *technological innovation*, the concept of *Knowledge Societies* includes a dimension of *social, cultural, economical, political* and *institutional transformation*, and a *more pluralistic* and *developmental perspective*.... The concept of *knowledge societies* is preferable to that of Information Society because it better captures the complexity and dynamism of the changes taking place.... The knowledge in question is important not only for economic growth but also for empowering and developing all sectors of society.” (Sally, 2005)

“Today on the political level and also in many scientific disciplines, the assumption that we are already living in a *knowledge-based society* ... the vision of a *knowledge-based society* determines at least the perception of the Western Societies” (Krings, 2006).

1.4.1 Definition of Knowledge Society

“The transformation of existing societal structures by *knowledge as a core resource* for economic growth, employment and as a factor of production *constitutes the criteria* for designating advanced modern society as a *Knowledge Society*”.

“Such a society, in which knowledge plays a crucial and decisive role, with its entire mechanisms and organisation gives an impetus for new knowledge, ensuring the conditions of its inception and use, which further increases new knowledge, etc. Society is therefore, structured on knowledge, it is simply deeply penetrated so that complete functioning of society, including the entire development and progress, rests on *Knowledge*” (Stipanov, 2005).

In a *knowledge society* the traditional measures of competitiveness such as labour costs, recourse endowments and infrastructure are replaced by new dimensions (indicators) such as patents, research and development (R&D), availability of (or capability to afford) knowledge workers. The emphasis is not on the knowledge anybody has but the knowledge one produces. Knowledge resides exclusively in people. Therefore, it is clear that the greatest wealth of any nation, any society is its people. This is vastly underused resource, which offers the opportunity for any country to make major breakthrough, and catch up with countries presently more developed.

It is necessary to differentiate here between the definitions that aim to characterise an existing or emerging reality from those that express a *vision – a longing or desire for a potential society*. Both are relevant: the former for their contribution to analysis, and the latter because they guide policies. In the first category we shall refer to Manuel Castells, an authority on the subject information society. As for knowledge society, he points: “it is to do with a society in which conditions for generating knowledge and processing information have been substantially changed by a technological revolution focussed on information processing, knowledge generation, and information technologies”. Castells opines that Information society places the emphasis on the content of work (the process of collecting, processing, and communicating the necessary information), and *knowledge society* emphasises economic agents, who should be superiorly qualified to exercise their work. With respect to visions, the documents resulting from the WSIS form illustrative examples, as they have emerged from a World process. For instance, the Civil Society Declaration extends its visions to several paragraphs, but essentially says: “We are committed to building information and communication societies that are people-centred, inclusive, and equitable societies, in which everyone can freely create, access, utilise, share and disseminate information and knowledge, so that individuals, communities, and people are empowered to improve their quality of life and to achieve their full potential”. Subsequently, the Declaration adds the principles of social, political, and economic justice, as well as full participation and capacity-building of people; it highlights the objectives of the sustainable development, democracy, and gender equality; and it evokes societies where development acts as a setting for fundamental human rights and is oriented to attain a more equitable distribution of resources.

1.4.2 Characteristics of Knowledge Society

There are many components of *Knowledge Society*. First of all, there is a huge quantity of newly created knowledge in all fields continuously expanding and exponentially growing. Statistics are known about the exponential growth of knowledge to the entire past historical period, including all kinds of publications as one of the proofs of the whole process. The situation with the total number of researchers in the world, and the entire research capacity can be compared with past times. Not only the number of literate people, but also that of the educated people has increased enormously in the whole world. To this we need to add new possibilities of informing, communicating and team work which were incomparable and unthinkable earlier. Modern ICT has connected the world on all levels so closely, that the entire globe has become a net from which we can connect practically from any one point to another. The possibilities and the speed of communicating, the transfer of information and knowledge, the acquisition of

new ideas and views, not to mention the experience of it are so incredible that Manuel Castells, rightly calls today's society a *network society*. All this creates conditions for the development of new knowledge and awareness, uninterrupted progress and development. This process is advancing with such speed and dimension, that all those who are not directly or indirectly involved will ultimately stay on the fringes. Knowledge is no more *connected* with an individual; it is today the characteristic of the society as a whole, an interconnected society.

In a perfect knowledge society all people have:

- Open and timely access to information and knowledge;
- The capacity to absorb and interpret information; and
- Avenues and opportunities to use knowledge and decision making and for transformation to higher quality lives.

1.4.3 Establishment of Knowledge-based Society

A careful analysis of the literature available on knowledge society reveals that establishing a *knowledge-based society* is clearly desirable and, looking from the perspective of the imminent future, it may well be the only possible society. "The establishment of such a society is a political process – it requires political decision making and political actions. The process of establishing a *knowledge-based society* would be facilitated if one would define bench marks, indicators providing quantifiable measurements indicating whether we are going in the right direction and how far we have progressed. In fact, the essence of progress is to assure order among changes and preserve changes amid order". (Slaus).

It may be stated that the emergence of knowledge society means an ever increasing demand for a well-educated and skilled workforce across the whole economy. In this connection, it is worth noting that the appointment of the National Knowledge Commission (NKC) by the Government of India has been a step in the right direction. The NKC had been entrusted with the preparation of a *blueprint* for reform of our knowledge related institutions and infrastructure. It has submitted its report that will take us a long way in the knowledge society.

1.4.4 Knowledge-based Economy (KBE)

Most advanced economies have undergone significant structural changes in recent years. One of the key characteristics of the changes is the growing importance of knowledge in all sectors of economic activities. These economies have developed from an agricultural economy in which *land is the key resource*, then to an industrial economy in which *natural resources and labour are the main resources*, and now to a *knowledge-based economy (KBE)* in which *knowledge is the key resource*. In order to facilitate economic analysis, distinction can be made between different kinds of knowledge which are important in the knowledge-based economy: *know-what*, *know-why*, *know-how* and *know-who*. Knowledge is a much broader concept than information, which is generally *know-what*, and *know-why* components of knowledge. These are also the types of knowledge which come closest to being market commodities or economic resources to be fitted into economic production functions. Other types of knowledge – particularly *know-how* and *know-who*, are more of tacit knowledge, which are more difficult to codify and measure (Lundvall and Johnson, 1994).

The term KBE was first coined by the Organisation for Economic Cooperation and Development (OECD) and defined as “economies which are directly based on the production, distribution and use of knowledge and information” (OECD, 1996). The APEC then extended this idea to state that in a KBE “the production, distribution and use of knowledge is the main driver of growth, wealth creation and employment across all industries” (APEC, 2000). While the KBE ideal encompasses concepts like innovation, higher education and R&D, it is broader than this and highlights the importance of knowledge in all aspects of the economy. KBE is also referred to as the *New Economy* or *Modern Economy*. However, in a truly KBE, all sectors have become knowledge-intensive, not just those usually called *high technology*.

While there have been a lot of discussions on the characteristics of a KBE at the international arena, there is so far no internationally agreed framework for measuring a KBE. Different frameworks have been developed by individual countries and international organisations.

To fully understand the working of the KBE, new economic concepts and measures are required which track phenomena beyond conventional market transactions. In general, it was suggested by OECD that improved indicators for the KBE are needed for the following tasks:

- Measuring knowledge inputs;
- Measuring knowledge stocks and flows;
- Measuring knowledge outputs;
- Measuring knowledge networks; and
- Measuring knowledge and learning.

A full account of research conducted by OECD for developing improved indicators for the KBE can be found in the OECD publication “The Knowledge-based Economy”, 1996.

The World Bank has recently developed the knowledge assessment methodology and score cards. They have formulated the set of 63 variables as proxies for four areas that they consider essential in the development of knowledge-based economy (KBE). They are:

- Economic and institutional regime to provide incentives for the efficient use of existing and new knowledge and flourishing of entrepreneurship,
- An educated and skilled population to create, share and use knowledge well,
- A dynamic information infrastructure to facilitate the effective communication and processing of information, and
- An effective innovation system of firms, research centres, universities and other organisations.

Each country should develop its own path to sustainable knowledge-based society. Once such a society is established it is assuring prosperity, social cohesion and even happiness, but the way to this goal is not free of dangers and threats.

Developing Countries

As part of economic history, the knowledge era has unfolded with remarkable speed. As a consequence most basic tools for creating and managing wealth has

lagged far behind the need. This is true of most of the developing countries. Knowledge has become the corner stone of wealth creation in a knowledge society. Intellectual capital comprises three primary types of capital: human capital, structural capital and customer capital. Of these human capital is the most important one. Developing countries need to recognise and value its human resources capital and capitalise on it to the task of amassing wealth of knowledge which works for the poor and promotes social equality. The wealth of knowledge will enable the developing countries to emerge as strong economies and become independent of low cost labour increasing productivity as well as incomes. Therefore, it is necessary to open up avenues for knowledge incubation to be supplemented by capacity building support and enabling policy frameworks. These policy frameworks are intended to provide opportunities for people to use the power of knowledge for advancing their growth.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

5) Discuss the important characteristics and features of a knowledge society.

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6) Explain the different kinds of knowledge important in the knowledge-based economy.

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7) Explain what is meant by the term Knowledge-based Economy (KBE) and discuss some of the important indicators that help to measure KBE.

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8) Discuss the steps to be taken by developing nations to progress towards knowledge society and knowledge-based economy.

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1.5 SUMMARY

This Unit commences with the role of libraries in modern society. In this regard, the concept of a modern library and its expected role to suit the changed requirements of the society and the user community is explained. The impact of information on a society and the user community is explained. The impact of information on society is briefly mentioned. The Unit then goes on to describe the concept of information society, its evolution, interpretations and its impact on information profession. The emerging knowledge society, its characteristics, its establishment, the changes taking place in the society in this context are explained in a simple manner so that it can easily be comprehended. It has been emphasised that in a knowledge society it becomes crucial that we have the skills and competencies relating to the selection and use of information. Tacit knowledge (essentially *know-how* and *know-who*) in the form of the skills needed to handle codified knowledge becomes more important than ever. The skills required of humans are those that are complimentary with ICTs and not those which are substitutes.

The concept of Knowledge-based Economy (KBE) and the indicators necessary for its assessment are described and explained. It has been stated that work in the KBE will demand uniquely human (tacit) skills such as conceptual and interpersonal management and communication skills. It has been mentioned that each country should develop its own path to sustainable knowledge-based society. The effort of Government of India in the constitution of National Knowledge Commission has been as a right step. If the Government of India implements the recommendations of the National Knowledge Commission, it would provide right environment to accelerate the establishment of Knowledge Society and transformation of India into a Knowledge-based Economy (KBE).

1.6 ANSWERS TO SELF CHECK EXERCISES

- 1) Modern Society has various needs such as education, research, cultural advancement, information and other ideological pursuits. It has founded different institutions designed to meet such needs. Libraries are one such prominent institution, which are expected to meet most of these needs. Certainly libraries play an important role in supporting the educational (both formal and non-formal) and research activities of the society.

In many cases, access to information was, and is, via libraries. Information systems tend to be based on, or geared to, the processing and organisational requirements of institutional information centres. This pattern has, however, begun to change as a result of developments in computing and communication technologies. Technology appears capable of deinstitutionalising information and handing over access to individual, thus cracking the mould of library. The fundamentalists view is that the pace of development in ICTs will *soon make the traditional librarian / information worker obsolete*. It has been remarked that there is no long term future for any library in the form we know it today; libraries as collection of physical artefacts are rapidly becoming obsolescent. Of course, this fundamentalist position however, is rigidly simplistic. The social, cultural and educational function of libraries and information profession is also being challenged. In other words, the library

as the traditional store house of knowledge and the preserve of cultural heritage is caught in the maelstrom of change generated by technological advances. Therefore, as a adaptive reaction, attempts to define the goals of the library are called for. The library profession must revise its service delivery philosophies and operational mechanisms. There is a shift from a passive or reactive to a proactive mode. Naturally, this entails on the part of libraries evaluation exercises, the design and promotion of new systems and facilities, investment of time in user education programmes and acquisition of relevant professional skills and competencies for those already in the field. With the availability of sophisticated information technology valuable professional talents must be directed towards enhancing the image of the library as a dynamic information centre with a wide range of services to offer its users. Efforts should be made to enable users to view the *librarian as valuable professional resource person who can quickly locate the information and materials needed to support their intellectual pursuits in a total spectrum of subject areas*. To meet the changing needs of the clientele, libraries must be more creative and provide access to resources available in other libraries via networking, and electronic resources for those who can not afford home computers or terminals. Of course, library users must be made to understand the difference between information which is freely available, and information which is free.

Although libraries essentially handle information and knowledge, the institutional mechanism to meet the demands of the users in an emerging Knowledge Society has to be expanded by properly organising and operating many of the modern information systems and services. The implementation of the above discussed aspects is essential to meet the changing needs of modern society.

- 2) A number of scholars, scientists and philosophers have been predicting a revolutionary transformation of modern industrial society. Many causes have been identified and attributed as forming the driving force behind such transformation. However, most people opine that *information* is the defining feature of modern world. We are told that we have entered an information age and are rapidly moving towards “global information economy”. Many writers identify an entire new phenomenon called Information Societies – the examples of which are found in the United States, Britain, Japan and Germany.

“Information Society” is a concept which sees the transition of Industrialised Society into one in which information – in its broadest and most diverse forms – is the key driving force.

Two major factors underline the Information Society claims. Firstly, that the society is becoming increasingly centred on information handling, processing, storage and dissemination using micro – electronics – based technologies, made available through the convergence of computer with telecommunications, namely ICT. And secondly, that this shift is reflected in an emerging occupational structure, in which the category of “Information workers” has become predominant. In other words, the Information Society appears as an out come of technological and economic changes.

3) Attributes of Information Society are:

- i) Shift from an industrial economy to information economy.
That is to say that in industrial economy *capital* is the strategic resource, while in Information Economy information becomes the strategic resource;
- ii) a telecommunication based information service infrastructure;
- iii) a high degree of computerisation, large volumes of electronic data transmission and employment of IT;
- iv) characterised by the fact that the rapid convenient delivery of needed information is the ordinary state of affairs.

4) Economic implications of Information Society:

Information Society might be characterised by different dimensions. One of these relates to the economic structure. We come across several references in literature to the economic implications of the Information Society.

The state of information in the economy has pervasive effects on the working of economy generally. It has great impacts on those sectors that provide information products and services such as press, television, radio, film ... libraries and other information providers.

Machlup initiated studies analysing the growth of *Knowledge Sector* in the US economy. The knowledge industry included such areas as the educational system, the media, and other communication activities, libraries and other information activities and research institutions. Machlup's finding was that the contribution of this sector to the Gross National Product (GNP) was 40% for early 1960s and is growing at a rate which is higher than the industrial sector.

Marc Porat, who continued the research in this direction, enlarged the scope of information work to include all jobs falling within the information or knowledge sector as defined by Machlup. According to Porat information activities included all resources consumed in producing, processing and distributing information goods and services. Porat estimated that these activities amounted for 45% of the GNP in 1967.

In conclusion, it may be emphasised that the contribution of information sector to successful economic function is beyond doubt. However, it is not quite the same as saying that information has become a primary out put of all developed economies. We may say that we are moving towards Information-based Economies, but not wholly dependent on the production, sale and exportation of information goods and services for the preservation of our economic well being.

5) Characteristics of the Knowledge Society

One of the most popular themes discussed in general literature for more than a decade has been that technologically advanced economies are in the process of moving beyond industrial capitalism to information-based economies that will bring profound changes in the form and structure of the economic system.

Economists recognised long ago that the most important resource determining the economic efficiency of any economy, industry, productive process, or house hold, is *information and its effective communication*. The characteristics of information define the state of knowledge that under lies all economic process and decision making structures.

In transformation of social structures – by knowledge *as a core resource* for economic growth, employment, and as factor of production, constitute the *main criteria* for designating a modern society *as a “Knowledge Society”*. In a knowledge society, the traditional measures of competitiveness such as labour costs, resource endowments, and infrastructure get superseded by *new dimensions such as patents, research and development, availability of knowledge workers*. In a perfect knowledge society all people have:

- Open and timely access to information and knowledge;
 - The capacity to absorb and interpret information; and
 - Avenues and opportunities to use knowledge and decision making and for transformation to higher quality lives.
- 6) In order to facilitate economic analysis, distinctions can be made between different kinds of knowledge which are important in the Knowledge-based Economy (KBE). They are: *know-what, know-why, know-how and know-who*. Knowledge is a much broader concept than information, which is generally the, *know-what* and *know-why* components of knowledge. These are also the types of knowledge which come closest to being market commodities or economic resources to be fitted into economic production functions. Other types of knowledge – particularly *know-how* and *know-who* – are more *tacit knowledge* and are difficult to codify and measure.

Learning to master the four kinds of knowledge takes place through different channels. While *know-what* and *know-why* can be obtained through reading books, attending lectures and accessing databases, the other two kinds of knowledge are rooted primarily in practical experience. *Know-how* will typically be learned in situations where an apprentice follows a master and relies upon him as the authority. *Know-who* is learned in social practice and some times in specialised educational environments. It also develops in a day-today dealings with customers, sub-contractors and independent institutes. This is one of the reasons why private firms engage in basic research to acquire access to networks of academic experts crucial for their innovative capability. *Know-who* is socially embedded which can not easily be transformed through formal channels of information.

- 7) Most of the advanced economies have undergone significant structural changes in the recent years. One of the main characteristics of the changes is the growing importance of the knowledge in all sectors of economic activities. These economies have developed from an agricultural economy in which land is the key resource, then to an industrial economy in which natural resources and labour are the main resources, and now to a Knowledge-based Economy (KBE) in which knowledge is the key resource.

The term KBE (or some times called New Economy or Modern Economy) results from a fuller recognition of the role of knowledge and technology in

economic growth. Knowledge as embedded in human being (as human capital) and in technology has always been central to economic development. The term KBE was first coined by OECD and defined as “economies which are directly based on the production, distribution and use of knowledge and information” (OECD, 1996). The APEC then extended this idea to state that in a KBE “the production, distribution and use of knowledge is the main driver of growth, wealth creation and employment across all industries” (APEC, 2000). While the KBE ideally encompasses concepts like innovation, higher education and R&D, it is broader than this and highlights the importance of knowledge in all aspects of economy.

To fully comprehend the working of the KBE, new economic concepts and measures are required which track the phenomena beyond conventional market transactions. In general it was suggested that improved indicators for the KBE are needed for the following tasks:

- Measuring knowledge inputs;
 - Measuring knowledge stocks and flows;
 - Measuring knowledge outputs;
 - Measuring knowledge networks; and
 - Measuring knowledge and learning.
- 8) Knowledge exists in the minds of the people and when combined with capital, labour existing knowledge and other inputs, produces goods and services and thus becomes a factor of productivity. This fact has been realised by many developed nations and they have transformed into knowledge-based economies where conventional raw materials and physical labour (Brute – force economy) is being replaced by brain – force economy. Developing nations need to recognise and value its human resources capital and capitalise on it to the task of amassing wealth of knowledge which works for the poor and promotes social equality. The wealth of knowledge in turn will create opportunities for developing countries to emerge from dependence of low cost labour as a source of comparative advantage increasing productivity and incomes. Avenues need to be created for knowledge incubation (growth) to be supplemented by capacity – building support and enabling policy frame works which provide opportunities to people to use power of knowledge for improving their growth.

1.7 KEYWORDS

- Information Age** : A period predominantly centred on information activities.
- Information Channel** : Established carriers that disseminate information or knowledge.
- Information Economy** : Is a philosophy, an attempt to model the national economy with its basis on knowledge and information activities, and which has continued to affect, in important ways, the economic, social, political and cultural life of the nation.

Information Flow : Information transfer through established channels.

Information Industry : Industries involved in the production of information in any physical form.

Information Need : The term “Information Need” refers to that need which library services or materials are intended to satisfy. It is assumed that the consumption of information arises from a need for information.

Information Transfer Process : The movement of information from generation to use with a series of intermediate links that connects each other to form a chain.

Information Work-Force: The term has acquired a wider connotation and includes many groups who are involved in a variety of information related occupations. The OECD categorisation includes: Information producers, Information processors, Information distributors and Information Infrastructure occupations, under this concept ...

Infosphere : Is a neologism coined by Luciano Floridi on the basis of biosphere? It denotes the whole informational environment constituted by all informational entities (thus including informational agents as well), their properties, interactions, process and mutual relations. It is an environment comparable to, but different from cyberspace (which is only one of its sub-regions, as it were), since it also includes off-line and analogue spaces of information. It is a concept that is rapidly evolving.

Kinds of Knowledge:

i) *know-what* : Refers to knowledge about *facts* such as How many people live in Delhi? What are the ingredients of pancakes?, When was the battle of Panipat fought?, are some of the examples. Here, knowledge is close to what is normally called as information.

ii) *know-why* : Refers to scientific knowledge of the principles and laws of nature. This kind of knowledge underlies technological development and product and process advances in most industries. The production of this kind of knowledge is often organised in specialised organisations such as research labs, universities, etc.

iii) *know-how* : Refers to skills or capability to do something. Businessmen judging market prospects for a new product or a personnel manager selecting and training staff have to use their know-how.

iv) *know-who*

Know-how is typically a kind of knowledge developed and kept ready within the border of an individual firm.

- : Involves information about who knows what and who knows how to do what. It involves the formation of special social relationships which makes it possible to get access to experts and use their knowledge efficiently. This kind of knowledge is internal to the organisation to a higher degree than any other kind of knowledge. It is very important for any modern manager or organisation to have this.

Post-Industrial Society : The thesis propounded by Daniel Bell. The concept emphasises the centrality of theoretical knowledge and the axis around which new technology, economic growth and the ramification of the society will be organised. This axial principle is becoming more and more predominant in advanced industrial societies.

Social Wealth : Wealth available freely to all members of a society.

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UNIT 2 TYPES OF LIBRARIES

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Types of Libraries
 - 2.2.1 National Libraries
 - 2.2.2 Academic Libraries
 - 2.2.3 Public Libraries
 - 2.2.4 Special Libraries
 - 2.2.5 Digital Libraries
 - 2.2.6 Virtual Libraries
 - 2.2.7 Hybrid Libraries
- 2.3 Summary
- 2.4 Answers to Self Check Exercises
- 2.5 Keywords
- 2.6 References and Further Reading

2.0 OBJECTIVES

After reading this Unit, you will be able to:

- explain the complex nature of libraries which need to operate across many boundaries;
- discuss the different types of libraries that have evolved over a period of time and their basic functions;
- categorise them as: national, academic, public and special libraries;
- explain the concept and the meaning of electronic, digital, virtual and hybrid libraries and their functions;
- explain how excellent libraries keep renewing to meet the changing requirements of the society as well as the user community; and
- discuss the challenge for all librarians to find that judicious blend of traditional service and courageous innovation which will secure their libraries' future.

2.1 INTRODUCTION

In modern societies all activities of people are organised and conducted through institutions. A social institution is an *integrated pattern* of human relationship established by the common will and serving some vital need. The pattern is caused through the interaction among people as a vital social need. In modern societies special emphasis is being given to the aspects of literacy, adult education, formal education, lifelong education, health care and dissemination of information and knowledge. Educational institutions promote knowledge, skills and socialisation processes of the society. Many of these institutions incorporate a

body of formal rules and regulations through which activities of the society are carried out and regulated.

Of the many institutions formed by the society, library and its modern cognates are the most potent ones in meeting multiple needs of users in a modern society.

It was during the middle of the 19th century that social forces came into play and revolutionised the character of *library* making it more and more a public institution. The industrial revolution had a great impact on the concept of library transforming it from private and personal institution into a democratic institution and benefiting people at large. “Libraries are hugely complex organisations which need to operate across many boundaries but have few, if any, unique services. Yet they have survived for millennia, changing to meet new circumstances and adapting to their users’ needs. They are there for the long term, not only in their duty to preserve humankind’s recorded memory but as centres of expertise in accessing, using and, increasingly, creating information and knowledge. Domsday scenarios have come and gone, yet excellent libraries keep renewing themselves. The challenge for all librarians is to find that a judicious blend of traditional service and courageous innovation which will secure their libraries’ future” [Brophy, 2007].

Francis Miksa (2007) takes a *long view* of the library which will allow a thoughtful basis for discussing present changes taking place. Accordingly, first he proposes looking at the library in society as an *era-specific* phenomenon and then discusses the library which we know, the modern library, in the same way, as an *era-specific* phenomenon, including the idea of the library that it replaced. Next, he examines three principal aspects of the modern library which are now being challenged by the present circumstances. Miksa feels that there are at least three basic aspects of the present library that our contemporary, situation is challenging. They are: i) how we view the idea of the library as a social institution, ii) how we view the target populations that the library is to serve, and iii) how we view the idea of library funding. Miksa’s views on all the above aspects are revealing and merit serious consideration by the library profession. After long discussion on the changing nature of the present library concept, Miksa concludes by saying that the emerging library will differ from the present library in that it will be in electronic form resident in individual communication devices. It will be tailored to an individual or the needs of small cohesive groups of individuals. And it will continue to need such basic functions as selection, acquisition, organisation, and access mechanisms and services, just as it always has, although now fitted to the needs of the individual or small group for whom such a library has been created.

Reference has been made to the authors Peter Brophy and Francis Miksa to emphasise the point that the concept of library as we know it today is undergoing change, and as such its role in the society has to be decided by the changed requirements of its clientele. However, attempt is being made to provide you a picture of different types of libraries as they exist today and their functions.

2.2 TYPES OF LIBRARIES

From their historical beginnings as places to keep the business, legal, historical, and religious records of a civilisation, libraries have emerged since the middle of the 20th century as far reaching bodies of information resources and services

that do not even require a building. Rapid developments in computers, telecommunications, and other technologies have made it possible to store and retrieve information in many different forms and from any place with a computer and telephone connection. The terms *digital library* and *virtual library* have begun to be used to refer to the vast collection of information to which people gain access over the internet.

This section provides a brief account of libraries with a focus on the later part of the 20th century, when both technological and political forces radically reshaped library development. It offers an overview of different types of libraries and explains their important functions.

2.2.1 National Libraries

The concept of national library is a recent development dating back to a few centuries. This development has been a feature of socio-economic, cultural and scientific advancements in the Western industrially advanced nations. Although national libraries existed in the past in some form in many countries, the growth of national libraries as we understand them today has been an outcome of the Renaissance Movement in Europe. Their growth has been further accelerated by the advances in science and technology and their applications in industry, trade, transportation and communication. Their objectives, functions and activities have been discussed in many national and international conferences.

A) *Definition and Functions of a National Library*

“A national library is a library specially established by the government of a country to serve as the pre-eminent repository of information for that country” (Wikipedia). Unlike public libraries, national libraries rarely allow citizens to borrow books. Often, they include numerous rare, valuable, or significant works. Though many national and international conferences discussed the subject of national libraries, there is no one agreed definition for the concept of national library. Of course, there are wider definitions putting less emphasis to the repository character. We shall, however, examine the expositions contained in some glossaries like Harold’s Librarians’ Glossary and Reference Book and the ALA Glossary of Library Terms for the term.

The 6th edition of Harold’s Librarians Glossary (1987) defines a National Library as:

- A library maintained out of government funds;
- Serving the nation as a whole;
- Books in it being for reference only;
- Usually copyright libraries;
- The function of such a library is to collect and preserve for posterity, the books, periodicals, newspapers and other documents published in the country;
- This is best done by a law requiring the publishers to deposit copies of all publications issued by them; and
- Books purchased being published in other countries.

On the other hand, the ALA Glossary simply defines the National Library “as a library maintained by nation”. This definition does not specify or discuss the services that a national library has to offer except the twin functions of collecting and conserving the nation’s intellectual patrimony and purchase of important books published in other countries. A far more detailed exposition of the term national library may be obtained from the recommendations of UNESCO entitled “Recommendations Concerning International Standardisation of Library Statistics”. It reads as: Libraries which, irrespective of titles, are responsible for acquiring and conserving copies of all significant publications published in the country and functioning as a deposit library either by law or under other arrangements. It will normally perform some of the following functions:

- i) produce a national bibliography;
- ii) hold and keep up-to-date a large representative collection of foreign literature, including books about the country;
- iii) act as a national bibliographical information centre;
- iv) compile union catalogues; and
- v) publish retrospective bibliographies.

This exposition is rather comprehensive and covers most of the important functions of a national library.

It may be interesting to note that the *Final Report of the Regional Seminar on the Development of National Library in Asia and Pacific Area*, held at Manila in 1964, contained the following as functions of a National Library:

- to provide leadership among libraries;
- to serve as permanent depository for all publications issued in the country;
- to acquire other types of materials;
- to provide bibliographical services;
- to serve as coordinating centre for cooperative activities; and
- to provide service to government.

It may be pointed out that Lor (1997), drawing on the work of Line and Line (1979) and IFLA (1992), established three dimensions to the work of National Library, identifying functions concerned with 1) Heritage, 2) Infrastructure and 3) Delivery of comprehensive national library service. Of these three dimensions, delivery of comprehensive national library service is worth mentioning. Under it (Delivery of comprehensive national library service) he considers the following aspects:

- acquisition and processing of library material for other libraries;
- recycling and disposing of material acquired for other libraries;
- central support of reference, consultation, loan and document delivery services by other libraries;
- system-wide professional and technological leadership;
- advice to other libraries;

- system-wide planning and coordination;
- research and development relating to the development of the service; and
- literacy programmes using constituent and affiliated libraries as centres for literacy promotion.

It must be emphasised here that from the perspective of the national library in terms of its function-leaving aside medium and content – the national library provides a cultural focal point which transcends the present and reaches into the past, in terms of the material it secures, and into the future, in terms of transmitting human knowledge to future generations. It fulfils these roles by collecting a representative, although never comprehensive, set of records and by ensuring that they are organised and preserved so as to remain of use in the future. A national library which fails to build the representative collection or fails to secure its permanence has failed in its duty”.

Of course, national libraries can not shoulder all of this responsibility on their own, and they are joined by major academic and other libraries in a cooperative endeavour which builds on specialisms which have developed over the centuries.

Looking into the future, it appears that the comprehensiveness of access to published information which national libraries sought to provide is likely to be achieved more through collaborative networks than by individual national libraries. This does not down play the critical role of collecting and preserving the national published heritage and making it available in innovative ways. For example, the British Library has demonstrated how the function of preserving the national published memory and that of broadening and deepening access can be combined, with innovative products like *Turning the Pages* and the *Business and Intellectual Property Centre*.

Under the umbrella *National Libraries Section* (IFLA), many national libraries cooperate to discuss their common tasks, define and promote common standards and carry out projects helping them to fulfil their duties. Similarly national libraries of Europe participate in *The European Library*. This is a service of *The Conference of European National Librarians* (CENL).

The foregoing account is provided in this Unit, to give you a brief account of the concept of national library and its functions.

It is to be noted that in most of the countries there is a national or state library or group of libraries maintained by national resources, usually bearing responsibility for publishing a national bibliography and maintaining a national bibliographical information centre. National libraries strive principally to collect and to preserve the nation’s literature, though they try to be as international in the range of their collection as possible.

The Bibliotheque Nationale in Paris, the British Library in London, and the Library of Congress in Washington, D.C., are among the most famous and most important national libraries in the Western World.

There are many other national libraries with important collections and very long histories. The Russian State Library (formerly called Lenin Library) in Moscow is the National Library of Russia. It is of a size and importance comparable to the Library of Congress. It receives several publications from throughout the

country and distributes their copies to special libraries. This library organises domestic and international lending and exchanges and offers courses of lectures for professional education and also for readers. The Soviet Library – Bibliographical Classification scheme based on a Marxist-Leninist Classification of Knowledge is produced by it.

The National Library of China, Japan and India are some of the important national libraries. Literature describing all the above libraries along with their functions and services offered by them is available.

The National Library of India

A) Collection

It may be emphasised here that the National Library of India located in Kolkata has more than 2.2 million books and other materials. The collection is built through the following means:

- Books received through Delivery of Books and Newspapers Act 1956;
- Purchase;
- Gifts;
- Exchange; and
- Other depository privileges.

The majority of collection is in English and Indian languages, though there are some books in few foreign languages. The broad categories of publications acquired through purchase are:

- Books and journals on India in any language, published anywhere in the world;
- Indian publications published before 1954, and not available in the library;
- Books by Indian authors published abroad;
- Standard reference works; and
- Books on library, documentation, and information science, science and technology, education, planning and development and standard works on history, sociology, and biographies of eminent people, rare and out of print books on microfilms and other standard works within the limits of budget provision.

The National Library has some gifts which enrich its holdings considerably. The famous of such collections happens to be that of Sir Asutosh Mukhopadhyay collection gifted by his family. It covers the whole gamut of subjects in the humanities and sciences as far as published knowledge up to the early decades of the 20th century. Of course, the library possesses the enviable collections of historians like Sir J.N. Sirkar and S.N. Sen. Archival papers of Sir Tej Bahadur Sapru and other rare manuscripts greatly attracts research scholars.

The National Library has exchange relations with 170 institutions in 56 countries all over the world. As result of such relations, the library has been

able to acquire valuable foreign documents, not normally available through trade channels.

Besides U.N. publications, the publications of American, British, Canadian governments as also publications of OECD are deposited in the National Library according to the agreements made with Government of India. These documents add a new dimension to the importance of the National Library. All these documents, as also the other holdings of the library are processed, organised and serviced to the patrons of the library.

B) *Services*

The National Library of India provides the following services:

- Lending service including inter - library loan;
- Reading facilities;
- Bibliography and reference services; and
- Reprography services.

The lending function is rather peculiar for a national library. However, for historical reasons, the National Library of India has continued its lending facilities to the members of the library in and around Kolkata. Inter - library loan facilities are offered to members and institutions with the cooperation of other libraries, both at national and international levels. This service obtains loan of books from Russian State Library, Moscow, British Library, London, and libraries in Australia, Hungary, Denmark, Sweden, and a few other countries.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

1) What are the functions of national library?

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2) Briefly discuss the services offered by the National Library of India.

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3) Mention some of the important national libraries of the World.

2.2.2 Academic Libraries

Use of libraries for reading and reference is an integral part of learning, teaching and research. Libraries in schools and colleges provide facilities for students and teachers to read books or consult them for reference, thus widening the scope of class room learning and teaching. University libraries provide additional facilities for higher learning, research and dissemination of knowledge.

The massification of higher education has led in recent years to much greater prominence being given to the role of academic library in supporting learning and teaching. In the U.K., The Robbins's Report (Committee on Higher Education, 1963) set the stage with its famous statement of principle: "higher education opportunities should be available to all those who are qualified by ability and attainment to pursue them and who wish to do so".

The Follett Report (1993) set in train strategic thinking which has enabled libraries to take an institutional lead in some areas, for example, in the development of broad cross-organisational information strategies.

The effects of information and communication technologies on the changes and developments taking place in academic libraries cannot be undermined. However, it has to be recognised that there are other drivers of change. These include the role of library staff in the direct delivery of teaching, especially in relation to information literacies, accountability and pressure on resources with consequent requirement for robust performance and the whole question of the design of the physical library in an age of electronic communications.

At this point in time, the role that academic libraries will play in future is far from clear. They remain institutional expertise in information organisation even if the recognition of this expertise is rather patchy. Their legacy collections are important and recognised as such. The integration of their services into learning, teaching and research provides the greatest challenge, with the possible loss of large numbers of researchers as direct users as alternative patterns of scholarly communication emerge. Also their remains the question as to *what physical academic library should look like* in an age of e-learning and e-research.

However, we need to have understanding of the present situation so far as the academic libraries are concerned.

The academic libraries comprise: school libraries, college libraries and the university libraries. Performance of each of these types of libraries is important in promoting the objectives of their parent organisations to which they are attached.

A) *School Libraries*

The librarian of the school library has responsibilities of not only maintaining the library but also getting involved in activities that would compliment and supplement classroom teaching. It is necessary for her/him to possess teaching skills. Story-telling, book talks, demonstrating the lives of birds and animals through audio-visual aids, etc. are some of other desirable skills that a school librarian should possess. Most of these activities call for imagination both in design and presentation. S/he should develop a participative approach with the teachers and play a supportive role in improving the performance of the school as a whole.

A school library should offer some of these services to its clientele:

- Lending,
- Information and reference services,
- Guidance and advisory services,
- Preparation of reading lists both on anticipatory and responsive basis,
- Service on current events, activities, personalities, etc. and
- Other routine services.

It may be pointed out that the situation relating to school libraries in India presents a dismal picture and needs considerable improvement. In this connection, it is worth pursuing the recommendations of the Secondary Education Commission and the Directorate of Extension Programme for Secondary Education of the NCERT to vitalise school libraries.

B) *College Libraries*

College education provides a completely different environment to students. Here, the teachers will not be in a position to provide individual attention to students. Students have to depend more on self-learning. Therefore, college library plays important role in supplementing class room teaching. In this section we shall briefly discuss the objective functions, nature of collection that needs to be built up and the services to be rendered to the different categories of users.

The major functions of a college library may be summed as under:

- Giving the young minds (boys and girls) a wider and deeper understanding of different disciplines;
- Preparing the students for advanced studies in various disciplines;
- Preparing the girls and boys for shouldering higher responsibilities in life;
- Providing adequate reading facilities; and
- Introducing special materials to faculty necessary for their research.

For translating the above functions into practice the college library needs certain key components. They are:

- A collection of books and other learning material;
- The identification of user community which comprises students, teachers and the college management;

- Physical facilities like building, furniture and other equipment;
- Professional staff for the library; and
- Finance and budget.

In order to meet the varied academic and extra curricular needs of both students and the teachers, a college library should acquire a wide range of learning and teaching materials. The quality of the collection has to be determined on the basis of a well thought out policy laid down by the library advisory committee. The librarian and her/his staff using the global selection tools should bring to the attention of experts worth while titles on different subjects to build a collection adequate to meet the learning and teaching requirements. The collection thus acquired must be processed and properly organised to facilitate its maximum use. The important services to be provided by a college library comprise the following:

- Textbook Services;
- Lending and interlibrary loan service;
- Reading room services;
- Information and reference services;
- Documentation services on a specific request;
- Display of current journals and new acquisitions to the library;
- Assistance in the use of the library;
- Audio-visual services – such as tape slide demonstrations; and
- Reprographic facilities (on liberal basis).

It goes without saying that use of modern technology in services will facilitate better performance and efficacy of the library. Voluntary help and service should be the real motto of the library staff. They should be active partners in playing supportive role in teaching and learning process and help the library user community to the maximum extent. Last but not the least aspect is the funding policy to be followed by the management. They should do well to follow the accepted norms and standard practices. Modernisation of the library facilities is the need of the times.

C) *University Libraries*

An enduring metaphor for the university library is that it is the *heart of the university*. The exact origins of this phrase are not clear. However, Grimes (1998) suggests that it was first used by William Eliot (who was president of Harvard University, Chicago during the period 1869-1909). Subsequently the image was picked up in U.K. and appeared in various reports like Parry Report 1967. The metaphor implies that the academic library is of unparalleled importance. The objectives and functions of a university library are derived from the functions of a university which are:

- Learning and teaching;
- Research and generation of new knowledge;
- Dissemination and publication of research results;
- Conservation of knowledge and ideas; and
- Extension and services.

i) *Functions*

As stated above the major functions of a university library are derived from the objectives of the university. They comprise:

- Development of a collection in a wide range of subjects for learning, teaching, research, publication, etc.;
- Getting the stock of knowledge materials organised and maintained for use;
- Organising and providing a variety of library, documentation and information services, both responsive and anticipatory.

The user community of university library generally falls under the following categories:

- Students at different levels of study in different subjects;
- Teachers imparting instructions and guiding students at different levels and in different subjects;
- Research students working for M.Phil and Ph.D. degrees;
- Post-doctoral research scholars working on specific projects;
- Professors and experts guiding research projects and managing research activities of the university;
- Members of various academic and executive bodies of the university;
- Scholars in general, who get special privileges of using the university library; and
- Others.

It can be inferred from the above that university libraries have a great responsibility and a very important role to play not only in shaping students for higher learning and research, but also in providing a variety of services to meet other demands. It must be emphasised here that the university library is governed as per the statutory laws of the university. Hence the library system will be subject to scrutiny and evaluation by its academic and executive councils. There are well laid out policy procedures for its administration. The chief librarian manages the library as per the policy guide lines. Let us now consider some of the important features which need constant and special attention for the successful functioning of a university library.

The major areas of concern of a university library are:

- Collection development;
- Processing and organisation;
- Services;
- Professional staff;
- Physical facilities;
- Finance and budget.

Each one of the above components has a significant role to play in the overall success of the library as a support mechanism in promoting the goals of the university in its pursuit for the achievement of higher learning and research.

ii) *Collection Building and Organisation*

A major responsibility of the university library is to build a sound collection of documents carefully geared to the academic needs of students, teachers and other researchers and scholars engaged in academic pursuits. While it is not easy to specify what constitutes the best collection, the actual and potential needs of users have to be ascertained at appropriate intervals. User and use study techniques and methods developed during the last three decades will provide some valid basis for collection building. The results of citation analysis are being adopted in the acquisition of the current journals. The collection must be need-based and representative. In fact, a university is rated high or low by the quality of collection it builds. Budget provisions are the limiting factors in achieving a comprehensive and balanced collection. Another important factor in the proper management of a university library concerns the proper housing of the large stock of materials. The materials should be properly classified and organised and located at right places of use so that they are easily accessible for any one to use. The physical storage and filing of all documents, both print and non-print, must be conducive to use. In particular, the open access system is practised in the modern university libraries. Adoption of technology adds to the efficacy of the library procedures.

iii) *Services*

The major success of the university library depends on the range of services it offers to its users. The services ought to be planned, keeping in view the general demand for such services, and the capability of the library in offering such services. The primary concern should be to initiate any service on user needs and interests. Services can be categorised as follows:

- Library Services:
 - i) Lending,
 - ii) Information and reference,
 - iii) Reading facilities,
 - iv) Assistance in the use of library, and
 - v) Display of periodicals and current acquisitions.
- Awareness Services
 - i) Current Contents of Journals, and
 - ii) Selective Dissemination of Information (SDI).
- Bibliographic Services
 - i) Literature search,
 - ii) Compilation of bibliographies on specific subjects.

- Condensation Services
 - i) Preparation of abstracts of specific topics,
 - ii) Digest services, and
 - iii) Review and preparation of state of the art reports.
- Other Services
 - i) Document supply services, and
 - ii) Internet-based search services.
- Special Services
 - i) User education,
 - ii) Exhibitions and special displays, and
 - iii) Special lectures and workshops.

One thing must be noted in the context of the provision of library services. That is the services will prosper by offering high quality services. The basic idea about the word *quality*, becomes when used properly, a statement that the *essential product-customer-purpose* linkage has been established. Fundamentally quality is concerned with meeting the *want and needs* of customers. In other words, detailed knowledge and understanding of needs, preferences, skills, and reactions of users is fundamental to the future of library. The closer the library can get to its users as individuals the more likely it is to find a place in the portfolio of services they choose to use. If libraries can get this right, then they can become the services of choice for their users. The present trend is towards personalisation.

iv) *Professional Staff*

The university library staff must be professionally well qualified. They must match the quality of the teaching and research community in terms of academic and professional qualifications, experience and expertise. Their constant interaction with students at different levels, faculty, research scholars, computer and communication experts, and management experts of the university ensures the credibility and appreciation from the user community. It is only through innovative approaches that the user community will be drawn towards library and its services. Ability of library staff to communicate with different groups of users and articulate the services organised by the library will go a long way in establishing good relations. The conduct of the library staff plays a great role in successful operation of university library.

v) *Physical Facilities*

There is no gain saying the fact that proper facilities in the form of a planned building to house the library holdings and servicing them in functional manner is a necessity which enhances the utility of the library. In planning future library buildings the impact of computer and communication technologies will have to be kept in view. Today most of the print materials are available commercially in micro and machine readable forms making storage problems rather simple. This aspect must be taken into consideration when space requirements are formulated. Space allocation must meet the changed information environment.

vi) *Finance and Budget*

University libraries generally operate on the budgets allocated by the universities. The financial allocations are based on certain norms and recommendations of different commissions on education. According to Raj Committee, 20% of the university budget should be made available to the university library. But this provision is not followed uniformly by all universities. Different yard sticks are applied in different cases. It may be mentioned here that the cost of university library must be considered in the context of changing educational technology. It is learnt that the U.G.C. is seized of the subject and sooner, if not later some policy will be formulated taking into context the application of ICTs and the changing information environment. Whatever may be the situation proper funding is necessary for university libraries.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

4) How does a university library differ from that of a college library?

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2.2.3 Public Libraries

Public libraries have a proud heritage. They are now acknowledged to be an integral part of community life as promoters of literacy, providers of a wide range of reading for all ages, and centres for community information services. Yet, although the practice of opening libraries to public has been known since ancient times, it was not without considerable opposition that the idea became accepted, in the 19th century, that a library provision was a legitimate charge on public funds. It required legislation to enable local authorities to devote funds to this cause.

By the second half of the 20th century, there was general agreement around the position that the *public library* fulfilled *three interconnected roles*: education, information and entertainment. It enabled its users to undertake informal learning as well as providing a place for study, it provided access to organised sources of information on all subjects, and it provided entertainment, primarily through lending fiction. Within these roles all libraries developed all manner of services. However, as budgetary cuts started in UK, it became apparent that public libraries were struggling to define what this *tripartite role* really meant in an age of mass communication and mass formal education.

Policy level studies discussed much more deeply into the role of the public library and the contribution it makes to society. In 1993 The Comedy Consultancy issued a report under the title *Borrowed Time* which focussed on five main areas in

which Public Libraries are currently impacting on public life. They are: *Education, Social Policy, Information, Cultural Entertainment and Economic Development*. Another significant event in this direction took place with the issue of *UNESCO Manifesto on Public Libraries* in 1995. This was issued in collaboration with IFLA. This *manifesto* emphasises the following aspects:

- The *public library* which being the *local gateway* to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups;
- A living force for education, culture and information, and essential agent for the fostering of peace and spiritual welfare through the minds of men and women;
- The local centre of information, making all kinds of knowledge and information readily and freely available to its users;
- Accessible for all, regardless of age, sex, religion, nationality, language or social status;
- And lastly, the libraries which have collections and services, all types of appropriate media and modern technologies, as well as materials with high quality and have relevance to local needs and conditions. Materials must reflect current trends and the evolution of the society, as well as the memory of human endeavour and imagination.

The above aspects cover all facets of public library services. The manifesto also spelt out key missions, which relate to information literacy, education and culture which are at the core of public library services.

Public libraries were long perceived as places for lending and reading books, especially fiction and journals for personal education and were not identified with scientific knowledge. This view of public libraries is obviously changing and they represent much more and more successful now than they were in the past. But, what is the role and mission of public libraries in today's Knowledge Society?

A) *Role of Public Libraries in Knowledge Society*

We need to clarify that *knowledge society* is not a society in which knowledge is reserved for the privileged and the chosen individuals or specific groups, but it is intended and must be open to all individuals regardless of age, education, occupation and religion, and to all social groups regardless of ethnic origin, size and class origin. Since knowledge itself is a common and public good and as such intended for all, it must be accessible to all under the same conditions.

Hence, each society must ensure the ways and mechanisms so that each individual as well as groups have access to information, sources of information and knowledge. In a way it is obligation of each State to build the knowledge society as a complete and fundamental programme of its long-term development. In other words, everything that is related to the efficient functioning of public libraries as agents that ensure access to knowledge and the sources of knowledge must be supported. It may be stated that these obligations derive from the documents of the *World Summit on Information Society* (WSIS). Indeed, the tasks and the mission of public libraries are specially emphasised in the recommendations of the Alexandria

Manifesto on libraries in the building of the information society. This manifesto stresses the role of libraries in the democratic process and in the information and knowledge society. All this is based on the fundamental human right to knowledge, learning and communication without any barriers. Indeed, public libraries are intended for and directed to all that live and work in a community regardless of level of education and culture, occupation or level of knowledge in order to serve their informational needs.

Special role of Public Libraries in Knowledge Society:

- Education – especially self-education where public libraries have a long and successful history, also in life-long learning which is an irreplaceable way of personal growth in today’s world;
- Information – ensuring access to information for all, has become an obligation in the realisation of human rights;
- Cultural enrichment – access to different sources of information and knowledge for all. This also includes literacy advancement, which today also means information literacy, as well as awareness of the need to read as a main process to acquiring knowledge, which means not only to see something, but to be informed and acquire knowledge;
- Economic development – public libraries must act as a form of local economic information service, in accordance with the main economic aspects of the areas tourism, agriculture, manufacture, technologies etc. Public libraries are also the most appropriate places to obtain all needed information and statistics concerning all the above.

In this connection, it may be said that no society can effectively function and progress with out proper communication system. This is true even more in case of *knowledge societies* where the process of transmitting and accessibility of information and sources of knowledge are absolutely indispensable. If we accept the fact that public libraries play an important and fundamental role in our societies, they should *adapt themselves and gear their functions* in that direction. This must be one of the strategic goals of their development which should of course, be in accordance with the concept of national advancement of building knowledge society.

The National Knowledge Commission (NKC) of India has recently decided to give priority to the development of public libraries in India as one of the steps to be taken towards transforming Indian society into knowledge society and converting Indian economy into a Knowledge-based Economy (KBE). This effort needs to be applauded.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

5) Discuss the special role of public libraries in a knowledge society.

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2.2.4 Special Libraries

The national, university and public libraries form the network of general libraries more or less accessible to the general public. There are a large number of libraries beyond this network. They are established by special groups of users to meet their own needs. Many of these originated with *learned societies* and especially with the great scientific and engineering societies founded during the 19th century to provide specialist material for their members. Thus some special libraries were founded. With the coming of Industrial Revolution arose the need for working class educated in technology, and industrialists and philanthropists provided facilities and books necessary for technical instruction. Special libraries are attached to official institutions, such as government departments, hospitals and the like. For the most part, however they came into being in order to meet specific needs in commercial and industrial organisations. Special libraries are planned strictly on practical lines, with activities and collections carefully controlled in size and scope. They are largely *concerned with communicating information to specialist users in response to –or preferably in anticipation of– their specific needs*. Special libraries have therefore been much concerned with theoretical investigation of information techniques including the use of computers for information retrieval.

A) *Definition and Meaning*

In the expression special libraries the word *special* has to be interpreted to mean *specialist* to get closer to the concept. As a matter of fact, these are libraries that serve a particular institution that has a specific role to play, and they will therefore tend to be *one subject* oriented libraries. For example, they could serve a hospital, or an industrial organisation or a scientific institution, etc. They also vary in size depending in part of the size of the institution they serve whose information needs are defined. Special libraries, some times referred to as *information centres*, are located in multitude of settings including international organisations.

B) *Functions and Services*

- Special libraries organise the resources they collect in ways that best suit local needs;
- Analyse, synthesise and evaluate information and data;
- Provide critical reviews, reports and compilations;
- Provide abstracts, indexes and extracts;
- Perform literature searches and compile bibliographies;
- Disseminate current information and SDI which stimulate research; and
- Establish a monitoring system for the evaluation of performance.

The above stated functions of special libraries make them more user centred engaged in the provision of need-based services.

C) *Services*

Special librarians have become adept at *reading the runes* (to try to guess what is going to happen in the future by examining what is happening now) of the environment in which their parent organisations operate. Therefore,

they scan information sources to find material that they know will interest their clientele. They master the ways and means of presenting information that will save the time of their busy customers. Special libraries generally provide the following services to their user community:

- Reference Service;
- Awareness Services such as Current Awareness and routing, news letters and other bulletin services;
- Personalised and customised information services such as SDI;
- Specialised services like consolidation and repackaging of information; and
- Analysis, synthesis and evaluation of information and data and preparation of critical reports as and when required.

In all these activities they use information technology available to them. For this purpose the staff need to be specially trained in modern information technology, particularly in practical usage aspects. Only then, the staff will be in a position to deliver the type of services expected of them. It goes without saying that they should be qualified in the subjects in which the parent organisations operate.

In the foregoing pages we have briefly discussed the nature, functions and services provided by different categories of conventional libraries. The discussion provides you the basic knowledge necessary to have a proper understanding of the functioning of different types of libraries.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of the Unit.
- 6) Discuss the need for special libraries and the services they offer to their clientele.

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2.2.5 Digital Libraries

The idea of easy, finger-tip access to information – what we conceptualise as digital libraries today has its origin in Vannevar Bush’s Memex Machine and has continued to evolve with each advance in information technology. When computers were connected into large networks forming the Internet, the concept evolved again, and research turned to creating libraries of digital information that could be accessed by any one from any where in the world. The fundamental reason for building digital libraries is a belief that they will provide better delivery of information than was possible in the past with traditional libraries. Therefore,

phrases like *electronic library*, *virtual library*, *library without walls*, and *digital library* have sprung up and all have been used interchangeably to describe this broad concept. But, what does this phrase mean? What is a digital library? And what are the issues and challenges in creating digital libraries? Also what are the issues involved in creating a coordinated scheme of digital libraries? This section is intended to provide an overview of digital libraries and briefly discuss answers to some of the above questions.

A) *Definition*

There is much confusion surrounding the phrase digital library arising out of *three factors*. First, the library community has used several different phrases over the years to denote this concept – electronic library, virtual library, library without walls and it never was quite clear what each of these different phrases meant. Digital library is simply the most widely accepted term and now is used exclusively at conferences, online and in the literature.

The second factor adding to the confusion is that digital libraries are at the focal point of many areas of research, and what constitutes a digital library differs depending upon the research community that is describing it. For example:

- From an information retrieval point of view, *it is a large database*.
- For people who work on hypertext technology, *it is one particular application of hypertext methods*,
- For those working in wide-area information delivery, *it is an application of the Web*, and
- For library science, *it is another step in continuing automation of libraries*.

Third, confusion arises from the fact that there are many things on the Internet that people are calling *digital libraries*, which from a librarian's point of view *are not*. For example:

- For computer scientists and software developers, *collections of computer algorithms or software programs* are digital libraries;
- For database vendors, their databases and electronic document delivery services constitute digital libraries;
- For large corporations, a digital library is the document management systems that control their business documents in electronic form; and
- For a publisher, it may be an *online version of catalogue*.

So what is a working definition of a digital library that makes sense to librarians? It may be mentioned here that the most scientific definition arising from the community of library practice is the one set forth by the Digital Library Federation: “Digital Libraries are organisations that provide the resources, including the specialised staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital work so that they are readily and economically available for use by a defined community or set of communities”. However, the interest and concerns of both communities

(librarians and computer specialists) are reflected in a broader, *two part definition* that arose from a research workshop on social aspects of digital libraries:

- “Digital libraries are a set of electronic resources and associated technical capabilities for creating searching and using information. In this sense, they are an extension and enhancement of information storage and retrieval systems that manipulate digital data in any medium (text, images, sounds, statistic and dynamic images) and exist in distributed networks. The content of digital libraries includes data, metadata; they describe various aspects of the data (i.e. representation, creator, owner, reproduction rights) and metadata that consists of links or relationships to other data or metadata whether internal or external to the digital library.
- Digital Libraries are constructed – collected and organised – by [and for] a community of users and their functional capabilities support the information needs and uses of that community. They are a component of communities in which individuals and groups interact with each other, using data, information and knowledge resources and systems. In this sense, they are an extension, enhancement, and *integration of a variety of information institutions* as physical places where resources are selected, collected, organised, preserved, and accessed in support of a user community. These information institutions include among others, libraries, museums, archives, etc. Digital Libraries also extend and serve other community settings, including classrooms, offices, laboratories, homes and public spaces”.

B) *Characteristics*

It is to be noted that characteristics mentioned below have been gleaned from various discussions about digital libraries, both online and imprint.

- Digital libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections. So they encompass both electronic and paper materials.
- Digital libraries will also include digital materials that exist outside the physical and administrative bounds of *any one digital library*.
- They include the processes and services that are the backbone and nervous system of libraries. However, such traditional processes though forming the basis of digital library work will have to be revised and extended to accommodate the differences between new digital media and traditional fixed media.
- Digital libraries provide a coherent view of all of the information contained within a library, no matter its form or format.
- They will serve particular communities or constituencies, as traditional libraries do now, though those communities may be widely dispersed throughout the network.
- Digital libraries will require both the skills of librarians and as well as those of computer scientists to be viable.

C) *Issues and Challenges in Creation*

The optimism and hype from the early 1990s has been replaced by a *realisation* that building digital libraries will be a difficult, expensive, and long term effort [Lynch, 1995]. Creating effective digital libraries poses serious challenges. The integration of digital media into traditional collections will not be easy, like previous new media (such as video and audio tapes), because of the unique nature of digital information – it is less fixed, easily copied, and remotely accessible by multiple users simultaneously. Some of the more serious issues facing the development of digital libraries are outlined in this section.

D) *Technical Architecture*

The first issue is that of the technical architecture that underlines any digital library system. The architecture will include components such as:

- High-speed local networks and fast connectors to the Internet,
- Relational databases that support a variety of digital formats,
- Full - text search engines to index and provide access to resources,
- Electronic document management functions that will aid the overall management of digital resources.

One of the important things to note about technical architectures for digital libraries is that they would not be *monolithic systems* with which librarians are familiar. Instead, they will be *a collection of disparate systems and resources* connected through a network, and integrated within one interface, most likely a web interface. The resources supported by the architecture may include:

- Bibliographic databases that point to both paper and digital materials,
- Indexes and finding tools,
- Collection of pointers to Internet resources,
- Directories,
- Photographs,
- Numerical data sets, and
- Electronic journals.

Though the above mentioned resources may reside on different systems and in different databases, *they would appear as though they were one single system* to the users of a particular community.

E) *Building Digital Collections*

One of the essential issues in creating digital libraries will be the building of digital collections. Obviously, for any digital library to be viable, it must have a digital collection with the critical mass to make it really useful. There are three methods of building digital collections:

- Digitisation – converting paper and other media in existing collections to digital form;

- *Acquisition of original digital works* created by publishers and others. For example: electronic books, journals etc.,
- *Access to external materials* not held in-house by providing pointers to websites.

F) *Metadata*

Metadata is another issue central to the development of digital libraries. Metadata is the data that describes the content and attributes of any particular item in a digital library. It is a concept familiar to librarians because it is one of the primary things that librarians do. For example, they create cataloguing records that describe the documents. While there are formal library standards for metadata, namely AACR-2R, such records are very time consuming to create and require specially trained personnel to undertake such work.

Therefore, simpler schemes for metadata creation are being proposed. One such scheme is *Dublin Core*, an effort to try and determine the *core* elements necessary to describe materials. The lack of common metadata standards is another barrier to information access and use in a digital library.

G) *Naming, Identifiers, and Persistence*

Another important issue related to metadata is the problem of *naming in a digital library*. Names are strings that uniquely identify digital objects and are part of any document's metadata. Names are important in a digital library just as ISBN number in a traditional library. They are needed to uniquely identify digital objects. Any system of naming that is developed must be permanent and be lasting indefinitely. It means the name cannot be bound up with a specific location. The unique name and its location must be separate. The name must remain valid whenever documents are moved from one location to another. Three of the schemes proposed to solve this problem are: PURLs, URNs, and Digital Object Identifiers (DOI).

PURLs: Persistent Uniform Resource Locators (PURLs) are a scheme developed by OCLC in an attempt to separate a document name from its location and therefore increase the probability that it will always be found.

URNs: Uniform Resource Names (URN) is a development of the Internet Engineering Task Force (IETF). A URN is not a naming scheme in it self, but a *framework* for defining identifiers.

DOI: Digital Object Identifier (DOI) is a joint initiative by American Publishers and the American Corporation for National Research designed to provide a method by which digital objects can be reliably identified and accessed.

H) *Copyright / Rights Management*

One of the barriers to digital library development is copyright. The current paper-based concept of copyright breaks down in the digital environment because the control of copies is lost. Digital objects are less fixed, easily copied, and remotely accessible by multiple users simultaneously. The problem for libraries is that, they do not own their information. Libraries do

not hold the copyright of the material they possess. Therefore, they can not freely digitise and provide access to copyrighted materials in their own collections. Instead they will have to develop mechanisms for managing copyright. Such mechanisms which allow them to provide information without violating copyright are called *rights management*.

I) *Presentation*

Another important issue associated with digital libraries is preservation that is keeping digital information available in perpetuity. In the preservation of digital materials, the real issue is *technical obsolescence*. In other words, preservation of digital information will mean constantly coming up with new technical solutions. There are three types of preservation that one can refer to. They are:

- The preservation of the storage medium;
- The preservation of access to content;
- The preservation of fixed-media materials through digital technology.

There are many more problems and challenges relating digital libraries, however the scope of the Unit is confined to the basics and hence they are not discussed here.

It has been pointed out that the current technologies focus on conversion of paper to digital formats and *not conversion of the library into a digital format*. In this way, the digitisation is comparable to the technology of microforms. “it is more accurate to discuss the concept of digital libraries in terms of *digital coherence* and its application to library collections than to discuss the *replacement of libraries in general with digital incarnations*”. Digital coherence can become a tool with which the library can provide value - added information services to users. While a good deal of literature on digital libraries emphasises technology and resources at the expense of service perspective, a number of authors and researchers have considered human interaction in the digital library environment. It may be stated that the digital library proponents must consider the role of people (as users and service providers) if the digital library is to be truly beneficial. Technology and information resources on their own can not make an effective digital library.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
- 7) Explain the concept of a digital library.

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2.2.6 Virtual Libraries

Much of the explanation surrounding the emerging 21st century library is based on the opportunities provided by enhanced access to information resources through the use of networked information technologies. Existing libraries are a product of an intersection and an interaction of *people, resources, and procedures*.

The delivery of services to patrons and other users, including library staff, is built upon the *collective personnel, information, and technological resources* that constitute the library. Library professionals (experts) are accepting the *potential and practicality* of *virtual* libraries to better serve users by providing access to a broader range of information than available locally and by supporting traditional resource sharing among libraries.

A) Definition of Virtual Library

“A *Virtual Library* is a selected organised collection of units (nodes) of documentary resources

- Spread everywhere (space);
- Accessible always (time);

Where individuals and groups as

- Authors (producers of documents);
- Publishers (editors of documents);
- Readers (users of documents)

Are linked across the global electronic network and related in different ways to documents that are:

- Fast and easily obtainable
- Available in their full version.

In view of satisfying multiple cultural exigencies (information, learning and entertainment, etc.).”

But, according to Allan Powell “the virtual library can have many definitions, including: A library with little or no physical plant of books, periodicals, reading space, or support staff, but one that disseminates selective information directly to distributed library customers, usually electronically. A more traditional library that has transformed some significant portions of its information delivery channels into electronic format, so that many or most of its customers do not need to visit the library to obtain information. A library that operates as a *nexus* of selected information management activities within the organisation, some of them centralised, but most of which happen through the efforts of decentralised staff, resources, systems, and even outside suppliers, who are accessible and dispersed through out the organisation”.

“The key characteristics of a true virtual library are:

- There is no corresponding physical collection,
- Documents will be available in electronic formats,
- Documents are not stored in any one location,

- Documents can be accessed from any workstation,
- Documents are retrieved and delivered as and when required, and
- Effective search and browse facilities are available” (Sherwell, 1997).

The realisation that convergence of communications and computing technologies offer opportunities for extending the reach and the range of the traditional library is driving the acceptance of the virtual library concept. The Internet, the Web, and digital collections provide a context for making the idea of a virtual library real.

B) *Virtual Library Design*

A pragmatic approach for designing virtual libraries is to focus on services rather than on technology. A service-based architecture for a virtual library is essential and provides the framework to accommodate both digital resources and the collections that will not be transformed into *bits* and *bytes*.

C) *Service-Based Architecture*

Since the library, by its nature, is primarily a service institution, a service philosophy should guide the *virtual library*. A library collects books and other materials, and appoints qualified staff with a view to provide services to its users. The following components must be taken into consideration while building a virtual library:

- Users,
- Services,
- Resources,
- Technology,
- Management,
- Policy,
- Funding.

If we consider services as the output of the virtual library, the other components should serve as infrastructure for the creation and delivery of services to users. The interaction of different components of a virtual library are shown in the figure.

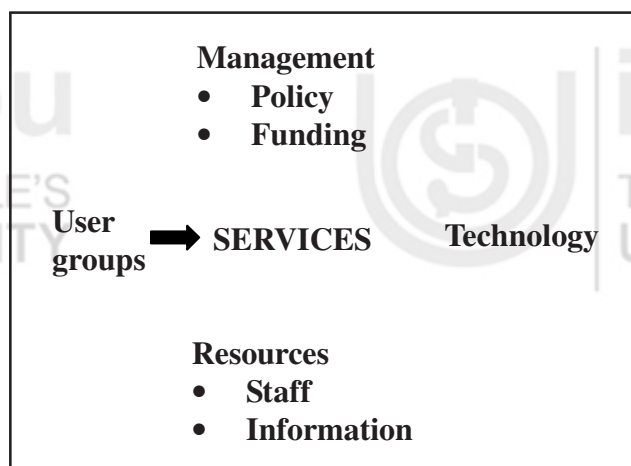


Fig. 2.1: Components of a Virtual Library

It may be emphasised that user needs define and shape appropriate services, which are based on available resources, including staff and information. Technology, in the form of many different tools, supports the delivery of services. Of course, the management *identifies* and *prioritises* the services and formulates overall policy. Management also acquires and allocates the funding necessary for the infrastructure, services and the infrastructure needed for their delivery (resource and technology). Service-based architecture not only identifies components of the virtual library and indicates where funds to be allocated, it also allows the development of service quality benchmarks. For any service, we need to indicate the goals and objectives of the service, and then propose performance metrics by which to assess the utility of a service and ultimately, the value of the service to users.

D) *Virtual Library: Services for Users*

Though demographic characteristics play an important role in deciding users of virtual library, the boundaries can be wider and more inclusive. Focussing on services allows us to think about the *types* and *levels* of services we are going to provide to a variety of user groups. Defining the services for any group directs us to the technologies appropriate to those groups. The types of services provided by a virtual library comprise the following:

- Resource discovery services,
- Access services,
- Reference services,
- Instruction service, and
- Patron account service.

Resource discovery service: This service provides users with a variety of tools and approaches for discovering the existence of appropriate resources. Typically, a user will search one or more repositories of metadata, full text, or images to identify and select resources. Three types of searches are possible: i) Single Database Searching, ii) Broadcast Searching, and iii) Integrative Searching.

Access service: Once the user has discovered the resources, the access service addresses getting the information to the user. It depends on the users' paying capacity.

Reference service: Both cost and quality of service are important considerations for establishing reference service. With the limited resources made available for reference service the library must consider priority of serving various user groups.

Instruction service: This service focuses on appropriate training and instruction activities to assist users. Users will need to know how to use the new and emerging technologies. But, more importantly they may need help in understanding what resources are available, their costs, and their authenticity.

Patron (user) account service: This service area addresses user activities including accessing account information through the network, use the service to order materials, or pay for the resources.

The above list of services is illustrative and not comprehensive. These five services are intended to provide a point of departure for discussing what the virtual library might provide.

E) *Standards and Interoperability for Virtual Library*

The virtual library is a focus for collaboration and collaborative services. In the network environment, there is an assumption that systems and organisations interoperate. Definitions of interoperability reveal common themes: working together, exchanging information, interacting without special effort on the part of the user, or operating together effectively. Usually the content of the interoperability is focussed on technical interoperability between information systems. For example, a system-centric definition of interoperability might be the ability of two or more systems or components to exchange information and use the exchanged information without special effort on the part of either system. In service-based virtual library, a focus on users should inform the concept of interoperability so that the users may successfully search and retrieve information from two or more systems in a meaningful way with confidence.

The implementation of standards such as Z39.50 enables interoperability among systems. But, implementing such technologies and offering services based on interoperable systems require a clear understanding of the information access and use issues.

Collaboration among libraries has always been manifested in resource sharing programmes. Opportunities for resource sharing increase with a virtual library as the research of librarians and users extend to a broader and more comprehensive range of resources. Many different groups can benefit from a virtual library. The challenge is to ensure that the various groups have opportunities to participate in the design, development and governance of the virtual library. Indeed the virtual library offers a new context for taking traditional library collaboration forward.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

8) What is a virtual library? Discuss its characteristics.

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9) What is meant by interoperability? How can it help users of a virtual library?

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2.2.7 Hybrid Libraries

The hybrid library is a term that has entered the parlance of library and information profession recently. It is stated that the term *hybrid library* was first coined in 1998 by Chris Rusbridge in an article published in the D – Lib Magazine.

A) What is a hybrid library?

Hybrid library is a term used by librarians to describe libraries containing a mix of traditional print library resources and the growing number of electronic resources. In other words hybrid libraries are a mix of traditional print materials such as books, and magazines as well as electronic based materials such as downloadable audio-books, e-books and electronic journals etc. The challenge associated with the management of hybrid library is to encourage end-user resource discovery and information use, in a variety of formats and from a number of local and remote sources, in a seamlessly integrated way.

Hybrid libraries evolved in the 1990s when electronic resources became easily available for libraries to acquire for public use. In the beginning electronic resources were typically accessed to material distributed on media such as CD-ROM or searchers of special databases. OCLC helped to push libraries towards acquiring digital resources by providing a centralised technology resource for participating libraries. Now, with the widespread availability of digital content, it includes internet resources and documents which are online, such as e-prints.

The hybrid library should be “designed to bring a range of technologies from different sources together in the context of a working library, and also explore integrated systems and services in both electronic and print environments” (Chris Rusbridge, 1998). The hybrid library should not, then, be seen as nothing more than an uneasy transitional phase between the conventional library and digital library, but rather, as worth while model in its own right, which can usefully developed and improved.

It may be pointed out that this kind of library has been given other labels. The concept of “*gateway library*”, for instance, seems to be one which describes a similar idea. In other words, the *gateway library* and *hybrid library* are the same. They describe the *real world* situation where libraries provide access to a range of different media but also express the ideal of greater integration.

Hybrid libraries need staff that is trained in helping users navigate the vast amount of information available in digital age. The staff should have expertise and training in handling electronic media as well as traditional print forms.

B) Issues in Hybrid Library

Some of the issues facing the hybrid libraries are: digital divide, interoperability, collection development, ownership of electronic resources and preservation of digital media.

The term *digital divide* is used to describe the gap between those with information technology knowledge and those who do not possess this knowledge.

Usually the concept of interoperability is focused on technical interoperability between information systems. For example, a system-centric definition of interoperability might be the ability of two or more systems or components to exchange information and use the exchanged information without special effort on the part of either system. The hybrid libraries own and subscribe to different resources in different formats. Some of the common formats are e-journals, serials, print monographs, CD and DVD. The main components of digital library framework are user interfaces, repository, handles system, and search system. The handle system and search system are the major components that should be designed with interoperability features to search across different repositories owned by different vendors. The user interface should be designed in such a way that it helps library users develop a common knowledge to do searches across all repositories.

i) *Collection Development*

Collection development is another challenge facing the hybrid libraries. The process is similar to that of a traditional library. In fact, hybrid libraries follow the same policies and procedures followed in traditional library collection development.

ii) *Ownership of Electronic Resources*

This is one of the problematic aspects faced by hybrid libraries. Ownership of electronic materials is *virtual* and not *physical*. There are no clear policies about the ownership of electronic materials once the subscription is cancelled or expired. Libraries have to pay attention to the legal contracts from the database vendors. If the hybrid libraries plan on archiving the electronic resources, then there are legal issues related to it. The most important issues are intellectual property and authenticity of digital information.

iii) *Preservation of Digital Media*

To make the preservation of digital media cost - effective, standardisation of different media format is required. The three possible approaches to the problem are:

- i) Technology preservation,
- ii) Emulation, and
- iii) Migration.

In technology preservation method, both hardware and software related to digital information are preserved. This may not be cost-effective because changes to hardware and different versions of software need to be either maintained or constantly upgraded. In emulation some emulator software programmes will mimic the hardware and software of the original data and display in the original format. In migration, digital information is converted to a standard media with standard format.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

10) Discuss the concept of hybrid library and indicate some of the issues relating to it.

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2.3 SUMMARY

Libraries are an important resource for individuals and for communities of people who are interested in the preservation of knowledge. Their importance stems from their ability to maintain records of human endeavour within a range of different contexts using many different types of media. Libraries will therefore continue to play important social, cultural, technical, and pedagogic roles in the future. Obviously, some changes in the library concept will be needed in order to accommodate the requirements of the new information storage and delivery technologies and what these enable people to do.

This Unit discusses different types of libraries, their characteristics, functions and services. It starts with traditional libraries. In this regard, National Libraries, Academic Libraries, Public Libraries, and Special Libraries have been described and their functions and services have been briefly explained. The entire discussion is centred around the role of the emerging 21st century library based on the opportunities presented by enhanced access to information resources through the use of networked information technologies. In fact, existing libraries are a product of an intersection and an interaction of people, resources, and procedures. The realisation that the converging of communications and computing technologies offer an opportunity for extending the reach and range of the traditional library is driving the acceptance of concepts like *digital libraries*, *virtual libraries*, and *hybrid libraries*. There fore, the latter part of this Unit is devoted to the discussion on *digital libraries*, *virtual libraries*, and *hybrid libraries*. A pragmatic approach for designing *digital*, *virtual*, and *hybrid libraries*, is to focus on services rather than on technology. A service-based architecture for creating the emerging library is a logical starting point because library, by its nature, is primarily a service institution. It may be pointed out that a simple focus on faster access to more information generally has only the end-user of the information in mind, where as service-based architecture can address the roles and responsibilities of the people who staff these libraries as well as the people who use them. Hence, emphasis has been given to this approach in discussing the design, development and management of digital, virtual and hybrid libraries.

2.4 ANSWERS TO SELF CHECK EXERCISES

1) The Final Report of the Regional Seminar on the Development of National Library in Asia and Pacific Area, held at Manila in 1964, contained the following as functions of a National Library can be stated as under:

- to provide leadership among libraries;
- to serve as permanent depository for all publications issued in the country;
- to acquire other types of materials;
- to provide bibliographical services;
- to serve as coordinating centre for cooperative activities; and
- to provide service to government.

Keeping in view the practices followed in some important national libraries of the World, we may study the objectives and functions under convenient groups mentioned below:

- functions relating to collection development and conservations,
- disseminating functions,
- preparation of national bibliographies, and
- services offered to users.

It may be noted that in India, the National Bibliography is published by the Central Reference Library located in the National Library campus at Belvedere, Calcutta.

2) The National Library of Calcutta, India, presently provides the following services:

- Lending service including inter library loan;
- Reading facilities;
- Bibliography and Reference services; and
- Reprography (document supply) services.

3) Some of the national libraries of the World are:

- i) Library of Congress (L.C.), Washington, D.C.
- ii) The British Library, London, U.K.
- iii) Russian State Library (Formally called the Lenin Library), Moscow.
- iv) The National Diet Library of China, Peking.
- v) Australian National Library.

4) University libraries are intended to help and support the universities in realising the objectives of the University of which they are part. The major functions of a university library are:

- Development of collection in a wider range of subjects for learning, teaching and research, publications etc.

- Organisation and maintenance of the collected material for use,
- To design and organise and provide a variety of documentation and information services both responsive as well as anticipatory.

A university library is distinct from a college library in functions such as research, conservation of knowledge and ideas and publication of research results. Therefore in a university library, the collections, the different house keeping operations, and the services have to be different from that of college library. The competence of staff required to perform those functions must be high and requires scholarship, effective communication skills and ability to innovation.

- 5) Public Libraries are intended for and directed to all that live and work in a certain community, to all ages, from children to elders, to all social, national and religious groups, to all regardless of level of education and culture, occupation or level of knowledge in order to serve their cultural and informational needs.

In accordance with this, public libraries participate in five major fields of public life. They are:

- Education – especially self-education and life-long learning;
- Political life – participation in the realisation of democratic and civil rights and duties;
- Information – ensuring access to information for all, has become an obligation in the realisation of human rights;
- Cultural enrichment – access to different sources of information and knowledge for all which includes literacy advancement, information awareness;
- Economic development – public libraries must act as a form of local economic information service in accordance with the main economic aspects of the area.

Since knowledge is the public good and as such intended for all, it must be accessible to every one. Each individual and social group would have equitable access to knowledge and sources of knowledge. It is the obligation of each state to build the knowledge society and public libraries have an important role in this endeavour. In India the National Knowledge Commission has realised this fact and has recommended to the Government of India a development plan for this purpose.

- 6) It may be mentioned that World War I, and II accelerated the process of industrial development backed by scientific and technological research. Research and Development became increasingly institutionalised. This trend led to the growth of special libraries collections and new services by libraries. Thus libraries were established to serve special groups of users to meet their own needs. Special libraries are planned on strictly practical lines with activities and collections carefully controlled in size and scope. The special libraries are mainly concerned with communicating information to their users. The word *special* must be interpreted to mean *specialist* to get a clear concept of Special Library.

Special librarians have become adept at *reading the runes* of the environment in which their parent organisations operate. They scan information sources to find material that they know will interest their clientele. Special libraries generally provide the following services to their user community:

- Reference Service;
- Awareness Services such as Current Awareness and routing, news letters and other bulletin services;
- Personalised and customised information services such as SDI;
- Specialised services like consolidation and repackaging of information; and
- Analysis, synthesis and evaluation of information and data and preparation of critical reports as and when required.

In all these activities they use information technology available to them.

- 7) The concept of *digital library* has several differing interpretations, derived from different communities involved in digital library research, practice, organisation, and commerce. In other words, there is no agreed upon definition of digital libraries. Different perspectives about digital libraries, together with competing visions and associated definitions, come from different communities that are involved in digital library work. We shall consider two communities: research and practice. The research community grounded mostly in computer science, asks research questions directed towards their technology oriented aspects and components. On the other hand, the practice community, grounded mostly in library and information science, asks developmental, operational, and use questions in real-life economic and institutional contexts, restrictions and possibilities, concentrating on applications on the use end of the spectrum.

Digital Libraries Federation (DLF) which represents libraries provides an agreed definition of digital library as follows: “Digital Libraries are organisations that provide the resources, including the specialised staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital work so that they are readily and economically available for use by a defined community or set of communities”.

Borgman provides a definition of digital libraries which may be considered as a bridge between the research community definition and the practical community definition in the following way: “Digital libraries are a set of electronic resources and associated technical capabilities for creating searching and using information. In this sense, they are an extension and enhancement of information storage and retrieval systems that manipulate digital data in any medium... The content of digital libraries includes data, metadata; they describe various aspects of the data and metadata... Digital Libraries are constructed – collected and organised – by [and for] a community of users and their functional capabilities support the information needs and uses of that community”.

However, it may be emphasised that the *digital library* is not merely equivalent to a digitised collection with information management tools. It is

also a series of activities that bring together collections, services, and people in support of life cycle of creation, dissemination, use, and preservation of data, information and knowledge.

- 8) The term *Virtual Library* has been defined in different ways. “It is a selected organised collection of units of documentary resources Spread everywhere (across space), Accessible always (through out the time), Where individuals and groups are linked across the global electronic network and related in different ways to documents that are fast and easily obtainable and available in their full version., in view of satisfying multiple cultural exigencies (information, learning and entertainment, etc.).

In other words, it is a library in which the holdings are found in electronic stacks. It is a library that exists, without any regard to physical space or location. It is a technological way to bring together the resources of various libraries and information services, both internal and external, all in one place, so that users can find what they need quickly and easily.

The important characteristics of a true *virtual library* are:

- There is no corresponding physical collection,
- Documents will be available in electronic formats,
- Documents are not stored in any one location,
- Documents can be accessed from any workstation,
- Documents are retrieved and delivered as and when required, and
- Effective search and browse facilities are available”.

The types of services provided by a virtual library comprise the following:

- i) Resource discovery services,
 - ii) Access services,
 - iii) Reference services,
 - iv) Instruction service and
 - v) Patron (user) account service.
- 9) In a networked environment, there is a fundamental assumption that systems and organisations will interoperate. The concept of interoperability is focussed on technical interoperability between information systems. It is the ability of two or more systems or components to exchange information and use the exchanged information without special effort on the part of either system. The implementation Z39.50 enables interoperability among systems.
- 10) The *hybrid library* is a term used by the librarians to describe libraries containing a *mix* of traditional print library resources and number of electronic resources. The term was first coined by Chris Rusbridge in 1998.

Hybrid libraries evolved in 1990s when electronic resources became easily available to libraries.

Some of the issues facing the hybrid libraries are: the digital divide, interoperability, and collection development, ownership of electronic

resources and preservation of digital media. The term digital divide is used to describe the gap between those with information technology knowledge and those who do not possess such knowledge. The complicated and changing copyright laws are a challenge for many virtual libraries as it is difficult to make sure whether their users are using digital items lawfully. Also, hybrid libraries need trained staff to help users to navigate the vast amount of information available in the digital age.

2.5 KEYWORDS

- Academic Libraries** : The libraries associated with educational institutions.
- Audio-visual** : Hearing and seeing.
- Browsing** : To look through a book in a casual manner.
- Consolidation** : Comprehensive account, descriptive or critical reported separately in different sources but brought together on a specific subject for use.
- Digest** : A Publication comprising summaries of information on a single topic or a number of related topics.
- Digital Coherence** : It means all the objects in a digital library, whether *sounds, images, texts*, or some other media can be treated in essentially the same way. Prior to digital coherence, libraries needed to treat various media differently. This concept permits equality among various information resources.
- Digital Library System (DLS)** : A software system that is based on a architecture and provides all functionality required by a particular *digital library*. Users interface with a digital library through the corresponding DLS.
- Disintermediation** : The term is used for the process where by users are encouraged to interact directly with services.
- Information Behaviour:** The ways in which users seek, acquire and utilise information.
- Information Literacy** : The knowledge and skills required to locate and use information contained in various formats. The ability to make significant connections to form interpretations, to provide context, etc.
- Innovative** : Bring in novelties; make changes in.
- Interoperability** : It is concerned with standards needed to enable systems to interact and information to be stored, transported and communicated between and across them.
- Library Network** : Interlinking library resources and services by means of computer and communication technologies.
- Lifelong Learning** : Learning throughout life continues to be emphasised

- Metadata** : It is data about data – consists of descriptions of information *objects* (books, Web pages, audio tapes etc.). The term is usually applied to *structured data* since without structure it is impossible to process the information contained in a metadata record.
- Networked Learning** : A term used to describe all the methods of delivering, learning which rely on information and communications technologies.
- Repackaging** : Reports prepared or presented to suit a particular group of users.

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UNIT 3 INFORMATION INSTITUTIONS

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Evolution of Information Institutions
 - 3.2.1 Growth Patterns
- 3.3 Types of Information Institutions
 - 3.3.1 Libraries
 - 3.3.2 Documentation Centres
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 - 3.3.5 Referral Centres and Clearing Houses
 - 3.3.6 De-institutionalised Information Services
- 3.4 Indian Situation
 - 3.4.1 Growth Pattern
 - 3.4.2 Future Directions of Growth
 - 3.4.3 Role of Information Institutions in Knowledge-based Economy (KBE)
- 3.5 Summary
- 3.6 Answers to Self Check Exercises
- 3.7 Keywords
- 3.8 Acronyms used in the Text
- 3.9 References and Further Reading

3.0 OBJECTIVES

After reading this Unit, you will be able to:

- explain the nature of information institutions and their growth pattern;
- identify different types and nature of information institutions and their specific role in the dissemination of information to individuals, groups, as well as organisations that might require information in different forms and formats;
- explain the importance of “planned institutional building” with particular reference to developing countries;
- discuss how the technologies are impacting the organisational structure;
- discuss the characteristics of new millennium organisations;
- explain the preparedness of and understand the nature of Information Institution for its legitimate role in knowledge-based economy (KBE); and
- describe the indicators of preparation for KBE.

3.1 INTRODUCTION

The significance of institutions in modern society cannot be underestimated. In this context, the opinion of Peter Drucker needs careful consideration. He emphasises that “every major task, whether economic performance, or health care, education or protection of environment, the pursuit of new knowledge or defence, is today being entrusted to big organisations, designed for perpetuity and managed by their managements. On the performance of these institutions, the performance of modern society – if not the survival of each individual – increasingly depends”. Drucker further affirms that every institution comprises human beings – men and woman, whose performance brings success or failure to the institution and there by to the society.

It is often stated that modern society is transforming into a knowledge society. *Knowledge* is now recognised as the *driver of* productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance. As a matter of fact, the term *knowledge-based economy (KBE)* stems from this fuller recognition of the production, distribution and use of knowledge and information. The concept of (*KBE*) has generated tremendous interest in recent years. As a result, a *paradigm* shift is taking place for information organisations. In fact, organisations, companies and workers are constantly urged to prepare for the new era of (*KBE*). Effective exploitation of information in organisations appears to be distinguishing feature of this new *socio economic model*. Since formal provision of information and knowledge has been the main responsibility of information institutions, it is imperative that to stay relevant in the new environment they respond quickly and appropriately to the challenge posed by KBE. Many writers have stressed that information institutions must find a role in KBE by adopting new methods and tools, re-making and repositioning themselves, furthering their knowledge of customer needs, and embedding themselves in the organisations they work for. Libraries and information centres have also been advised to focus more on evaluating, analysing, synthesising, qualifying and delivering externally created contents. The information professionals in the knowledge economy are also expected to be aware of the changes in the organisational structure in order to make themselves as integral part of new organisation. They should be willing to refine their roles to function as information managers, research analysts, and knowledge facilitators. In this context, it is of interest to note that *different professions are converging on the emerging community of knowledge practice* giving rise to a variety of *specialist knowledge professionals*.

It must be pointed that not many research reports are available on *modern information institutions or organisations* in the literature of library and information science. In this Unit, an attempt has been made to examine and discuss a variety of organisations, whose main stock in trade are knowledge, literature and information evolved out of users needs and demands. The Unit also depicts the information transfer patterns which have resulted in the creation of information institutions with varying functions.

3.2 EVOLUTION OF INFORMATION INSTITUTIONS

In the literature of library and information science we do not come across studies exclusively devoted to the evolution, development, organisational structure and functions of information institutions. However, if we examine the institutions that have come up during 20th century, especially in the latter part, we can discern a typical pattern in their growth. However, this pattern could be perceived only in the industrially advanced countries of the West. As it happens, their influence extended to the Third World Countries also; with the result many Third World Countries have accepted the Western Model in designing and developing their own institutions.

The report entitled “Into the Information Age, A Perspective for Federal Action on Information” prepared by Arthur D Little, Inc. describes the development of information institutions in the USA. In doing so, the report identifies three basic models of information transfer. The report contends that the process of transfer of information / knowledge comprises a chain of activities, the main links being generator, editor, publisher of primary publications, indexing and abstracting journal producers, libraries, documentation and information centres, on-line services, information companies and the end-user. The institutions that normally perform these activities can broadly be grouped into three categories indicated below:

- i) Knowledge creating institutions (under this category come: research laboratories, R&D institutions, institutions of higher education and research centres attached to universities, etc.)
- ii) Knowledge / information processing and dissemination institutions such as: publishers of books and journals / statistical data organisations, science and technology data centres and the like, and
- iii) Institutions that collect, store, process, disseminate and service knowledge / information recorded in various forms such as libraries.

A careful analysis in this aspect reveals that over the years, there has been an increasing interaction and cooperation among all these categories of institutions. It may also be noted, that with the application of modern technologies in information generation, processing, dissemination, distribution and use, many of these functions are getting blended, reducing the distinction between different link elements of information chain. At this point in time, the different types of institutions mentioned above operate with their distinct identity. Therefore, we need to discuss them in their present form.

3.2.1 Growth Patterns

In spite of many efforts to locate latest information on the growth patterns of information institutions, none has been found from surfing the Internet depicting the growth patterns in the context of emerging knowledge society. As such, the effort made by Arthur D Little Inc in the form of Vincent Giuliano’s report remains the model historic perspective of information transfer pattern and institutional framework and modes of information transfer. The three modes considered are:

- i) The Discipline Oriented Information Transfer corresponding to the value system of pure science, academic and basic research called Era I;
- ii) Mission oriented Information Transfer corresponding to the value system of government sponsored missions (such as AEC, NASA in the 1960s) called Era II;
- iii) Problem-oriented Information Transfer corresponding to the value system of solving societal problems called Era III.

The principal characteristics and features of the above mentioned eras are briefly discussed in the following paragraphs.

Discipline-oriented Information Transfer (Era-I)

The basic principle associated with *Era-I organisations* is that they are created to provide knowledge and so are to support education, research and development. Knowledge and information are generally disseminated through journals, monographs, seminars and meetings usually associated with academic and research institutions, learned societies, professional bodies, etc. Access to the primary information is provided through bibliographical tools like indexing and abstracting services which are made available by institutions facilitating access to documents and use, mostly the libraries and other departments attached to the parent bodies. The user community comprises academicians, scholars, research workers and students. Financial support to the system is derived from internal budgetary provisions, grants and subsidies provided by the government. This traditional system of free information service has been continuing since a long time, notwithstanding the difficulties encountered every now and then. The components of this system namely libraries and journal publishing often face financial troubles. The producer / user complexes control the quality and the content of the system.

Mission-oriented Information Transfer (Era-II)

The organising principle behind the *Era II systems*, is that they exist to accomplish a specific job. For example, information systems developed during 1950s and 1960s have been created to provide information support to mission-oriented agencies such as AEC, NASA and similar purpose-oriented projects. In this context, the information transfer process is characterised by a defined need for coordinating and using information and knowledge concurrently from a variety of disciplines. For example, in the case of NASA mission, inputs of information from diverse subjects like electronics, biology, medicine, aeronautics, chemistry and physics, etc. are necessary. In this context, information is disseminated through *technical reports*, besides conventional publications like journals. Technical information centres attached to the main agencies undertake the responsibility of developing interpretative information services meant for the user communities comprising scientists, engineers, technologists and managers belonging to the agency. The system has a feedback mechanism, which enables it to determine the performance efficacy of the system. The results of the feedback analysis will be constantly fed to the system for its improvement as also to determine changing information needs of the entire range of clientele.

During the period of operation of Era-II institutions importance has been given to the type of dissemination products such as newsletters and trade journals indicating that some Science Technical Information (STI) systems have a major economic value and emphasis has to be given to market-oriented information transfer mechanism.

Problem-oriented Information Transfer (Era-III)

The organising principle that paved the way for the establishment of information organisations in this *era is solving societal problems* by exploiting appropriate information. Systems that evolved in this period reflect a context in which information is used in problem solving such as economic development, industrial planning, agricultural productivity and environmental protection, etc.

The institutions that came into existence during this period had the capability to handle specific type of information and could provide new products and services. However, they could not evolve appropriate structures. Though the systems which were developed during this *era* exhibit characteristics necessary to meet the informational requirements of the times, needed further development and legitimisation. The community of users whose needs the systems were expected to fulfil was somewhat amorphous and ill defined involving a variety of groups such as elected representatives of people, judiciary, technologists, media people and the general public. In addition to the amorphous nature of the users, the information systems had to tackle different types of information largely non – STI – some of the categories being local, ill-organised, proprietary, value-added and reflecting value judgements.

Naturally this situation augured well for the proliferation of information brokers, consultants, information intermediaries in the form of new types of institutions to offer specialised and qualitative services. Repackaged information, collected from a number of sources with validated and authentic data, in the form of new type of specific information service came into being.

It may be mentioned that the STI system has been evolved to meet the requirements of scientists and technologists. It has been addressing audiences of high technical competence and others having the training to understand the material communicated to them. Expanding the context of information usage to societal problem-solving entails interpreting technical results appropriately to non-technical users to take informed decisions adds a new dimension. This type of information is available only at a price.

Preparation and delivery of such information needed a private enterprise willing to invest capital and take risks with the market-oriented approach. This situation gave rise to information industry to satisfy the needs of consumers.

Individual-oriented or Customised Information Service

This period may be considered as the Era-IV. This era introduced new challenges to information professionals in the form of identification of individual users and their needs, and development of new information products and services that could be marketed. Delivery of information to home bound citizens and consolidation, condensation and repackaging of information to scientists and engineers in industry became the prime organising principle behind the development and growth of information institutions of this period. Fee-based

information services, on demand companies, information consultancies, information Intermediaries, information brokers, etc. sprang up in countries like USA, U.K., France, Germany, Austria and Belgium.

It may be mentioned that the major organisations like PREDICASTS, Arthur D Little co. Inc., Lockheed Information Services, SDC, BRS, New York Times Information Bank, etc. have been in existence since a long period whereas others came up during 1970s and developed in 1980s. The industry has further developed in 1990s and in the 21st century.

New Millennium Organisations

The last decade of the 20th century has seen extraordinary change in the way organisations are viewed and managed. Organisations may no longer be considered as production-oriented entities, divided by function (such as R&D, operations research, marketing, etc.) and controlled by layers of management.

Many terms have been employed to describe the new type of organisations. Each of these descriptions conveys a vivid impression of new millennium organisations. For instance, one of the descriptions conceives it as a *knowledge-based* organisation in which employees' knowledge is the organisation's primary asset. Another perception of a new millennium organisation is that it will be a learning organisation in which the individuals, teams, and the organisation itself continuously learn from the environment and from their activities, and act on what they have learnt. A third view is that it will be a knowledge-based organisation in which the products and services are customised and continually enhanced or changed to reflect what has been learnt from customers. In other words, it will be an extended enterprise, in which customers, clients, suppliers, governments and other stakeholders are included explicitly in the definition of organisation itself. Yet, another view is that it will be a "networked organisation" in which computer-based communication networks enable wide spread and rapid communication among all groups in the extended enterprise. Network technologies like the Internet will enable *any time, any place* communication and access to information. The Internet has often been described as a new frontier housing endless possibilities within a democratic atmosphere. Information likes to be free – an expressive phrase on the Internet reflecting a mentality of open critical minds that were part of the net's genesis. It may be mentioned that two important considerations shape the modern organisations. One is the focus on learning and knowledge and the other is the convergence of information technology, telecommunications, and information resources and networked environment. The rise of knowledge management as the focus of organisational improvement efforts calls for knowledge managers. This aspect has implications for information profession. In other words, information professionals must identify knowledge management process to which they can contribute. Knowledge management is concerned with the acquisition, transfer and use of knowledge in organisations. The primary role of management is to develop the *intellectual capital* of the organisation. In this context, it must be noted that for any organisation the knowledge of its workers is the foundation of the organisations' *intellectual capital*. Knowledge management strives to improve the organisation and its contribution to the economy by increasing *the intellectual capital* of the organisation.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

1) Briefly describe the growth pattern of Information Institutions.

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2) How do you characterise a new millennium organisation.

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3.3 TYPES OF INFORMATION INSTITUTIONS

In the literature of Library and Information Science we come across different types of information institutions. The primary objective of all these organisations happens to be *collection, processing, organisation and dissemination of information* to individuals, groups and organisations as and when they require it. The most important type of these institutions are: libraries, documentation centres, information analysis centres, etc. Apart from these traditional institutions, which have been in existence for long, many *de-institutionalised information services* have sprung up lately. Some of these are discussed in the following sections of this Unit.

3.3.1 Libraries

Libraries are important resources both for individuals and for communities of people who are interested in the preservation of knowledge. Their importance stems from their ability to maintain records of human endeavour within a range of different contexts using many different media. Libraries will, therefore, continue to play important social, cultural, technical, and pedagogic roles in the future. Indeed, for majority of people libraries will act as a powerful multimedia window on the outside world, particularly through the use of computer network systems. Obviously, some changes in the *library concept* will be needed in order to accommodate the requirements of the new information storage and delivery technologies and what these enable people to do. It may be noted that the increasing availability of information generally and of *new kinds of information more particularly* will lead to a *redefinition and integration of the different categories of information organisations*. Traditionally these have been created to manage different *formats and media* such as print and its surrogates (*libraries*),

objects (*museums*), and paper records of organisational activity (*archives and record repositories*). Differences in organisational philosophy, function and technique have arisen from the exigencies *presented by these different formats and media*.

The current wave of predictions that electronic technology will soon replace books and libraries, is inspired by a rapidly accelerating series of developments, in that technology which multiplies its power while drastically reducing its costs. Among those developments are communication satellites, cable TV, inexpensive mass – storage in the form of optical and digital video discs and powerful microcomputers on chips. With them, we have acquired a technology which *fires the imagination* and gives credence to even the most *fanciful forecasts!* In this sort of environment, there is a danger that those responsible for the financial support of libraries will neglect or prematurely abandon traditional libraries in favour of more glamorous alternatives in promising but as yet untested technologies.

The experts who are predicting the early demise of books and libraries have impressive credentials. They include management experts, information entrepreneurs, government officials, university professors, and popular futurists. Their forecasts of things to come are based on insights that come from solid knowledge and years of experience. They can neither be ignored nor accepted uncritically.

The insights and perspectives of theoreticians and futurists are useful: they help us to see and understand the complex social, economic, and technological forces that are at work in our larger environment, but only those with authority and responsibility can decide how and when these forces might affect any particular enterprise. Futurists can tell us what the future may be like, but they cannot tell us how to go there or when to make our moves. The really important decisions about any organisation or institution must, in the end, be made by those responsible for it, based on their best *judgement* and as much *practical wisdom* as they can muster. Prominent among and representative of those who are predicting an early end to books and libraries are: Dr. F. W. Lancaster and Dr. Vincent E Giuliano. Of course, their views are well known and documented. Dr. Lancaster is a proponent of the thesis *paperless society* and sums up his views in the following words: “We are moving rather rapidly and quite inevitably towards a paperless society. Advances in computer science and communications technology allow us to conceive a global system in which reports of research and development activities are composed, published, disseminated, and used in a completely electronic mode. Paper need never exist in this communication environment. We are now in an interim stage in the natural evolution from print on paper to electronics”. In the event a paperless society arrives as envisioned by Lancaster, there will be transformation of our society and our way of life. Obviously in that society, not only libraries but also the institutions and the scholars they serve, may also become obsolete. The best remedy is to cope with the changes, and try to plan for the future.

Giuliano has put forward many arguments which in effect plead for the abandoning of traditional libraries. Of these, the most important one demanding a careful consideration is “as far as the information institutions in our society go, libraries are of minor importance. Technology has already evolved to a point where access

to most of the world's literature can be obtained with in a couple of days through combination of online bibliographic searching utilities and vendors-supplied computerised order fulfilment system for books, documents and periodical articles". If Guiliano is right on this point, then libraries would have indeed served their purpose and may fade away. But, the truth is that most of the new technology based information business, are still largely dependent on the library market for their survival and the information brokers ultimately rely on libraries as the source for most of the documents they supply to their clients. Most of the books and journals go out of print with in a few years of their publication and are no longer available except in libraries. Another point to be noted in this connection is that most foreign books and journals and some specialised documents are not available through normal trade channels. Only a few research libraries manage to acquire and preserve them. Such materials are dispersed among a number of libraries in every country of the world. Older and out of print books can be had only from libraries.

Not with standing the arguments relating to the demise of the libraries by the futurists, and the idea that electronic technology in the hands of information entrepreneurs is going to put an end to libraries can be laid to rest. Libraries are here to stay but by no means are they going to stay the same. Their functions will remain, but the ways and means they used to perform those functions will change in varying speeds for different kinds of libraries in different countries.

It is worth noting that the World Wide Web (WWW) is changing the face of libraries – the way we use them and value them. The WWW will impact greatly upon the library, whether the library wants or not. This impact, to a large extent, would be dictated to the library by forces based both technologically and socially. As a result of the Internet and WWW technology, libraries are now presented with lack of linkage between the general user mainframe environment and having library resources on a separate machine or machines. The WWW can overcome the general user mainframe environment's lack of features for information discovery, as well as, provide the ability to create virtual site, where they can create an electronic presence that patrons (users) can easily locate – a starting point for library services. In fact, the WWW provides the tool for integrating other systems of library such as online catalogues, and searchable text databases, as well as allowing new resources and services. It may be stated that WWW is a technology, which could smell the end of library, as we know it today or be the beginning of a great transformation. It will surely have influence with or without libraries' participation. What will become of the library is not clear yet, as it often takes many years for a technology to come into its full stride. Given the rapid pace of changes that we are experiencing today, it might be inferred that technological change can force social change upon society and its institutions. Viewed from this point, the library of next few decades will be: i) a place where people won't come as a physical location of information resources; ii) will become an access facilitator; iii) will coordinate access to locally built digital resources.

In other words, it must be emphasised that the *stereotype of libraries as static* unchanging institutions, is no longer valid, they have to demonstrate a remarkable ability to grow, to adopt to changing conditions to meet new demands, and to implement new technologies. If these aspects are taken care of, then one need not give much weightage to the predictions made about their future existence.

3.3.2 Documentation Centres

Before World War II, research activity was largely an individual affair. But, the situation changed rapidly and it has become a team work. Both government and private organisations came forward to fund research and development activities in a big way. Specialisation became the order. Information explosion took place in science as well as in technology. Keeping abreast of new developments in any one discipline became a problem for scientists, engineers and technologists. Library-based information services proved inadequate to meet the specialised information needs of many research workers. To cope up with this new demand documentation centres came into existence. One of the basic functions associated with any documentation centre is that it brings to the notice of specialist users current and recent literature of value to them. However, the functions that are assigned to a documentation centre vary from one documentation centre to another. For example, a local documentation centre has the sole function of providing information services that support the activities and programmes of its parent organisation of which it is a part. It would collect and serve information concerning the actual work in progress of the parent institution. Towards fulfilling this objective, the local documentation centre may be engaged in the selection and acquisition of worth while material and its organisation for use. Its services may be designed both to satisfy the existing and anticipated needs of users. In other words, the local documentation centre might provide both anticipatory service as well as services designed to satisfy specific demands of users. A national documentation centre on the other hand will perform certain residual functions and might undertake activities, which are beyond the means of local documentation or information centres. Generally local documentation centres are attached to individual R&D institutions, business houses, industrial enterprises, and government departments, etc. and are administered by their parent institutions.

At the national level, it might be the responsibility of appropriate government agencies to establish and administer such a centre. The general norm recommended for financial support is 5% of the budget spent on R&D must be diverted to meet the expenditure of a national centre. In India, documentation centres are mostly established by the government. In this context, it may be mentioned that varying patterns of organisation exist in different countries. Centralised as well as decentralised structures have come into existence. Countries like UK have adopted a mixture of centralised as well as decentralised models. But, the network concept has gained importance in the modern times and the trend is now towards pooling and sharing of resources for achieving maximum economy and productivity.

3.3.3 Information Analysis Centres

The origin of activities pertaining to information analysis may be traced back to the 19th century. But the idea of a systematically organised centre for information analysis activity is relatively new.

The Weinberg Report extensively discussed the role of information analysis centres (IACs) and their importance and emphasised that the activities of most successful IACs are intrinsic part of science and technology. The centres not only disseminate and retrieve information; they create new information The

process of sifting through large masses of data often leads to new generalisations ... In short, knowledgeable scientific interpreters who can collect relevant data, review a field, and distil information in a manner that goes to the heart of a technical situation, are more helpful to the over burdened specialist than is a mere pile of relevant documents. Such knowledgeable scientific middlemen, who themselves contribute to science are backbone of the information (analysis) centre; they make information centre a technical institute rather than a technical library. The essence of good technical centre is that it is operated by highly competent working scientists and engineers – people who see the operation of centre as an opportunity to advance and deepen their own personal contact with their science and technology. The COSATI standing panel wrote the following comprehensive definition into its *charter*: “An Information Analysis Centre is a formally structured organisational unit, specifically (but not necessarily exclusively) established for the purpose of *acquiring, selecting, storing, retrieving, evaluating, analysing* and *synthesising* the body of information and / or in clearly defined and specialised field or pertaining to a specified mission with intent of *compiling, digesting, repackaging* or otherwise *organising* and *presenting* pertinent information and / or data in a form most authoritative, *timely* and *useful* to a society of peers and management”.

The key activities of IACs are: *analysis, interpretation, synthesis, evaluation, and repackaging* of information carried out by subject specialists, resulting in the production of new, evaluated information – in the form of *critical reviews, state-of-the-art-monographs, or data compilations*, as well substantive, evaluated responses to queries – for the purpose of assisting a community of users more broadly representative than the staff of the parent institutes or laboratories. Fig. 3.1 illustrates the main activities of a typical IAC.

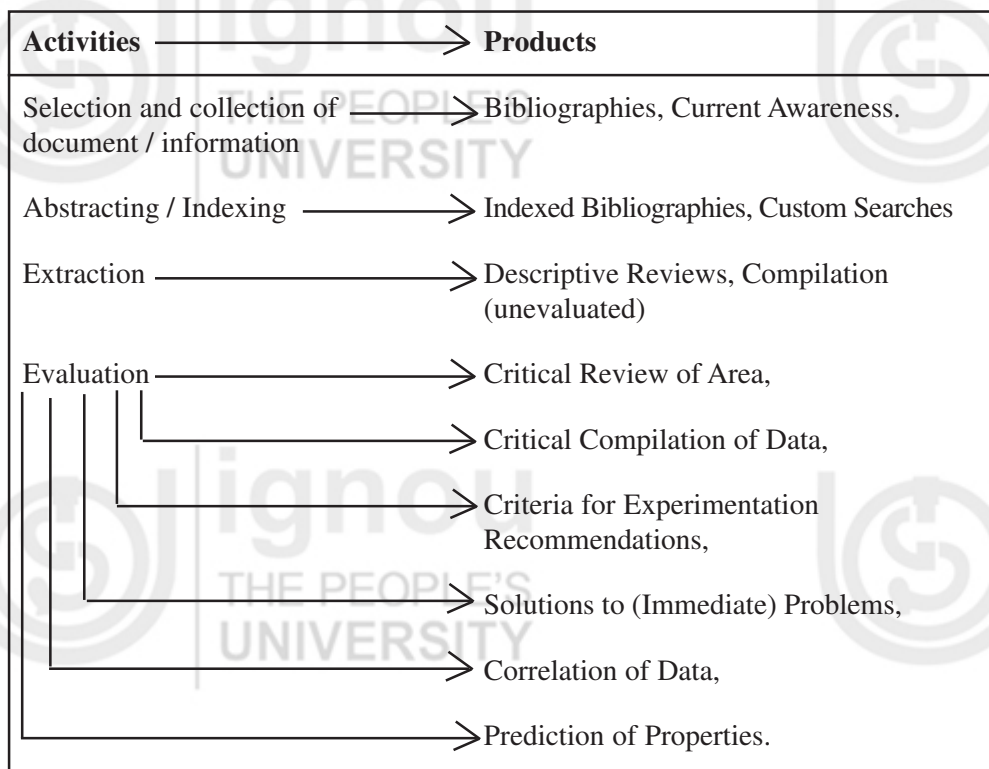


Fig. 3.1: Activities of an IAC

3.3.4 Data Centres

Data is an important ingredient of research. Its societal importance can not be under estimated. The contemporary society needs data for various activities such as planning, development and decision-making, etc. in every sphere of human progress.

Data must be collected, processed and organised so as to facilitate its utilisation in an effective manner. Managing scientific data has been identified as one of the most important emerging needs of scientific community because of the sheer volume and increasing complexity of data collected. Effective generating, managing and analysing the data requires a comprehensive approach that encompasses all the stages from the initial data acquisition to the final analysis of the data. For this purpose, an institutional mechanism is essential. Such institutional mechanisms are known as *data centres*.

According to UNESCO a data centre “constitutes an organisation handling quantitative numerical material data”. Such centres take the primary function of collecting, organising and disseminating data and also provide a measurement service and are in a position to advance relevant measurement techniques. The term *data centre* is used interchangeably to define a range of information centres, not all of which are critically evaluating data. Data centres vary both in scope and size. There can be data centres at local, national, regional, and international levels.

A data centre generally includes three major components:

- An organised data collection (i.e. the database);
- A connection with data sources which feed the database; and
- A contact with users who are expected to interact with the data base with different types of questions.

These can be diagrammatically represented as:

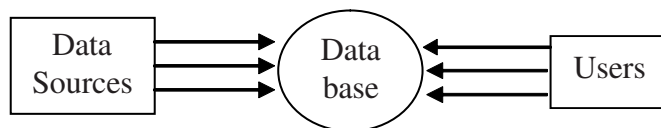


Fig:3.2 Component of a Data Centre

Modern data centres are usually maintained by organisations in order to handle core operations in information services including the Internet connectivity, intranets, LANs, WANs, and extranets. The most basic *data centre* will have a computer network and security applications which amounts to very large amounts of data stored in a number of computers. Generally larger companies will have IT infrastructure to handle the activities of a data centre.

It may be stated that the activities of data centre comprise:

- Data collection,
- Data control,
- Data codification,

- Data organisation and structuring into a database and
- Data retrieval.

For accomplishing all these functions a data centre should be equipped with suitably trained manpower. In India many data centres have been established under the erstwhile NISSAT programme. National Information Centre for Crystallography is an example of a data centre.

The World Data System (WDS) was established to achieve and distribute data collected from the observational programmes of the 1957-1958 International Geographical Year. It was originally established in the United States, Europe, Russia and Japan, since then the WDS expanded to other countries and to new scientific disciplines. The WDS presently includes 52 centres in 12 countries. Its holdings include a wide range of solar, geographical, environmental, and human dimensions data. It is funded and maintained by host countries on behalf of the international scientific community.

3.3.5 Referral Centres and Clearing Houses

There are a variety of organisations involved in information dissemination activity. These different organisations need to be properly coordinated by an agency for their effective functioning. A new type of establishment with specific mandate to act as a *switching mechanism* among different information dissemination institutions is an essential requirement. Such an organisation is referred to as *Referral Centre*. The Harrods's Librarian's Glossary provides the following explanatory annotation to the term *Referral Centre*:

- “An organisation for directing researchers for information and data to appropriate sources, such as libraries, information evaluation centres, documentation centres, documents and individuals;
- A Referral Centre is some sort of an *Information Desk* for the scientific and technical community which does not provide enquiries directly with the information they need, but suggests sources likely to satisfy the users / clients;
- Referral Centre is an organisation for the indication of sources (of persons, institutions and publications) from which scientific information may be obtained on a given subject”.

In other words, a referral centre serves as an intermediary, directing those who have queries relating to information requirement on scientific and technical subjects, to the organisations as well as to individuals who have specialised knowledge in those fields and are willing to share that knowledge with others. To carry out its functions referral centre must:

- be equipped with an inventory of all significant information resources in different disciplines;
- compile and publish directories of scientific and technical information resources;
- analyse the operating relationship that exists in the scientific information complex.

As in the case of IACs the referral centres exist at different levels (i.e. local, regional and international).

Clearing Houses

In scientific parlance, a *clearing house* is a relatively new concept. It represents a depository for documents with the additional objective of servicing as a central agency engaged in the distribution of information. It also includes such functions as collecting and maintaining records of research and development. Sometimes, subjective questions about items in these records are referred to the source and thus a *clearing house* may have to perform the function of a referral centre. In the United States as well as UK such clearing houses are in existence and are functioning. Most of the clearing houses have *information gathering networks* to acquire documents in their subject areas. They answer specific and general type of questions and may act as central searching place for enquiry especially relating to R&D reports.

3.3.6 De-institutionalised Information Services

In the preceding sections of this Unit, we have discussed different types of information institutions and their role in the dissemination of information to people at large. We shall now discuss the deinstitutionalisation of information services caused by advances in information and communication technologies. For a long time information handling has been the preserve of a group of trained people called librarians or information professionals. The profession's strength stemmed from the fact it operated as society's *institutionalised* information retailer. The universal non-availability of information allowed the profession to fulfil a useful role at the societal, organisational and individual level. In many cases access to information was, and is, via designated institutions like libraries, information centres, etc. However, technology appears capable of de-institutionalising information and handing over access to the individual, thus cracking the mould of library. This de-institutionalisation of information has created a lot of dissonance within the profession and the burgeoning of *info-business*. However, the information service is no longer exclusively defined in terms of activities carried out in a traditional library and information centre. It may be observed that during the last two or three decades the *phenomenon* of *information broker* has developed apace, especially in the USA and other advanced countries. In the USA itself there are a number of brokerage firms in operation, the important ones being *Information Store* and *Information Unlimited*.

Information Broker

The information broker is an individual or a firm, who, on demand seeks to answer questions using all available sources and who is in business for profit. Broking rests on the *axial principle: information for payment*. In case of libraries information is provided but costs are not charged to the user. One must understand the important distinction between information which is freely available and information which is free. The services offered by brokers comprise:

- Briefing or instant education;
- Information repackaging;
- Market research / analysis;
- Personnel recruitment;
- Press cutting service; and
- Seminars / workshops.

Information brokers specialise in providing fast and efficient services. These firms largely staffed by the people with library backgrounds provide literature searches, retrieve and supply documents. These firms may not pose any threat to libraries. In fact, they supplement them by filling needs and demands that publicly supported libraries cannot try to meet by providing special and expensive services to business, professional and other users who can afford them.

Human Networks

Traditionally the major focus in information management, information science literature has been on the physical nature of the information resource and its enabling technology rather than on the *soft, more qualitative human dimensions* of information processing. Understanding the *human factors* behind information transfer and the nature and the role of informal communication networks in organisations including the primacy of interpersonal sources of information, is crucial to the effective management of the organisational information resource. Human networks are central to information dissemination in organisations. With most of us, it is the people rather than printed or computer-based information resources that constitute our primary information source.

Information Networks and Information Flows

In management organisations, normally two channels of communication operate. They are formal and informal channels. Formal structures represent an ordered system that regulates authority and communication flows, links decision makers at different levels, and generates orderly flow of information and decision processes. The general flow takes place from top to bottom levels with feedback arrangement which enables the authorities to assess the performance and problems at lower levels.

On the other hand, the informal channels represent the social interactions that occur within organisations. While the two concepts are not necessarily mutually exclusive, a distinction is made between them. In other words, in contrast to formal flows, informal communication patterns tend to be spontaneous, without much of regulation. However, certain individuals within one group play a key role in organisational communication, linking different hierarchical levels or divisions or acting as *gatekeepers* of strategically important data emanating from outside organisational boundaries. The informal network exerts a powerful and constant influence in organisations. In the analysis of informal networks the organisation is regarded as a mutually independent social system made up of *components* and *connections* among those groups. In 1960s, there has been involved research into communication networks by J. J. Allen and others. They identified particular informal communicative and informational roles within organisational settings. The *technological gatekeeper*, the *internal communication star* and the *external communication star* are some of the new concepts that were put forward and discussed by them. These *stars* are approached by others in the organisation for advice or technical matters due to their perceived knowledge and experience.

Information Filters

Information filters is a new concept, which is related to personalised information delivery. It involves a variety of processes involving delivery of information to people who need it. The *Information filters* are essential mediators between

information sources and information users. In most cases, both information sources and information users possess no mutual knowledge that might guide them in finding the information most relevant for the users' immediate or long term needs. *Filters*, which are positioned logically as *third parties* to the communication between the users and sources, should possess both the knowledge and functionality to critically examine the information in the sources and to forward the information they *judge* as relevant to individual users.

The special feature about *information filters* is that they can work *on behalf of users as well as sources*. In the first case, which is the most common today, filters assist users in finding relevant information and overcoming the *information flood*. In the second case, filters can be used by sources to *target* information to potentially interested users.

Disintermediation

This concept means the finding of the information by an end-user without the need for a third party. In other words, the process whereby users are encouraged to interact directly with services and service providing systems such as online systems. Similarly the *introduction of self service issue* is a process of disintermediation. This concept is also closely related to what is known as *end-user empowerment*. End-user empowerment refers to users having access to information and having the necessary skills to retrieve their information according to their own needs. With empowerment, they should be less dependent on information specialists. This does not, however, necessarily mean that the information specialist as an intermediary will become obsolete. This is because all end-users will not have the time or the interest to do their own information searches. Although, there is a connection between end-user empowerment and disintermediation, end-user empowerment does not necessarily imply disintermediation. It may be emphasised that with the advent of the Internet and the increase in both the access to and awareness of information, it seems inevitable that end-users will be doing their own information searching. It is obvious that there will be some form of disintermediation. The level and extent of disintermediation will depend on many factors, such as: organisational policies on end-user searching, available technology, and the services provided by individual information services. To minimise disintermediation, information specialists will require *critical self-reflection*, refinement of their existing skills, continuing expansion of new skills and active research involvement. As end-users' job requirements, their access to information, and their need for information change, therefore, there have to be simultaneous changes in the role of intermediaries. This is important for intermediaries who aim to improve society's access to quality information.

Knowledge Mediators

The process where libraries provide users with insight into the existing body of knowledge and assist users in acquiring resources referring to or containing such knowledge is known as knowledge mediation. The institution or persons involved in such process are called *Knowledge Mediators*. They certainly constitute a link in *information transfer chain*.

In the foregoing paragraphs an attempt has been made to explain some of the important concepts relating to non-traditional information organisations or deinstitutionalised information services. This is only illustrative and not exhaustive.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
 ii) Check your answers with the answers given at the end of the Unit.
 3) Describe briefly different categories of Information Institutions.

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- 4) Mention the activities and products of Information Analysis Centre (IAC).

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- 5) What do you understand by the concepts *disintermediation*, and *end-user empowerment*?

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3.4 INDIAN SITUATION

After the independence from colonial rule in 1947, the Government of India designed plans and made efforts to initiate societal development. Deliberate policy decisions were taken to harness science and technology for the economic growth of the nation. In the process, a variety of institutions have sprung up in every sphere of activity in the country. Scientific research received increasing patronage from the government. Development of infrastructural facilities necessary for organising appropriate and effective information systems and services received governmental support. This situation paved the way for the development of libraries and information institutions distributed through out the country. In a way; in the growth pattern we can observe the influence of the *Three Era Frame Work*, though not with all its characteristics.

3.4.1 Growth Pattern

Institutions such as libraries, documentation and information centres at academic and professional levels, R&D institutions and laboratories, government agencies

and many public and private sector undertakings have emerged in large numbers. In the initial stages, all these organisations functioned in isolation without any linkages among themselves. But, with the passage of time, we could perceive established linkages among some categories of institutions that emerged during era-I.

On the other hand, during era-II organisations which were established during 1950s and 1960s fulfil the needs of mission-oriented establishments like the Atomic Energy Commission (AEC), the Indian Space Research Organisation (ISRO), and the Electronics Commission. Also, Council of Scientific and Industrial Research (CSIR), Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), Defence Research and Development Organisation (DRDO), and other research complexes may also be included in this group. However, there has not been any effort to coordinate the informational activities of these *two eras* of institutions.

From 1970s, it may be stated that era-III type of organisations started to emerge. Institutions like Small enterprises documentation centre, documentation centres attached to National Health and Family Welfare Institute, and few others, might be considered as information support centres to problem solving type of institutions. Most of the CSIR Laboratories started problem-oriented research and required specialised information centres. This enabled the development of organisations like the National Medical Library, etc. Public sector enterprises like BHEL, CMTRI, SAIL and private sector industries like Bharat Electronics, Tata Energy Institute, RANBAXY, etc. also developed their own specialised information cells for meeting their technical information needs. Since most of the above mentioned organisations grew in the context of serving scientific and technical information and hence they did not attempt provision of societal information. The National Informatics Centre (NIC) tried to integrate societal information with administrative information in its efforts to design an administrative information system for India. At this stage, it may be emphasised that information services in India have not reached the level of sophistication either in terms of utilising modern technologies to offer versatile services or in the production of reprocessed and consolidated packages of information which could meet the specific information needed at policy and decision-making levels. In other words, the institutions that emerged as result of three era framework could offer only traditional type of information services with hardly any distinction in spite of an urgent need to introduce distinctiveness in their services and products.

The period of 1980s however witnessed a change in the policy of government towards information infrastructure in the country. As a result, many changes have occurred. For example, the government encouraged modernisation of information systems in a systematic manner. This resulted in the development of national information systems like NISSAT (now discontinued), ENVIS, and BTIS, etc. Coordination of these national information systems and sharing national information resources using modern communication technology became an important step in the reorganisation of information institutions in the country. Efforts were made to establish resource sharing networks. Projects such as INFLIBNET, DELNET, and CALIBNET making use of facilities provided by INDONET and NICNET have been designed and made operational. Networking and resource sharing concept is being seriously pursued in the development of information services and products at different levels. The *organising principle*

behind this growth appears to be optimum and effective use of available resources for societal development. In this context, the progress achieved by DELNET and INFLIBNET is considered significant.

3.4.2 Future Directions of Growth

The perspective of information institutions discussed in the earlier sections of this Unit, indicates the manner in which these institutions grew. The growth has been uneven, and not necessarily based on a well drafted plan. This situation needs to be rectified through a well-thought-out National Information Policy, which provides guidelines relating to *priority areas* for developing and fostering information institutions in the country. It is needless to emphasise that these institutions should have flexible structures which will enable them to meet the changing needs of the emerging information society and the new *competitive era*.

It may be mentioned that the strategies and approaches for institution building vary from country to country in accordance with its own environment, requirements, priorities and the level of existing institutions. In fact, the perspective mentioned earlier is meant to serve precisely this purpose. Information institution building is a complex process. It involves men, material, machinery and money which should be managed for obtaining optimum results. Of the components essential in institutional building manpower is considered to be the most complex and difficult component.

Human resources that operate the institutions are primarily responsible for the success or failure associated with them. It is human resources that provide leadership, technical skill, managerial control and evaluation of performance of any institution. Such manpower need to be built up systematically. Many factors need to be considered in manpower building.

The main objective should be to build a cadre of information scientists and technologists with diverse specialisation and skills, operating with cohesion to organise and offer high quality information services. Constitution of a National Manpower Consortium for Information Professionals would enable such a task. The consortium should formulate a unified approach that would enable the formation and sponsoring of research projects on manpower development studies. If such measures are taken well in time, the manpower needs of the newly established institutions could be taken care of. The consortium should be a representative body comprising members from information institutions, applied manpower research institutions and professional associations etc. The National Knowledge Commission may also be approached for its advice on the matter. The above suggested steps if implemented would lead to the establishment of effective information institutions in the country.

3.4.3 Role of Information Institutions in Knowledge-based Economy (KBE)

In the foregoing pages, we have learnt about a range and variety of information institutions existing in India. However, we have not attempted to know how far these organisations are prepared for their role in new competitive era, called Knowledge-based Economy (KBE). We do not find case studies assessing the preparedness of Indian information institutions reported in the literature. However,

on studies conducted elsewhere, some *performance indicators* which might prove helpful as parameters for such studies are presented in the following paragraphs.

The parameters are:

- Organisational restructuring: these include
 - i) Reorienting the structures according to markets, products or processes;
 - ii) Becoming flatter and more flexible;
 - iii) Relying more on informal communication; and
 - iv) Creating flexible work groups.
- Expansion in roles and functions
 - i) IT specialists
 - ii) Trainees / educators
 - iii) Negotiators
 - iv) Filters
 - v) Navigators
 - vi) Knowledge managers.
- New initiatives in products and services
 - i) Development and / or involvement in the Intranet
 - ii) Customisation and development of databases
 - iii) Design of websites, web pages and interfaces
 - iv) Introduction of push-technology-based services
 - v) Creating and launching of knowledge products.
- Strategic alliances and networking
 - i) Enhancing internal communication
 - ii) Strengthening networking
 - iii) Building new partnerships
 - iv) Expanding external relations.
- Effective user liaison mechanisms
 - i) Redefining user groups
 - ii) User consultation and defining information needs
 - iii) Refocusing newsletters
 - iv) Initiating, briefing and online delivery of hot news.
- Creative use of out sourcing of operations
 - i) Procurement of information materials
 - ii) Processing operations and services
 - iii) Automated delivery of documents
 - iv) Portals

Case studies must be conducted taking Indian information institutions as *bases* to assess their preparedness for the KBE using the above listed parameters. The new facts that such studies reveal will form the premise for revamping these organisations and making them relevant to the new era.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

6) Explain the growth and development of Information Institutions in India.

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3.5 SUMMARY

This Unit emphasises the significance of institutions in modern society specially that of information institutions. In the absence of latest studies on the subject, the report entitled *Into the Information Age* is found helpful in delineating the contents of the Unit. The *three modes of information transfer* with important features associated with *three eras* have been briefly discussed. The basic characteristics relating to different types of information institutions emphasising their specific role in the process of information dissemination have been explained. The impact of non-traditional institutions such as information broker, etc. and new emerging concepts like *information filters*, *human networks*, *knowledge mediators*, *technological gate keeper* on information flow among researchers and dissemination to user community has been explained in simple language. The Unit also briefly discusses *disintermediation* and *end-user empowerment* phenomena as new trends which initiated a professional debate relating to the need and relevancy of services of information specialists in the changing environment. The Unit concludes by emphasising the role of information institutions and their paradigm shift to meet the new challenges posed by Knowledge-based Economy (KBE). Some suggestions relating to the future direction of growth of information institutions in India have been included in this Unit. It is hoped that the information provided in the Unit will be found helpful to the candidates pursuing the BLIS Programme.

3.6 ANSWERS TO SHELF CHECK EXERCISES

1) The growth pattern of Information Institutions has been described under *three* basic modes of information transmission. Each mode follows a different value system. These have been categorised as:

- i) The Disciplinary Information Transfer corresponding to the value system of pure science, academic and basic research called Era I;

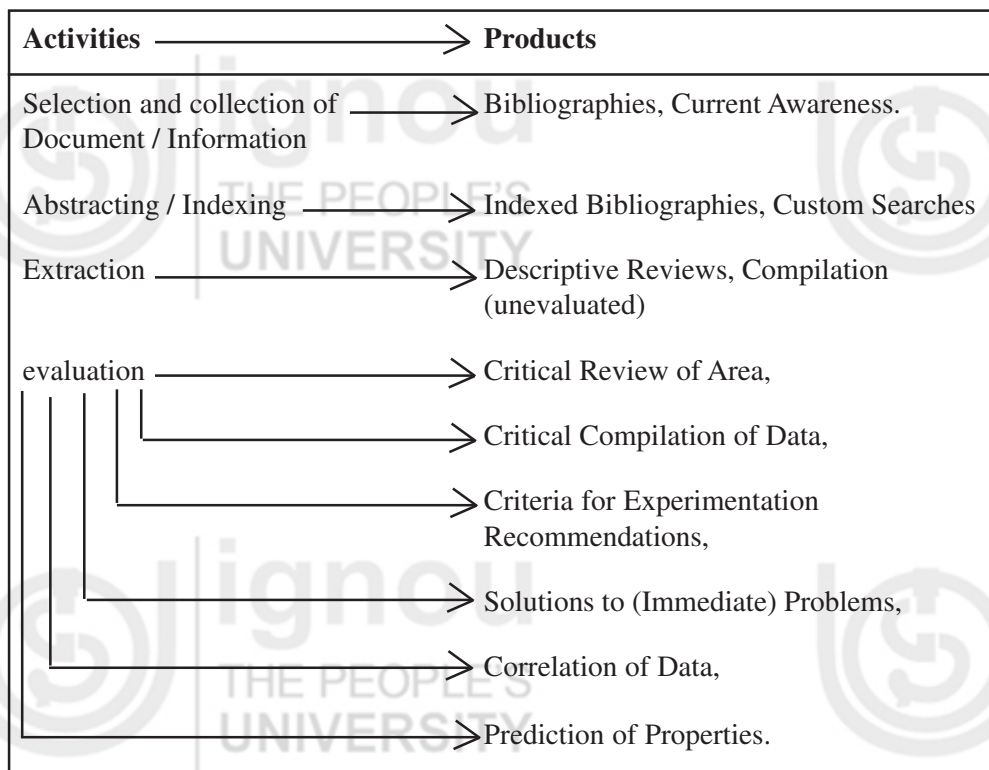
- ii) Mission Oriented Information Transfer corresponding to the value system of government sponsored missions (such as AEC, NASA in the 1960s) called Era II;
- iii) Problem-oriented Information Transfer corresponding to the value system of solving societal problem called Era III.

In the present context networking and resource sharing concept is given importance in the development of information services and products at different levels through various institutions. The main organising principle behind this new pattern appears to be optimal and effective use of available information resources for solving complex societal problems related to development. Efforts towards designing Institutions using enabling technologies which will be successful in delivering information support to the emerging Knowledge Society and in achieving Knowledge-based Economy (KBE).

- 2) The last decade of 1990s has witnessed many changes. Organisations are no more considered as *production-oriented entities*, divided by functions such as human resource management, accounting, R&D, and marketing service, etc. According to management experts, modern organisations are *flexible structures* characterised by geographically dispersed work-force in which client oriented terms based around organisational process act independently to fulfil the objectives and goals of the organisation.

Many adjectives have been used to describe the new millennium organisations. For example, one of the descriptions conceives it as a *Knowledge-based* organisation in which the knowledge of the employees is the *primary asset*. Another perception of a new millennium organisation is that it will be a *learning organisation* in which the individuals, teams, and the organisation itself continuously learn from the environment and from their activities, and act on what they have *learnt*.

- 3) There are different categories of Information Institutions. Of these, the popularly known types are: Libraries, Documentation Centres, Information Analysis Centres and Data Centres, etc. Apart from these traditional institutions referral Centres and Clearing Houses, and many *deinstitutional* information services came up lately. Libraries - public, academic, governmental and special provide the only means of access in our society to any book, journal or document that is out of print or more than a few years old. Most foreign books and journals and specialised documents which are not obtainable at all through normal trade channels are acquired and preserved by libraries. Documentation Centres are basically for specialist users in the field. These are organised at local, regional and national levels in the country. Information Analysis Centres not only disseminate and retrieve information, they create new information. Data Centres collect, control, codify, organise and retrieve data for users.
- 4) The main activities and products of an Information Analysis Centre are represented by means of a table indicated below:



- 5) Technological developments have influenced the services provided by libraries and other information institutions. Many commercial services aimed at end-users have come into being. The introduction of more user friendly services and the introduction of CD ROM data bases enabled end-users doing their own online searches for information. This growth was rather slow and did not pose a problem to information professionals. All of sudden, the information specialist is confronted with a changing social and working environment. This situation is triggered by the advent of the Internet. More and more people who have access to computers and get connectivity to the Internet are in a position to access information. This situation enabled end-users to perform their own information searching. Thus, *disintermediation* and *end-user empowerment* have become *buzzwords*.

Disintermediation relates to the finding of information by an end-user without a need for a third party. As applied to libraries *disintermediation* means diversion of information from centralised physical repositories to alternate sources available directly through computer networks.

End-user empowerment refers to the end-users having access to information and having the necessary skills to retrieve their own information according to their own needs – in other words, they can do it on their own. With *empowerment* they should be less dependent on information specialists. This, however, does not mean that the information specialist as intermediary will become obsolete. This is because not all end-users will have the time or interest to conduct their own searches.

- 6) The growth of Information Institutions can be discussed on the analogy of *Three Era Framework*. It may be observed that in India, *Era-I* institutions such as Libraries, Documentation and Information Centres, R&D institutions, government and public sector organisations have come up in large numbers.

Initially, these institutions functioned in isolation without any sort of coordination. On the other hand, the institutions established during 1950s and 1960s fulfilled the exclusive information needs of mission-oriented organisations like CSIR, ISRO, ICAR, and Atomic Energy Commission. These efforts may be likened to Era-II organisations.

From 1970s Institutions like small Enterprises Documentation Centres, Documentation centres attached to CSIR Laboratories gave rise to specialised information centres which provided information support to problem solving type of research activities. Public sectors enterprises like BHEL, CMTRI, SAIL and private sector industries like Bharat Electronics, Tata research Institute, RANBAXY, etc. also developed their own specialised information cells.

In 1980s the government encouraged modernisation of information systems in a systematic and in a more organised manner utilising modern technologies. As a result, national information systems like NISSAT (now discontinued), ENVIS, and BTIS etc. were developed. Networking and resource sharing concept using modern ICT is being pursued seriously. These developments enabled India to take a forward leap into the Knowledge-based Economic era.

3.7 KEYWORDS

Development : Process of differentiation of activity (ies).

Disintermediation : Relates to the role of the *intermediary* in acting between information (and other products) and its end-users. In other words, it is the finding of the information by an *end-user* without the need of a third party.

As applied to libraries, disintermediation means the diversion of information from centralised physical repositories to alternate sources available directly through computers and computer networks.

End-user Empowerment: Refers to end-users having access to information and having the necessary skills to retrieve their own information according to their own needs – in other words, they can do it on their own. With empowerment, they should be less dependent on information specialists.

Era : Period of history.

Evolution : Process of organisation by development.

Growth Pattern : Process of increase in size and number with some consistency.

Information Broker : An individual of a firm, who, on demand, seeks to answer questions using all available sources and who is in business for profit.

Information Filter : An essential mediator between information sources and their users.

Information Institution: An institution which normally performs the activity (ies) related to the knowledge / information transfer.

Information Manager Network : Network consists of a group of information managers each of whom is assigned information responsibility for a specific technical division while remaining organisationally linked.

Information Transfer : A chain of activities, the main link being information generator, editor, publisher of primary publications, indexing and abstracting journal producers, libraries, documentation and information centres, on-line services, information companies and the end user.

Intelligent Agents and Push Services : Sometimes called *bots* (and information industry *know bots*) are persons who assist user in document access and delivery.

These agents take query from a user and act on his/her behalf to find a solution. They form the part of the *portals* infrastructure. Typical example is the *Shopping bot*.

Invisible College : An elite of high performing scientists who has an informal network of scientific communication and the published literature.

Knowledge Mediators : Persons or libraries who provide users with insight into the existing body of knowledge and assist them in acquiring resources referring to or containing such knowledge.

Technological Gatekeeper : Expert both internal and external communication star, having much higher incidence of exposure to the professional literature, attends more conferences and has more professional affiliations.

3.8 ACRONYMS USED IN THE TEXT

AEC	Atomic Energy Commission
CDRI	Central Drug Research Institute
CFTRI	Central Food and Technological Research Institute
CMTRI	Central Machine Tools Research Institute
COSATI	Committee for Scientific and Technical Information
CSIR	Council of Scientific and Industrial Research
DRDO	Defence Research Development Organisation
ICAR	Indian Council of Agricultural Research
ICMR	Indian Council of Medical Research

ISRO	Indian Space Research Organisation
NASA	National Aeronautic Space Agency
SAIL	Steel Authority of India Limited
STSI	Scientific Technical and Societal Information

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UNIT 4 LAWS OF LIBRARY SCIENCE

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 The Five Laws of Library Science
 - 4.2.1 First Law: Books are for Use
 - 4.2.2 Second Law: Every Reader His /Her Book
 - 4.2.3 Third Law: Every Book its Reader
 - 4.2.4 Fourth Law: Save the Time of the Reader
 - 4.2.5 Fifth Law: Library is a Growing Organism
- 4.3 New Insights and Wider Interpretation of Five Laws
- 4.4 Summary
- 4.5 Answers to Self Check Exercises
- 4.6 Keywords
- 4.7 References and Further Reading

4.0 OBJECTIVES

Ranganathan's five laws provide a paradigm of how libraries function, how they grow and serve, how they live, and so provide for us, a framework through which to examine our professional lives and our libraries. Hence the need for this Unit.

After reading this Unit, you will be able to:

- explain the characteristics of laws in general and identify them in Ranganathan's five laws;
- describe the Five Laws of Library Science;
- explain the nature of work in library, documentation, and information services in tune with the guiding principles governed by the Five Laws;
- make use of the Five Laws as a set of principles to initiate any new activity in library, documentation and information services;
- discuss the services of the library to a variety of information needs of users in different contexts, in an information society;
- examine relevance of Five Laws in the context of revolutionary changes taking place in library and information world; and
- discuss the appropriateness of revisions, and additions to the Five Laws attempted by different authors.

4.1 INTRODUCTION

One of the most significant contributions of Dr.S.R.Ranganathan to the field of library and information science has been the enunciation of his *Five Laws*. These laws were first stated and their formal exposition was provided by the author at

the Provisional Educational Conference held at Chidambaram (Tamil Nadu) in December 1928.

To have a proper understanding of the Five Laws, it is necessary to know the context in which these laws were formulated. It may be noted that Dr. Ranganathan had his education in librarianship in the University of London, School of Librarianship, in the year 1924. After formal training at the University, he had undertaken an extensive tour of England. This tour provided him an opportunity to observe the working of the libraries in England. Dr. Ranganathan took keen interest in understanding the principles and the practices followed in those libraries and the services rendered to their clientele. He was not convinced of the prevailing practices in libraries and the rules that were taught to be remembered in the organisation of library operations. He was not sure of the rationale behind them. They sounded to Ranganathan more like the rules of thumb (i.e. *take it as such or leave it*) type. His analytical mind could not submit itself to such mechanical practices. Therefore, he was engaged in efforts to discover some scientific basis using which the practices followed in libraries, that he observed, could be generalised and reduced to certain minimum number of *cardinal principles*. In other words, Dr. Ranganathan was in search of normative principles which could enable us to understand the measures to be devised in order to know what needs to be done in the library field to make library organisation, management and operation efficient and universalise its services. Also, it was his wish that these basic principles may contain *in a latent form*, many other practices not known at that time, but may surface later. The outcome of this line of thinking on the part of Dr. Ranganathan resulted in his enunciation of *Five Laws of Library Science*. Subsequently, these laws were fully developed and published in book form in 1931.

It must be noted that the Five Laws are a first step towards putting library work on a scientific basis, providing general principles from which all library practices could be deduced. Every activity relating to library services has a rationale in one or another of these laws or in all of them collectively. At this juncture, it is necessary to emphasise that merely stating the Five Laws – or even understanding the words – will not automatically lead to enlightenment about the functions of libraries. Although the laws are simple statements, they demand contemplation and experience before the richness and import of their meaning will be revealed. However, contemplating them as we go about our business in our libraries will provide us with basic tenets to guide us in performing work that fulfils our mission as librarians and information professionals.

In this Unit, we shall try to study the implication of the Five Laws in the context of conventional librarianship as well as their relevance in the context of revolutionary changes taking place in the library and information science (LIS) profession.

4.2 THE FIVE LAWS OF LIBRARY SCIENCE

Laws are scientific principles, rules of procedure or behaviour. Law is a generalisation based on a recurring fact or event. Achinstein, P [1971] considers the following lingual characteristics of a stated law:

- Laws are simple, precise, and few in number

- Laws are essentially general in nature
- Their subject is general
- Syntactically they are general and begin with *All*, *Every* or *No*
- A law expresses a generality which can be used to express regularities.

Keeping the above mentioned characteristics in his mind Dr. Ranganathan propounded his Five Laws as follows:

- Books are for use
- Every reader his/her book
- Every book its reader
- Save the time of the reader
- The library is a growing organism.

When Ranganathan used the expression *books* and *readers* he naturally meant that books stand for knowledge and information and readers stand for users of library and information services. In modern studies of knowledge and information and all related expressions, it must be noted that the carriers and channels of information and knowledge have changed from print to other forms, but all the services are revolving round *information* and *users*. Hence, the dimensions of services have expanded widely in scope, although the basic philosophy of the service remains unaltered. Therefore, these five laws might be restated to suit the changing context and modern developments taking place in the world of libraries and information science as such. For example, the five laws were restated even during the life time of Dr. Ranganathan as under:

- Documents / Information are for use
- Every user his/her document / information
- Every document / information its user
- Save the time of the user
- Document / Information system is a growing organism.

Let us now discuss each of the five laws and its interpretation and implications.

4.2.1 First Law: Books are for Use

By using first law *Books are for use* you are prone to think that it is a self-evident truth or simple statement which does not merit serious consideration and contemplation. But, on deep pondering you change your opinion. This will become evident if we examine the history of books in libraries. In fact, the earlier accent is on the preservation of books rather than their use. Medieval libraries were an example of chained libraries. The books literally were attached to the shelves with brass chains and could only be used in a single location. Obviously, this was done for the preservation of books rather than facilitating their use. This was a natural inclination, at a time when it was very difficult to produce books. This habit some how continued even after the invention of printing, which facilitated the easy production of several copies of each book. Although, isolated examples of reluctance to permit the unrestricted use of books can be occasionally seen even today, the general position is that books are available for use without

any let or hindrance. In fact, policies relating to a library should be helpful in promoting the objective of books being put to maximum use. Let us now examine the implications of the first law in the functioning of a library.

D) ***Implications***

The first law of library science has some important messages for library work. Some of these relate to the location of library, its working hours, library building and furniture and the staff.

a) ***Library Location***

For example, it has a forward thinking message in terms of the emphasis on library location. The law advocates that library be located in a more accessible place in order to encourage more users to use the library. Obviously, it will be a discouragement for people to use books, if they have to walk long distance to reach them. At the same time, the location where the library is situated should be free from noise and other disturbances, so that serious study is possible. An ideal place for a public library should be a quiet central area, while a school library should be located in a prominent place in the school premises. The idea that a university library should constitute the heart of the university, then it should be reflected in its geographical location as well.

b) ***Working Hours***

Another important message inherent in the first law is that the working hours of a library should be convenient to most of the users. Many of the libraries in India need to pay special attention to this aspect and keep them open when their clientele are not engaged in other activities so that they are in a position to visit the library. This type of proactive approach in deciding the working hours of the library will certainly yield good results.

c) ***Library Building and Furniture***

The first law demands that proper attention be paid to the planning and designing of the library building and the different items of furniture equipped to the library. The library building should be functional and at the same time, aesthetic in appeal. The items of furniture should be functional, attractive to look at. The racks should be designed in such a way that books are placed at convenient heights facilitating their removal and use by the clientele. Particularly furniture in children's library should be specially designed to attract children. Comfortable furniture always tempts users to frequent the library. The law also implies the concept of an open-shelf library that is equipped with tools and furnishings which makes the books it contains useful. In other words, the first law alerts us to the requirements of properly designed functional building and comfortable furniture to invite and promote the use of its resources.

d) ***Staff***

Staff form an important component of any library. The first law of library science for its fulfilment calls for certain qualifications and qualities for library staff. Though Dr. Ranganathan has spent considerable space in discussing about library staff in his exposition of the first law, the essence boils down to these important attributes: The library staff should possess

qualifications that would enable them to organise library efficiently and provide satisfactory services. Obviously, this would ensure the proper use of books. But, much more important than formal qualifications are, perhaps, the personal qualities of the library staff. They should be courteous, cheerful and helpful. *Service with a smile* should be the *motto*. The staff should always remember that, everything that they do in the library is a means towards an end, and *the end is service to the readers*. If a potential library user encounters an unhelpful attitude on the part of the member of the staff, s/he is sure to turn away permanently from the library.. in such a contingency, the cause of the first law is *not served rather it is defeated*. The credibility of the staff, in respect of their knowledge, ability and personal attitude to readers, is a crucial factor in the promotion of the use of the books. The attributes discussed above deserve special consideration while library staff is recruited. This is necessary to satisfy the requirements of the first law.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

1) State briefly the implications of the first law with references to library staff.

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4.2.2 Second Law: Every Reader His/Her Book

The second law “Every reader his/her book” (the variant form of which is “books for all”) is perhaps the most under stated; even Dr. Ranganathan acknowledged that with this one principle lies so much of what libraries mean for society. “The law relates to the fact that we all have diverse interests and that there is a book out there to satisfy that for all of us”. In other words, the law stands for the mandatory provision of library service to each person according to her/his need. Stated in a different manner, the law advocates the universalisation and democratisation of library service. However, in earlier days only a privileged few belonging to aristocracy and upper classes of society were given access to libraries and books. But, with the advent of democracy which ensured the participation of every citizen in governance, the position dramatically changed. Democracy, for its sustenance and survival, needs an educated knowledgeable citizenry. Hence, education and acquisition of knowledge through whatever institution possible became the basic right of all citizens without any discrimination. Hence, the law “Every Reader His/Her Book”.

I) *Implications*

This law has many important implications for the library. The fundamental issue it reveals, tension (conflict) between the cost of materials and the basic right of all persons to have access to materials they need. In providing a library for the

use of books, one must be mindful of the fact that since no one individual or library can acquire all the books, this responsibility needs to be accepted at the governmental level. Therefore, the second law imposes certain obligations on the state, library authority of the state, the library staff and the reader.

a) ***Obligation of the State***

It must be emphasised that it is obligatory on the part of the State to develop and organise a library system capable of providing adequate library service to all people. This has to be accomplished through suitable legislation, which should make provision for financial support of the library system and create suitable mechanism with authority for the coordination of all activities pertaining to its different units. A goal should be set for the library system and services best suited for the society must be initiated. The legislation must be so framed that it would serve as an effective instrument for achieving the goals and the stated objectives envisioned therein. Finances are always limiting factors for library development and the objective should be to derive maximum benefit in terms of library services, with the available limited funds. The library system envisaged through legislation is the public library system, which is available to the entire community. But, public library system, by itself will not be able to provide every reader the books he needs. In fact, public library system plays only a minimal role in fulfilling the book requirements of students, teachers and other researchers. Therefore, the government has an additional responsibility to establish school and college libraries as also, university and special libraries to cater for the demand of students, teachers and researchers. Only when the library system of a state is comprehensive providing library service to all categories of its people, it can be said that the demands of the second law are met.

b) ***Obligations of the Library Authority***

The second law emphasises the fact that it is obligatory on the part of the library authority to accept responsibility in respect of book selection and provision of suitable staff. No library will have enough funds to purchase all the books that it may require. This is the reason why libraries have to take recourse to book selection process. In other words, the available finances have to be judiciously used to purchase most relevant and wanted books. This necessitates the libraries to ascertain the requirements of their clientele and formulate proper book acquisition policy. Systematic user surveys help in identifying the user requirements. It may be emphasised that acquiring a book which has no suitable or potential demand is a negation of the spirit of the second law.

The second law implies that an adequate and competent team of staff is essential to provide every reader her/his book. In other words, a reader should be able to exploit the resources which are relevant to her/his needs available in the library. The staff has to play a proactive role in this exercise. In the absence of competent staff willing to help the reader, s/he may not be in a position to locate a good number of books useful to her/him. More often than not, a library finds itself in such a predicament, where users are not served properly for want of adequate qualified staff. Such a situation should be avoided.

Reference service gains its legitimacy and its purpose from the second law. In his description of the second law, Ranganathan explains that reference function is critical. He observes that it is the business of library staff “to know the reader, to know the books, and to actively help in the finding by every person his or her book”. Reference librarians are trained to bring readers to their books, either through formal research instruction, informally in one to one *reference interview* or by the compilation of bibliographies, research guides, exhibits, etc. In a sense, patrons *use* the skill of reference librarian to find the library materials they need.

The reader also has certain responsibilities cast on her/him by the second law. It particularly wants the reader adhere to the rules of the library in respect of loan and use of books. If the reader retains the book beyond the period of loan, s/he is depriving other readers, who may want to use the book. There are some readers who misplace books with a view to monopolise, or tear off pages from books or even steal them. This undoubtedly leads to the gross violation of the *second law*. The readers should be made conscious of such violations and their consequences by the library staff through short programmes of user education.

With best efforts, it will not be possible for any library to be self-sufficient. There would be hardly any library which is capable of ensuring all the demands of its clientele depending on its own resources. In other words, this points to the need for resource sharing among libraries. The second law envisions emergence of resource sharing library networks, both at national and international levels, to satisfy its expectations fully.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

2) How does the second law provide guidelines for book selection in a library?

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4.2.3 Third Law: Every Book its Reader

The third law of library science is “Every Book its Reader”. The approach of this law is oriented towards the book. As per the law, every book in a library should have a chance of finding its appropriate reader and be useful to her/him. In other words, investment in unused books amounts to wastage of funds and must be avoided under all circumstances. The mission of any librarian is to build a well-organised collection of resources in order to maximise the chance that users will find what they need. The third law *implicitly means that “resources look for users”* in fact, the duty of the librarian is to help the library resources find the people who want and need them most. Dr. Ranganathan points out, that library

users often, do not know enough about available resources to identify what to ask for. According to him “the majority of readers do not know their requirements, and their interests take definite shape only after seeing and handling a well-organised collection of books”. This principle naturally addresses the fundamental issue of open access. In the open access system, books are arranged in the shelves in classified order and readers have freedom of access to them. In the course of readers browsing through shelves; they may come across books of interest to them, the existence of which they may not be aware of. The chances of readers noticing the books and reading them are enhanced by the open access system. The third law, therefore, definitely advocates open access.

Adopting an open access system for a library imposes certain responsibilities and obligations on the part of the staff as well as the readers. For example, the classified arrangement of books i.e. the arrangement of books in the order of their relationship with particular subject should be constantly maintained. This means that the shelf-rectification, i.e. restoring the misplaced books to their correct place on the shelf should be done by the library staff on a regular basis. They should also provide shelf guides, bay guides, etc, which guide the readers to their appropriate regions and shelves in the stack room.

Readers, on their part, should conduct themselves with a sense of responsibility. They should not try to replace the books they have taken out because in that process they are likely to misplace books. They are also advised to resist the temptation to misplace books deliberately, mutilate or steal books or indulge in other unsocial activities. Readers should note that *a book misplaced is a book lost for ever*. There are both advantages and disadvantages in practicing open access system. In case, the open access system is practiced, it must be done in a balanced and orderly manner, so that its advantages outweigh the disadvantages, the system definitely contributes to the satisfactory fulfilment of the third law of library science. In addition to have open access system; the library should adopt aggressive promotional activities and innovative services in order to bring the library resources closer to their users. There are many ways to do this. One of the ways is distribution of monthly list of books added to the library to the readers on a regular basis. This will be helpful in bringing such books to the notice of their potential users. The newly added books should be displayed prominently in the library for some time before sending them to the stacks, so that they may catch the attention of the readers and are read by those who are interested in them.

Another innovative technique to draw the attention of the potential users to library resources is organisation of book exhibitions, which have a bearing on topical themes to enhance the chances of the books finding their appropriate users.

The third law also advocates maintenance of a well designed library catalogue with effective cross references, and added entries meeting the different approaches of readers. Of course, the importance of reference service cannot be over emphasised in this connection. Ultimately, as Ranganathan asserted “it should be the business of ... the librarian ... to adopt all the recognised methods of attracting the public to the library so that every potential reader may be converted into an actual one, thereby increasing the chances for the fulfilment of the *third law*.”

- Note:** i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of the Unit.
 3) Explain briefly how open access facilitates better use of the library.

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4.2.4 Fourth Law: Save the Time of the Reader

The *fourth law* presents the biggest challenge to the library administrator. Policies must always be formulated keeping in view the needs of the readers (users) in mind. For example, aspects like hours of operation must be set in such a way to ensure the most appropriate and convenient access to patrons who rely on the library for their study and research needs. The collection must be arranged in an inviting clear and obvious way so as not to waste the time of the user in searching for the books they need. Library users may be busy people, and they should not be made to wait longer than necessary to get their needs met. They should get exact and fast service from the library. It must also be noted that in many individuals, intellectual interest may exist only momentarily and unless it is satisfied at the moment of its existence, it may vanish. Hence, the importance of the law “Save the Time of the Reader”. It means satisfied library users. In other words, the *prime* measure of library’s success, it is important to note that frustrated or disappointed users means that the library has failed in its responsibility and has grossly violated the dictates of *the fourth law* and failed in its fulfilment. Let us now try to analyse the full implications of this law and the various operational methods employed by libraries to save the time of readers.

I) Implications

Just as the third law the fourth law also pleads for open access system in libraries. The justification is that in closed access libraries, the readers are not allowed to the stacks where books are shelved and have to requisition for books they need. The procedure is that they prepare a list of books they want after consulting the catalogue, and hand over the list to a library staff member. S/he may locate some of the books asked for and report the non-availability of others. On seeing the books, the reader may discover that none of these books is relevant to her/his need. S/he has to prepare another list and repeat the operation and wait again for the result. This trial and error method may consume lot of her/his time before her/his needs are met. A lot of time is spent counter productively in these processes. Obviously, this frustrates the library user. A lot of user’s time is saved, if the library follows open access system and maintains a well organised collection of books.

There are other ways to satisfy the law. One of them is following proper classification system which would bring together books on specific subject and

also related subjects. Another way is to construct a well designed catalogue which meets the different approaches of readers. It is important to note that while catalogues are tools for retrieving items accurately, they become items that waste the time of the reader, if items are haphazardly catalogued or if the cataloguing is excessively focussed on the intricacies of the technique.

Another important aspect which has a great relevance to the Fourth law is the charging system (i.e. loan of books) followed in the library. Earlier systems were time consuming and some what cumbersome. Hence, efforts have been made to simplify the process with a view to reduce the time involved in the operation. As a result, modern systems like photo-charging system, ticket system, computerised charging system, barcode system and radio frequency identification (RFID) system have been evolved. Adopting any one of these systems will lead to substantial reduction of time in the issue and return process which the fourth law strongly advocates.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit

4) Discuss the operational methods employed by libraries to save the time of readers.

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4.2.5 Fifth Law: Library is a Growing Organism

The fifth law is *Library is a growing organism*. Dr. Ranganathan compares library to a growing organism. In a living organism the growth is of two kinds: the child growth and the adult growth. We can notice that child growth is characterised by increase in physical dimensions and it is fast and visible. On the other hand, the growth in adults is mainly in the nature of replacement of cells. It is a kind of internal qualitative change, which may not be perceived, and as such, not visible. When we say library is a growing organism, we mean that library is not a static entity, but a dynamic growing entity. In other words, the dynamic nature of the library be properly grasped and provided for right from the time of starting of a library so that its growth is not inhibited due to lack of far-sight and planning. On further analysis, we know that the basic components of a library comprise: i) the book stock (or resources), ii) the staff, iii) the readers, iv) the physical infrastructure such as the building, furniture and equipment. When we say that a library grows, we envisage growth in all these components. Naturally, the fifth law has implications for each one of these components.

I) *Implications*

Let us try to analyse these implications and try to understand the guidance we can derive from the fifth law in solving the problems presented by the dynamic growth associated with the library.

a) **Book Stock**

In the initial stages of development, the growth of books including the periodicals will be rather fast. This naturally impacts the size of the stack rooms, size of card cabinets, size of the catalogue room, number of periodical display cabinets and the number of book racks for accommodating the books. Also, as the book collection grows, and the newly added books are interpolated in the classification arrangement, there will be constant movement of books on shelves. This would necessitate re-labelling of shelves periodically. This is essential to reflect the correct position of arrangement of books for easy retrieval.

b) **Readers**

When the library functions properly in keeping with the spirit of the first law of library science, the readers of the library are bound to grow. That means the readers need proper facilities by way of reading space etc. and new types of services need to be organised.

c) **Staff**

It must be mentioned that mere quantitative growth does not mean anything. There must be qualitative growth also. This requires the number of staff must be increased commensurate with the increase in readers and books to initiate new services to suit the needs of the new readers and to improve the existing services to meet the changed demands of the readers and personalise them with reference to service. The qualifications and skills of the staff need to be updated to meet the changing circumstances. The staff should be provided with opportunities to receive training in new areas of professional development. The motto of the staff should be to render efficient service and save the time of the readers. For this purpose, constant updating of skills and growth in professionalism by learning innovative techniques and new areas of professional development is necessary.

d) **Classification and the Catalogue**

One of the implications of increasing intake of books on a variety of new subjects is that the classification scheme adopted should be hospitable to new subjects. It must enable the classifier to allocate a unique class number to each subject and must facilitate easy retrieval. The growth factor also calls for a card catalogue built on sound principles to help the readers to know the contents of library without difficulty and the catalogue should facilitate easy interpolation of entries. It should be a easy locating tool.

Libraries which grow fast, especially, the larger ones, need to modernise their services by taking recourse to computerisation of all the house keeping operations. This results in the efficiency of service.

The fifth law also advocates that care be taken while planning and designing a library building by making provision for the expansion of the building both horizontally and vertically. The need for more space often arises *sooner than anticipated* and *lack of provision for expansion* would block the development of library.

e) **Weeding of Books**

The development plans for a library should also include provision for weeding out obsolete books and adding new ones which are relevant and useful. Weeding need not necessarily mean the discarding of books. It only means removal of books from a library where their relevance has ceased in order to make room for current and relevant books. Such books may be stored where they are available for occasional use. Different libraries in a region may cooperate in planning a storage facility for locating the weeded out books in a central place so that readers in need of such books may go there and consult them.

In the foregoing pages, we have discussed the implications and interpretations of the five laws of library science in a traditional manner. Their adequacy and relevance in meeting the demands of changing information environment is discussed in the next section.

4.3 NEW INSIGHTS AND WIDER INTERPRETATION OF FIVE LAWS

A sea changing is taking place in all facets of human society. While knowledge and information have always been instrumental in promoting the material progress at every stage of societal development, the last 50 years have witnessed spectacular developments in the growth, access and availability of information and knowledge. This change is generally attributed to the advancements that have taken place in information communication technologies (ICTs). As a result, knowledge and information can be accessed today instantaneously, irrespective of its location and made available on a computer screen, downloaded and stored for future use. Though, the bulk volume and variety in which knowledge and information is disseminated do not pose any problem of access and availability, the fundamental problem of *use* and *service* to the user remains still some what unsolved even today. Ranganathan's laws, though formulated in the context of traditional libraries and their use, and services rendered by them to the user community, it is the opinion of many professional experts that these laws have not lost their relevance even in the context of new developments such as the Internet System, World Wide Web, Digital and Virtual Libraries.

These laws "continue to give us a blue print for our professional values that is as relevant now, as it was in 1931. The language may be seen as restrictive, but the underlying values inherent in them means they can be continuously interpreted for the future". As a matter of fact, many of the scholars have attempted to do so. For example: Rettison [1992], Chappell [1976], Naun [1994], Gorman [1998], Kuronen and Pekkarinen [1999], Croft [2001], Leiter [2003], Satija [2003], Noruzi [2004] and Choudhury et al. [2006] have provided new insights relating the adequacy and relevance of Ranganathan's *five laws* in the present context and their future value.

Let us try to understand the significant aspects discussed in their writings.

- James A Retting [1992] while paying his tributes to Dr. Ranganathan on the occasion of his birth centenary discussed the *five laws* and opined that these laws needed to be extrapolated. He conceived a sixth law "Every reader his

freedom” as applicable only to the type of service such as instruction or provision of information.

- Michael Gorman has reinterpreted Ranganathan’s laws in the context of today’s library and its likely future, and reformulated them calling them as [Gorman’s] “Five New Laws of Librarianship”.

They are:

- 1) Libraries serve humanity;
- 2) Respect all forms by which knowledge is communicated;
- 3) Use technology intelligently to enhance service;
- 4) Protect free access to knowledge; and
- 5) Honour the past and create the future.

Gorman’s laws are not a revision of Dr. Ranganathan’s laws. They are another completely separate set, from the point of view of a librarian practicing in a technological society [Middleton 1999].

- Kuromen and Pekkarinen Paivi in their work entitled Ranganathan revised: a review article, made a critical study and analysis of the *five laws* and concluded that the underlying philosophy of the Five Laws is fundamental and works well in the context of traditional library environment. But, in the context of modern technological developments and the changes that have taken place in the very concept of a library resulting in a paradigm shift in the information world, giving rise to a situation in which the information – which is instant power – flows globally and is delivered or accessed at the speed of light, Ranganathan’s laws, though valid, may be inadequate. With convincing reasons and rationale, they established the need for additional laws to cope with the situation. They proposed two new laws in their writings. These are: 6th Law: “Every reader his library”.

7th Law: “Every writer his contribution to the library”.

In the opinion of these authors, reader means a *searcher* and library perhaps *connotes the virtual type*? These two new laws dwell on the new cooperative and interactive relations between the users and the documents of the virtual library. However, their interpretation in consonance with the five laws of Ranganathan needs to be further studied before their validity is established. Even Francis Miksa ... opines that “it is appropriate to paraphrase S. R. Ranganathan’s second and third laws of library science. Instead of, *Every reader his book* and *Every book its reader*, new technology appears to be making possible, *Every reader his library* and *Every library its reader*”.

- Recognising Ranganathan’s five laws of library science and their underlying concepts as powerful inspirations for social change, Mentor Cana [2003], analysed the “Open Source Software”, as defined by Open Source Initiative (OSI) and its congruency with the five laws. He felt that since the underlying concepts upon which the five laws are built had profound impact on our society, then the proponents of open source movement can learn a lesson or two from that example in achieving their objective. Cana explains that a *book* is a basic element of Ranganathan’s laws: it contains objective knowledge. This calls for defining the comparative basic elements of software

development. Hence, he takes the term *Software* to be the basic element: it contains objective knowledge. He uses the term *Software* to connote a software product or software modules that can be used to build software products and believes that the five laws of the “Software Library” could be:

- 1) Software is for use
- 2) Every user his / her software (or software for all)
- 3) Every software its user
- 4) Save the time of the user
- 5) A Software Library is a growing organism.

It must be mentioned here the OSI definition is congruent with the first law: Software is for use. The very reason open source software is developed is that, it can be used. The second, third and fourth laws are dependent on the existence of the software library. Though, there are repositories of various open sources online, the collections are not as organised as the library system. Open source movement can attempt to apply some lessons from the evolution of libraries in establishing and streamlining the software library concept bearing in mind here that the producers and users of software are different than producers and users of books. In this connection we can just imagine the importance and power of bibliography control over software in information society, being that software has the potential to be more pervasive when compared to pervasiveness of books in our society.

- One of the most useful papers which provides significant insights and wider interpretation of Ranganathan’s five laws and establishes their relevance in 21st century is the paper authored by Alireza Noruzi A[2004] entitled “Application of Ranganathan’s Five Laws to the Web”. The paper poses the question; “does the web save the time of users?” and attempts to answer the question by analysing the application of *five laws* of Ranganathan to the Web and reinterpreting them in the context of the Web. “The Five Laws of the Web” formulated by him are:

- 1) Web resources are for use.
- 2) Every user his / her Web resource.
- 3) Every Web resource its user.
- 4) Save the time of the user.
- 5) The Web is a growing organism.

Before we actually discuss the impact on the Web, we need to know briefly what the Web is and what it actually contains? The World Wide Web (WWW) is an Internet system that distributes graphical, hyperlinked information, based on the hypertext transfer protocol (HTTP). The Web is the global hypertext system providing access to documents written in a script called Hypertext Markup Language (HTML) that allows its contents to be interlinked, locally and remotely. The Web was designed in 1989 by *Tim Berners-Lee* at the European Organisation for Nuclear Research (CERN) in Geneva [Nouzi, 2004]. It provides materials and makes them online accessible, so that they may be used. The Web consists of contributions from any one who wishes to contribute, and the quality of information or the value of knowledge is rather

opaque, due to the lack of any kind of peer reviewing. It may also be mentioned that the Web is an unstructured and highly complex mix of all types of information carriers produced by different kinds of people and searched by a variety of users. It was designed to meet the human need to share information resources, knowledge and experience. The Web masters want people to interact with their websites and pages, click on them, read them, and print them if they need. In other words, websites are meant for use and *not for admiration*. The main objective of the Web is to help users all over the world, by catering for their information requirements. It is in this context, *The five laws* of the Web came into existence. In fact, they are really the foundations for any Web user-friendly system. What they advocate is universal access right of cyber citizenship in the information age.

- *The first law*: “Web resources are for use” is very important because information serves no purpose, if it is not utilised and at least available for people to attempt to learn. The role of the Web is to serve the individual, community and service, and to maximise social utility in the communication process. To satisfy the first law, the web must acquire materials and make them accessible so that they can be used. Some webmasters are currently closing their files by password protective systems, and others are charging fees – the first law admonishes such people. Another point that the first law emphasises is about service. In order to deliver and reap the rewards of services, the Web must identify the benefits that society can reasonably expect and then devise means of delivering those benefits. In other words, the law dictates the development of systems that accommodate the use of Web resources. For example, updating and regular indexing of Website resources facilitates the use of site resources and the Web in general.
- *The second law*: “Every user his / her Web resource” has many implications. It reveals the fundamental need anywhere in the world. This makes diffusion and dissemination very important. In other words, each web resource should think of potential user before Website is created. This means webmasters must know their users well, if they are to provide them the materials they need for their study and research. The second law also dictates that Web serves all users, regardless of social class, sex, age, ethnic group, religion or any other consideration. The law emphasises that every cybercitizen has a right to information. Webmaster and search engine designers should do their best to meet cybercitizens’ needs.
- *The third law*: “Every Web resource its user”. How can a webmaster find a user for every web resource? There are many ways in which a web can actively work to connect its users. But the most important aspect which should be kept in mind, in this context, is that webmaster should add content with specific user needs in mind and they should make sure that the users can find the content they need easily. Webmasters should make certain that the content they add is something their users have identified as a need and avoid cluttering up their Website *with content no one seems to care about*.
- *The fourth law*: “Save the time of the user”. This law has been responsible for many reforms in Website administration. A Website must examine every aspect of its policies, rules, and systems with the one simple criterion that *saving the time of the user is vital to achieve the Website’s mission*. In order

to save the time of the user, Websites need effectively and efficiently design systems that will enable user to find what they are looking for *quickly* and *accurately*. At the same time, the Websites they are searching should make them available most of the information that could be *potentially useful*. In other words, the fourth law emphasises efficient service to the users. This implies that a well designed and easy to understand guide map or index to the Website.

- *The fifth law*: “The Web is a growing organism”. The web reflects and represents the changes taking place in the World as the society moves forward. In the process, a large quantity of information is added to it. Hence, a Web is a growing organism. We need to plan and build with the expectation that the Web and its users *will grow and change over time*. To cope with the dynamic situation, it is necessary to keep our own skill levels moving forward. The fifth law alerts us by emphasising the vital point that *change and growth go together*, and require flexibility in the management of Web collection, in the use of cyberspace, in the retention and deployment of users, and in the nature of Web programs. The law advocates proper and systematic planning to meet the requirements of change and growth.

In conclusion, these laws are not only applicable to the Web in general, but characterise the establishment, enhancement, and evaluation of online databases and digital library services, as well. These five laws concisely represent the ideal and the organisational philosophy of the Web. No doubt the five laws of the Web prove useful in the evaluation of Websites.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of the Unit
 6) Explain briefly the implications of five laws in the wider context of changes taking place in the library and information world.

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4.4 SUMMARY

This Unit discusses the five laws of library science propounded by Dr. S.R. Ranganathan. While these laws seem simple on first reading, on second thoughts and deep contemplation, the richness and import of their meaning will be revealed. The *five laws* provide a *paradigm* of how libraries function, how they grow and serve, how they live, and so provide for us a *framework* through which to examine our professional lives and our libraries. These laws are the lens through which practitioners can inform their decision making and set their business priorities, while staying focussed on the user. It may be emphasised that the five laws of

Ranganathan continue to give us a blue print for our professional values that is as relevant today as it was in 1931. The language may be seen as restrictive, but the underlying values inherent in them mean they can be continuously reinterpreted for the future. New information and communication technologists suggest that the scope of Ranganathan's laws may appropriately be extended to the Web. In Noruzi's opinion "these laws are as applicable to the current practice of the Web as of tomorrow. These laws are not only applicable to the Web in general but characterise the establishment, enhancement, and evaluation of online databases and digital library services as well. These five laws concisely represent the ideal service and organisational philosophy of the Web. ... we can evaluate web site by applying the Five Laws of the Web". Since 1992, the 100th anniversary of Ranganathan's birth, several modern scholars of library science have attempted to update his five laws, or they reworded them for other purposes. Some of these are referred to in this Unit.

4.5 ANSWERS TO SELF CHECK EXERCISES

- 1) The first law is a statement that emphasises the use of materials available in library. Evidently the staff that serve the readers of library must have the abilities to organise their collection efficiently. The law dictates the development of systems that accommodate the use of library material. For this purpose, they should have the knowledge about the collection available in the library. The staff should know how to use the various tools in the library to provide access to the documents stocked in the library. The more the knowledge about the staff about subjects, the better would be the service to users. For instance, proper and regular shelving of library materials by the staff and logical and topical arrangement of materials facilitate their use by readers. Besides knowledge and skills, the library staff should be courteous and should be cheerful to help the readers. In other words, the first law advocates that the library staff must take care to provide a facility and an organised collection that invite and promote the use of library resources. Users rate the library on the basis of the way the library staff shows keenness to assist them. In fact, the credibility of the staff, both in respect of their knowledge and their personal attitude to readers, is a general factor in the promotion of the use of books.

- 2) The second law has many important implications for the library. '*Books for all*' irrespective of the type of readers is the *main message* of the second law of library science. It may reveal the conflict between the cost of materials and the *basic right* of all persons to have access to the materials they need. In providing a library for the use of books, one must always be mindful of the fact that since no one individual can own all the available books, one of the primary obligations of the library is to acquire body of literature or research materials that will benefit each of the readers and researchers. The freedom to access writings of all kinds and inform their own minds on topics that others may wish to suppress. The second law reminds us to be impartial in our dealings with our users. We may not like what they request from us, we may think a book or other resource is low-brow, but we should never place our own prejudices in the way of access. Users' information requirements are the prime consideration for building a collection in a library. In other words, the collection the library is building and maintaining must be

representative and adequate to fulfil the expectations of the majority of its community of users. The book selection policy should therefore be determined on the basis of the findings of the users' survey. Library should not be stocked with material that is not wanted by its clientele.

- 3) The third law of the library science addresses the fundamental issue of access. The need to provide easy access to materials is one way of putting people together with what they require. Equally putting books into the hands of the people who do not necessarily know which book they actually need is at the heart of the third law. We could interpret reader development as being part of the third law, since within its remit we promote books to the users that may not be known to them and that we feel may offer them opportunities for enrichment those other titles. Allowing readers to browse a collection through open access is one of the inherent messages provided by third law. The open access system facilitates better use of books because it gives freedom to readers to choose what they want. The browsing facility provided by the open access system ensures the readers chances of getting at their particular item. It certainly saves the time of the reader to get the appropriate documents. The advantages of the open access system outweigh the disadvantages associated with its implementation.
- 4) Time is a precious commodity. Saving the time of the reader has always been a concern of the librarian. In fact, the fourth law presents the biggest challenge to the library administrator. This is the reason why libraries create catalogues, bibliographies, indexes and abstracts. Saving the time of the reader also relates to how we actually organise the library. The most important aspect which the staff of the library should remember in this connection is that catalogues and other devices are tools for retrieving items accurately; they become items that waste the time of readers, if items are haphazardly catalogued or if the cataloguing is excessively focussed on the intricacies of the art. However, when considering the time of the user as the vital notion, a *simple and effective system* is what is called for. Adequate staffing of reference, information, and circulation desks, as well as telephone reference, also helps patrons find needed materials quickly. Saving the time of the reader means providing efficient, thorough access to materials. It means satisfied library users. This is the prime measure of success of any library; frustrated or disappointed users mean that the library has failed in its duty and its responsibility. Hence, the library staff must make every effort to make its service more efficient.
- 5) The five laws of library science of Ranganathan were a first step towards putting library work on a scientific basis, providing general principles from which all library practices could be deduced. During his life time Ranganathan himself revised and reworded them to suit the work of documentation centres and documentation service. During the period when Information Science was developing Ranganathan's five laws were interpreted to suit the information work (service) and the functions related to information institutions. However, since 1992, the 100th birth anniversary of Dr. Ranganathan, a number of modern scholars of Library and Information Science have attempted to update, reword, or reinterpret the five laws of Ranganathan. Some of the major efforts in this direction are briefly considered in the following paragraphs.

In 1992, James R. Retting enunciated a sixth law, as an extension of Ranganathan's five laws. It read as "Every reader his freedom". It was supposed to be applicable only to the type of service (i.e. instruction or provision of information).

It may be noted that *book, readers, and library* are the basic elements of Ranganathan's laws. Even if we replace these key words with other elements, Ranganathan's laws still work very well. Based on five laws (of Ranganathan), many researchers have presented different principles. For example, "Five new laws of librarianship" by Michael Gorman became famous. Gorman, it appears, reinterpreted Ranganathan's Laws in the context of today's library and its likely future, and reformulated them calling them as [Gorman's] "Five New Laws of Librarianship".

They are:

- 1) Libraries serve humanity.
- 2) Respect all forms by which knowledge is communicated.
- 3) Use technology intelligently to enhance service.
- 4) Protect free access to knowledge; and
- 5) Honour the past and create the future.

Obviously, Gorman's laws are not a revision of Dr. Ranganathan's Laws, but another completely separate set, from the point of view of a librarian practicing in a technological society. It may be mentioned that new information and communication technologists suggest that the scope of Ranganathan's five laws may be appropriately be extended to the Web. In fact, Noruzi has analysed Ranganathan's five laws in the context of the Web and provided the rationale as to how they are applicable in the case of Web design and Web sites evaluation. The five laws in their interpreted version help to identify the Web a powerful inspiration for technological, educational and social change.

Cana (2003) established the fact that Ranganathan's five laws could be used as normative principles in the case of *open source* software, and advocated that they be used as guiding principles. Similarly David Mc Menemy observed that Ranganathan's laws remain relevant in numerous areas of modern library and information practice, and will continue to be reinterpreted by the profession for a long time to come.

4.6 KEYWORDS

- Book** : A packaged carrier of information and knowledge.
- Growing Organism** : A biological phenomenon indicating growth, not necessarily indicated externally.
- Information** : A recorded message, irrespective of physical form or content.
- Information Society** : A new form of social existence in which the storage, production, flow, etc. of networked information plays the central role.

Knowledge

: Organised information irrespective of the physical form.

Reader / User

: A person using the resources of library; a customer of information institutions.

**World Wide
Web (WWW)**

: An Internet System that distributes graphical hyperlinked information, based on the hypertext transfer protocol (HTTP) the Web is the global hypertext system providing access to documents written in a script called Hypertext Markup Language (HTML). It was designed in 1989 by Tim Berners - Lee at the European Organisation for Nuclear Research (CERN).

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BLOCK 2 LIBRARY, INFORMATION AND RELATED LEGISLATION

Introduction

Library legislation is intended to provide a legal framework along with adequate financial support to run the Public Libraries smoothly and effectively. This is also otherwise known as Public Libraries Act. The various components of such an Act are Public Libraries, their structure, establishment, governance, maintenance, staffing pattern, finance, power to make rules and amendments, etc.

There are two Units on library legislation in this Block.

Unit 5 discusses about the state library policy, need and components of library legislation, Model Public Libraries Bill and also Model Library and Information Service Act.

Unit 6 presents a detailed account of the Public Libraries Act enacted in different States of India. At present there are sixteen states namely Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, West Bengal, Manipur, Kerala, Haryana, Mizoram, Goa, Gujarat, Uttaranchal, Rajasthan, Uttar Pradesh, Orissa and Bihar which have passed such Acts. A comparative study has also been made among the Acts enacted in states of India.

After reading these two Units, you will be in a position to learn the concept of library legislation, its utility and how it is implemented in the different states of India where library legislation presently exists.

The third Unit in the Block is on other information related legislation. It discusses right to information (RTI), intellectual property rights (IPR), and different acts related to information use in India. The increasing use of electronic information necessitates one to have knowledge of these acts.

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UNIT 5 LIBRARY LEGISLATION AND MODEL PUBLIC LIBRARY ACTS/ BILLS

Structure

- 5.0 Objectives
- 5.1 Introduction
- 5.2 State Policy for Library and Information Services
- 5.3 Need for Library Legislation
- 5.4 Components of Library Legislation
- 5.5 Model Acts/Bills
 - 5.5.1 Model Union Library Act
 - 5.5.2 Model Act of S.R. Ranganathan
 - 5.5.3 Model Bill of Ministry of Education
 - 5.5.4 Model Bill of the Planning Commission
 - 5.5.5 Model Library and Information Services Act
 - 5.5.6 Indian Public Library Legislation: A Model for 21st Century
- 5.6 Summary
- 5.7 Answers to Self Check Exercises
- 5.8 Keywords
- 5.9 References and Further Reading

5.0 OBJECTIVES

After reading this Unit, you will be able to:

- recognise the areas to be included in the State Library Policy;
- explain the need for library legislation;
- identify the essential components of a Modern Public Library Act; and
- state and describe the features of different Acts.

5.1 INTRODUCTION

The main purpose of a public library act is to help a reader to use documents for enriching her/his knowledge or for leisure time occupation or for any other purpose. In this Unit, we intend to present a model Public Library and Information Services Act and describe what it can do to generate public library information service.

An effective means of designing and developing a public library service is to have a network of central points linking a number of activities. The structure of such a network can be set in hierarchical tiers. The type of hierarchy reflects the administrative units for revenue and state administration. We can organise these tiers in a radial fashion where a state library will have divisional libraries. Each divisional library becomes the radial focus to the district library, each district library to taluk/block library and each taluk/block becomes a focal point of village libraries.

Thus, the effective organisation of a library network calls for having a configurational analysis and simulation of other administrative structures.

In this Unit, we shall study the effective way of forming such a network of libraries. Library legislation is, the best and assured way of providing public library services in a democratic and free society. We shall discuss the ways in which a model public library bill can be formulated and shall also note what we expect out of a model public library act and how it should enable the libraries to function effectively for serving the public.

5.2 STATE POLICY FOR LIBRARY AND INFORMATION SERVICES

As per the Constitution of India, the subject of library services forms part of the State Lists whereas the subject of education is a part of Concurrent List. So, it is obligatory on the part of the State Governments or Union Territories to enact laws for library legislation. Before enacting any laws, the States or Union Territories should frame a policy for public libraries and implement it through a statutory provision, i.e. State or Union Territories Public Libraries Act. The developed countries too had adopted this procedure. The UNESCO Public Library Manifesto 1994, also stressed that “a clear policy must be formulated, defining objectives, priorities and services in relation to the local community needs”.

The state policy for library and information services should cover the following areas:

- 1) A public library should render service freely to all members of the community, without any discrimination.
- 2) The public libraries shall serve the community in the following order of priority: illiterates and neo literates, semi-literates and the participants in non-formal education programmes; people pursuing self-education, people interested in self-employment schemes; semi-skilled; children and young; casual readers, housewives; and those in higher education and research etc.
- 3) For arranging free access to information they should act as information centres. They should provide access to all citizens for all types of information at all levels, provide information on local enterprises, associations and local interest groups, develop local histories, develop community information services, utilise the services of National Informatics Centre and introduce computer skills for achieving speed, accuracy and efficiency in service.
- 4) The public libraries in a developing society should preserve cultural heritage, provide access to all forms of cultural expression, make efforts to foster inter cultural dialogue, favour cultural diversity and support oral tradition.
- 5) A federal country like India needs a two-tier public library system in a State, that is, one at the state level as an apex body and the other at the district level for spreading its activities to the village level with necessary infrastructure.
- 6) The State Government/Union Territories will formulate a comprehensive book selection policy for public libraries in the State. The public libraries should acquire all kinds of documents including the multimedia.

- 7) In case of human resources, the Government should constitute a State Library and Information Service Cadre including Sub-ordinate Service Unit for this purpose. Recruitment rules for the said service and conditions of service shall be subject to the provisions of the Article 309 of the Constitution of India.
- 8) Through library legislation, the State Government/Union Territories will impose library cess like educational cess, as surcharge, on all possible items such as, house tax, property tax, vehicle tax, etc., as per the local conditions.
- 9) The Government will encourage the libraries maintained by local bodies, voluntary agencies, Mahila Mandals, etc.

Considering the issues accepted in the draft State Policy of Public Library and Information Services, it is felt necessary to have comprehensive library legislation in each state and union territory.

5.3 NEED FOR LIBRARY LEGISLATION

The public library should serve as a local information centre making the sources of knowledge readily available to the public. Public libraries should stimulate neo-literates, semi-literates, non users to become readers, and serve the population with knowledge and information. They should serve as local gateways to national and global knowledge.

Need for Library Legislation

It is recognised that ‘freedom, prosperity and the development of a society and of individuals, are fundamental human values’. These values can be attained through well informed citizens, who will be shaped through utilisation of public libraries. It is recognised all over the world that education including the provision for free public libraries is the responsibility of the Government at National, State and Local levels. A public library is the “People’s University”.

In the process of evolution, our country had established good number of public libraries maintained by local bodies and voluntary organisations, and some libraries through subscriptions. But these libraries could not grow on modern lines because:

- 1) They were started mostly with voluntary efforts and had meagre funds to meet information needs of the people.
- 2) The financial support through subscriptions or through public donations could not provide viable services;
- 3) The governance and management of these libraries were on *ad hoc* lines without any structure and resources;
- 4) Very limited services were provided that too only to members;
- 5) They had neither stability nor scope for growth;
- 6) They functioned only as long as the initial enthusiasm of the founders remained, thereafter these libraries slowly decayed.

In modern times, the public libraries must provide services with certain standard, and with an objective of reconstruction and development of a society. They cannot be achieved only through individual munificence. A library service on sound lines requires library legislation to get a perennial source of income. Library leaders, public men, and scholars, have realised that the only way to establish and develop a public library system is through public law. Pioneers and men of vision like Edward Edwards, Dr. S.R.Ranganathan and many others spared no efforts to bring about library legislation in their respective countries. The UNESCO Public Library Manifesto 1994 (second revision), emphasises that “Public Library is the responsibility of Local and National Authorities. It must be supported by specific legislation and financed by National and Local Governments.” So, a public library is to be maintained efficiently, and permanently with uniform, pulsating and integrated library service with properly laid out network of library system. A simple executive order of the state government will not be able to maintain sound system however good it might be, and at the same time executive orders cannot generate finances. With the ever growing needs, and the escalation of prices, the task in financing will be more difficult. Finance needed for the rising and growing services will be possible only with a state legislation and library cess.

The reasons for legislation can be summed up as under:

- 1) It will constitute a proper administrative and supervisory body with executive powers;
- 2) It will provide a well organised library system for the state, district and up to the remote village level with free access to all the citizens;
- 3) It will provide a steady and permanent source of finance;
- 4) It will maintain standards in library service;
- 5) It will be obliged to meet the objectives and remain accountable.

Finally, it is to be noted that library and information service is a crucial factor in the national development for meeting learning needs of the masses. Thus, it is only through a State and Union Territories Public Library Act that a public library system could be created, sustained and promoted, ensuring a smooth financial flow, properly governed and managed to provide modern library services to all.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of the Unit.

- 1) Explain the components to be covered in the State Policy for Library and Information Service.

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- 2) List the deficiencies of precursors to modern public libraries.

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- 3) How does library legislation strengthen the system?

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5.4 COMPONENTS OF LIBRARY LEGISLATION

The Public Libraries Act, which is to be operated in Indian conditions, should have the following components:

- 1) The **PREAMBLE** of the Act should clearly spell out the objectives of library legislation and therefore, it should be precise and explicit.
- 2) **State Level Authority:** The Act should have the provision for the constitution of a Board as the State Library Authority.

The Minister-in-charge of libraries should be the State Library Authority, charged with the duty of implementing the Act. It will be her/his duty to supervise and promote the improvement of the library service, provided by the library authorities and to secure proper discharge of their functions. It shall be her/his statutory duty to establish, equip, administer a State Library System, providing comprehensive and efficient library service, free of charge, to all the citizens in the State.

- 3) **Chief Executive of the State:** In this Act, the Chief Executive at State level shall be called the Director of Public Libraries, who should be an information service professional. The director shall supervise and control the Public Library System of the State, with the guidance of the State Library Authority.
- 4) **Network of Libraries:** The act should provide for establishment and functioning of public libraries as a pyramidal structure from village, or even a hamlet level, to the state level via the districts covering towns and tehsils, etc.
- 5) **Financial Clauses:** The Act should spell out financial sources to ensure a regular flow of funds and their deployment. There should be a provision in the Act to collect library cess from all possible sources. Dr.S.R.Ranganathan, a pioneer in library legislation in India, advocated for the provision of library

cess in the Model Acts. He incorporated the provision of library cess in all Acts he had drafted in his lifetime. The Advisory Committee for Public Libraries headed by Shri K.P.Sinha, examined this issue and opined that “in spite of a strong body of opinion against library cess, the Committee has come to the conclusion that only a cess can provide a stable base for library finance”. It is to be recognised that the levy of library cess is essential for a planned and systematic growth of an authority through assured and established financial resources.

- 6) **Manpower:** A provision should be made to create a cadre of State Library Service, and all the members of the said service should be Government servants, and their recruitment and conditions of service should be as per provisions of the Article 309 of the Constitution of India.
- 7) **Accountability:** The activities and accounts of the Public Library System shall be open to public inspection, supervision and as per official audit rules.
- 8) **Registration of Books:** There must be a provision for the registration of books and news papers/periodicals published in the State under the legal deposit rules.
- 9) **Rules:** Rules should be made by the State Library Authority for all the sections and for smooth functioning, administration and control of the offices and the staff.

After examining the Model Library Act, you would see that it encompasses a wide range of activities. And you will find that Model Library Act has the impact of Ranganathan’s Five Laws of Library Science viz.,

- Books are for use
- Every Book his/her Reader
- EveryReader his/her Book
- Save the time of the Reader
- Library is a Growing Organism

These laws provide not only a succinct statement of library’s professional activity, but also form a set of guidelines for the management of libraries.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of the Unit.
- 4) Enumerate the main features of a Model Public Library Act.

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5) List the information headings of a Model Public Library Act.

5.5 MODEL ACTS/BILLS

Over the last sixty eight years, we have drafted six Model Public Library Acts in India on different occasions.

S. No.	Title of the Act	Author	Year
1)	Union Library Bill STATE LEVEL	Dr. S.R. Ranganathan	1951
2)	Model Library Act	Dr. S.R.Ranganathan (Revised number of times till 1972)	1930 to 1972
3)	Model Public Libraries Bill	Ministry of Education Govt. of India	1963
4)	Model Public Libraries Bill	Planning Commission Govt. of India	1963
5)	Model Public Library and Information Services Act	Dr. V.Venkatappaiah Sponsored by Indian Library Association	1989 Revised in 1995 & 2005
6)	Indian Public Library Legislation A Model for 21st Century	Dr. S.R. Ijari	2008

The Model Acts and Model Bills are used as synonymous terms in this Unit. Let us know some more details about the model Acts/Bills in the flowing sections.

5.5.1 Model Union Library Act

The Government of India appointed a Committee in the year 1948 to suggest the possibilities of establishing a National Central Library at New Delhi. Dr. S.R.Ranganathan as a Member of the Committee drafted “The Library Development Plan — Thirty Year Programme For India with Draft Library Bills for Union and Constituent States”, which contains Union Library Bills.

The salient features of the Model Union Libraries Act are given below:

- 1) Constitution of a National Library Authority.
- 2) Establishment of a system of national central libraries i.e. National Copyright Library.
- 3) Constitution of National Library Committee for the purpose of advising the National Library Authority on all matters arising under this Act referring to it.

- 4) Constitution of a National Library Fund.
- 5) Amendment to the Delivery of Books and Newspapers Act, 1954.

Later, the Union Government did not take much interest either for opening a National Central Library at New Delhi or to pass a Union Library Act. As per the constitution, it may not be possible to pass a Union Library Bill without amending the Constitution of India because in the Constitution the subject libraries and education were originally included in the State List. Through the 42nd Amendment (1976), education was omitted from the State List and was added in the Concurrent List. Libraries remained in the State List. If the Union Government wants to have a library legislation at national level, it has to amend the Constitution by shifting the item of libraries from State List to union of Concurrent List. Till such time, it may not be possible to think about Union Library Legislation on libraries.

5.5.2 Model Act of S.R. Ranganathan

Dr. S.R. Ranganathan initiated the Model Library Act as a conference paper during All Asia Educational Conference held at Banaras in 1930 and later he revised it as Model Public Libraries Act. Attempts were made to introduce this Model Act in West Bengal in 1931 and Madras in 1933. But it could not be enacted due to some compulsory clauses. The salient features of this Model Act are mentioned below:

- 1) Model Libraries Act will provide a system of public libraries for the city, rural and other areas.
- 2) Minister of Education shall be the State Library Authority (S L A). It shall be the duty of the State Library Authority to provide for adequate library service in the State.
- 3) Constitution of a State Library Committee for the purpose of advising the State Library Authority on all matters arising under the Act.
- 4) Constitution of a Local Library Authority (LLA) for each city and one for each district.
- 5) The State Library Authority and Government, and a Local Library Authority may raise the library rate in such a manner and at such cess as may be determined from time to time.

5.5.3 Model Bill of Ministry of Education

Based on the recommendation of the Advisory Committee for Libraries (1958), the Ministry of Education, Government of India appointed a Committee with Dr. M.D. Sen, as Chairman. This Committee prepared the Model Public Library Bill in 1963. The salient features of this Bill are given below:

- 1) Constitution of State Library Authority, the apex body, to advise the Government in the matter of developing libraries.
- 2) Constitution of the State Library Directorate for directing and controlling the system.
- 3) Constitution of District Library Committee in each district.

- 4) Treatment of the employees as government servants.
- 5) Collection of library cess at a rate of 6 paise per rupee on house tax and property tax.

5.5.4 Model Bill of the Planning Commission

The Government of India, Planning Commission constituted a “Working Group on Libraries”, to advise on the development of libraries during the Fourth Five Year Plan. The Working Group recommended a Library Development Scheme to be implemented in the Fourth Plan period, with a financial commitment of ₹ 09 million. During the Plan period, it was contemplated to establish new libraries and maintain and improve the existing libraries. The Working Group submitted its report in 1965. The report was appended by a Model Public Libraries Bill, which contains the following features.

- 1) Establish, maintain and develop an integrated and adequate public library service in the State.
- 2) Constitution of a Committee of Experts to prescribe the standards of service.
- 3) Provision of State Library Council to advise the Government in the promotion and development of library services.
- 4) Provision to establish a State Library Directorate to control, direct and supervise the library system in the State.
- 5) Establishment of Public Library System consisting of State Central Library, State Regional Libraries (only in bilingual States) and District Library System.
- 6) Treatment of all the employees in the system as State Government Servants.
- 7) There is no provision of library cess. The Government shall maintain the public library system of the State.

5.5.5 Model Library and Information Services Act

At the request of Indian Library Association, Delhi Dr. Venkatappaiah drafted the Model Public Libraries Act in 1989, keeping in view the developments and experiences. This Model Act was discussed in the National Seminar on Library Legislation held at New Delhi 1990.

In the wake of developments in the country such as, New Panchayat and Municipal Acts, after amending the Constitution in 1992, releasing of UNESCO Public Library Manifesto in 1994, Total Literacy Campaign, emerging necessity of information at all levels, the earlier Model Act of Dr. Venkatappaiah was revised as Model Library and Information Services Act in 1995 and again in 2005. The salient features of this new Model Act are given below:

- 1) State Library and Information Service, based on a State Policy.
- 2) Constitution of State Library Authority at the apex level with Minister for Libraries as Chairman, as policy making and executive body.
- 3) Formation of Directorate of Public Libraries for streamlining the administration.
- 4) Constitution of City, District Library Authorities for rendering service from district to village level.

- 5) Provision for a network of Public Library and Information Service from state level to village level.
- 6) Constitution of the State Library and Information Services.
- 7) Collection of library cess on house tax and property tax, entertainment tax, professional tax, vehicle tax, etc.
- 8) Constitution of State Boards for education, book production, co-ordination, etc.
- 9) Accountability of public expenditure and services.

5.5.6 Indian Public Library Legislation: A Model for 21st Century

This Act, drafted by Ijari has the following features:

- 1) Department of Library and Information Services.
- 2) State Public Library Authority in the apex.
- 3) Regional Public Library Authority.
- 4) Metropolitan Public Library Authority.
- 5) City Public Library Authority.
- 6) District Public Library Authority.
- 7) Taluka Public Library Committee.
- 8) Town Public Library Committee.
- 9) Gram Public Library Committee.
- 10) State Central Reference Library.
- 11) Library Training and Research Centre.
- 12) Library cess on lands, buildings, entry on goods, entertainment, etc.
- 13) Reports, returns, inspections, etc.

Impact of the Model Acts

Attempts were made to introduce the Public Libraries Bill in West Bengal and Madras respectively. The Acts could not be passed due to some compulsory financial clauses. After independence, the Public Libraries Acts were passed in Madras (1948), Hyderabad (1955), Andhra Pradesh (1960), Karnataka (1963), Maharashtra (1965), West Bengal (1979) etc. The Acts have structurally adopted, to certain extent, the Model Act of Dr. S.R.Ranganathan. There is no impact of the Model Bills of Ministry of Education and Planning Commission for passing Library Acts in these States in India. Government of Bihar to some extent adopted the Model Act sponsored by Indian Library Association.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this Unit.
- 6) Make a comparative study of State Model Public Libraries Acts/Bills.

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5.6 SUMMARY

We have discussed in this Unit the following aspects of a Model Public Libraries Acts:

- 1) The need for State Policy for Public Library and Information Services.
- 2) The need for library legislation for setting up a network of public libraries.
- 3) The various methods of forming public library networks.
- 4) The method of establishing a Public Library Act to ensure a continued and smooth public library service.
- 5) The salient features of a Model Public Library Act.
- 6) The basic structure of a Model Public Library Act and the different informational headings that should constitute the major components of such an Act.
- 7) Comparative study of Model Acts/Bills.

5.7 ANSWERS TO SELF CHECK EXERCISES

- 1) Components to be covered in the State Policy for Library and Information Service:
 - a) Administrative System at all levels
 - b) Proposed Library Net work
 - c) Services rendered
 - d) Human Resources Development
 - e) Financial sources for Public Library Services.
- 2) The precursors to modern public libraries had the following deficiencies:
 - a) They were mainly voluntary efforts with meagre financial support.
 - b) The financial support was weak as they depended on subscriptions and public donations.

- c) The governance and management standards were minimal.
 - d) Services were limited to members; they were no services except book borrowing.
 - e) They were not certain to continue.
 - f) They were functional only as long as their founders were active; subsequently, they faded out for one reason or the other.
- 3) The strength of a network of public libraries established by law are:
- a) State legislation provides a legal basis which is an acceptable democratic process.
 - b) It ensures a continued and smooth process of establishing a framework of libraries on a statutory basis.
 - c) It provides proper governance and management in the certain standards.
 - d) Its various clauses provide the basis for the structure, functions, personnel and finance in meeting user demands for library services.
 - e) It ensures sustained financial support and smooth flow of finance.
 - f) It ensures sustained free public service to all.
 - g) Its basic objectives, structural organization, performance come in for public scrutiny from time to time and hence provides ample scope for modification, improvements, responding to societal changes and consequent needs of the society.
 - h) Obligated to the response and proper accountability.
- 4) The main features of a Model Public Library Act are:
- a) It should define all the basic concepts or instruments or components for a library Service system.
 - b) It should define the configurational structure of the system of libraries.
 - c) It should state the governance apparatus such as library committees, the board of management and the like.
 - d) It should define the system of cadre, recruitment and concept of professional excellence of library and information professionals.
 - e) It should set up tiers of organisation or continuous financial support and utilization.
 - f) It should provide for various types of services for regular and specialised citizens.
 - g) It should set up the ways and means of reporting about services rendered to the professional authorities as well as to the administrative authorities, by establishing a modern monitoring system.
 - h) It should provide for a complete library system that would also look into preservation of various kinds of documents as well as dissemination of information contained in them.
- 5) The information headings of a Model Library Act are:
- a) Exact title and short title of the Act.

- b) State Library Authority
- c) Department of Library and Information Services
- d) Public Library and Information System
- e) State Library and Information Service
- f) Finance, accounts and accountability
- g) Rules for procedure, control and supervision.

6) Comparative study of the State Model Acts:

S. No.	Act/Bill	Governance	System	Finances
1)	Model Act of Dr. S.R.Ranganathan	State Library Authority	State Central	Library Cess Library at Apex
2)	Model Bill of Ministry of Education	State Government	do	do
3)	Model Bill of Planning Commission	do	do	do
4)	Model Act of ILA	State Library Authority	do	Library Cess
5)	Model Act of Dr. Ijari	State Library Authority	do	Library Cess

The last one has some more features like:

- a) Supported by a State Policy for Library and Information Services.
- b) Component of Information Service up to village level.
- c) Participation in the Post Literacy Programme.
- d) State Book Development Council.
- e) Accountability.

5.8 KEYWORDS

Authority : A statutory body with executive powers

Hierarchical Tiers : Any system of organisational set up ranked one above the other.

Model Act/Model Bills : A document prepared for the guidance to prepare a Bill for placing before the Assembly.

Network : An inter related and connected system forming part of a whole.

Nodes : A central point of component parts.

Radial : Going from the centre outward or from the circumstances inward along the radius.

5.9 REFERENCES AND FURTHER READING

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UNIT 6 LIBRARY LEGISLATION IN INDIAN STATES – THEIR SALIENT FEATURES

Structure

6.0 Objectives

6.1 Introduction

6.2 Legislations Studied

- 6.2.1 Madras Public Libraries Act, 1948
- 6.2.2 Andhra Pradesh Public Libraries Act, 1960
- 6.2.3 Karnataka Public Libraries Act, 1965
- 6.2.4 Maharashtra Public Libraries Act, 1967
- 6.2.5 West Bengal Public Libraries Act, 1979
- 6.2.6 Manipur Public Libraries Act, 1988
- 6.2.7 Kerala Public Libraries Act, 1989
- 6.2.8 Haryana Public Libraries Act, 1989
- 6.2.9 Mizoram Public Libraries Act, 1993
- 6.2.10 Goa Public Libraries Act, 1994
- 6.2.11 Gujarat Public Libraries Act, 2001
- 6.2.12 Orissa Public Libraries Act, 2001
- 6.2.13 Uttaranchal Public Libraries Act, 2005
- 6.2.14 Rajasthan Public Libraries Act, 2006
- 6.2.15 Uttar Pradesh Public Libraries Act, 2006
- 6.2.16 Bihar State Public Libraries and Information Centers Act, 2008

6.3 Comparison of the Sixteen Acts

- 6.3.1 Public Access to Libraries
- 6.3.2 Financial Provision
- 6.3.3 Human Resources
- 6.3.4 Governance

6.4 General Observations

6.5 Missing Features in Public Library Legislation

6.6 Summary

6.7 Answers to Self Check Exercises

6.8 Keywords

6.9 References and Further Reading

6.0 OBJECTIVES

In Unit 5, you have been introduced to the facets of a Model Public Libraries Act and salient features of such an Act. In this Unit, we are introducing you to Public Libraries Acts of sixteen States of India namely, Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Manipur, Kerala, West Bengal, Haryana, Mizoram, Goa, Gujarat, Uttaranchal, Rajasthan, Uttar Pradesh, Orissa and Bihar.

After reading this Unit, you will be able to:

- explain the management of public library system, the governance, structure, finance, infrastructural facilities, etc.;
- design the libraries and introduce the professional services;
- identify and explain the variations in the provisions of the Acts; and
- describe and discuss the main features of the Public Libraries Act in the respective States.

6.1 INTRODUCTION

In Unit 5, we have discussed a few important aspects of library legislation. The discussion also included the salient features of a Model Public Libraries Acts in some detail. In this Unit, we shall present a comparative discussion on Public Library Acts enacted in the sixteen States of India namely, Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Manipur, Kerala, West Bengal, Haryana, Mizoram, Goa, Gujarat, Uttaranchal, Rajasthan, Uttar Pradesh, Orissa and Bihar.

The basic provision of a Public Library System as envisaged in these Acts, such as, free access to reading and learning material, establishment of institutional structure, advisory boards to provide guidelines to policy making, decision making, finance, recruiting and feedback, etc. are discussed. All these aspects are explained in relation to the Public Library Acts of these States.

A comparative study of the sixteen Acts is also made in relation to the topics mentioned above. These provisions are studied with reference to their operation, indicating their strength and weakness. Although Library Acts were passed in sixteen states, they are under implementation only in five states. So, the study, in some areas, is based on the performance in those five states only.

6.2 LEGISLATION STUDIED

Sixteen states of India have put into state book their Public Libraries Act. The chronological sequence is as follows:

- i) Tamil Nadu
(Then called Madras Public Libraries Act, 1948)
- ii) Andhra Pradesh
(The Hyderabad Public Libraries Act, 1955, as a result of reorganisation of the states merged in Andhra Pradesh Public Libraries Act, 1960).
- iii) Karnataka
(The Karnataka Public Libraries Act, 1965)
- iv) Maharashtra
(The Kolhapur Public Libraries Act was passed in 1945. After states reorganisation, state of Kolhapur was merged with Maharashtra State. The Maharashtra Public Libraries Act, 1967 came into being in 1967).
- v) West Bengal
(West Bengal Public Libraries Act, 1979)

- vi) Manipur
(Manipur Public Libraries Act, 1988)
- vii) Kerala
(Kerala Public Libraries Act, 1989)
- viii) Haryana
(Haryana Public Libraries Act, 1989)
- ix) Mizoram
(Mizoram Public Libraries Act, 1993)
- x) Goa
(Goa Public Libraries Act, 1994)
- xi) Gujarat
(Gujarat Public Libraries Act, 2001)
- xii) Orissa
(Orissa Public Libraries Act, 2001)
- xiii) Uttaranchal
(Uttaranchal Public Libraries Act, 2005)
- xiv) Rajasthan
(Rajasthan Public Libraries Act, 2006)
- xv) Uttar Pradesh
(Uttar Pradesh Public Libraries Act, 2006)
- xvi) Bihar
(Bihar State Public Libraries and Information Centres Act, 2008)

The basic provisions of the public library system as depicted in these Acts are discussed here. As stated earlier, library legislation should take care of the following five aspects:

- a) Accessibility of information to all sections of the people.
- b) An establishment of institutional network to provide, care and preserve documents.
- c) Establishment of committees to provide guidelines in relation to policy making, decision-making and implementation of services.
- d) Provision of finances and the *modus operandi* for expenditure.
- e) Arrangement of a reporting system of the activities of various public libraries.

We shall discuss these features in detail in each of the sixteen Acts in the following sections, delineating the provisions made for public library services.

6.2.1 Madras Public Libraries Act, 1948

The Madras Public Libraries Act is the first of its kind in independent India. This Act provided basis of the Public Libraries System in the erstwhile composite Madras State (before November 1956) and Tamil Nadu State. The salient features of the Act are delineated as under:

- 1) It facilitates the establishment of Public Libraries in the State.
- 2) Provision to constitute State Library Authority for the purpose of advising the Government on such matters relating to libraries as they may refer to it.
- 3) Provision to appoint a Director of Public Libraries. (From the year 1972 a separate Department was created to that effect).
- 4) Constitution of Local Library Authorities, one for the City of Madras and one for each District. The District Library Officer is the Ex-officio Secretary of the Local Library Authority.
- 5) Each Local Library Authority shall levy library cess in the form of surcharge on the property tax or house tax at a rate of 5 paise per rupee. The Government gives each Local Library Authority, except Madras, a matching grant to the amount of library cess collected.
- 6) The Connemara Public Library, Madras was treated as the State Central Library, Tamil Nadu.
- 7) Declaration that libraries are eligible for Government aid.
- 8) The Act amended Section 9 of the Press and Registration of Books Act, 1867, Central Act, XXV of 1867 to the effect that every publisher shall deliver five copies of each book to the State Government out of which four will be deposited in the State Central Library, Madras.

6.2.2 Andhra Pradesh Public Libraries Act, 1960

When Andhra Pradesh was formed in 1956, comprising Andhra areas of composite Madras State and Telangana area of Hyderabad State; Madras Public Libraries Act was in force in Andhra area. So, administrative problems were bound to be there, when two separate Acts are in operation in one State. To clear this problem, both the Acts were amalgamated, modified and brought upto-date as Andhra Pradesh Libraries Act in 1960, and later, it was amended in 1964, 1969, 1987 and 1989 (major amendments); and such major amendments resulted into the constitution of Andhra Pradesh Granthalaya Parishad, more or less a State Library Authority as the apex body. This Act is an improvement over Madras Act. The salient features of this Act are given below:

- 1) Constitution of Andhra Pradesh Granthalaya Parishad, with nominated body by Government, as apex body with statutory powers and functions.
- 2) Constitution of Directorate of Public Libraries to direct, supervise and control the Public Library System.
- 3) Constitution of City/Zilla Granthalaya Samsthas through nomination of Chairman and Members by the Government.

- 4) Librarians of City/District Central Libraries will act as Ex-officio Secretaries of the City/Zilla Granthalaya Samsthas.
- 5) Provision to collect library cess upto eight paise per rupee as surcharge on house tax and property tax collected by local bodies.
- 6) Payment of establishment charges of the staff working in the City/Zilla Granthalaya Samsthas by the Government.
- 7) Grant-in-Aid to private libraries by Government and City/Zilla Granthalaya Samsthas.

This Act is functional than the earlier Madras Act and Hyderabad Act.

6.2.3 Karnataka Public Libraries Act, 1965

The Karnataka Act, one of the balanced Acts, so far enacted, paved the way for a State-wide network of Public Libraries in the Karnataka State. It comprises Bombay-Karnataka area, old Mysore area, Hyderabad-Karnataka area, Madras-Karnataka area and Coorg area. The salient features of this Act are given below:

- 1) Provision for a State Library Authority in the form of a corporate body with Minister-in-charge of Education as Chairman. The members are drawn from different segments of the society.
- 2) Provision for creating an independent Department of Public Libraries, with a professional as its head.
- 3) Provision for the establishment of State Central Library at the apex of Public Library System in the State.
- 4) Constitution of Local Library Authorities for the cities and districts.
- 5) Provision for setting up Advisory Committee for Branch and Village Library Services.
- 6) Provision for centralised technical processing.
- 7) Provision for centralised units like:
 - a) Copyright collection of the State;
 - b) State Library for the Blind;
 - c) State Bibliographic Bureau; etc.
- 8) Provision for the levy of library cess in the form of a surcharge on all possible taxable units of the State revenues. The District Library Authority gets the annual grant from the State Government (3% of the land revenue).
- 9) Creation of a State Library Service bestowing upon its employees all the benefits and privileges as are available to the other State Government servants.

6.2.4 Maharashtra Public Libraries Act, 1967

Maharashtra State was constituted with the areas of Western Maharashtra, Marathwada, Vidarbha, and by amalgamating princely states like Kolhapur, in the year 1960. Even though there were efforts for library legislation from 1940 onwards, it could succeed only in the year 1967, by enacting of Maharashtra Public Libraries Act.

The main features of this Act are given hereunder:

- 1) Constitution of State Library Council by the Government, Minister for Education shall be the Ex-officio President of the Council. The Council will advise the State Government “on all matters connected with the administration of this Act.”
- 2) Constitution of a separate Department of Libraries, and the appointment of a professional as its Director.
- 3) Establishment of a State Central Library and a Divisional Library for each division.
- 4) Constitution of a District Library Committee for every district. The Chairman of the Education Committee of the Zilla Parishad functioning in the district, as the Ex-officio President of the Committee. In case of the Committee of Greater Bombay, the Chairman of the Education Committee of the Municipal Corporation shall be the Ex-officio President of the Committee.
- 5) Establishment of Maharashtra State Library Service and to treat all members of such service as Government servants.
- 6) There is no library cess. The Government shall contribute to the library fund every year, a sum not less than 25 lakh rupees. The Government may make special grants to library fund.
- 7) Grant-in-aid to public libraries organised by voluntary organisations.

6.2.5 West Bengal Public Libraries Act, 1979

With a gap of more than a decade, the West Bengal Public Libraries Act entered in the statute book in the year 1979. This is more or less a replica of the Madras Act. But the differing feature of the Act is the conspicuous absence of library cess. The State Government meets the expenditure on the maintenance of libraries from its exchequer. The important features of this Act are given below:

- 1) Constitution of a State Library Council with the Minister in Charge of Library Service, as its Chairman, for advising the Government on the matters of public library system.
- 2) Representative from the employees of the libraries as a member in the State Library Council.
- 3) Constitution of a Department of Libraries to supervise and direct the matters of public libraries.
- 4) Constitution of Local Library Authority for each district. The District Magistrate of the district shall be the Ex-officio Chairman of the Local Library Authority.
- 5) Provision for constitution of Executive Committee for Local Library Authority (LLA).
- 6) The Government is empowered to appoint District Library Officers and District Librarians in districts. The Government, after consultation with the Authority, may place the District Librarian in charge of District Libraries. S/ he shall manage library affairs subject to the control of the Authority.

7) No provision for Library Cess. The financial management for local libraries will be made by the Local Library Authority. The following are the means for augmenting funds:

- a) Contributions, gifts and income from endowments;
- b) Grants from the government for general maintenance of libraries or for any specific purpose; and
- c) The amount collected by the Local Library Authority under the Act or the rules.

The Act provides funds by the State Government in the form of annual grants.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

1) State three distinct improvements of the Andhra Pradesh Public Libraries Act over the Madras Act.

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6.2.6 Manipur Public Libraries Act, 1988

A small State, Manipur, located in the eastern part of India got the opportunity for library legislation in 1988. The salient features of the Manipur Public Libraries Act are given hereunder:

- 1) Constitution of a State Library Committee, to advise the State Government on all matters arising under this Act and to exercise and perform such other powers and duties as may be prescribed.
- 2) Constitution of a Department of Public Libraries.
- 3) Provision for constitution of Executive Committee for District Library Authority.
- 4) Constitution of District Library Authority in each District, as a corporate body, for the purpose of organising and administering public library service in the District.
- 5) Constitution of 'Library Fund' formed mainly with the contribution of the State Government.
- 6) No Library cess.

6.2.7 Kerala Public Libraries Act, 1989

Kerala Act is quite a different one, than the other Acts. But it is a unique one because of its democratic and more decentralised pattern. The characteristics of the Act are given below:

- 1) There is a three tier administrative system for the organisation and administration of the public libraries system in the State. It comprises:
 - 1) Kerala State Library Council
 - 2) District Library Council
 - 3) Taluk Library Union
- 2) The Presidents, Vice-Presidents, Secretaries, and Joint Secretaries, for the State Library Council, District Library Councils and the Taluk Library Unions shall be elected and shall be responsible for the administration and organisation of public libraries.
- 3) The State Library Council advises the Government on all matters connected with the development of public libraries and also acts as authority.
- 4) The State Library Council coordinates the working of District Library Councils and the Taluk Library Unions, and controls the Public Library System in the State,
- 5) The Trivandrum Public Library shall be deemed to be the State Library of the State.
- 6) The District Library Council will supervise, coordinate and control the library service in the district.
- 7) Constitution of Taluk Library Union, with powers to supervise, coordinate and control the library service in the Taluk and to give directions and advise to affiliated libraries in regard to their day to day function and management
- 8) Transfer of Kerala Granthasala Sangham with its staff, assets and liabilities to the State Library Council.
- 9) Library cess will be levied in the form of surcharge on building tax or property tax in the area within the jurisdiction of panchayats, municipalities and corporations.
- 10) The State Library Council shall maintain a fund called State Library Fund from which all the expenses of the State Library Council, District Library Councils and Taluk Library Unions shall be met. The library cess collected in the State and the grants of the State and Central Governments etc., will be credited to the State Library Fund only.
- 11) Reservation to at least one women and one person belonging to scheduled castes and scheduled tribes in all committees.

This Act appears to be more functional. Some how, it has not been implemented so far, and reasons for it are not known.

6.2.8 Haryana Public Libraries Act, 1989

The Haryana State was formed in the year 1966, carved out from the earlier Punjab State. Haryana Act has got the following features:

- 1) Constitution of the State Library Authority to advise the Government on all matters in promotion of library service in the State.

- 2) Formation of State Library Directorate to implement the programmes approved by the State Library Authority.
- 3) Establishment of the State Central Library.
- 4) Constitution of a District Library Committee for each District.
- 5) Constitution of a City and Town Library Committee for each city with a population of over a lakh and a Town Library Committee for a Municipal Town with a population of not more than one lakh, were provided in accordance with such rules as may be framed by the District Library Committee concerned.
- 6) Constitution of Block Library Committee and Panchayat Library Committees by the District Library Committee concerned.
- 7) Constitution of the State Library Fund, District Library Fund, City or Town or Block or Village Library Fund meant for the development, improvement and maintenance of the library service.
- 8) Levy of library cess in the form of surcharge on property tax and house tax at such a rate decided by the Government from time to time.
- 9) Provision to recognise State Library Associations, and co-operative institutions by the State Library Authority.

This Act was passed to provide for a comprehensive rural and urban library service with the establishment of network of libraries. However, this Act has not come into force so far.

6.2.9 Mizoram Public Libraries Act, 1993

Mizoram became a full fledged State in 1987. Within six years it enacted the library Act. It possesses the following special features.

- 1) Constitution of the State Library Council to advise the Government on all matters relating to libraries and also in regard to promotion and development of libraries in the State.
- 2) Constitution of Department of Public Libraries to control and supervise the Public Library System in the State.
- 3) Establishment of State Library, District Library, Sub-divisional Libraries, and Village Libraries.
- 4) Provision of grant-in-aid for private libraries.
- 5) There is no library cess. The total expenditure for the establishment and maintenance of the public library system will be met from the State funds.

6.2.10 Goa Public Libraries Act, 1994

Goa is the tenth State to have library legislation. The salient features of the Act are:

- 1) Constitution of State Library Authority with Minister-in-Charge of Libraries as its Chairman. This Authority shall advise the Government on all matters arising under the Act.

- 2) Constitution of State Library Directorate for controlling and directing the Public Library System in the State.
- 3) Organisation of State Library, District Library, Taluk and Village Libraries.
- 4) All the employees are treated as Government employees.
- 5) Grant-in-Aid for private libraries.
- 6) Recognising the State Library Associations.
- 7) There is no library cess. Expenditure on the maintenance of the libraries will be met from the consolidated fund of the State.

6.2.11 Gujarat Public Libraries Act, 2001

This Act has the following salient features.

- 1) Constitution of the State Library Development Council, with Minister in Charge of Library as its Ex-officio, President.
- 2) Constitution of Directorate of Public Libraries for monitoring the system.
- 3) Establishment of District and Taluka Libraries and constitution of District and Taluka Library Advisory Committees.
- 4) Institution of State Library Development Fund, mainly from the State consolidated fund.
- 5) Recognising the Public Libraries and Public Library Associations.

6.2.12 Orissa Public Libraries Act, 2001

The salient features of the Act are:

- 1) Constitution of the State Library Council, with Minister for Tourism and Culture as its Chairperson.
- 2) Constitution of Orissa Public Library Authority, with Minister for Tourism and Culture, as its Chairperson.
- 3) Formation of Directorate of Public Libraries.
- 4) Establishment of State Library and District/City Libraries.
- 5) Constitution of District Library Committee.
- 6) Total expenditure will be met by State Government.
- 7) Provision for audit and accountability.

6.2.13 Uttaranchal Public Libraries Act, 2005

The salient features of the Public Libraries Act of the newly formed Uttaranchal State are as follows:

- 1) Provision for State Library Committee, with Minister-in-charge as Ex-officio Chairman.
- 2) Constitution of the Cell of Public Libraries in the Education Department, with Joint/Deputy Director as in- charge.

- 3) Constitution and incorporation of District Library Authority.
- 4) Imposition of fee for the purpose of library service.
- 5) Provision of State Government grant.

6.2.14 Rajasthan Public Libraries Act, 2006

It is called **Rajasthan Sarwajanik Pustakalaya Adhiniyam** (name in Hindi language). Its salient features are mentioned below:

- 1) Constitution of State Library Council with Minister Incharge of Libraries as Chairperson.
- 2) Provision for Directorate of Public Libraries, to control and supervise the system.
- 3) Constitution of Library Advisory Committee.
- 4) Provision to establish State Library, Divisional Libraries, District Libraries, Panchayat Samiti Libraries and Village Libraries.
- 5) Constitution of State Libraries Development Fund mainly from State exchequer.
- 6) Recognising the Public Libraries and Public Library Associations.

6.2.15 Uttar Pradesh Public Libraries Act, 2006

There are the salient features of this ordinance.

- 1) Constitution of State Library Council with the Minister, Secondary Education Department as Chairperson.
- 2) Provision for Director of Public Libraries, but to keep the Director of School Education, Uttar Pradesh, as the Director of Public Libraries for administration and operation of the provisions of the ordinance.
- 3) Establishment of two State level libraries one at the State Central Library at Allahabad and the other, State Reference Library at Lucknow.
- 4) Establishment of District Library in each District.
- 5) Recognition of the libraries run by voluntary organisations.
- 6) Meeting the entire expenditure from the State consolidated and non-plan budget of the State.

6.2.16 Bihar State Public Libraries and Information Centers Act, 2008

The salient features of this Act are given below:

- 1) Provision for a State Library and Information Centre Authority to be constituted by the State Government comprising a maximum of 12 members including a chairman and a vice chairman. The Authority will advise the Government on all matters pertaining to libraries and library services. The members are drawn from different segments of the society.
- 2) Provision for creating an independent Directorate of Library and Information Centre headed by a Director and Assistant Director. There is a post of

Superintendent of Library in the cadre of Bihar Education Service that will be converted to the post of Director, Directorate of Libraries. The post of Assistant Director shall be created by conversion of any floating post of Department/ Bihar Education Service Cadre.

- 3) The State will have different categories of libraries starting from State Library to Divisional, District, Sub divisional, Special, Block, Panchayat, Village and Private Library.
- 4) There will be a State Library Fund constituted by the State Government. It will include fund given by the State Government, grants received from the Central Government and other agencies like RRLF, amount received from the District Development Fund, M.P./M.L.A./ M.L.C.fund, any other funds received by the State Library and Information Centre Authority, interest and profits received from investment of State Library Authority and other grants received from private institutions or bodies.
- 5) Director, Public Libraries or his representative may inspect any library to check whether the provisions of the Act are being followed and adhered to.
- 6) Press and Registration of Books Act, 1867 will be applicable in the State wherein every publisher will deposit a copy of her/his publications in Smt. Radhika Sinha Institute and Sachidanand Library, Patna. A register mentioning such books received will be maintained. Authors/ publishers who do not deposit a copy of the book will be penalized under Section 15 of this Act.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
- 2) State the difference in governance of public libraries between Andhra Pradesh and Maharashtra.

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6.3 COMPARISON OF THE SIXTEEN ACTS

So, far, we have discussed the salient features of the sixteen State Acts implemented in the different states of India. There are many points of similarity and also major differences. We shall fix a comparative matrix for these Acts.

For this purpose, we have to get at a set of criteria. You may recall that when we began these units, we set up five criteria for the purposes of a State Library Act, namely:

- Public Access to libraries

- Development of infrastructure
- Establishment of a governance system
- Provision for financial management
- Organisation of self-reporting and regulating system

We shall see how these sixteen State Acts are compared with each other. This is based on the five criteria mentioned above.

6.3.1 Public Access to Libraries

India is the largest democratic country amongst the commonwealth countries, with a population of 1.24 billion. Out of which 70.7% live in rural areas and 29.3% in urban areas. There are 28 constituent States and 7 Union Territories. These comprise an aggregation of about 640 districts. There are about 1650 languages. About 21,000 books, monographs and periodicals are published in almost all the 15 major languages of India and in English. Half of these are fiction. Other half covers normally humanities, with a few titles in science and technology. India imports in bulk more than 100,000 titles published in English from the international market; most of these are for educational institutions. But public libraries do have a good share of the same.

Public Library System

According to Ranganathan, “We mean by this an integrated nation-wide network of public libraries, giving free book service to one and all of the citizens, literate or illiterate.” To achieve the objective, a public library system is necessary for providing:

- 1) Use of the libraries without any consideration.
- 2) Reading materials with a common pool from state to village users.
- 3) Information needed by the user.
- 4) Free facilities to have the benefits from cultural heritage, arts and scientific achievements and innovations.
- 5) Facilities for personal development.
- 6) Periodic evaluation and feedback of service to users and their impact on administration.
- 7) Regulation of a financial income and expenditure to meet the needs of the society.

We will examine a few details of the access points where the library legislation is under implementation.

i) Tamil Nadu

As per the Madras Act (1948), the Government has provided for about 4,500 Public Libraries, 32 District Libraries, 7 Mobile Libraries, 1538 Branch Libraries, 2,500 village libraries. They provide access to 24 lakhs volumes of documents. There were around 2 crores registered borrowers, and 5 crores visitors to libraries per annum. However, the volumes used can be categorised into those consulted, 2 crore; and borrowed 3 crore volumes. Borrowing of books is around 1 volume per literate person.

ii) **Andhra Pradesh**

Andhra Pradesh has a total of about 4,000 public library nodes viz., one State Central Library, 6 Regional Libraries, 1426 Branch Libraries, 344 Village Libraries and 3 Mobile libraries under Zilla Granthalaya Samsthas and about 2,400 Aided Libraries. They provide access to about one crore volumes. They have registered borrowers of about 2 lakh persons, and about 2 crore visitors to consult books in libraries. The borrowing is about 1.5 volume per literate person.

iii) **Karnataka**

Karnataka State has a structure of one State Central Library, 20 District Central Libraries (out of 20, 10 District Central Libraries are having library and the remaining 10 are having office only). There are 15 City Central Libraries, 392 Branch Libraries, 1151 Mandal Libraries and 11 Mobile Libraries, with 6.54 lakh registered borrowers and a total book stock of 37 lakhs. About 8 lakh people visit the libraries in the year.

iv) **Maharashtra**

Maharashtra, is the fifth State to have a library Act; it has around 5900 Public Library nodes. Of these, one is a State Central Library, 6 Divisional Libraries, 20 District Libraries, 31 District Public Libraries, 259 Taluk Libraries and 5589 other types of libraries. They provide access to about 50 lakh of books, the number of registered borrowers is more than 60 thousands and consulting readers is around 60 lakhs per annum.

v) **West Bengal**

West Bengal has one State Central Library, 12 Government Libraries about 3500 Public Library nodes. These include a State Library, 21 District Libraries, 156 Town Libraries, 2,462 Government sponsored Libraries and 2213 Rural/Primary Unit area Libraries. There are additional District Libraries at Siliguri and City Central Library at Durgapur.

vi) **Manipur**

This State has one State Central Library at Imphal and 5 District Libraries, and about 100 Public Libraries are functioning which are managed by voluntary organisations.

vii) **Kerala**

Public access is more in Kerala State, which has now achieved cent per cent literacy through Total Literacy Campaign. The earlier Trivendrum Public Library was upgraded as State Central Library, after the formation of Kerala State. There are about 3030 libraries located at District, Taluk, Village level and accessible to the public.

viii) **Haryana**

The District Library of Ambala, was upgraded as State Central Library of Haryana in 1967. 20 District Libraries were established in the State. In addition to it 11 libraries at Municipal areas, 11 sub-divisional libraries are accessible to the people.

ix) **Mizoram**

After the formation of the State, State Library was established at Aizawl and 2 more District Libraries started functioning. There are 3 sub-divisional libraries

accessible to the people. About 80 village libraries are recognised by the State Planning Committee.

x) **Goa**

A small state, with the influence of Portuguese rule has a Central Library for a long time. 5 taluk libraries and 56 rural libraries are functioning at village level.

xi) **Gujarat**

Gujarat State is carved out from Maharashtra State. It has a State Central Library and 17 district central libraries and libraries in all towns and some villages. However, the Central Library, Baroda and Gujarat Vidyapeeth are treated on par with State Central Library.

xii) **Orissa**

The State Central Library of Orissa is known as Hare Krushna Mahtab State Library located at Bhubaneswar. There is a city library also at Bhubaneswar. The Sub-divisional library is located in Mayurbhanj. Besides there are 17 district libraries, 6 ex-district board libraries, 12 municipality libraries and 314 block level libraries.

xiii) **Uttaranchal**

This is a newly forward State with head quarters in Dehradun. It has 23 District Level Libraries and few Village Libraries.

xiv) **Rajasthan**

Rajasthan has a State Central Library at Jaipur and 5 Divisional Libraries and 24 District Libraries.

xv) **Uttar Pradesh**

Uttar Pradesh is the biggest State in the country with two State Libraries one at Lucknow and the other at Allahabad. It has 59 Government District Libraries and a large number of aided libraries.

xvi) **Bihar**

Bihar has a State Central Library in Patna, and few Divisional Libraries maintained by State Government. Besides these, there are 20 District Central Libraries.

Comments

Thus, we find the State Library Acts have provided an infra-structure for the public library access to general public in each state.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

1) State the configuration of public libraries with their numbers and levels of location, operating in each of the five States which have operational public library acts.

6.3.2 Financial Provision

Libraries can grow with increasing use and number of readers. They should be of course, well financed. Let us look at the financial provisions in these public libraries acts.

i) **Tamil Nadu**

Tamil Nadu Public Libraries comprise the State Central Library, Connemara Public Library and the Kaurmani Nilayan Library, Government Oriental Manuscripts Library maintained by Government Funds. The District Central Libraries, and Branch Libraries established under the Act are maintained from Library Fund (i.e. Library Cess plus Government's matching contribution). Besides this, the Government gives grant-in-aid to the libraries such as, Thanjavur Saraswati Mahal Library maintained by local bodies and voluntary organisations.

ii) **Andhra Pradesh**

The total expenditure on Government Libraries is to be borne by the Government. The establishment charges of Zilla Granthalaya Samstha are to be met by the Government. The expenditure on other items such as books, periodicals, buildings, etc. are required to be met from library fund of the City/Zilla Granthalaya Samsthas. They are to provide some grant-in-aid to private libraries.

iii) **Karnataka**

The State Central Library is funded fully by the State Government. The libraries at District and City level, including Branch Libraries are financed from 'Library Fund'. Under the provision of this Act, library cess is levied as surcharge on properties tax, motor vehicle tax and entertainment tax. The cess is collected by the local bodies such as, Municipal Corporations, Municipalities, District Boards and Village Panchayats. The State Government provides for the salaries of the staff of the public libraries at all levels.

iv) **Maharashtra**

Maharashtra Act does not levy any library cess. However, the State Government has to provide for at least 25 lakh of rupees as grant-in-aid for library development. This does not include administrative and establishment expenditure. Five Divisional Libraries and eight District Libraries in Vidarbha are fully financed by the Government of Maharashtra.

v) **West Bengal**

In West Bengal, since there is no provision for levying library cess, the entire expenditure on public libraries, started through the provisions of the Act, are to be met from the consolidated fund of the State. Every Local Library Authority

shall maintain library fund out of the grant received from Government, contribution of gifts, income from endowments etc. However, a few private libraries get grant in aid from the Government, for their maintenance.

vi) **Manipur**

In Manipur Act, there is no provision for library cess. So, the State Government has to meet the total expenditure from the State Funds. This State has also to support the private libraries with grant-in-aid and same position prevails in all other States.

Comments

There is provision for library cess in the acts of the states of Madras, Andhra Pradesh, Karnataka, Kerala, Haryana.

The provision for library cess has a greater impact as a democratic right to contribute for the development of libraries as well as to get access to library facilities. Government will have to actively consider establishment and maintenance of libraries, as library cess makes it imperative. However, one of the problems faced is the uneven distribution of library cess in cities and districts as the property value varies from place to place. Haryana State did not implement the Act so far.

In all the States, Government is supporting the libraries managed by Local Bodies and Voluntary organisations by Grant-in-aid, of course on a small scale.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
4) State the sources of finance in the sixteen States which have public library Act.

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6.3.3 Human Resources

The library staff in different States is provided for variously.

i) **Tamil Nadu**

The State has a Directorate of Public Libraries which supervises, directs and runs public library service. There is a Director to manage the State Central Library (Connemara Public Library). The District Central Library is manned by a trained librarian with Degree in Library Science; and the Branch Library is usually manned by a person holding a Certificate in Library Science. The delivery stations are generally looked after by local elementary school teachers employed on part-time basis on monthly remuneration.

Each District Central Library is inspected by the Directorate of Public Libraries whereas a Branch Library is inspected by the District Library Officer.

ii) **Andhra Pradesh**

The Director of Public Libraries is the controlling officer for the library system in the State. Most of the libraries in the system are managed by professionals only. The Librarian, City/District Central Library is the Ex-officio Secretary of the City/Zilla Granthalaya Samstha.

iii) **Karnataka**

This State has a Director of Public Libraries to supervise and direct all matters relating to public libraries. The State, City, District and Branch Libraries are managed by professionals. The professional possess a minimum qualification of Bachelor's degree in Library Science but several has Master's degree in Library Science. There are many certificate holders. The entire technical staff of the public libraries comes under the cadre of 'Karnataka Library Service.'

iv) **Maharashtra**

The Maharashtra Act provides for a Director of Libraries as the Head of the Department of Public Library Service. S/he is responsible for planning, maintenance and organisation of public library service in the State. There is one Assistant Director in each of the 5 divisions to assist the Director. The libraries up to District and Town levels are maintained by professionals.

v) **West Bengal**

The West Bengal Act provides the post of a Director of Libraries, as Chief Executive of the public library system. The State Central Library, Kolkata Metropolitan Library, District Libraries and Town Libraries are managed by professional librarians.

vi) **Manipur**

There is provision in the Act to appoint a Director of Public Libraries. It appears that the Act was not implemented so far. Now the Chief Librarian of the State Central Library, Imphal looks after the libraries.

vii) **Kerala**

The special feature of the Kerala Act is that there is no post of Director of Public Libraries. The Act has not been implemented so far. Only after the implementation of the Act, we will be able to know the position of the staff.

viii) **Haryana**

Since the Haryana Act has not come into force, the personnel who are managing public libraries are under the control of Director of Higher Education, Haryana. At present the staff working in the State and District Libraries are treated as Government servants.

ix) **Mizoram**

The Deputy Director of Education, Government of Mizoram, is the controlling officer of the State Library, District Library and Sub-Divisional Libraries. They are managed by qualified librarians.

x) **Goa**

The librarian of the Central Libraries, Government of Goa, Panaji is the controlling officer of the human resources. Professionals man the State Central Library (Bibliotheca National De Nova Goa), and its five Taluk Libraries. However, teacher-librarians are incharge of most of the Government Village Libraries.

Comments

It may be observed that the staff structure and cadre for librarians are well-organised in Karnataka Public Libraries Act. In all other States, the public librarians' status and salary are not commensurate with their duties and responsibilities.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

5) Name the State which has a well organised staff structure, giving the details.

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6.3.4 Governance

i) **Tamil Nadu**

The State of Tamil Nadu comprises Madras City and 30 Revenue Districts. There is a Local Library Authority – one for each Revenue District. From 1972, the Department of Public Libraries became the full fledged Department. The Director of Public Libraries is responsible for superintending and controlling the work of all Local Library Authorities constituted under the Act. Till 1977, the District Educational Officers had acted as Ex-officio Secretaries of the Local Library Authorities. As per the recommendation of the Subbarayan Committee, the District Educational Officers of each Local Library Authority is rendering free library service to public by opening District Central Library at District Head-Quarters, a Branch Library in each town, and library vans for some small villages and hamlets.

ii) **Andhra Pradesh**

The Andhra Pradesh Public Libraries Act was implemented in the State from 1960 onwards. To organise and promote library service in the State, the Government of Andhra Pradesh amended the Act in 1989, and constituted Andhra Pradesh Granthalaya Parishad, an apex body. The Parishad is the principal policy making body and exercises the powers and performs the functions as per the directions of the Government. The State has been divided into 23 Revenue Districts including the City of Hyderabad for the purpose of administering the library system. There is a Zilla Granthalaya Samstha for each District and one

City Granthalaya Samstha for the Hyderabad City. In the pyramidal system of organisation, the State Central Library is at the apex, the Village Library at the bottom and the Branch Libraries, District Central Libraries, and Regional Libraries in between.

iii) **Karnataka**

This State is divided into 27 Revenue Districts. A separate Department of Public Libraries started functioning with effect from 1 November 1966 as per the provisions of the Karnataka Public Libraries Act (1965). The Department is responsible for the establishment and maintenance of public libraries and the organisation of a comprehensive rural and urban libraries' service in the State. The Act provides for the establishment of the following libraries including Branch Libraries and Book Delivery Stations.

- a) A State Central Library in Bangalore which will act as the reservoir of books for the entire State.
- b) A City Central Library for each of the 15 principal cities.
- c) A District Central Library for each of the 20 Revenue Districts in the State.

In the State three library authorities have been established. The Karnataka State Library Authority advises the State Government on matters related to library development in the State, and acts as managing authority for the State Central Library. The Local Library Authorities of the major cities and Revenue Districts will look after the matters of public libraries in their respective jurisdiction.

There is a fair amount of democratic representation as well as technical expertise built into the composition of the State Library Authority.

iv) **Maharashtra**

In Maharashtra, the State Library Council has been set up to advise the Government on all matters concerning libraries. It consists of 28 members with the Minister of Education as the Ex-officio Chairman, and the Director of Libraries as the Ex-officio Member Secretary. At District Level, District Library Committees have been set up for advising the Government on all matters concerning public libraries in their respective areas. The Directorate of Public Libraries with a Director as its head looks after the planning, management, organisation, development and maintenance of public libraries and the library system in the State. The State has 35 Revenue Districts.

v) **West Bengal**

West Bengal has 19 Revenue Districts. West Bengal Public Libraries Act was adopted in 1979. The Act provides for the creation of a State Library Council and Local Library Authorities. Under the control of Director of Libraries, the public library system, with State Central Library at the apex, Calcutta Metropolitan Library, District Libraries, Town Libraries and Rural Libraries function with a paramedical structure and governance.

vi) **Manipur**

The state of Manipur has 9 Revenue Districts. The State Central Library, Imphal is managed by Education Department and the District Libraries are attached to District Educational Officers.

vii) **Kerala**

The State is divided into 14 Districts. Trivandrum Public Library is the only Public Library directly managed by State Government. The Municipal Libraries and the Panchayat Libraries are managed by the concerned local bodies.

viii) **Haryana**

The State of Haryana was formed in the year 1956 with 20 Revenue Districts. Haryana Library Administration is still under the control of Department of Higher Education.

ix) **Mizoram**

Mizoram is a small State with 8 Revenue Districts. In Mizoram, Deputy Director of Education is responsible for controlling the Public Libraries.

x) **Goa**

Goa is the smallest State with two Revenue Districts. In Goa, the Curator, Central Library, Government of Goa is looking after the Public Libraries.

xi) **Gujarat**

The District Public Library System in Gujarat is governed by Department of Public Libraries of the State.

xii) **Orissa**

Department of Culture, Government of Orissa takes care of the Public Libraries.

xiii) **Uttaranchal**

The Public Libraries in the State are under the Director of Education.

xiv) **Rajasthan**

In Rajasthan, Language and Library Division of the Government of Rajasthan manages the Public Libraries.

xv) **Uttar Pradesh**

In this State, a Special Officer (Librarian) in the Education Department looks after the Public Libraries.

xvi) **Bihar**

In Bihar, the Superintendent of Libraries, Bihar State, manages the Public Libraries in the State.

Comments

The details on governance indicate that the provisions in Andhra Pradesh Act are comprehensive.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
- 6) Name the State having comprehensive structure for Governance, describing its features in brief.

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6.4 GENERAL OBSERVATIONS

Though the Public Libraries Acts have been passed in sixteen States, so far only five States have implemented them, i.e. Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra and West Bengal States. The general observations on these Acts are given below:

- 1) A library system was formed with necessary administrative infrastructure from State to District level.
- 2) Libraries with a pyramidal structure, i.e. State, Regional, District, Sub-divisional, Taluk/Block Village Libraries are established, as per the funds available at the disposal for the system.
- 3) Arrangements are made through statutory provision for the perennial source of income through library cess and state grant.
- 4) Essential services like use of news papers and magazines, lending services and reference services are introduced. Tamil Nadu, Andhra Pradesh and Karnataka States provides Mobile Library Services to the Villages located at nook and corner of the State.
- 5) Free Public Library Service have been provided at all levels regardless of age, sex, religion, language or social status to the citizens. It appears that the States of Manipur, Kerala, Haryana, Mizoram and Goa have not implemented the Acts so far, due to administrative reasons. However, they are rendering some service with the existing facilities.

6.5 MISSING FEATURES IN PUBLIC LIBRARY LEGISLATION

- 1) A provision of State Library Authority, with Minister of Libraries as its head with executive powers conceived by Dr. Ranganathan or in the Western countries is missing in most of the Acts. This provision was made to certain extent in Karnataka, Haryana and Orissa Acts (2001). But they are not implemented.

- 2) There is no clear provision to maintain or protect or save the heritage libraries, which are in existence for more than one hundred years, more or less in all the States. In Maharashtra there are about 150 such great libraries.
- 3) Service to the people of slum areas, down trodden people, people living in remote areas was never thought off. But an attempt was made in Karnataka in 2007. All these years the public library service in India remains as a middle class affair.
- 4) In our country there about 50% illiterate people. There is no clear provision in the existing Acts to help them. It is to be noted library cess or taxes are being collected from them, but spending the same for the benefit of literates. This is something unsocial.
- 5) In the States, where the library cess is being collected in all the cities, and towns and villages, but spending the same in the cities, towns, but a small amount is being spent in villages.
- 6) In the States, where library cess is being collected, the development of libraries were linked with the income, what we are getting out of library cess. But library cess is not at all sufficient to develop the library service in a full scale. That is why there is stunted growth of public libraries in Tamil Nadu, Andhra Pradesh, etc. Of course they are better than the other States. It is to be noted there is an education cess for the last several decades. But the growth of educational facilities was never linked with the educational cess. That is only educational institutions are flourished in India. These double standard policies of the State Government must put an end to. Otherwise public libraries will never develop in this country.
- 7) Most of the Public Libraries still suffer for the lack of minimum facilities such as —
 - 1) a functional building, good ventilation, lighting, furniture, fittings, cleanliness, drinking water, toilets etc.
 - 2) a minimum core collection of books and periodicals. The concept *core collection* was introduced in India so far;
 - 3) a minimum salary structure for the staff.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

7) List two advantages of having library cess.

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- 8) List the five criteria for comparing the public library acts.

6.6 SUMMARY

In this Unit, we have examined the following aspects of public libraries of the sixteen States in India (Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu

- i) Free access to documents, institutional framework, governance and management, infrastructure for physical facilities, finance, library services, reporting, evaluation and feedback.
- ii) Public library activities and their features.
- iii) Provisions of the Acts and comparison of these provisions with a set of criteria.

6.7 ANSWERS TO SELF CHECK EXERCISES

- 1) The Improvements in the Andhra Pradesh Act over the Madras Act are:
 - a) The Andhra Pradesh Act has a provision to constitute Andhra Pradesh Granthalaya Parishad, as an apex body with an authority.
 - b) The full Act nominates the District Authorities.
 - b) The Andhra Pradesh Public Libraries Act had a provision of library cess to the range from 4 to 8 paise per rupee.
- 2) The difference in governance of Public Libraries in Andhra Pradesh and Maharashtra, as provided by their respective Acts, is given below:

State	Apex Committee	Structure	Executive Head
Andhra Pradesh	Granthalaya Parishad Chairman, nominated by the Government	Separate Dept. of Public Libraries	Director of Public Libraries
Maharashtra	State Library Council, headed by the Minister of of Education. The Director is the Member Secretary	Separate Dept. Libraries	Director of Libraries

- 3) The configuration of the public libraries, their number and location, in the five operational States having Public Library Acts, are as follows:

States	Total Number	Levels of Libraries
Andhra Pradesh	4000	One State Central Library, Six Regional Libraries, 1426 Branch Libraries, 4 Mobile Libraries, 344 Village Libraries, 2400 aided Libraries.
Karnataka	2700	One State Central Library, 15 City Central Library, 20 District Central Libraries, 392 Branch Libraries, 10 Grant-in-aid Libraries, 2140 Other kinds of Libraries.
Maharashtra	5900	One State Central Library, 5 Divisional Libraries, 8 District Libraries, 31 District Public Libraries, 259 Taluk Libraries, 5589 Other Types of Librasries.
Tamil Nadu	4000	One State Central Library, 20 District Libraries, 1538 Branch Libraries, 7 Mobile Libraries, 2500 Village Libraries
West Bengal	4000	One State Central Library, 11 Govt. Libraries, 156 Town Libraries, 2462 Govt. sponsored Libraries

4) Source's of finance of the Sixteen States is given below.

States	Cess	State Grant
Tamil Nadu	Library Cess on Property Tax or house tax	A matching grant not less than the cess collected.
Andhra Pradesh	Library Cess on House Tax and	Payment of staff salaries properties
Karnataka	Library Cess on Lands and Buildings Octroi, Duty, Vehicle Tax, Taxes on Professions, Trades Callings and Employments	Grant-in-Aid from Government payment of staff salaries
Maharashtra	No Library Cess	State Grant
West Bengal	No Library Cess	State Grant
Manipur	No Library Cess	State Grant
Kerala	Library Cess on Buildings or Property	Grant-in-aid from Government Tax
Haryana	Library Cess on Property	Grant-in-Aid from Government Tax and House Tax
Mizoram	No Library Cess	State Grant
Goa	No Library Cess	State Grant

Gujarat	No Library Cess	State Grant
Uttaranchal	No Library Cess	State Grant
Rajasthan	No Library Cess	State Grant
Uttar Pradesh	No Library Cess	State Grant
Orissa	No Library Cess	State Grant
Bihar	No Library Cess	State Grant

When there is no library cess, the major part of maintenance of library is met from Government grant.

- 5) Karnataka has a well-organised staff strength to manage its public libraries in the State. The Director of Public Libraries is a library professional. This gives the opportunity to improve the strength of qualified staff. The entire technical staff of the public libraries comes under the cadre of Karnataka Library Service. A qualified staff having minimum qualification of B.Lib.Sc., some with M.Lib. Sc., and holders of Certificate in Library Science operate the public library system. All these staff provide a professional competence and ensure a minimum standard of service.
- 6) Andhra Pradesh State has a comprehensive structure of Public Libraries in a Pyramidal structure.
 - a) Andhra Pradesh Granthalaya Parishad
 - b) Directorate of Public Libraries
 - c) Regional Libraries
 - d) City/District Central Libraries
 - e) Mobile Libraries
 - f) Branch Libraries
 - g) Village Libraries
 - h) Aided Libraries
- 7) The two helpful factors of library cess are:
 - a) Library cess makes it imperative on the Government to actively consider the establishment and maintenance of libraries.
 - c) The provision for library cess has a greater impact as a democratic right of citizens to contribute to the development as well as to get access to library facilities.
- 8) The five criteria for a comparison of the Public Libraries Acts are:
 - a) Public access to literature
 - b) Development of infrastructure
 - c) Establishment of a governance system
 - d) Provision for financial management
 - e) Organisation of self-reporting and regulating system

6.8 KEYWORDS

Cess	:	Surcharge collected on some statutory taxes
Governance	:	A method or system of government or management
Infrastructure	:	The basic underlying framework

6.9 REFERENCES AND FURTHER READING

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UNIT 7 OTHER INFORMATION RELATED LEGISLATIONS

Structure

- 7.0 Objectives
- 7.1 Introduction
- 7.2 Right to Information Act
 - 7.2.1 Salient Features
 - 7.2.2 Utility in Libraries
 - 7.2.3 Importance as a Reference Source
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 - 7.3.1 The Copyright Act, 1957
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- 7.5 Summary
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- 7.7 Keywords
- 7.8 References and Further Reading

7.0 OBJECTIVES

In Unit 6 you have learnt about library legislation in Indian states. Library legislation generally refers to legislation relating to public libraries. Apart from public libraries act it is necessary to know various other acts that concern library activities and services. After reading this Unit, you will be able to:

- explain the concept, need and purpose of right to information (RTI);
- describe in detail the provisions of RTI;
- explain the concept of intellectual property rights (IPR);
- discuss how libraries are concerned with these rights; and
- describe acts related to intellectual property in India.

7.1 INTRODUCTION

A library deals with information available through Internet, World Wide Web, books, patents, and various other documents. Use of all these is governed by national and international laws. Many a time libraries provide information in the form of photocopies. Even providing photocopies is bound by law. Providing a single copy of a journal article for personal use is legal. However, providing a single duplicate copy of a copyright book even for personal use is illegal. Similarly, downloading something from a website without the permission of the concerned authority may lead to infringement of copyright. Many libraries bring out publications from time to time. Printing of a map in the publication without the proper permission of the appropriate authority may land the librarian in the court. A library contains books, periodicals, newspapers, and lots of other documents

that contain information. The Government of India has passed the Right to Information Act 2005. As a result, a citizen can ask for any information from a library. Now, a question may arise in the mind of a librarian – can all the information available in the library be passed on to the user? The answer is – No. A library may hold documents that are top secret, secret, confidential, and so on. This apart, the library may also have books, films, paintings, etc. banned by the government. It is not necessary that all libraries will have such documents. But, some libraries may have. The librarian of such a library should have a clear idea what documents of the library can be issued, what cannot be. He should also have clear knowledge of the various acts that relate to information.

In this Unit, we are going to deal with the Acts related to the use of information. While discussing these Acts, we shall highlight (i) **salient features** of the Acts, (ii) their utility **in libraries**, and (iii) their **importance as reference sources**.

7.2 RIGHT TO INFORMATION ACT

Before going into the details of the Act, let us first of all try to understand what is ‘right to information’. The term has been defined in the Right to Information Act 2005 as follows: “The right to information is a fundamental human right which is made up of different rights and responsibilities, namely:

- Every person’s **RIGHT** to request information from the government – and even private bodies in some cases;
- The **DUTY** of the government to provide the requested information, unless defined exemptions apply; and
- The **DUTY** of the government to proactively disclose information that is of general public interest without the need for requests from citizens.” [Debasher p.3]

The Constitution of India is totally silent about the right to information (RTI). However, the Honourable Supreme Court of India (SC) has long recognised RTI as a fundamental right essential for democratic functioning of the country as well as an integral part of the right to freedom of speech and expression guaranteed by the Constitution (Article 19) and a necessary part of the right to life (Article 21) [Debasher p.3].

The right to access information lies in the fact that government information belongs to the people. It is owned neither by the public body who holds it nor by the government who has generated it. It is a fact that information is generated with public money by public servants and is held by the public body for the people. This shows that a citizen has the right to access to information relating to government’s policies, decisions, actions, as well as decision making processes. A citizen has even the right to access to information held by private bodies or individuals in certain cases.

It is to be noted that right to information is not absolute. There are certain information which cannot be passed on to the public for various reasons. We shall try to pinpoint this type of information.

A question may arise to a citizen as to the need of RTI act. An example is being quoted below from Debasher’s book to substantiate the need of RTI act.

A school run by a private trust in Gujarat was charging fees from the students even though the school was receiving support from the State Government and was not supposed to collect any fees from the students. A parent used the RTI Act passed by the Government of India to ask the principal of the school to provide him with the copies of the circulars or government orders that permitted the school to collect fees. Following the RTI application, the principal could not produce any government circular or order and admitted in writing that the school did not have any authority to collect fees from the students except for computer classes which the trust had begun at its own expenses. Needless to say, now the students are not asked to pay any fee.

The power of the RTI Act is evident from the example given above. The students were freed from the burden of paying fees to the school. Earlier, there has been cases when non-deserving candidates were promoted or offered posts keeping aside the deserving candidates. Today, the deserving candidates can take the help of RTI Act for justice. Because of the RTI Act, the authorities have become careful today and think twice before doing any irregularities.

Gradually the power of RTI Act is unfolding as people are becoming more and more aware of it. A time will come in future when the instances of irregular as well as illegal practices will come down sharply because of RTI Act.

7.2.1 Salient Features

The Right to Information Act, 2005 (No. 22 of 2005) received the assent of the President of India on the 15th June, 2005 and was subsequently published for general information. The Act comprises six chapters. A brief description of all the chapters is provided below.

Preliminary (Chapter I)

It provides meanings of appropriate terms like Government, Central Information Commission, Central Public Information Officer, Chief Information Commissioner, Information Commissioner, competent authority, information, prescribed, public authority, record, right to information, State Information Commission, State Chief Information Commissioner, State Information Commissioner, State Public Information Officer, and third party.

We are all familiar with the term ‘information’. However, we should be familiar with the connotation of the term ‘information’ as given in the Act. Because, the scope of the term has been spelt out quite elaborately here and not generally available in our conventional reference sources. We also should be clear about the meaning of ‘right to information’ as given in the Act.

According to the Act, information ‘means any material in any form, including records, documents, memos, e-mails, opinions, advises, press releases, circulars, orders, logbooks, contracts, reports, papers, samples, models, data material held in any electronic form and information relating to any private body which can be accessed by a public authority under any other law for the time being in force’ [Debasher p. 52]

The meaning of ‘right to information’ as given in the Act is reproduced here - “right to information” means the right to information accessible under this Act which is held by or under the control of any public authority and includes the right to –

- i) inspection of work, documents, records;
- ii) taking notes, extracts or certified copies of documents or records;
- iii) taking certified samples of material;
- iv) obtaining information in the form of diskettes, floppies, tapes, video cassettes or in any other electronic mode or through printouts where such information is stored in a computer or in any other device.[Debasher p.53]

Right to Information and Obligations of Public Authorities (Chapter II)

The Chapter details the obligation of public authorities, designation of Public Information Officers, how to obtain information from public authorities, disposal of requests, exemption from disclosure of information, grounds for rejection to access in certain cases, severability, and the third party information. Here the terms ‘severability’ and ‘third party’ need explanation. Severability generally means capability of being divided or dissociated. Suppose, there is a piece of exempt information, wherein there is a portion that is disclosable. This particular portion is ‘severable’ We get a clear idea as to the term in Section 10 of the Act, which states “Where the request for access to information is rejected on the ground that it is in relation to information which is exempt from disclosure, then, notwithstanding anything contained in this Act, access may be provided to that part of the record which does not contain any information which is exempt from disclosure under this Act and which can reasonably be severed from any part that contains exempt information.” [Debasher p.58]. Third party “means a person other than the citizen making a request for information and includes a public authority” [Ibid. p 53.]. Section 9 of the Chapter devoted to exemption from disclosure of information is also important for us which we shall discuss under the heading Utility in Libraries. Third party information is defined as information related to supplied by a third party for which a request has been received by the Central/State Public Information Officer. S/he will inform the third party before providing the information.

The Central Information Commission (Chapter III)

It is fully devoted to the Central Information Commission and spells out the constitution of the Commission, terms of office and conditions of service of the Chief Information Commissioner.

The State Information Commission (Chapter IV)

It deals solely with the State Information Commission and describes the constitution of the Commission, terms of office and conditions of service of the State Chief Information Commissioner and the State Information Commissioner, and the grounds and procedures of their removal from the office.

Powers and Functions of Information Commissions, Appeal and Penalties (Chapter V)

It describes the powers and functions of the Central Information Commission and State Information Commission. The Act has provided for Appeal as well as Penalties.

Miscellaneous (Chapter VI)

The Chapter encompasses a number of items such as protection of action taken in good faith; overriding effect of the Act; bar of jurisdiction of courts; non-applicability of the Act in the case of certain organisations such as security and intelligent organisations; monitoring and reporting of the implementation of the provisions of the Act by the Central Information Commission or the State Information Commission; role of the appropriate Government in the preparation of educational programmes and performing of related activities to make public aware of the provisions of the Act; power of the appropriate Government to make rules; power of the competent authority to make rules; laying of rules before each House of Parliament; power of the Central Government to remove difficulties in giving effect to the provisions of the Act; etc.

7.2.2 Utility in Libraries

The Act has two-fold utility in libraries. Firstly, it can be used as a good reference source, and secondly it will act as a guide to inform us as to the information that can be disclosed to the citizens.

We have already pointed out that there may be some information which is not disclosable to the public. Section 8 of the Act has pinpointed the non-disclosable information which reads as follows:

- 1) “Notwithstanding anything contained in this Act, there shall be no obligation to give any citizen —
 - a) information, disclosure of which would prejudicially affect the sovereignty and integrity of India, the security, strategic, scientific or economic interests of the State, relation with foreign State or lead to incitement of an offence;
 - b) information which has been expressly forbidden to be published by any court of law or tribunal or the disclosure of which may constitute contempt of court;
 - c) information, the disclosure of which would cause a breach of privilege of Parliament or the State Legislature;
 - d) information including commercial confidence, trade secrets or intellectual property, the disclosure of which would harm the competitive position of a third party, unless the competent authority is satisfied that larger public interest warrants the disclosure of such information;
 - e) information available to a person in his fiduciary relationship, unless the competent authority is satisfied that the larger public interest warrants the disclosure of such information;
 - f) information received in confidence from foreign Government;
 - g) information, the disclosure of which would endanger the life or physical safety of any person or identify the source of information or assistance given in confidence for law enforcement or security purposes;
 - h) information which would impede the process of investigation or apprehension or prosecution of offenders;

- i) cabinet papers including records of deliberations of the Council of Ministers, Secretaries and other officers;

Provided that the decisions of Council of Ministers, the reasons thereof, and the material on the basis of which the decisions were taken shall be made public after the decision has been taken, and the matter is complete, or over:

Provided further that those matters which come under the exemptions specified in this section shall not be disclosed;

- j) information which relates to personal information the disclosure of which has no relationship to any public activity or interest, or which would cause unwarranted invasion of the privacy of the individual unless the Central Public Information Officer or the State Public Information Officer, or the appellate authority, as the case may be, is satisfied that the larger public interest justifies the disclosure of such information:

Provided that the information which cannot be denied to the Parliament of a State Legislature shall not be denied to any person.

- 2) Notwithstanding anything in the Official Secrets Act, 1923 nor any of the exemptions permissible in accordance with sub-section (1), a public authority may allow access to information, if public interest in disclosure outweighs the harm to the protected interests.

- 3) Subject to the provisions of clauses (a), (c), and (f) of sub-sections (1), any information relating to any occurrence, event or matter which has taken place, occurred or happened twenty years before the date on which any request is made under Section 6 shall be provided to any person making a request under that section:

Provided that where any question arises as to the date from which the said period of twenty years has to be computed, the decision of the Central Government shall be final, subject to the usual appeals provided for this Act” [Ibid p.58].

Keeping the above in view, the librarian has to decide the documents whose content cannot be disclosed to the citizens. Even in an open access library these documents will have to be kept under lock and key. Take the case of a banned book. As long as the ban is in force, it should be kept under lock and key. Once the ban is lifted it can be placed on the open shelves.

Though it is not clearly stated in the Act, but it may be assumed that the Act takes it for granted that a public organization (a government department, an institution, etc.) is likely to possess documents (files, books, periodicals, video recordings, etc.) whose contents are not disclosable to the citizens. These documents might have been generated by the organization itself or acquired from outside. It is possible that a document from the very moment of its generation contained information not disclosable to the citizens. There may be documents which were banned quite sometime after their release. For example, the book *Lajjâ* by Taslima Nasrin was banned by Bangladesh Government after thousands of copies were sold. By the time it was banned a number of libraries might have purchased the book. Now, the question arises, if a book or document is banned

after it has been procured by a library, what the library will do with the document. Normal practice suggests that the document is to be withdrawn immediately from circulation, and from open shelves. Subsequently, it should be placed under lock and key. During Hitler's regime banned books in Germany used to be burnt. Should we follow the same practice with the banned books or documents? Possibly, not. Because, the ban on the book may be lifted after sometime. For example, *PatherDâbi* by the noted novelist Sarat Chandra Chattopadhyay was banned during our freedom struggle. The ban was lifted after independence. Had the book been burned by the libraries, today we would not have any copy of the book.

There are various other cases where a citizen can ask for the file or any other information from a library. Suppose a library has purchased a number of computers from a particular supplier. Any other competitor who had quoted may ask for the file to find out how the particular supplier was selected. He may even take legal action if there is any anomaly in the selection of the supplier. A candidate who has not been selected for a library position may also ask for the file to see if fair selection has been made.

7.2.3 Importance as a Reference Source

The Act is an important source of information and the librarian will have to do some extra work to provide information relating to this Act. Suppose the information a citizen is looking for is available from the Information Commissioner of a particular state. Now, it will be the duty of the librarian to tell the citizen the name of the Commissioner, his address and his/her phone number. The Act does not provide this. The librarian himself will have to gather the information to provide reference service.

The type of queries a librarian may receive is as follows:

- i) Whom should I approach for the information I need?
- ii) What type of information can I get by virtue of this Act?
- iii) How long it will take to get the solicited information?
- iv) How should I make a request for particular information?
- v) Am I to pay some fees for the information?
- vi) Can I get some information free of cost?
- vii) Can I ask for any amount of information?
- viii) What do I do if I do not get the information I requested?
- ix) Can I make an appeal, if I am refused the information I solicited?

All these queries can be answered using the Act available on the government website and the book by Debasher [Details given in the Reference].

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of the Unit.
- 1) Show with an example that RTI Act helps even common people.
-

2) What is a banned book? What should a library do with a banned book?

7.3 INTELLECTUAL PROPERTY RIGHTS

First of all, let us understand the concept ‘intellectual property’. *The Concise Oxford Dictionary* defines it as ‘property that is the result of creativity, e.g. patents or copyrights’. According to World Intellectual Property Organization (WIPO), intellectual property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce’.

‘IP is divided into two categories: **Industrial property**, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source; and **copyright**, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs’.

An **invention** patented by a patentee, a **novel** penned by an author, a **painting** drawn by a painter, a **photograph** snapped by a photographer, and so on are all intellectual properties.

Let us now try to understand the concept ‘intellectual property rights’ abbreviated as IPR. According to WIPO ‘Intellectual property rights are like any other property right. They allow creators, or owners of patents, trademarks or copyright works to benefit from their own work or investment in a creation. These rights are outlined in Article 27 of the Universal Declaration of Human Rights, which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions. The importance of intellectual property was first recognized in the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). Both treaties are administered by the World Intellectual Property Organization (WIPO).

Under IPR, we shall consider two acts which are of relevance to us. The Copyright Act, 1957, and the Patents Act, 1970.

7.3.1 The Copyright Act, 1957

First of all, let us try to understand the concept 'copyright'. We all know that authors write books, painters paint pictures, musicians compose songs, photographers take photographs, and so on. Literary people, musicians, and artists produce varied types of creations by virtue of their mental capabilities. Generally, they sell their creations to earn money. Creators are all talented people. It is the duty of the society to see that these talented people get the reward for their creations throughout their life whereby they are enthused to produce more. To ensure that the creators can earn money and pursue their noble profession, they are given exclusive right by governments to publish, reproduce or sell an original work. This exclusive right is called copyright.

The duration of copyright is not fixed. For example, in our country the copyright of a book remains in force till 60 years after the death of the author. It varies from country to country.

Infringement of copyright is but a common phenomenon. In photocopying shops, books after books are photocopied at the request of students in flagrant infringement of copyrights. Apart from this, dishonest publishers print books in great demand without informing the authors. This type of books are called pirated books. When Taslima Nasrin's *Lajjâwas* banned in Bangladesh, thousands of pirated copies appeared in the market soon afterwards. From the sale of the pirated books the author does not get any royalty. The entire money earned from the sale of pirated books goes to the dishonest publisher.

Salient Features

The Copyright Act, 1957 came into effect from January 1958. This Act has been amended in 1983, 1984, 1992, 1994, 1999, 2010 and 2012. The amendment of 1994 has been the most substantial. Prior to the Act of 1957, the law of copyrights in our country was governed by the Copyright Act of 1914. This Act was essentially the extension of the British Copyright Act, 1911 to India. Even the Copyright Act, 1957 borrowed extensively from the new Copyright Act of the United Kingdom of 1956. The Copyright Act, 1957 continues with the common law traditions. Developments elsewhere have brought about certain degree of convergence in copyright regimes in the developed world.

The Indian Copyright Act today is compliant with most international conventions and treaties in the field of copyrights. India is a member of the Berne Convention of 1886 (as modified at Paris in 1971), the Universal Copyright Convention of 1951 and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of 1995. Though India is not a member of the Rome Convention of 1961, the Copyright Act, 1957 is fully compliant with the Rome Convention provisions [Copyright Act].

Two new treaties, collectively termed as Internet Treaties, were negotiated in 1996 under the auspices of the World Intellectual Property Organization (WIPO). These treaties are called the 'WIPO Copyrights Treaty (WCT)' and the 'WIPO Performances and Phonograms Treaty (WPPT)'. These treaties were negotiated essentially to provide for protection of the rights of copyright holders, performers and producers of phonograms in the Internet and digital era. India is not a member of these treaties; amendments are being mooted to make Act in compliance with

the above treaties in order to provide protection to copyright in the digital era [Copyright Act]

The Indian Copyright Act comprises 15 chapters. A brief description of each chapter is given below.

Preliminary (Chapter I)

It provides among others the specific meanings of the terms used in the Act. The terms are: adaptation, work of architecture, artistic work, author, broadcast, calendar year, cinematograph film, communication to the public, composer, computer programme, copyright society, duplicating equipment, work of sculpture, exclusive licence, Government work, Indian work, infringing copy, musical work, performance, prescribed, producer, reprography, sound recording, work, work of joint authorship, and publication.

The meanings are specific and at times quite elaborate and applicable for the Act. For example, an author means the author of a literary or dramatic work, composer of a musical work, artist, photographer, the producer of a cinematograph or sound recording, and the person who is responsible for computer-generated literary, dramatic, musical or artistic work.

Apart from the meaning, the scope of the following terms has also been given: computer, delivery, dramatic work, engravings, lecture, literary work, performer, photograph, plate, work of sculpture. For example, the scope of 'lecture' has been given as address, speech and sermon.

Besides the above, the Act spells out when a work is not deemed to be published or performed in public, when a work is deemed to be first published in India, the disputes that are to be decided by the Copyright Board, and so on.

Copyright Office and Copyright Board (Chapter II)

As per the Act, the Copyright Office shall be under the immediate control of the Registrar of Copyrights, and shall have two officials, i.e. Registrar and Deputy Registrars of Copyrights. The functions of the officials have been indicated. The constitution of the Copyright Board and its powers and procedures are described.

Copyright (Chapter III)

The third chapter is fully devoted to Copyright. According to the Act, copyright subsists in the following classes of work –

- a) original literary, dramatic, musical and artistic works;
- b) cinematograph films; and
- c) sound recordings.

It is better to know the meanings of some of the aforesaid words as given in the Act. In general dictionaries you do not get such detailed meanings.

Artistic work means

- i) “a painting, a sculpture, a drawing (including a diagram, map, chart or plan), an engraving or a photograph, whether or not any such work possesses artistic quality;

- ii) work of architecture; and
- iii) any other work of artistic craftsmanship”

Cinematograph film “means any work of visual recording on any medium produced through a process from which a moving image may be produced by any means and includes a sound recording accompanying such visual recording and “cinematograph” shall be construed as including any work produced by any process analogous to cinematography including video films”.

Dramatic work “includes any piece for recitation, choreographic work or entertainment in dumb show, the scenic arrangement or acting form of which is fixed in writing or otherwise but does not include a cinematograph film”.

Literary work “includes computer programmes, tables and compilations including computer literary data bases” .

*Note:*The interpretation of ‘literary work’ here excludes poetry, drama, fiction, essay, textbook, monograph, treatise, etc.

Musical work “means a work consisting of music and includes any graphical notation of such work but does not include any words or any action intended to be sung, spoken or performed with the music”.

Sound recording “means a recording of sounds from which such sounds may be produced regardless of the medium on which such recording is made or the method by which the sounds are produced”.

We have already discussed the concept of copyright. Just see, in the Copyright Act of India, how the meaning has taken shape which is being reproduced here verbatim.

“For the purposes of this Act, “copyright” means the exclusive right subject to the provisions of this Act, to do or authorise the doing of any of the following acts in respect of a work or any substantial part thereof, namely:

- a) in the case of a literary, dramatic or musical work, not being a computer programme—
 - i) to reproduce the work in any material form including the storing of it in any medium by electronic means;
 - ii) to issue copies of the work to the public not being copies already in circulation;
 - iii) to perform the work in public, or communicate it to the public;
 - iv) to make any cinematograph film or sound recording in respect of the work;
 - v) to make any translation of the work;
 - vi) to make any adaptation of the work;
 - vii) to do, in relation to a translation or an adaptation of the work, any of the acts specified in relation to the work in sub-clauses (i) to (vi);

- b) in the case of a computer programme—
- i) to do any of the acts specified in clause (a);
 - ii) to sell or give on commercial rental or offer for sale or for commercial rental any copy of the computer programme:
Provided that such commercial rental does not apply in respect of computer programmes where the programme itself is not the essential object of the rental.”
- c) in the case of an artistic work—
- i) to reproduce the work in any material form including depiction in three dimensions of a two dimensional work or in two dimensions of a three dimensional work;
 - ii) to communicate the work to the public;
 - iii) to issue copies of the work to the public not being copies already in circulation;
 - iv) to include the work in any cinematograph film;
 - v) to make any adaptation of the work;
 - vi) to do in relation to an adaptation of the work any of the acts specified in relation to the work in sub-clauses (i) to (iv);
- d) In the case of cinematograph film—
- i) to make a copy of the film, including a photograph of any image forming part thereof;
 - ii) to sell or give on hire, or offer for sale or hire, any copy of the film, regardless of whether such copy has been sold or given on hire on earlier occasions;
 - iii) to communicate the film to the public;
- e) In the case of sound recording—
- i) “to make any other sound recording embodying it;
 - ii) to sell or give on hire, or offer for sale or hire, any copy of the sound recording regardless of whether such copy has been sold or given on hire on earlier occasions;
 - iii) to communicate the sound recording to the public.”

A special provision that exists regarding copyright in designs registered or capable of being registered under the Designs Act, 1911 has also been included.

Ownership of Copyright and the Rights of the Owner (Chapter IV)

An author of an original work is usually the owner of the copyright. He has certain rights, even he has the right to relinquish copyright. Ownership of copyright and the rights of the owner has been dealt in this Chapter. It includes assignment of copyright, mode of assignment, disputes with respect to assignment of copyright, transmission of copyright in manuscript by testamentary (gift of

copyright by the holder under the terms of a will) disposition, and right of author to relinquish copyright.

Term of Copyright (Chapter V)

The creator of a copyrightable work enjoys copyright throughout his life and also up to a certain period beyond his life. This is known as term of copyright which has been dealt in this Chapter. The Chapter includes term of copyright in published literary, dramatic, musical and artistic works; anonymous and pseudonymous works; posthumous work; photographs; cinematograph films; records; government work; works of public undertakings; and those of international organisations. The term of copyright varies from country to country. In our country copyright of literary, dramatic, musical and artistic works subsists until sixty years from the beginning of the calendar year next following the year in which the author dies. In other works copyright subsists until sixty years from the beginning of the calendar year next following the year in which the work is published. It is to be noted that even works published by the government, public undertakings, international organizations are very much covered by the Copyright Act.

Licences (Chapter VI)

“The owner of the copyright in any existing work or the prospective owner of the copyright in any future work may grant any interest in the right by licence in writing signed by him or by his duly authorised agent” [*Copyright Act, 1957*]. This Chapter of the Act deals with the particular topic of **licence**. It includes among others, licences by owners of copyright, licence in works withheld from public, compulsory licence in works withheld from public, and unpublished Indian works, licence to produce and publish translations, licence to reproduce and publish works for certain purposes, and finally termination of licences issued.

Copyright Societies (Chapter VII)

The Copyright (Amendment) Act, 1994 has made the provision of the copyright societies. A copyright society is a society registered under Sub-section (3) of Section 33 which reads as follows: “The Central Government may, having regard to the interests of the authors and other owners of rights under this Act, the interest and convenience of the public and in particular of the groups of persons who are most likely to seek licences in respect of the relevant rights and the ability and professional competence of the applicants, register such association of persons as a copyright society subject to such conditions as may be prescribed: Provided that the Central Government shall not ordinarily register more than one copyright society to do business in respect of the same class of works”.

This Chapter dwells on registration of a copyright society, administration of rights of owner by a copyright society, payment of remuneration by a copyright society, control over the copyright society by the owner of rights, submission of returns and reports, and rights and liabilities of performing rights societies.

Rights of Broadcasting Organization and of Performers (Chapter VIII)

Broadcasting organisations and performers thereof also fall within the ambit of the Copyright Act. The Chapter embraces broadcast reproduction right, performer’s right, acts not infringing broadcast reproduction right or performer’s right, other provisions applying to broadcast reproduction right and performer’s

right. It is to be noted that “The performer’s right shall subsist until fifty years from the beginning of the calendar year next following the year in which the performance is made”. [*Copyright Act*]

International Copyright (Chapter IX)

There is no such act in the world that automatically protects an author’s writings. Protection of a work against illegal use in a country depends on its national laws. However, most countries in the world protect foreign works under certain conditions that have been greatly simplified by international copyright treaties and conventions [Copyright]. The Act has empowered our Central Government to extend the copyright to foreign works under certain conditions as laid down in the Act. There are provisions in the Act relating to works of certain international organisations. The Central Government has the power to restrict rights in works of foreign authors first published in India.

Registration of Copyright (Chapter X)

The Chapter encompasses such items as **register of copyrights** and entries therein, indexes, forms and inspection of register, correction of entries in the register, rectification of register by the Copyright Board. According to the Act, register of copyrights will be *prima facie* evidence of particulars entered therein; and the entries in the register of copyrights, etc, are to be published.

Infringement of Copyright (Chapter XI)

For a library and information professional this Chapter is most important since nowadays all major libraries have photocopying facilities and huge amount of photocopying takes place in libraries. If a librarian is not careful infringement can take place at any moment. In this chapter when **copyright is infringed** and **certain activities not considered infringement of copyright are elaborated**. Both are being reproduced here verbatim to make you aware of the facts.

When copyright is infringed –“Copyright in a work shall be deemed to be infringed—

- a) when any person, without a licence granted by the owner of the copyright or the Registrar of Copyrights under this Act or in contravention of the conditions of a licence so granted or of any condition imposed by a competent authority under this Act-
 - i) does anything, the exclusive right to do which is by this Act conferred upon the owner of the copyright,
 - or
 - ii) permits for profit any place to be used for the communication of the work to the public where such communication constitutes an infringement of the copyright in the work, unless he was not aware and had no reasonable ground for believing that such communication to the public would be an infringement of copyright;
- or
- b) when any person-
 - i) makes for sale or hire, or sells or lets for hire, or by way of trade displays or offers for sale or hire,

- ii) distributes either for the purpose of trade or to such an extent as to affect prejudicially the owner of the copyright, or
- iii) by way of trade exhibits in public, or
- iv) imports into India, any infringing copies of the work.

Provided that nothing in sub-clause (iv) shall apply to the import of one copy of any work for the private and domestic use of the importer.

Explanation: For the purposes of this section, the reproduction of a literary, dramatic, musical or artistic work in the form of a cinematograph film shall be deemed to be an “infringing copy”. [Copyright Act]

When copyright is not infringed

- 1) The following acts shall not constitute an infringement of copyright, namely:
 - a) “a fair dealing with a literary, dramatic, musical or artistic work [not being a computer programme] for the purposes of—
 - i) private use, including research;
 - ii) criticism or review, whether of that work or of any other work;”
 - aa) the making of copies or adaptation of a computer programme by the lawful possessor of a copy of such computer programme, from such copy—
 - i) “in order to utilise the computer programme for the purposes for which it was supplied; or
 - ii) to make back-up copies purely as a temporary protection against loss, destruction or damage in order only to utilise the computer programme for the purpose for which it was supplied;”
 - ab) the doing of any act necessary to obtain information essential for operating inter-operability of an independently created computer programme with other programmes by a lawful possessor of a computer programme provided that such information is not otherwise readily available;
 - ac) the observation, study or test of functioning of the computer programme in order to determine the ideas and principles which underline any elements of the programme while performing such acts necessary for the functions for which the computer programme was supplied;
 - ad) the making of copies or adaptation of the computer programme from a personally legally obtained copy for non-commercial personal use;
- b) a fair dealing with a literary, dramatic, musical or artistic work for the purpose of reporting current events—
 - i) in a newspaper, magazine or similar periodical, or
 - ii) by [broadcast] or in a cinematograph film or by means of photographs.

[*Explanation:* The publication of a compilation of addresses or speeches delivered in public is not a fair dealing of such work within the meaning of this clause]

- c) the reproduction of a literary, dramatic, musical or artistic work for the purpose of a judicial proceeding or for the purpose of a report of a judicial proceeding;
- d) the reproduction or publication of a literary, dramatic, musical or artistic work in any work prepared by the Secretariat of a Legislature or, where the Legislature consists of two Houses, by the Secretariat of either House of the Legislature, exclusively for the use of the members of that Legislature;
- e) the reproduction of any literary, dramatic or musical work in a certified copy made or supplied in accordance with any law for the time being in force;
- f) the reading or recitation in public of any reasonable extract from a published literary or dramatic work;
- g) the publication in a collection, mainly composed of non-copyright matter, *bona fide* intended for the use of educational institutions, and so described in the title and in any advertisement issued by or on behalf of the publisher, of short passages from published literary or dramatic works, not themselves published for the use of educational institutions, in which copyright subsists :

Provided that not more than two such passages from works by the same author are published by the same publisher during any period of five years.

Explanation: In the case of a work of joint authorship, references in this clause to passages from works shall include references to passages from works by any one or more of the authors of those passages or by any one or more of those authors in collaboration with any other person;

- h) the reproduction of a literary, dramatic, musical or artistic work—
 - i) by a teacher or a pupil in the course of instruction; or
 - ii) as part of the questions to be answered in an examination; or
 - iii) in answers to such questions.
- i) the performance, in the course of the activities of an educational institution, of a literary, dramatic or musical work by the staff and students of the institution, or of a cinematograph film or a [sound recordings] if the audience is limited to such staff and students, the parents and guardians of the students and persons directly connected with the activities of the institution [or the communication to such an audience of a cinematograph film or sound recording].
- j) the making of sound recordings in respect of any literary, dramatic or musical work, if—
 - i) sound recordings of that work have been made by or with the licence or consent of the owner of the right in the work;

- ii) the person making the sound recordings has given a notice of his intention to make the sound recordings, has provided copies of all covers or labels with which the sound recordings are to be sold, and has paid in the prescribed manner to the owner of rights in the work royalties in respect of all such sound recordings to be made by him, at the rate fixed by the Copyright Board in this behalf:

Provided that—

- i) no alterations shall be made which have not been made previously by or with the consent of the owner of rights, or which are not reasonably necessary for the adaptation of the work for the purpose of making the sound recordings;
- ii) the sound recordings shall not be issued in any form of packaging or with any label which is likely to mislead or confuse the public as to their identity;
- iii) no such sound recording shall be made until the expiration of two calendar years after the end of the year in which the first sound recording of the work was made; and
- iv) the person making such sound recordings shall allow the owner of rights or his duly authorised agent or representative to inspect all records and books of account relating to such sound recording:

Provided further that if on a complaint brought before the Copyright Board to the effect that the owner of rights has not been paid in full for any sound recordings purporting to be made in pursuance of this clause, the Copyright Board is, *prima facie*, satisfied that the complaint is genuine, it may pass an order *ex parte* directing the person making the sound recording to cease from making further copies and, after holding such inquiry as it considers necessary, make such further order as it may deem fit, including an order for payment of royalty;

- k) the causing of a recording to be heard in public by utilising it—
 - i) in an enclosed room or hall meant for the common use of residents in any residential premises (not being a hotel or similar commercial establishment) as part of the amenities provided exclusively or mainly for residents therein;
 - or
 - ii) as part of the activities of a club or similar organisation which is not established or conducted for profit;
 - iii) as part of the activities of a club, society or other organisation which is not established or conducted for profit;
- l) the performance of a literary, dramatic or musical work by an amateur club or society, if the performance is given to a non-paying audience, or for the benefit of a religious institution;

- m) the reproduction in a newspaper, magazine or other periodical of an article on current economic, political, social or religious topics, unless the author of such article has expressly reserved to himself the right of such reproduction;
- n) the publication in a newspaper, magazine or other periodical of a report of a lecture delivered in public;
- o) the making of not more than three copies of a book (including a pamphlet, sheet of music, map, chart or plan) by or under the direction of the person in charge of a public library for the use of the library if such book is not available for sale in India;
- p) the reproduction, for the purpose of research or private study or with a view to publication, of an unpublished literary, dramatic or musical work kept in a library, museum or other institution to which the public has access:

Provided that where the identity of the author of any such work or, in the case of a work of joint authorship, of any of the authors is known to the library, museum or other institution, as the case may be, the provisions of this clause shall apply only if such reproduction is made at a time more than sixty years from the date of the death of the author or, in the case of a work of joint authorship, from the death of the author whose identity is known or, if the identity of more authors than one is known from the death of such of those authors who dies last;

- q) the reproduction or publication of—
 - i) any matter which has been published in any Official Gazette except an Act of a Legislature;
 - ii) any Act of a Legislature subject to the condition that such Act is reproduced or published together with any commentary thereon or any other original matter;
 - iii) the report of any committee, commission, council, board or other like body appointed by the Government if such report has been laid on the Table of the Legislature, unless the reproduction or publication of such report is prohibited by the Government;
 - iv) any judgement or order of a court, tribunal or other judicial authority, unless the reproduction or publication of such judgment or order is prohibited by the court, the tribunal or other judicial authority, as the case may be;
- r) the production or publication of a translation in any Indian language of an Act of a Legislature and of any rules or orders made thereunder—
 - i) if no translation of such Act or rules or orders in that language has previously been produced or published by the Government;

or

- ii) where a translation of such Act or rules or orders in that language has been produced or published by the Government, if the translation is not available for sale to the public:

Provided that such translation contains a statement at a prominent place to the effect that the translation has not been authorised or accepted as authentic by the Government;

- s) the making or publishing of a painting, drawing, engraving or photograph of a work of architecture or the display of a work of architecture;
- t) the making or publishing of a painting, drawing, engraving or photograph of a sculpture, or other artistic work failing under sub-clause (iii) of clause (c) of section 2, if such work is permanently situated in a public place or any premises to which the public has access;
- u) the inclusion in a cinematograph film of—
 - i) any artistic work permanently situated in a public place or any premises to which the public has access;

or

- ii) any other artistic work, if such inclusion is only by way of background or is otherwise incidental to the principal matters represented in the film;
- v) the use by the author of an artistic work, where the author of such work is not the owner of the copyright therein, of any mould, cast, sketch, plan, model or study made by him for the purpose of the work;

Provided that he does not thereby repeat or imitate the main design of the work;

- x) the reconstruction of a building or structure in accordance with the architectural drawings or plans by reference to which the building or structure was originally constructed:

Provided that the original construction was made with the consent or licence of the owner of the copyright in such drawings and plans;

- y) in relation to a literary, dramatic or musical work recorded or reproduced in any cinematograph film the exhibition of such film after the expiration of the term of copyright therein :

Provided that the provisions of sub-clause (ii) of clause (a), sub-clause (a) of clause (b) and clauses (d), (f), (g), (m) and (p) shall not apply as respects any act unless that act is accompanied by an acknowledgment—

- i) identifying the work by its title or other description; and
- ii) unless the work is anonymous or the author of the work has previously agreed or required that no acknowledgement of his name should be made, also identifying the author.

- z) the making of an ephemeral recording, by a broadcasting organisation using its own facilities for its own broadcast, by a broadcasting organisation of a work which it has the right to broadcast; and the retention of such recording for archival purposes on the ground of its exceptional documentary character;
- za) the performance of a literary, dramatic or musical work or the communication to the public of such work or of a sound recording in the course of any *bona fide* religious ceremony or an official ceremony held by the Central Government or the State Government or any local authority.

Explanation: For the purpose of this clause, religious ceremony including a marriage procession and other social festivities associated with a marriage.

- 2) The provisions of sub-section (1) “shall apply to the doing of any act in relation to the translation of a literary, dramatic or musical work or the adaptation of a literary, dramatic, musical or artistic work as they apply in relation to the work itself .” [Copyright Act]

Besides the above, the Act elaborates as to the particulars to be included in records and video films at the time of publication. According to the Section 52B of the Act every copyright society appointed under section 34A shall maintain proper accounts and other relevant records and prepare an annual statement of accounts, in such form and in such manner as may be prescribed by the Central Government in consultation with the Comptroller and Auditor-General of India. Finally the Act includes two more Sections relating to the importation of infringing copies; and resale share right in original copies.

Civil Remedies (Chapter XII)

Infringement of copyright is but rampant. To remedy the situation the Act has made certain provisions which have been discussed in this Chapter. They deal with civil remedies for infringement of copyright; protection of separate rights; author’s special rights; rights of owner against persons possessing or dealing with infringing copies; restriction on remedies in the case of works of architecture; remedy in the case of groundless threat of legal proceedings; and jurisdiction of court over matters arising under this Chapter. The Act has also made provisions for the owners of the copyright to be a party in the legal proceeding.

Offences (Chapter XIII)

Infringement of copyright is an offence in the eye of the law. The offences may be of varied nature which this Chapter deals with. First it dwells on offence of infringement of copyright or other rights conferred by this Act; followed by enhanced penalty on second and subsequent convictions; and thirdly knowing use of infringing copy of computer programme which is an offence. Subsequently the Chapter deals with the power of police to seize infringing copies; possession of plates for purpose of making infringing copies; disposal of infringing copies or plates for purpose of making infringing copies; penalty for making false entries in the register, etc., for producing or tendering false entries ; penalty for making false statements for the purpose of deceiving or influencing any authority or officer; penalty for contravention of Section 52A relating to the particulars that

are to be included in records and video films; offences by companies; and finally it deals with cognizance of offences.

Appeals (Chapter XIV)

Three sections of the Chapter cover appeals against certain orders of a magistrate; appeals against orders of the Registrar of Copyrights and Copyright Board; and lastly the procedure for appeals.

Miscellaneous (Chapter XV)

This is the last chapter of the Act and comprises six sections and includes miscellaneous items. According to the Act, the Registrar of Copyrights and Copyright Board will possess certain powers of civil courts; orders for payment of money passed by the Registrar of Copyrights and Copyright Board will be executable as a decree; action taken by any person in good faith will be protected; certain persons will be public servants; the Central Government will have powers to make the rules; and the last Section deals with repeals, savings and transitional provisions.

Utility in Libraries

The Act is of great use in libraries as described below. In addition, a reader may ask various questions about copyright. For answering those questions a copy of the Copyright Act should be kept in the library.

Importance as a Reference Source

The Act is a powerful reference source. It is useful both for the library staff and for the readers. In a library lots of photocopies are made. The library staff must know thoroughly about the infringement of copyright. If a reader is refused photocopies of certain copyright material, he may ask for explanation. At that time, the Act will be of great use.

Remarks – The meaning of ‘literary work’ given in the Act is incomplete in the sense that it does not cover literary works like poetry, drama, fiction, essays, textbooks, monographs, and treatises. Moreover, the Act is silent about the ‘thesis’ whose ownership is sometimes claimed by the university and also by the researcher who has written the thesis. It should have been clarified in the Act.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
- ii) Check your answers with the answers given at the end of the Unit.
- 3) Enumerate the copyrightable material according to the Indian Copyright Act, 1956.

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4) What does an author mean in our Copyright Act ?

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5) Name the acts which generally do not constitute an infringement of copyright.

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6) A reader wants the photocopy of a full book. How will you decide whether or not the photocopy of the book can be supplied to him?

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7.3.2 The Patents Act, 1970

The first Patent Act of British India was titled as Indian Patents and Designs Act, 1911. That continued for about 60 years and amended as The Patents Act, 1970. The word 'Indian' and 'Designs' were dropped. Since 1970 it has been amended several times. It was last amended in 2005.

Salient Features

The Act is a lengthy document containing 23 chapters comprising 163 sections. This Act is not directly concerned with library activities. As such only a glimpse of the Act is provided here.

As usual Chapter I deals with preliminaries and provides among others the scope, definition and interpretation of a number of terms used in the Act. All inventions are not patentable, e.g. a man trap, devices that go against natural laws, abstract theories, inventions relating to atomic energy, etc. Non-patentable inventions have been listed in Chapter II. Application for patents (e.g. persons who can apply for patents, form of application, contents of specification, etc.) has been dealt with in Chapter III. The application and the complete specification are referred to an examiner by the Controller for his report. The examination and related activities involve a number of procedures which are all described in Chapter IV. The next chapter (Chapter IVA) dwells on exclusive rights of marketing.

The acceptance of a complete specification is advertised by the patent office. Within a specific period of time (In India it is four months extendable up to five months) a person can oppose the grant of patent. The procedure for opposition to the grant of patent has been elaborated in Chapter V.

Chapter VI deals with Anticipation. In patent law, anticipation means the publication of the existence of an invention that has already been patented or has a patent pending. On this ground a patent to an invention that has substantially the same structure and function as the earlier invention may be denied. The anticipation of an invention also occurs when the later invention is found to be a mere adaptation of an earlier patent which would be obvious to a person skilled in the art [Anticipation].

Certain inventions may be important from defence point of view. The publication of such patents will make the invention public which an enemy country can take advantage of. Thus there is need for secrecy. Chapter VII deals with provisions of secrecy for certain inventions.

The 8th Chapter is an important chapter from the viewpoint of the applicant. This particular chapter deals with **grant and sealing of patents and rights conferred thereby**. The process of getting a patent is a lengthy one. The moment an idea of a patentable invention comes to the mind of an inventor, he can file application for a patent. Then within a specified period, the inventor has to deposit the full specification of the invention. In the next step, the specification is sent to the examiner, who takes a long time to check whether the invention already exists in the world, or it is in the process of being patented. Apart from this, the examiner is to check all the claims made in the patent one by one. When the examiner gives the green signal, the specification is accepted by the patent office. Once accepted, a time of four to five weeks (it varies from country to country) is given for opposition. If there is no opposition, then the time comes for the grant and sealing of patents. Once the patent is granted 'the Controller shall cause the patent to be sealed with the seal of the patent office and the date on which the patent is sealed shall be entered in the register' [Patents Act]. The process may take easily four to five years or more. It is to be noted that the date on which the complete specification was filed will be the date of the patent.

It happens many a time that an inventor after filing the complete specification feels it necessary to improve or modify the patent. This improvement or modification is called **addition**, and the patent with addition is called the **patent of addition** which is the title of Chapter IX.

After the filing of the application or complete specification, at times need arises for amendment in the application or complete specification or both for various reasons. Under certain conditions the amendments are allowed. Chapter X describes how to apply for the amendment/s and the conditions under which the permission for the amendment/s may be granted.

For the non-payment of renewal fee within the prescribed period or the extended period (if there is any extension) the patent gets lapsed. The lapsed patent may be restored subject to conditions, by making an application within the prescribed period, and paying the unpaid renewal fee plus the additional fee. Chapter XI of the Act deals with this matter and describes the procedure for disposing

applications for restoration of lapsed patents, and rights of patentees of lapsed patents after its restoration.

A patentee may offer to surrender his patent at any time by giving notice in the prescribed manner to the Controller. The patent may be revoked if conditions laid down in the Act are fulfilled. It may be recalled that a patent on the use of turmeric as a wound healing agent was granted in USA. CSIR successfully challenged the patenting on the ground that the healing properties of turmeric had been 'common knowledge' in India for centuries. Subsequently the patent was revoked. The battle for the revocation of the patent on Basmati (US Patent No.5663484) is going on for a number of years. It is hoped that the battle will go in favour of India and the patent on Basmati Rice will be revoked. [TED Case Studies – Basmati]. Chapter XII tells you about the surrender and revocation of patents.

The next three chapters (XIII, XIV, and XV) deal respectively with register of patents, patent office and its establishment; and powers of Controller generally.

A register of patents is a register in which the particulars of a patent are entered, as the particulars of a book are entered in an accession register. No notice of any trust is entered in the register. It also provides details as to the registration of assignments, transmissions etc; power of registered grantee or proprietor to deal with patent; and rectification of register by High Court. It also points out that assignments, etc, will not be valid unless in writing and registered; and the register is to be open for inspection.

As to Patent Office, the Act provides information as to its controller and other officers, patent office and its branches (on theoretical level), restriction on employees of patent office as to right or interest in patents, furnishing of certain information, preparation of certain documents, and conducting a search in the records of the Patent Office.

According to the Act, the Controller will have certain powers (list provided) of the Civil Court; power to correct clerical error in the patent, specification, etc. The Controller will also have the power to dispose the applications for extension of time.

Chapter XVI is devoted to working of patents, compulsory licences, licences of right and revocation. A patentee himself/herself can work with the patent if s/he so desires. It may also be given to a person if s/he makes an application after the expiry of three years from the date of sealing of the patent subject to certain conditions. The applicant will also have to pay the price to get a compulsory licence. If the price of the patent is high, the applicant can point out the same to the Controller. If the Controller is satisfied with all the matters contained in the application he may order the patentee to grant a licence upon such terms as he may deem fit. Compulsory licences have been described in six different sections covering such areas as matter taken into account for granting compulsory licences, endorsement of patents with the words "Licences of Rights" (two sections) and its effect, power of the Controller to adjourn applications for compulsory licenses, etc. in certain cases, as well as in granting compulsory licences, terms and conditions of compulsory licences, and finally special provision for compulsory licences on notifications by the Central Government. Subject to the conditions

laid down in the Act, a non-working patent can be revoked. Other sections dwell on the procedure for dealing with applications under sections 84, 86 and 89, and licensing of related patents. Section 98 provides that order for licence is to operate as a deed between parties concerned.

An invention may be used for the purposes of the Central Government, a State Government or a Government undertaking subject to certain conditions. Chapter XVII of the Act deals with this matter as well as acquisition of invention/s by the Central Government. First of all, the meaning of 'use of invention for purposes of Government' has been elaborated. In the next sections power of the Central Government to use inventions for purposes of Government, rights of third parties regarding the use of invention for purposes of Government, and acquisition of inventions and patents by the Central Government have been described. Reference to High Court of disputes as to use for purposes of Government occupies the last section.

Infringement of patents is not uncommon. The number of suits in the courts the world over concerning infringement of patents is also not small. Some suits may be genuine, some may not. This is the subject matter of Chapter XVII which has been dealt with in 12 sections. The Sections covers jurisdiction; power of court to make declaration as to non-infringement, and to grant relief in cases of groundless threats of infringement proceedings; defences, etc., in suits for infringement; reliefs in suits for infringement; right of exclusive licensee to take proceedings against infringement; right of licensee under section 84 to take proceedings against infringement; restriction on power of court to grant damages or account of profits for infringement, as well as to grant injunction in certain cases; certificate of validity of specification and costs of subsequent suits for infringement thereof; relief for infringement of partially valid specification. Lastly, it deals with scientific advisers who are to assist the court in matters relating to patents which involve mainly technology.

In suits relating to patents, the court after the completion of all the procedures announces its verdict. Obviously the verdict will normally go in favour of one party, and against the other. The party losing the case may make an appeal to the court. Chapter XIX deals with the **appeals**. It comprises two sections dealing with appeals and hearing of appeals.

Penalties involving fine, imprisonment or both are imposed for many offences committed in patenting acts. The acts that lead to offences have been detailed in Chapter XX. Some of them are: contravention of secrecy provisions relating to certain inventions; falsification of entries in the register, etc; unauthorised claim of patent rights; wrongful use of words "patent office"; refusal or failure to supply information; practice by non-registered patent agents; and offences committed by companies.

A patent agent (Chapter XXI) is an important person in the activities relating to patents and patenting. The activities involve among others- application for the grant of patent, restoration of lapsed patents, sealing of patents, leave to amend, compulsory licences or for revocation, notice of surrender of patents, etc. All these are verified and signed by the patent agent and subsequently communicated to the Controller. For registration as a patent agent certain qualifications are essential as prescribed in the Chapter. A patent agent is generally an advocate. The Chapter has eight sections dealing with: register of patent agents;

qualifications for registration as patent agents; rights of patent agents; subscription and verification of certain documents by patent agents; restrictions on practice as patent agents; removal from the register of patent agents and restoration; power of the Controller to refuse to deal with certain agents; savings in respect of other persons authorised to act as agents.

An applicant has to apply to many countries of the world for the grant of patent for his/her invention. A country where the inventor has applied will give protection to his/her invention. Other countries will not. If protection is not given to a patent by a certain country, the patent may be worked in that country without the payment of fees to the patentee. As an inventor of our country can apply for patenting his/her invention in another country. Similarly, inventors from other countries can also apply for patent in India. For this purpose, international arrangements are essential. Chapter XXII deals with this matter in seven sections and covers notifications as to convention countries, and also as to countries not providing for reciprocity; convention applications; special provisions relating to convention applications; multiple priorities; supplementary provisions as to convention applications; and other provisions of the Act to apply to convention application. As usual, the last chapter (XXIII) includes miscellaneous items and comprises 24 sections. The sections among others are: avoidance of certain restrictive conditions, fees, restrictions upon publication of specifications, confidentiality of the reports of examiners, publication of patented inventions, power of the Controller to call for information from patentees, evidence of entries, documents, etc, loss or destruction of patents, right of the Government to sell or use forfeited articles, etc.

Utility – Patent acts practically has no utility in academic and public libraries. It is useful in scientific and technological libraries where inventive activities are always on. Inventors need to know the inventions which are patentable, and which are not. They need a great deal of information about filing of application, opposition to grant of patent, addition, amendment, etc not only in India but also in other countries. The acts have great utilities in law libraries as well as personal libraries of lawyers where they are to use the acts in the patent-related suits in the court. Moreover patent agents, patent attorneys, inventors, etc also use patent acts heavily.

Importance – The Acts serve as very good reference materials for S & T libraries, law libraries, lawyers, patent agents, inventors and others dealing with patents.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

7) Discuss the utility of patent acts.

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7.4 INFORMATION TECHNOLOGY ACT, 2000

Information technology (IT) has generated a number of activities of its own and invaded practically all major human activities during the last few decades. Along with the helpful activities it has generated offences as well. All these developments have generated the need to pass an act related to IT. Many countries of the world have passed IT acts including our own. The salient features of the Act along with its utility and importance are given below.

Salient Features

The Information Technology Act, 2000 came into existence in our country on 9th June 2000. Since then it has been amended in 2006 and 2008. The Act has 13 chapters comprising 94 sections. A brief description of the chapters follows:

Preliminary (Chapter I)

As usual this Chapter indicates the extent, i.e. whole of India, date of commencement, and application of the Act. Section 2 of the Act provides definitions of certain terms used in the Act. The definitions of our interest as given in the Act are reproduced below [IT Act].

Computer ‘means any electronic, magnetic, optical or other high-speed data processing device or system which performs logical, arithmetic, and memory functions by manipulations of electronic, magnetic or optical impulses, and includes all input, output, processing, storage, computer software, or communication facilities which are connected or related to the computer in a computer system or computer network’.

Data ‘means a representation of information, knowledge, facts, concepts or instructions which are being prepared or have been prepared in a formalised manner, and is intended to be processed, is being processed or has been processed in a computer system or computer network, and may be in any form (including computer printouts, magnetic or optical storage media, punched cards, punched tapes) or stored internally in the memory of the computer’.

Electronic record ‘means data, record or data generated, image or sound stored, received or sent in an electronic form or microfilm or computer generated microfiche’.

Information ‘includes data, text, images, sound, voice, codes, computer programmes, software and databases or microfilm or computer generated microfiche’.

Originator ‘means a person who sends, generates, stores or transmits any electronic message or causes any electronic message to be sent, generated, stored or transmitted to any other person but does not include an intermediary’.

Digital Signature (Chapter II)

This chapter deals with the authentication of electronic records.

Electronic Governance (Chapter III)

The Chapter dwells on legal recognition of electronic records, as well as digital signatures; use of electronic records and digital signatures in the Government and its agencies (Section 6); retention of electronic records (Section 7); publication

of rules, regulations, etc., in Electronic Gazette (Section 8); and power to make rules by Central Government in respect of digital signatures. Also informs that Sections 6, 7 and 8 will not confer right to insist that the document should be accepted in electronic form.

Attribution, Acknowledgment and Despatch of Electronic Records (Chapter IV)

First of all the Chapter deals with, to whom, an electronic record should be attributed. As per the Act generally it should be attributed to the originator of the record. This apart, it deals with acknowledgment of receipt; and time and place of despatch and receipt of the electronic record.

Secure Electronic Records and Secure Digital Signatures (Chapter V)

First of all, it is better to have an idea of secure electronic record and secure digital signature.

As per the interpretation of the Act, a **secure electronic record** is one where any security procedure has been applied to the electronic record at a specific point of time. Such a record shall be deemed to be a secure electronic record from such point of time to the time of verification.

The interpretation of the **secure digital signature** as per the Act is as follows:

If, by application of a security procedure agreed to by the parties concerned, it can be verified that a digital signature, at the time it was affixed, was—

- a) unique to the subscriber affixing it;
- b) capable of identifying such subscriber;
- c) created in a manner or using a means under the exclusive control of the subscriber and is linked to the electronic record to which it relates in such a manner that if the electronic record was altered the digital signature would be invalidated, then such digital signature shall be deemed to be a secure digital signature.

This apart, the Chapter deals with security procedure.

Regulation of Certifying Authorities (Chapter VI)

The Chapter embraces a number of items relating to the Controller, other officers, licences, Certifying Authority and so on. It starts with the appointment of the Controller and other officers, and continues with such sections as the functions of the Controller, and recognition of foreign Certifying Authorities. As per the Act the Controller shall be the repository of all digital signature certificates issued under this Act. As to licences it deals with licence to issue digital signature certificates, application for licence, renewal of licence, procedure for grant or rejection of licence, suspension of licence, notice of suspension or revocation of licence. It also elaborates on the power of the Controller to delegate power to his juniors, his power to investigate contraventions, access to computers and data. As per the provisions of Act, the Certifying Authority is to follow certain procedures; and ensure compliance of the Act, etc., Lastly, it deals with the display of licence, surrender of licence, and disclosure to be made by the Certifying Authority.

Digital Signature Certificates (Chapter VII)

The Act provides that the Certifying Authority is to issue the digital signature certificate, it also elaborates on representations upon the issuance of digital signature certificate, suspension of digital signature certificate, revocation of digital signature certificate, and notice of suspension or revocation.

Duties of Subscribers (Chapter VIII)

As per the provisions of the Act, the subscriber will have to generate the key pair, accept the digital signature certificate, and retain the control of the private key.

Penalties and Adjudication (Chapter IX)

Computer offences are of varied nature. They may involve a stand alone computer, a computer system, or a computer network. All these may contain personal information, confidential information, and various other types of non-disclosable information or data.

Computer offences include among others unauthorised access to a computer, computer system, or a computer network; downloading, copying or extracting any data, information, and database from any of these; introduction of any computer virus or computer contaminant in any of these; damaging or causing damage to any of these; disrupting or causing disruption to any of these; denial of access to any of these devices; providing assistance to any person in accessing these devices; charging the services availed of by a person to the account of another person by tampering or manipulating with any of these devices, Section 43 of the Act deals with the penalties of all these offences. For any of the offences the offender shall be liable to pay damages by way of compensation not exceeding one crore rupees to the person so affected. The subsequent sections deal with penalty for failure to furnish information return, etc; residuary penalty, power to adjudicate, and factors to be taken into account by the adjudicating officer.

The Cyber Regulations Appellate Tribunal (Chapter X)

An appellate tribunal is an assembly of one or more judges that can hear appeals and review lower courts decisions. As per the Act the Cyber Appellate Tribunal comprises only one judge who is the Presiding Officer.

The Chapter deals with the establishment of Cyber Appellate Tribunal (hereafter called as the Tribunal) and its composition; qualifications required for appointment as the Presiding Officer of the Tribunal; his term of office, salary, allowances and other terms and conditions of service, resignation and removal; filling up of vacancies of the Tribunal; staff of the Tribunal; procedure and powers of the Tribunal; appeal to the Tribunal; an appellant's right to legal representation; application of Limitation Act, 1963 to an appeal made to the Tribunal; Civil court not to have jurisdiction; appeal to High Court; compounding of contraventions; recovery of penalty. The Act provides that orders constituting the Tribunal will be final and not to invalidate its proceedings.

Offences(Chapter XI)

A number of computer offences have already been enumerated in Chapter IX titled as Penalties and Adjudication. This chapter is exclusively devoted to offences and deals with tampering with computer source documents; hacking

with computer system; publishing of information in electronic form which is obscene; power of the Controller to give directions; directions of the Controller to a subscriber to extend facilities to decrypt information; declaration of a computer, computer system or computer network as a protected system; penalties for misrepresentation of facts, breach of confidentiality and privacy, publishing Digital Signature Certificate false in certain particulars, and publication for fraudulent purpose. The Act also deals with its application for offences or contraventions committed outside India; confiscation of any computer, computer system, floppies, compact disks, tape drives or any other accessories related thereto. According to the provisions of the Act the penalties or confiscation are not to interfere with other punishments. The last Section deals with the power of a police officer to investigate offences.

Network Service Providers not to be Liable in Certain Cases (Chapter XII)

According to the provisions of the Act “no person providing any service as a network service provider shall be liable under this Act, rules or regulations made thereunder for any third party information or data made available by him if he proves that the offence or contravention was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence or contravention”.

Miscellaneous (Chapter XIII)

As usual, the last chapter deals with miscellaneous items. The sections of the Chapter deals with the power of a police officer and other officers to enter, conduct search, etc; protection of action taken in good faith; offences by companies; removal of difficulties, if any difficulty arises in giving effect to the provisions of this Act; power of the Central Government to make rules; and the constitution of the Advisory Committee. The Act provides that it will have overriding effect; the Controller, Deputy Controller and Assistant Controllers will be public servants; the Central Government will have power to give directions; the Controller will have power to make regulations, and the State Governments will have power to make rules,

Check Self Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

8) Enlist the computer offences as given in the IT Act.

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7.5 SUMMARY

The concept 'right to information' and its need have been explained. The salient features, utility, and importance of the Right to Information Act has been described. Intellectual property rights involve two Acts, i.e. the Copyright Act, 1957 and the Patents Act, 1970. The Copyright Act, 1957 involves library activities to a great extent. Hence, it has been described in greater detail. The entire text of the infringement of copyright as well as non-infringement of copyright have been reproduced from the Act to make the students well aware of this. The Patents Act has been described briefly as it serves mainly as a reference source in a library. Information Technology Act has also been dealt with greater emphasis as computer offences can hit any library and librarians must be aware of computer offences and penalties thereof. In all, eight self check exercises have been included with answers. In the Acts appear a number of legal terms. For easy comprehension of students, the definition of a number of legal terms have been provided.

7.6 ANSWERS TO SELF CHECK EXERCISES

- 1) RTI Act is meant for every citizen of the country. It helps not only the rich and the elites but also the common people at the grass root level. The following incident shows how RTI helps even school students.

A private school at Kalol taluk at Panchmahal district in Gujarat was charging fees from the students even though the school was receiving support from the State Government and was not supposed to collect any fees from the students. Aslambhai, a resident of Kalol taluk made an RTI application to the Principal of the school asking him to provide copies of the circulars or government orders that permitted the school to collect fees. As expected, the Principal could not produce any government circular or order and admitted in writing that the school did not have any authority to collect fees from the students except for computer classes which was being run by the trust at its own expenses. Hereafter the students were not asked to pay any fee.

- 2) A banned book is one which is proscribed by the government for its offensive content. The moment a book is banned, it should be withdrawn from circulation, and kept under lock and key. When the ban is lifted it should be placed on the open shelves again for the use of the readers.
- 3) The copyrightable material according to Indian Copyright Act are as follows:
 - a) original literary, dramatic, musical and artistic works;
 - b) cinematograph films; and
 - c) sound recordings.
- 4) According to our Copyright Act an author means the author of a literary or dramatic work, composer of a musical work, artist, photographer, the producer of a cinematograph or sound recording, and the person who is responsible for a computer-generated literary, dramatic, musical or artistic work.
- 5) The following acts generally do not constitute an infringement of copyright, namely:

- a) a fair dealing with a literary, dramatic, musical or artistic work [excluding a computer programme] for the purposes of-
 - i) private use, including research;
 - ii) criticism or review, whether of that work or of any other work.
- 6) First of all you will have to find out whether the author is alive. If he is, then there is no question of supplying the photocopy. If he is not, then it is to be found out when he died. Suppose he died on 7 July 1950. We can easily see that 60 years have elapsed since his death. Hence, the photocopy can be given.
- 7) Patent acts are hardly used in academic and public libraries. It is mainly useful in technological libraries and some scientific libraries where researches are going on for inventing something new. Inventors need to know the inventions which are patentable, and which are not. They need a great deal of information regarding filing of application, preparation of the specification, opposition to grant of patent, addition, amendment, surrender, etc not only in India but also in other countries. The acts have great utilities in law libraries as well as personal libraries of lawyers where they are to use the acts in the patent-related activities and suits in the court. Moreover patent agents, patent attorneys, inventors and many other people engaged in patent-related activities use patent acts heavily.
- 8) Computer offences as provided in the IT Act are as follows: The offences include among others unauthorised access to a computer, computer system, or a computer network; downloading, copying or extracting any data, information, and database from any of these; introduction of any computer virus or computer contaminant in any of these; damaging or causing damage to any of these; disrupting or causing disruption to any of these; denial of access to any of these devices; providing assistance to any person in accessing these devices; charging the services availed of by a person to the account of another person by tampering or manipulating with any of these devices; tampering with computer source documents; hacking with computer system; publishing of information in electronic form which is obscene.

7.7 KEYWORDS

- Adjudicate** : To put on trial.
- Appellant** : A party that appeals a decision of a lower court.
- Convention Application** : An application made in a convention country for a patent in respect of an invention.
- Convention Country** : ‘Any country outside India which affords to applicants for patents in India or to citizens of India similar privileges as are granted to its own citizens in respect of the grant of patents and the protection of patent rights’ [Patents Act]. Usually, the Central Government by notification in the *Official Gazette*, declares such a country as a convention country for the purposes of this Act.

Creator

: One who creates. In the case of copyright, the term includes among others author, composer of music, painter, sculptor, photographer,

Exempt Information

: A piece of information which is exempt from disclosure, that means the information cannot be disclosed.

Fiduciary

: Of or relating to the nature of a legal trust.

Geographical Indications of Source

: In these cases, the sources are identified by geographical names, such as Darjeeling tea.

Information Technology

: The branch of technology that deals with the use of computers and telecommunications to store, retrieve and transmit information.

Interoperability

: The ability to exchange and use information usually in a large heterogeneous network comprising several local area networks.

Key Pair

: It consists of a private key for creating a digital signature and a public key to verify the digital signature.

Leave

: Permission to do something.

Patentee

: An inventor to whom a patent is granted. If an inventor is an employee of an organization, and the patent application is filed in the name of the organization then the organization will be the patentee.

Private Key

: It is the key meant for the creation of a digital signature.

Public Key

: It is the key meant for the verification of a digital signature.

Savings

: Exceptions.

Specification

: According to patent law, a specification is a document prepared by the applicant for a patent of invention that provides an explicit and detailed description of the nature and use of an invention.

Third Party Information

: Any information dealt with by a network service provider in his capacity as an intermediary.

Tribunal

: An assembly of one or more judges that can conduct judicial business.

7.8 REFERENCES AND FURTHER READING

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BLOCK 3 RESOURCE SHARING AND LIBRARY NETWORKS

Introduction

Libraries are facing the unprecedented challenge of increasing number and cost of publications and the specialised demands of users. Internet as an alternative source of information has also posed a challenge to librarians. Collaboration is the only alternative available to librarians to satisfy the users. Resource sharing and library networks have been actively practiced and used by libraries to bale them out of the situation. This Block is devoted to the concept of resource sharing. It explains the concept of library networks and presents the scenario of library networks and consortia at national and international level.

There are three Units in this Block.

Unit 8 presents a background that led to the birth of the concept **Resource Sharing**. It discusses the need for and the purpose of sharing. Different areas of resource sharing have been explained in the Unit along with the issues involved therein.

Unit 9 is titled **Library and Information Networks and Consortia**. The Unit explains at length the concept of library and information networks and consortia. It discusses the different types of networks and consortia based on different types of characteristics. The Unit also discusses the activities expected of a library and information network.

Unit 10 Library and Information Networks and Consortia: National and International. There are number of library and information networks and consortia active at different levels; international, national, regional and local. The purpose of the networks and consortia is collaboration, helping the libraries to economise and standardise. Their domain may vary from general public, to academic and research clientele. Such cases have been discussed for India, China, U.S., U.K., South Africa, etc.

UNIT 8 RESOURCE SHARING

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Resource Sharing
 - 8.2.1 Need
 - 8.2.2 Concept
 - 8.2.3 Historical Background
 - 8.2.4 Objectives
- 8.3 Resource Sharing and Library Networks
- 8.4 Library Networks: Need
- 8.5 Resource Sharing: Issues Involved in Implementation
- 8.6 Library Consortia
- 8.7 Library Cooperation to Library Consortia
- 8.8 Summary
- 8.9 Answers to Self Check Exercises
- 8.10 Keywords
- 8.11 References and Further Reading

8.0 OBJECTIVES

After reading this Unit, you will be able to:

- elucidate the concept of resource sharing;
- explain the need for and objectives of resource sharing;
- discuss the issues involved in putting resource sharing into practice; and
- describe the developments in resource sharing.

8.1 INTRODUCTION

Libraries are in a state of paradigm shift. There are changes taking place in their users, documents, and services. The users are:

- demanding, engaged in specialised jobs;
- IT savvy; and
- need information in a time-frame.

The information and their carriers (documents) are also undergoing changes, they are:

- available in plenty;
- exploding, adding to the existing vast number; and
- available in different formats.

Libraries have changed from stand-alone entities to networked organisations, from collection-based to access-based, from physical existents to electronic and virtual libraries and their services moving from document-based to information-based. It is a demanding situation for libraries when information available is plenty and demand is high. It has to be fulfilled instantly from just-in-time collection. It is here that the concept of resource sharing has come into picture. Libraries share their resources to serve their users in an effective and efficient manner. Services under resource sharing include inter library loan (ILL), cooperative cataloguing, cooperative collection development and joint storage of materials.

8.2 RESOURCE SHARING

Resource sharing is a concept quite often talked about in the literature of LIS. Literally, the term implies, using each other's resources. Edmonds defines it as 'the reciprocally beneficial sharing of resources, developed or pre-existing, by two or more bodies.' In the context of libraries, it refers to libraries sharing their resources, including the sources of information, staff expertise, infrastructure, and finance. The question arises, why should they do so? They are already so heavily burdened by requests from their own users, how will they cater to the needs of other libraries? The answer lies in knowing the situation in which they find themselves in, presented in the following paragraphs.

8.2.1 Need

The stock in trade in libraries, i.e. documents is available in plenty. Their rate of increase is such that it is termed explosion. It is estimated that there was a 6% increase in book production in 2012 compared to 2011. They are available in a variety of formats. The channels of availability of these documents are also varied adding to the complexity of their acquisition. Prices of documents are on the increase. Periodicals prices are on the increase, a 6% hike was reported in 2013. Earlier the increase in prices used to be mainly in science, technology and medicine journals only but now it has been experienced in other areas like humanities and education too. The prices of these publications are in dollars. The widening gap between dollars and rupees further affects negatively the buying power of libraries in India.

Increasing number of documents also demand physical space which is a limitation for libraries. Even if they are able to buy all that is needed where is the space to store the documents?

Libraries exist for users; any change in their demands and requirements requires libraries to adapt themselves. Users are now more demanding, expecting to be satisfied as early as possible. Libraries have to show their accountability; they have to satisfy the users in the best possible way. Customised services are the talk of the day. Staff has to be more interactive with the users knowing about their areas of interest and their requirements to serve them in the best possible way. This requires that the professional staff be relieved of the routine chores and technical procedures to be done jointly/ cooperatively by libraries. They should interact more with the users, design and develop innovative services satisfying their information needs.

Resource sharing enables libraries to function effectively and efficiently in view of the above situation. Sharing of resources may solve the problem as under:

- All libraries would not have to acquire all the documents that they require. They would share the documents thus overcoming the problem of increased prices and space for storing them.
- Libraries by sharing would have access to large number of documents thus satisfying the increasing demand for documents.
- It would also allow them to share the expertise of staff, thus saving costs as well as the time of the staff. They would now be comparatively freed from the routine technical procedures, as that would be done on a common basis between them.

Self Check Exercises

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit

1) Define resource sharing. Describe its need.

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2) Discuss the advantages of resource sharing.

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8.2.2 Concept

Literally resource sharing means joint use of resources. Resource refers to the source which one uses to get some work done. Encyclopaedia of Library and Information Science defines resource as a person, thing or action to which one resorts to, when needed. To be more specific, we can say the resources in a library are staff, infrastructure, documents, and services. Sharing entails a relationship of reciprocity where the two parties offer their resources to each other for mutual benefit. Brewer defines it as ‘an umbrella term for a wide spectrum of cooperative processes and mechanisms.’ Philip Sewell opines that resource sharing is an evolution of the concept existing earlier as library cooperation. The difference being that library cooperation assumes two or more libraries existing and working jointly to achieve their goals whereas in resource sharing, it is presumed that there exist a group of users putting demand on libraries. Libraries on the other hand come together to pool their resources to satisfy these

demands. Resources may be physical or intellectual, the former refer to the documents and infrastructure, whereas the latter refer to the human resources (expertise), which libraries can utilise to plan, implement or evaluate their services and routines. Resource sharing could be done in two ways: by working separately and sharing or by working together and sharing. While working together, they collaborate to produce bibliographical tools, software; acquire materials; organise conferences and workshops for research and training of personnel.

Another difference between the two concepts is due to the developments in information technology. Library cooperation was more of a concept that could not be put in practice successfully due to: a) Geographical distance between the participating libraries and b) Transmission and duplication of documents not being possible, it made the cooperation among libraries difficult. Sharing of resources was also not too successful because of large libraries rich in resources, fearing that they may have to give more and receive less. More work would be involved in entertaining requests for books. If they do not accede to request, they would be branded as ineffective. An alternative thought was to develop regional libraries to facilitate sharing relieving the expected burden on large libraries. Subsequently, developments in technology for production, storage, duplication, processing, and transmission of information have enabled resource sharing. Desktop production, e-publishing, storage in magnetic and optical media and developments in telecommunications enabled easy duplication and transmission of documents for sharing among libraries. Data and telecommunication networks enabled library networks to materialise and this made possible sharing of all types of resources at any time, from anywhere across the globe.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

3) Differentiate between library cooperation and resource sharing.

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8.2.3 Historical Background

Library cooperation in modern times can be traced back to the efforts of Library of Congress when it started cooperative cataloguing, thereby enabling participating libraries to know about each other’s resources. It resulted in standardisation in practices and also helped them to save on their resources. It led to a chain reaction when libraries everywhere started preparing union catalogues. The system of sharing to satisfy personal needs existed in the society and it was no exception in libraries. Kaul quotes instances of library cooperation existing as early as 200 B.C. between Alexandria Library and Pergamum Library. He also cites Kraus mentioning cooperation between monastery libraries in the 13th century. The cooperation was in sharing reading material.

Starting with mutually satisfying each other's needs as and when required, library cooperation became more systematic with time. Institutions took initiative in this regard. Mention may be made of FID, IFLA, and UNESCO. Another venture for cooperation began in 1895 when Paul Otlet and Henri La Fontaine attempted to compile a world index to published information from the forum of FID, and finally gave UDC as a tool for bibliographic control of published information. FID had one of its objectives as improvements in the availability of information. IFLA has two programmes to its credit in this direction viz., Universal Bibliographic Control (UBC) and Universal Availability of Publications (UAP). Information systems were designed at international, national and regional level to promote UAP. UNISIST, the World Science Information System exists with the aim of providing processed information in science and technology to all.

The cooperation extended in other areas e.g., indexing and abstracting. Abstracting services started providing abstracts of literature, international in scope. Chemical Abstracts, Biological Abstracts and Physics Abstracts are some examples, which are the result of cooperation among institutes. International coverage would not have been possible without cooperation. Further development in cooperation saw the establishment of information systems. INIS, AGRIS databases had inputs from national centers in different countries e.g., BARC and IARI in India. Another example of cooperation that took place was the formation of ADONIS. It was a Document Delivery System consisting of publishers- John Wiley, Elsevier, Pergamon, Blackwell Scientific, Academic Press and Springer Verlag. They provided index to articles appearing in 219 biomedical journals between 1987 and 1988 in CD- ROM. BLDSC was actively involved in this venture and developed the software for retrieving the information.

Select Landmarks in Library Cooperation

Year	Country	Main features
1868	India	The Catalogue of manuscripts in various parts of India compiled by Whitney Stokes.
1873	India	Part I of Sanskrit manuscripts in private libraries of the North West Provinces covering Banaras was published.
1873	India	A catalogue of Sanskrit manuscripts in private libraries of Central Provinces edited by F. Kielhorn (Nagpur).
1885	USA	Smithsonian published the union list consisting of scientific and technical journals.
	Belgium	Establishment of the International Institute of Bibliography, Brussels.
1901	USA	Library of Congress begin card distribution service and work on the national union catalogue.
1909	USA	A union card catalogue of public library holdings developed in California.
1916	UK	Cooperative lending begins with the establishment of the Central Library of Students (CLS).

1917	USA	American Library Association (ala) Publishes the first inter-library loan code.
1920	USA	Development of union lists.
1924	India	A cooperative venture — Motibhai N Amin organises Pusthakalaya Sahayak Sahakari Mandal Limited with a share capital of Rs. 50,000 to supply books, periodicals, and other articles to libraries of Gujrat and also to accept trust funds and deposits from libraries.
1927	USA	Publication of the Union list of serials in libraries of the United States and Canada.
1930	UK	Promotion of inter lending of books as Central Library of Students (CLS) is converted into National Central Library.
1932	USA	Library of Congress Cooperative Cataloguing established.
1934	USA	Bibliographical Centre for Research established in Denver.
1940	USA	Pacific North West Bibliographic Centre established in Seattle.
1944	UK	British union catalogue of periodicals published.
1948	UK	Royal Society Scientific Information Conference recommended greater cooperation among libraries to reduce undesirable duplication and to extend access to a greater portion of world's literature.
1948-72	USA	Farmington Plan went into operation on January 1, 1948 and started receiving materials from Sweden, Switzerland and France. It resulted in cooperative acquisition of foreign materials by 6 American libraries with allocation of broad subjects to each library.
1948	UK	Opening of the British National Book Centre.
1948	USA	The United States Book Exchange programme begins.
1949	USA	Mid-West Library Centre began operation for cooperative central storage of less used materials held by the libraries of the Mid-West region. It became the national centre later and started acquisition programme.
1951	India	S.R.Ranganathan said that “Library service, bibliographic organisation and library classification recognise no national or political boundaries. They are international. The library profession is international, Bibliographers and documentalists are

		inter-national. "Thus, he stressed the need for international cooperation".
1961	UK	National Lending Library for Science and Technology started to promote centralised document lending system.
1962	USA	Library of Congress begins acquisition of foreign books programme using funds from Public Law 480 accounts.
1963	USA	Ohio College Library Centre (now Online Computer Library Centre) (OCLC) begins as the first successful Library network.
1965	USA	Mid-West Inter Library Centre in Chicago changed its name to Centre for Research Libraries, and expanded its membership and acquisitions programme.
1966	International	In order to promote the exchange of bibliographic data Unesco started UNISIST, It also developed ISBN, ISDS and Broad System of Ordering.
1969	US	Orin F. Notting of the University of Chicago introduced the concept of multitype library cooperation.
1970s	US	Adjustments between networks and participating libraries in regard to financial commitments regarding costs of online cataloguing and various tiers of cooperative programmes.
1971	US	Pre-natal classification and cataloguing to avoid repetition of the cataloguing process in each library introduced.
1979	Southeast	The Congress of Southeast Asian Libraries Asia (CONSAL) supported the establishment of Consortium of the National Documentation Centre of Indonesia and the National Libraries and Documentation Centres—South-east Asia (NLDC-SEA), the consortium of the national libraries of Malaysia, the Philippines and Singapore.
1981	UK	ADONIS system was established by six publisher in cooperation with the British Library Document Supply Centre (BLDSC) and the Centre di Documentation Scientifique et Technologie. During 1987 and 1988 50,000 documents were printed and supplied to institutions and scientists in seven countries in Europe together with USA, Mexico, Australia and Japan.
1982-86	US	Simple type library cooperatives increased by 12%; multitype library cooperatives increased by 164% and 30 multi state networks were in operation.

1985	Europe	European Economic Commission presented a plan of action at community level aimed at library cooperation based on the application of new information technologies.
1987	Europe	European Commission launched a major new initiative in the form of a Policy and plan of priority actions for the development of information services marked to cover the years 1989 and 1990.
1989	UK	Library and information Cooperation Council established for furthering library and information cooperation.
	US	The Committee on Institutional Cooperation (CIC) was created to encourage interaction among major universities of the Mid-West and to promote preservation of research collections.
1989-94	UK	In British Library's strategic plan for 1989-1994, Gateway to knowledge , the library plans to offer a range of cooperative relationship with other libraries in UK, Europe and abroad.
1991-92	India	DELNET saves about fifty lakhs through the rationalisation of foreign periodicals in Delhi libraries out of subscriptions for 1991 and 1992 under a scheme initiated by NISSAT. Some savings are also made in the other cities in India under this scheme.
May-1996	India	INFLIBNET launched to automate libraries and information centres in the academic and research sector.
Dec.2002	India	UGC INFONET launched to provide access to e-resources to the universities in the country.
2003	India	INDEST- AICTE consortium launched.
2011	India	National Knowledge Network (NKN) launched to provide a strong backbone of communication network to the academic community.

Source: Adaptated from Unit 12, MLIS-06. Application of Information Technology. MLIS Course Material. IGNOU.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit

4) Discuss the form of resource sharing taking place in information systems.

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8.2.4 Objectives

The objectives of resource sharing are to:

- **Maximise the resource base of libraries**

The primary objective of resource sharing is to maximise the resource base, i.e., collection, staff, infrastructure, as well as services of the participating libraries. A library when functioning as part of a resource sharing programme would have at its disposal resources of other libraries besides its own to serve its users. In other words, the resources of any library would be the resources of every other library.

- **Provide democratic and wide access to information**

We are living in the information age where information is a commodity needed by one and all. We are highly dependent on information. It is required for learning, teaching, research, entertainment and decision making at different levels. In view of this scenario, one should not be deprived of information. Libraries have different document collections to satisfy the information needs of their users. They are strong in some areas and poor in others. Thus, they lack resources to excel in all areas. If libraries share with each other, they can overcome this limitation of poor document collection. And make available comprehensive information to their users.

- **Core collection**

Resource sharing results in a rational acquisition of documents. A library should only acquire those documents that are core to the area of its organisation. It can satisfy minor or auxiliary needs of its users from other libraries with which it shares its resources. Similarly it can satisfy the minor needs of other libraries.

- **Save resources**

Libraries share their resources to save and use them optimally. Cooperative acquisition enables them to save on money spent on documents. Cooperative cataloguing and classification enables them to save on staff salaries, efforts, and time spent on technical processing.

- **Enable uniform practices in routines**

A central agency can be entrusted the task of cataloguing and classification, which can be followed by others which results in standardisation. Uniform practices are helpful to users as well as staff. It is a result of sharing and a requirement too.

- **Rational acquisition**

Rationalisation of acquisition is one the major functions of library networks. Libraries can come together to identify duplication of resources thereby avoiding wastage. Funds could be diverted for resources which are found lacking in a particular geographical area. It would result in better allocation of funds and widespread availability of resources. Core collections could be built up for all libraries. Documents, which are rare or costly, could be acquired strategically in different locations to enable maximum use.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
 ii) Check your answers with the answers given at the end of this Unit.
- 5) Enumerate the objectives of resource sharing.

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8.3 RESOURCE SHARING AND LIBRARY NETWORKS

Let us refer back to what we said earlier that resource sharing evolved from library cooperation. And that library cooperation was not effective due to the geographical distances between libraries and limitations of duplicating and transmitting documents between the cooperating libraries. Also that resource sharing could be made possible due to the developments in IT. Libraries cannot stand in isolation today. This was a well-accepted fact and thus there were concerted efforts on their part to cooperate. Their efforts were made productive by developments in information communication technologies. Libraries could be connected locally as well as globally into library networks. Computers made possible electronic documents, and telecommunications made possible their transfer and transmittance electronically thus, overcoming the barriers of geographical distance and time. These developments made possible the establishment of library networks.

Library network has been defined as a “group of individuals or organisations that are interconnected to form a system to accomplish some specified goal. The linkage must include a communication mechanism, and many networks exist for the express purpose of facilitating certain types of communication among members.” Another definition of a network describes it in terms of its characteristics, viz.

- A network functions to marshal resources from its environment to accomplish results beyond the ability of any one of its members.
- A network develops an organisational design and structure that allows it to establish an identifiable domain and exercise appropriate influence over its members. It is based on communications technology.

There is a stress on ‘collaboration’ in the above definitions. Networks are IT driven, with a well defined administrative structure, and set goals.

8.4 LIBRARY NETWORKS: NEED

The term “Network” is increasingly used in place of “resource sharing” or “cooperative systems”. Networking and modernisation are becoming very

important in all types of libraries as they enable the users to have access to the resources of many other libraries in addition to their own.

The developments in information technology have made it possible for libraries to network. But today library networks are must because:

- **Increasing amount of information is in electronic form**

Information is stored in print, film, magnetic and optical storage media. The information produced in the year 2002 was distributed in these various media as under:

Media	Percentage of information stored
Hard disks	92%
Films	7%
Paper	0.01%
Optical Media	0.002%

- **Bibliographic access to information is also in electronic form**

Access to information is provided through databases produced online and offline which require libraries to be networked.

- **Internet**

The existence of Internet is a major factor that has changed the way information is produced, published, stored, transmitted and used. This requires libraries to be networked for accessing their information.

- **Timely access to information**

It is difficult for an individual to lay hands on his specific information in the large mass of information available. Computer helps to process and easily access the required information. Networking is essential to access when the information is available at a distance.

Networking of libraries has increased the feasibility of resource sharing by overcoming the barriers of distance and time involved in accessing information.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

6) Discuss the need for library networking.

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8.5 RESOURCE SHARING: ISSUES INVOLVED IN IMPLEMENTATION

We have been discussing the conceptual details of resource sharing. Putting these into practice is a bit difficult, reasons being that there are so many libraries involved. We have to formulate policies, procedures and routines for a library. These have to be objective and unbiased for the library to function effectively. It is the same for a number of libraries. It is more difficult to do so in case of a number of libraries because of the:

- Number of libraries and users involved; and
- Variety of libraries and users involved.

The number and variety of libraries involved makes it difficult because policies have to be framed keeping in view the nature of documents for acquisition. The nature and variety of users make the framing and implementing the policy difficult.

The participating libraries should objectively frame policies in regard to:

- **Documents to be shared**

It is neither required nor feasible to share all types of documents. Decision has to be taken in this regard taking in consideration the use and cost of the same. Libraries would like to share only costly and less used documents. Those documents that are in heavy demands in their libraries cannot be spared for other libraries. The requirements of their own users are primary.

- **Terms and conditions for loan and return**

Documents are issued to users for a time period that enables them to use effectively. A period of loan is decided keeping this in view. It also depends on the type, cost, use and the number of copies of the document available. Similarly, these have to be formulated for sharing among a group of libraries. The period of loan in such a case cannot be the same for users of the library. The participating libraries can make duplicates of the same for use within copyright rules.

- **Deterrents and punitive measures to ensure safe and timely return of documents**

The biggest problem for a library in circulation service is to ensure safe and timely return of documents to keep them in circulation. It is difficult, as the user does not return the documents in time. It is all the more difficult when there are number of libraries and hence users. It is important that the participating libraries assume responsibility for their users and ensure safe and timely return of documents. They know their users better and can act accordingly to ensure the same.

- **Union catalogue production and maintenance**

The use of the combined collection of the participating libraries depends upon their knowing the collection. The resources of the libraries should be made known to all through union catalogues. The responsibility for designing and maintaining the same should be entrusted to one of the participating libraries. The data of each library should be according to uniform standards

and be in machine-readable form to enable users to search from their own libraries electronically.

- **Cooperative cataloguing**

Cooperative cataloguing is also expected in resource sharing. It needs to be decided as to who will be doing this work. It depends on the resources of the library. A library that has the staff expertise to do this work should be entrusted this responsibility.

- **OPAC**

The details of the documents along with their status should be made known to the users through OPAC. It is more important than for users of individual library because of the number of users involved as well as the distance between the participating libraries.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

7) What are the factors to be considered for deciding the kind of documents to be shared?

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8.6 LIBRARY CONSORTIA

Library consortia have evolved from the concept of resource sharing. The concept has come out of the increasing costs of publications, particularly periodicals and the reducing capacity of libraries to acquire. Another factor is the availability of electronic publications and databases. Increasing costs of journals led libraries to cut down on their acquisitions that affected the business of publishers. Thereafter, publishers have come into agreement with libraries to form consortia. Library consortia are mandated to play the role of a buying club for joint purchase of e-journals, interfacing as intermediary between publishers and consortium members, negotiating on their behalf on subscription to e journals and subscribing them on concessional rates. They are temporary in nature and exist as long as they bring economics of scale to libraries.

Library consortium is an association of two or more libraries formed to work together toward achieving a chosen goal such as resource sharing. Consortium libraries often pool resources for joint purchase of e-journals and share them for access and delivery online. Every member library in the consortium is only responsible to the association in respect of the obligations that are set out in the consortium agreement; otherwise they remain as independent entities, and manage their operations and services independently. Library consortium is an association

for non-profit, economics of information, and for improved and expanded economic collaboration to achieve mutually beneficial goals. Consortium deploys computer networks such as internet as a tool for sharing e-journals or other consortium resources among members for access and document delivery.

In India the phenomena of library consortia is relatively new beginning in the year 2000, it started emerging in academic libraries, S&T libraries, and management libraries. It was during this period that libraries focused more on access than ownership to materials. The drivers of change to library consortia are: (i) emergence of e-publishing, (ii) shift in the approach to building library collection from ownership of materials to access.

Library consortia in India developed on a centrally funded organisational model. It has a sponsoring agency and probably a separate source of funds. It makes available consortia resources that each campus/ member library could not afford alone. Libraries join the consortia programme through an agreement with the central office (often a central body overseeing academic institutions), and often take part in decisions through a structured system of governance. The objectives of all consortia in India are limited to joint purchase of journals and management of electronic licenses. Libraries subscribe to journals and e-books in consortia either directly through publishers, vendors or aggregators. Aggregators act as middleman between publishers and libraries providing journals as a bunch. Details about aggregators are available in Unit 9 of the course BLIE-228.

The advantages that accrue from library consortia are: wider access, higher quality content, economics of scale, lower costs, increased electronic access, and less individual deals in a time of human resources constraints. Increased access to electronic resources has increased institutional capacity for research output.

Libraries come together and identify a coordinating agency that coordinates the planning and implementation of the consortia including the negotiations with the publishers. The negotiations include the identification of the databases to be acquired, access facilities depending upon the number of libraries and users accessing the databases, including the back- up of the databases. The coordinating agency decides the infrastructural facilities required for access to the databases.

Indian National Digital Library of Engineering, Science, and Technology (INDEST), is a consortium set up and funded by the Ministry of Human Resource Development (MHRD) in India. It has its headquarters at IIT Delhi. It provides access to around 5,000 journals providing an advantage in price of to order of 80% to participating libraries while accessing e-resources. The consortium is also a member of International Coalition of Library Consortia (ICOLC).

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

8) Explain the concept of library consortia.

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8.7 LIBRARY COOPERATION TO LIBRARY CONSORTIA

Library cooperation, library resource sharing, library networking and library consortia are related terms that need to be clarified. All the terms originate from the fact that libraries depend on each other to serve their users effectively and efficiently. They depend on each other for sharing physical resources viz. documents (books, periodicals, etc.), space, information technology; and intellectual resources viz. staff expertise.

The terms enumerated above originated with evolution of the concept of sharing between libraries. It started with cooperation when libraries shared books between each other and provided Inter-Library Loan (ILL) service wherein a user could issue a book, not available with her/his library, from some other library. There were problems for the libraries in providing this service due to limited copies of books available. Technology came to the fore in the form of xeroxing when copying of portions required from books facilitated the service.

Standardisation in library procedures and routines has been a consistent effort of library professionals. It is essential for providing services as well as for sharing between libraries. Library of Congress has played a very important role in standardisation by introducing the LC card service which absolves libraries from this routine, time consuming activity. This is how the concept of resource sharing in libraries took birth. At the same time some other factors like explosion of literature, increasing cost of publications, particularly periodicals and the competitive scholarly world putting pressure on libraries forced libraries towards resource sharing.

Further developments in information communication technology (ICT) led to the birth of library networks. They were preceded with developments in data networks that enabled libraries to be interconnected. The birth of library networks resulted in organised efforts towards resource sharing. Library joined hands formally, rules were framed, and responsibilities were fixed resulting in collaborative services provided to libraries. Users could have access to bibliographic information of collections limited to geographical areas due to metropolitan area and regional library networks. Internet and digitisation opened up the domains further enabling users to lay hands on information available globally. Library networks grew in scope geographically. The benefit of library networks included providing access to full – text collections to users irrespective of location. Libraries were benefited in economising on their resources. They could undertake rational collection development in view of the needs of particular regions. Union catalogues were built to provide access across boundaries. Bibliographic access was standardized also resulting into sharing of intellectual expertise.

The latest development in resource sharing is the formation of library consortia. Here libraries joined hands with publishers for rational and economic purchase of periodicals. The consortia could engage in other cooperative activities too but they have been mainly involved in acquiring periodicals and related activities of training related to ICT involved.

8.8 SUMMARY

This Unit provides an introduction to the concept of resource sharing. It presents an overview of the needs and objectives of resource sharing. The historical discussion of the topic would help to gain an understanding of the evolution of resource sharing from library cooperation to consortia. Library networks have been a boon for libraries in giving a practical shape to the concept of resource sharing. They have solved the biggest problem of transfer of documents across distances in minimum time. The learner is introduced to library networks, their need and purpose. Finally the latest development in the area i.e., library consortia have been introduced.

8.9 ANSWERS TO SELF CHECK EXERCISES

- 1) Resource sharing refers to mutual sharing of each other's resources by libraries to serve users' needs most effectively. Resource sharing is needed because: 1) Increasing number of documents available for libraries to acquire which is on the increase, 2) Their increasing cost, 3) Increasing demands of users, 4) Decreasing funds available to libraries, 5) More staff interaction needed with users to provide effective services. Resource sharing would enable libraries to overcome these problems enumerated above.
- 2) Advantages of resource sharing: 1) Libraries would be able to acquire documents in greater number that are used heavily by their users and share others with other libraries. 2) they would have access to greater number of documents. 3) sharing of expertise of staff would enable them to save on staff time and thus freeing them to interact more with the users to provide effective services.
- 3) Library cooperation involves two or more libraries coming together to share their resources to satisfy their mutual needs. Resource sharing is an evolution of the concept in view of the changing needs and increasing demands made on the library by the user. It also assumes application of technology.
- 4) Information systems also function by sharing resources. The resources shared are information. The information pertains to the literature published in different countries in case if international information systems. It is the bibliographic information relating to the literature published.
- 5)
 - a) Maximising the resource base of libraries
 - b) Provide democratic and wider access to information
 - c) Rational Acquisition
 - d) Save Resources
 - e) Enable uniform practices in routines
 - f) Acquisition
- 6)
 - a) Increasing amount of information in electronic form
 - b) Bibliographic access also in electronic form
 - c) Advent of Internet
 - d) Timely access to information

- 7) The factors to be considered by libraries while sharing documents are cost and use made of documents. Libraries would share only costly and less used documents. Frequently used documents should be available in the library for their own users and should not be loaned to other libraries. Libraries themselves can acquire less costly documents and they need not be dependent on other libraries for them.
- 8) Library consortia grew out of the problems due to increasing costs of publications, particularly periodicals. Publishers also felt falling business due to this. Another factor that made consortia to happen is the availability of e-documents. This enabled publishers to offer libraries the facility of collaborative purchasing. It is beneficial to libraries as it is on reduced costs and distributed access to information. Libraries that have similar needs come together to form consortia. They identify one of them as coordinator who decides on the issues of access and bargains with the publishers. The publishers provide libraries a number of e-resources in view of use made of them along with their hard copies.

8.10 KEYWORDS

Library Cooperation : Two or more libraries working together to achieve their goals of providing effective service to their users.

Resource Sharing : Two or more libraries/information systems sharing their resources to satisfy increased pressure of user demands. The resources may be physical or intellectual.

Library Networks : Two or more libraries connected together through telecommunication links for effective sharing of resources overcoming the barriers of geographical distances.

Library Consortia : Libraries and publishers coming together for mutual benefit and enabling collaborative acquisition of e-documents to a group of libraries.

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UNIT 9 LIBRARY AND INFORMATION NETWORKS AND CONSORTIA

Structure

- 9.0 Objectives
- 9.1 Introduction
- 9.2 Library and Information Networks
 - 9.2.1 Definition
 - 9.2.2 History and Evolution
 - 9.2.3 Objectives
 - 9.2.4 Characteristics
 - 9.2.5 Components
 - 9.2.6 Types
 - 9.2.7 Activities and Services
- 9.3 Summary
- 9.4 Answers to Self Check Exercises
- 9.5 Keywords
- 9.6 References and Further Reading

9.0 OBJECTIVES

The need for sharing the resources of libraries has been recognised long back. It is not possible for any library to acquire all the resources and also satisfy the information requirements of all the users. As a result libraries and information centres join hands to form consortia and networks. Though sharing of resources was started with library materials, subsequently it has been recognised that sharing of other resources like infrastructure, human resources, etc. are equally important. The development in technology augmented the formation of such networks. After reading this Unit, you will be able to:

- elucidate the concept of a library and information network and a consortia;
- explain the need and basic characteristics of a library network and a consortia; and
- discuss the services and activities of a typical library network and a consortia.

9.1 INTRODUCTION

Library and information networks have the potential to improve library services in several ways. It brings down the cost of information products and services in the network environment in shared mode. It enables libraries to offer need – based services to the end users eliminating the limitation of size, distance and language barriers among them. With evolution in library networks, the emphasis has moved from the networks as physical entities to the resources available through the networks. These network-accessible resources include databases of library holdings, journal articles, electronic text, images, video and audio files, scientific and technical data, etc.

A network is developed when a group of libraries and/or information centres decide to exchange information using computers. The library networks use existing communication facilities to establish networks amongst libraries that agree to cooperate amongst themselves through more or less formal agreements with a view to pooling their resources and to offer better services to the users. The participating libraries generally follow identical or compatible rules and procedures. The term “network” is increasingly used in place of “resource sharing” or “cooperative systems”. Networking and modernisation are becoming very important in all types of libraries as they enable the users to have access to the resources of many other libraries in addition to their own. The term “library consortium” is also used, some times, interchangeably with the library network. Library consortia exist not only to share the resources of libraries but also to subscribe to electronic resources on behalf of a group of institutions. The concepts relating to library and information networks discussed in the following pages apply to library consortia also.

9.2 LIBRARY AND INFORMATION NETWORKS

9.2.1 Definition

The basic purpose of a library network is to share resources and services amongst member libraries. A library network is broadly defined as group of libraries and / or information centres that are inter-connected to form a system with an aim to help each other with information needs of their clientele. UNISIST-II Main Working Document defines the information network as “a set of inter-related information systems associated with communication facilities, which are cooperating through more or less formal agreements and institutional agreements, in order to jointly implement information handling operations, with a view to pooling their resources and to offer better services to the users. They generally follow identical or compatible rules and procedures”.

Susan Martin defines a network as a “group of individuals or organisations that are interconnected to form a system to accomplish some specified goal. This linkage must include a communications mechanism, and many networks exist for the express purpose of facilitating certain types of communication among members.”

Reynard C. Swank defines a library network as a “concept that includes the development of cooperative systems of libraries on geographical, subject or other lines, each with some kind of centre that not only coordinates the internal activities of the system but also serves as the system’s outlet to and inlet from the centres of other systems”.

9.2.2 History and Evolution

Library networks have their roots in library cooperation and resources sharing being practiced for centuries. The use of computers for automated generation of indexing and abstracting services in early 1970s and subsequent idea of sharing such massive information through the communication networks gave birth to the concept of online databases. These initiatives led to growth and development of computerised databases and online search services like DIALOG, BRS and DIMDI. The American Library Association and the US Office of Education

co-sponsored a landmark National Conference on Inter-library Communications and Information Networks held in Warrenton, Virginia, USA in 1970. The conference recognised the need for establishing networks amongst libraries in USA for effective utilisation of combined information resources available in American libraries.

Sustained interest in the library networks lies in the opportunity that they provide for centralised services that are highly economic. A long-standing example of such services is the production of catalogue cards by the Library of Congress in 1968. Centralised technical processing of documents started by the Library of Congress was replicated in individual states and localities in USA and later in several European countries. Besides, centralised processing, the library networks have greater potentials to increase resource sharing. Recognition of the value of sharing rather than duplicating resources resulted in the development of the existing inter-library loan system, cooperative arrangements such as Farmington Plan and the National Union Catalogue in USA. Some of the important library networks at international level include OCLC, RLG, CURL, and JISC.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

1) Define Library and Information Networks? Discuss the main objectives of library and information networks?

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9.2.3 Objectives

Major objectives of a library and information network are to:

- Encourage interlibrary cooperation and resource sharing at all levels amongst members of the network;
- provide help to member institutions in computerisation of their libraries, retro-conversion of bibliographic records and development of standardised databases for shared use;
- develop union catalogues of various resources so as to provide reliable access to document collection available in member libraries;
- provide effective access to combined holdings of library resources through computerised databases of various member institutions;
- provide document delivery services to member libraries;
- rationalisation of acquisition of information resources in member libraries and optimise their usage through resource sharing;

- evolve/adapt protocols and standards, guidelines, methods and procedures for bibliographic records, their storage, inter-library loan hardware and software;
- facilitate communication amongst users of member institutions;
- provide training to members of library staff of participating libraries for effective use of libraries in the network;
- guide member libraries in the effective implementation and utilisation of current and upcoming information technologies;
- provide access to information resources at reduced rates through consortium arrangements; and
- develop and promote collaborative digitisation projects.

9.2.4 Characteristics

The library and information networks are characterised by the following aspects:

- **Equal Opportunity of Access to All Members**

A library network provides equitable access to all its core resources to all its member libraries. However, resources that are licensed from a third party may be offered on subscription basis.

- **Interdependence**

Members of a library network depend on each other for sharing their resources. The interdependency may go beyond sharing of document resources to sharing of expertise, manpower, equipments, etc.

- **Use of Standards and Protocols**

Use of common standards and protocols is a pre-requisite to successful implementation of a library and information network. The standards and protocols exist for network technology, database structure, and information representation and for bibliographic records. Use of well-developed, widely-used standards and their uniform implementation help in improving the quality of services, interoperability of databases and digital repositories.

- **Shared Decision**

The decisions of members of the executive committee of a library and information network are equitably applicable to all member institutions. All members of a library network are obliged to stand by the decision taken collectively.

- **Broad-Based Library Services**

Library and information networks generally offer a broad range of library services including union catalogue of books and journals, access to union catalogues and licensed databases, licensing of e-resources from publishers, table of content services, database of experts in various disciplines, etc.

- **Centralisation**

Network activities are generally centralised. Large bibliographic databases are centrally stored and maintained although they have interfaces for online

data feeding and updation. It is however, possible to maintain distributed databases with single search interface using standard protocols.

- **Economics**

The cost involved in maintaining activities and functioning of a library and information network including licensing and hosting of third-party databases get distributed amongst subscribers and members of the network. The products and services through the network, therefore, tend to be more economic than by the subscription directly by the libraries individually.

- **International Reach and Opportunity for Further Collaboration**

The networks may be connected to other networks through which such networks can have an opportunity to learn from each other and work in collaboration.

- **Research and Development**

The library and information networks, with their elaborate infrastructure and large number of databases, provide an/opportunity for research and development work. The usage statistics of databases and electronic resources, feedback from participating libraries, etc. provides input for further research and analysis.

9.2.5 Components

Major components of a library and information network are given below:

- **Human Network**

While databases, databanks, computer and communication infrastructure are important for successful implementation of a library and information network, the most important component of a library network is manpower and their willingness to participate in the library network and share resources of their respective libraries. While a library network focuses primarily on the availability and delivery of information, it is the human resource that makes it possible. Willing professional librarians and associated professional staff members can work together to produce innovative and far-reaching improvements in library services. Conferences, annual meets, training programmes for members of a library network help to bring the members together and induce a sense of leadership amongst them.

- **Online Databases**

The emphasis in a library network is on the contents and users of the contents rather than on technology of networking. Library networks lease communication and network infrastructure of other data networks and Internet Service Providers and concentrate on developing contents and making them accessible to member institutions. Databases and databanks are the backbone of a library network. The concept of online databases itself has emerged from the idea of sharing information. A database is non-redundant, multi-usable, independent and physically available set of complete data, on a subject, stored in an organised and structured manner to allow users to search the information in an interactive mode. A library network may develop some of its own databases and license or acquire other databases from their producers.

The bibliographic records for a database developed in-house by a library network may come from all or some of its member institutions so as to make a large database of bibliographic records with information about its location in member institutions. WorldCat, for example, is a worldwide union catalogue of books created and maintained collectively by more than 25,900 member institutions of OCLC with 302 million bibliographic records. DELNET's union catalogue of books, for example contains more than 30 lakhs records from 844 member institutions.

Besides developing and maintaining their own databases, the library networks also purchase databases and databanks from publishers and host them on their network to make them accessible to their members. OCLC, for example, hosts several third-party databases that member institutions can subscribe.

- **Computer Hardware and Software Infrastructure**

A library and information network requires computer infrastructure to host databases and databanks developed and maintained by it. The servers are used to host databases, digital objects, browse and search interfaces and to facilitate their access to the member institutions. Servers for a library network need to be computationally powerful; have adequate main memory (RAM) to handle the expected work; have large amount of secured disc storage for the database(s) and digital objects. A library network may require a number of specialised servers for different tasks so as to distribute the workload on to different servers. It would require one or more computer server(s) to host indices and databases and one or more object server(s) to store digital objects and other multimedia objects. However, for a smaller library network, several distinct activities can be performed on a single server. It is important that the server is scalable so that additional storage, processing power or networking capabilities can be added, whenever required.

A library network would also require communication equipments like communication switches, routers, hubs, repeaters, modems and other items required for setting-up a Local Area Network (LAN). These hardware and software items are required for setting-up any network and need not be specific to a library network.

A library network also requires a number of software packages to handle its highly specialised and diversified resources, activities and services. Different software packages are required to handle different components and activities of a library network. It requires a robust database management system (DBMS or RDBMS) to store bibliographic records, a search engine to provide browse and search facility to the union database of bibliographic records or digital objects and an online data entry interface to facilitate creation of records for new books acquired by member libraries. A library network may also require a document imaging software for scanning of documents, an RDBMS to store and organise these digital objects and a digital library software to provide access to the digital objects with associated metadata. Since a single integrated software package from a single vendor is not available, a software for a library network may be a system with components added onto an open architecture framework.

Besides, computer software and hardware infrastructure at the network end, the member libraries also require computers with necessary hardware and

software devices in order to connect to the Internet and to the servers hosted by the network. Users at the member institutions require multimedia PC equipped with an Internet Browser like Internet Explorer or Netscape Navigator to access Internet and the services offered by the network.

- **Data Networks**

The servers of a library network are required to be hooked on to the Internet so as to make them accessible to its members. Most library networks use infrastructure of other data networks and Internet Service Providers. For example, National Knowledge Network, JANET and AARNET are important data networks in India, UK and USA respectively.

- **Members**

Number of members in a library network is a yardstick of its success. A library network is more meaningful and effective if it has larger number of members. The cost involved in maintaining activities and functioning of a library network including licensing and hosting of third-party databases getting distributed amongst subscribers and members of the library network. The benefit of larger number of members in a library network is suitably used and passed on to its members. The collective strength of members of a library network provides it the power to bargain with the publishers for better rates of subscription and terms of licenses.

9.2.6 Types

The library and information networks perform multiple activities including providing access to full-text and bibliographic databases, creation, maintenance and updation of catalogues on member libraries, document delivery services and promotion of resource sharing activities amongst member libraries. The library and information networks can be grouped into following three categories based on their size, subject speciality and activities:

Large networks concerned primarily with computerised large-scale technical processing, e.g. OCLC, RLIN, etc.

Small networks or consortia concerned with acquisition of electronic resources for member libraries and training of staff i.e. INFLIBNET;

Limited-purpose networks cooperating with respect to limited special subject areas, e.g. FORSA, CERA.

Limited-purpose networks concerned primarily with inter-library loan and union catalogue activities.

I) **Types of Library Networks Based on Geographical Region**

The library and information networks can be divided into the following categories based on their geographical regions they serve.

a) **City or Metropolitan Library Networks**

The library networks, confining their activities and membership to a given city or metropolitan area can be categorised as Metropolitan Area Networks, such as CALIBNET, DELNET, ADINET, PUNENET, BONET, etc. in India.

b) **Regional Library Networks**

There are regional academic groups founded by the member institutions for specific purposes. South Australian Public Library Network, Alberta Public Library Electronic Network (APLEN) in South Australia and Canada are examples of regional library networks.

c) **National Library Networks**

Library networks whose activities are spread over the entire country can be categorised as National Library Networks. Information and Library Network (INFLIBNET) in India and China Academic Library and Information System (CALIS) in China are examples of national library networks.

d) **International Library Networks**

The library networks like OCLC can be considered as international networks with 25,900 libraries as its members in 170 countries.

II) **Types of Library Networks Based on Their Activities**

The library networks can also be grouped under the following categories based on activities undertaken by them.

a) **Umbrella or Supermarket**

Some of the networks, such as OCLC, are “Umbrella” or “Supermarkets” type covering all fields and offer multitude of services. Libraries can take membership of such networks for accessing selected databases or for using its union catalogue.

b) **Bibliographic Utility Networks**

The most common purpose of a library network is library automation and resource sharing which generally take multiple forms. Most other activities, such as creation of union catalogues, document delivery services and copy cataloguing are its by-products. They consist of a large union bibliographic database of member libraries, accessible online to members for copy cataloguing or for creation of new bibliographic records for new books. Such networks also provide cataloguing information on magnetic tapes or CD ROM for retro-conversion of manual library catalogue into machine-readable catalogues. The largest bibliographic utilities, such as OCLC provide a database for cataloguing records created by member libraries, these records are used for copy cataloguing, interlibrary loan and other functions.

c) **Online Search Service Networks**

Online search networks host a number of databases in machine-readable form which are accessible online through telecommunication links. A user can directly interrogate the databases mounted on host’s computer through a computer terminal using a communication package and communication links in two-way interactive mode. These databases are hired / leased to the online search services (also called vendors, spinners or retailers), from their owners (information provider – often the publishers of the printed version of databases). Some of the important online bibliographic search services networks include: DIALOG, ORBIT, STN, BRS and Datastar in USA; BLAISE and Pergamon Infoline in UK; DIMDI in Germany; Euronet and

Diane in Europe; ESA-IRS in Italy; and CAN/ OLE in Canada. Most of the online search services networks are now accessible over the Internet with web interface.

d) **Service Centre Networks**

Service centre networks concentrate on providing services to the member library in a networked environment. Such services may include cataloguing, literature search, database access, news service, etc. These networks act as a distributor or aggregator for online databases for offering computer-based online information retrieval services. Illinois Library and Information Network (ILLINET) is an example of service centre network.

e) **Networks for Subscription to Electronic Resources**

Although most library networks undertake multiple activities, group licensing / purchasing of electronic resources is one of the major activity of modern library networks and consortia. Ohio Link, for example, is a state-wide network which first automated all the publicly-funded academic libraries in Ohio State of USA, then added access to jointly purchased databases as one of its key activities. Ohio Link now includes many other libraries and is a leader in group purchasing of and access to digital information. Group licensing / purchasing of electronic resources is one of the key activities of INDEST Consortium in India.

Based on **funding source**, membership of a library network may be mandatory for certain category of institutions because it is associated with a government body such as a state. For example, all CSIR laboratories and department of science and Technology (DST) are members of NKRC Consortium because the Department of Scientific and Industrial Research, Govt. of India fund it. On the other hand, FORSA Consortium in India is a voluntary organisation and its membership is open to institutions interested in subscription to resources in astrophysics and astronomy. The INDEST Consortium, on the other hands, has Government-funding and therefore, its membership is mandatory for IITs, NITs and IIMs.

9.2.7 Activities and Services

A library network can offer a number of services depending upon its objectives. It is advantageous for a network to take-up multiple numbers of activities and services since the cost incurred on these services gets distributed amongst members. Moreover, since a library network represents a large number of institutions, it has better bargaining power and economy of scales. A library network, therefore, can provide a large number of services in a highly cost-effective manner. Important services that a library network can provide are given below.

- **Cooperative Cataloguing**

Catalogue of a library is an index to its collection. Likewise a union catalogue of libraries in a network serves as an index to combined collection of libraries in the network. The union catalogue was, therefore, taken up as one of the first activity by most of the library networks. The sharing of cataloguing services began with centralised cataloguing and distribution of printed catalogue cards by the Library of Congress in 1901. The British National

Bibliography (BNB) was launched in 1950 accompanied with catalogue card service though on a more limited scale than that of the Library of Congress. Fully automated library networks offer interfaces for online cataloguing that allow member libraries not only to access the database but also create bibliographic records online for new books or download records for books that already exist. The centralised cataloguing saves time, avoids duplication, encourages inter-library loan and facilitates downloading of cataloguing information directly into the local library catalogue. At the same time the participating libraries have to follow the same rules and standards decided upon. Many times all the details may not be required by individual libraries. Some of the important catalogue-based services that library networks take-up include:

- shared cataloguing of monographs, serials, and non-book materials;
- union catalogue of books, serials, theses and dissertations, non-book materials;
- online catalogue access for shared cataloguing and location identification; and other;
- catalogue production in card, book, and other forms;
- retrospective conversion; and
- preparation of authority files.

- **Database Services**

The library networks can subscribe to electronic resources (including bibliographic databases, full-text electronic resources and reference sources) on behalf of member institutions on cost-sharing basis, host them locally on their own computer infrastructure and provide access to resources hosted locally to their member libraries on payment basis. Besides being economic, local availability of international databases make the access faster and reliable, reduces transpacific network traffic and bandwidth congestion, and cost incurred on it. Depending upon the licensing arrangements, local hosting of databases also ensures availability of archives of databases locally. The local hosting of databases was practiced regularly by several library networks in developed countries before advent of the Internet and availability of web-based electronic resources.

The library networks can also build value-added services around subscribed resources including retrospective searches (bibliographic services) for member institutions, citation analysis for individual researchers and institutions, current awareness, alert services, etc.

- **Document Delivery Services**

The libraries depend on inter-library loan and document delivery services to meet the demands of their users for research articles that are not available in their collection. Libraries cooperate with other libraries to provide these services to their users. Library networks offer document delivery service as one of the services to member institutions. They offer document delivery service from journal articles that are accessible electronically or available physically in the libraries of member institutions. Document delivery service widens access to all journals subscribed in member libraries to all users

across the library network. Library networks develop customised databases that provide content-level access to all journals available amongst member libraries. The INDEST Consortium in India, for example, uses JGATE Custom Contents for Consortium (JCCC), which provides content-level access to 4,500 journals available / accessible in all the IITs, IISc and IIMs and facilitate semi-automated document delivery service. Besides, IISc, IITs and IIMs, the JCCC is made accessible to all other core members of the INDEST Consortium.

- **Inter-Library Loan**

Document collection in a library can broadly be classified in two groups, i.e., collection that caters to the core interest of the institution and the other that serves peripheral interest of its users. With financial crunch, the library could curb its acquisitions in the peripheral areas and depend on inter-library loan for demands of their users in areas of peripheral interest to the institute.

The primary mechanism for sharing materials being practiced for centuries is known as inter-library loan that involves mutual lending and borrowing of materials among libraries. Resource sharing through formal and informal arrangements helps a library to deliver wide range of services. Library networks with their union catalogue of books and journals are instrumental in promoting inter-library loan. Such networks work proactively to facilitate inter-library loan amongst member libraries by checking the availability, getting the book issued and returned on behalf of member libraries. The library networks deploy specially trained staff, courier service and transportation for this purpose.

- **Shared Electronic Reference / Real-time Reference Service**

Electronic reference service / live reference service can be offered by a library network. Digital reference service, also called “Ask-An-Expert” or “Ask-A-Librarian” services are Internet-based question and answer services that connect users with individuals who possess specialised subject knowledge and skills in conducting precision searches. As opposed to static web pages, digital reference services use the Internet to place people in contact with people who can answer specific question and instruct users on developing certain skills. The people who serve as digital reference experts (also called volunteers or mentors) are most of the time information specialists, affiliated to various libraries.

“Ask-a-Librarian” services have a web-based question submission form or an e-mail address or both made available through the web sites of library networks. Users may submit questions by using either form. Once a question is read by a service, it is assigned to an individual expert for answering. An expert responds to the question with factual information and/or a list of information resources. The response is either sent to the user’s e-mail account or is posted on the web so that the user can access it after a certain period of time. Many services have informative web sites that include archives of questions and answers and a set of FAQs. Users are usually encouraged to browse archives and FAQs before submitting a question in case sufficient information already exists.

A number of library networks have started experimenting with offering real time digital reference service using chat software, live interactive communication activities, bulletin board services, interactive customer assistance services using related technologies.

The Internet chat technology serves as an innovative method to extend and enhance traditional and remote reference service. While digital reference service is asynchronous method of information delivery, the Internet chat provides the benefit of synchronous communication between a user and a reference librarian (or mentor). Interactive reference services facilitate a user to talk to a real, live reference librarian at any time of day or night from any where in the world. Unlike with email reference, the librarian can perform a sort of reference interview by seeking clarifications from the user. The librarian can conduct Internet searches and push websites onto the patron's browser, and can receive immediate feedback from the patron as to whether his or her question has been answered to his satisfaction. Several institutions including Cornell University, Internet Public Library, Michigan State University, North Carolina University are offering Internet chat-based service using software like LivePerson, AOL Instant Messenger, Conference Room and Netscape Chat. The librarians have observed that their relatively new chat-based service logged significantly more questions in a relatively short time than did their well established e-mail digital reference service.

- **Collective Acquisition of Resources**

The goal of a library network is to share equitably the collective resources of member libraries. While the existing resources can be shared through inter-library loan, library networks can achieve greater benefit by implementing centralised resource acquisition programme and by rationalisation of its acquisitions. While multiple copies of frequently used documents can be acquired at discounted rates, inadvertent duplication of expensive resources or expensive resources can be avoided. Collective acquisition of resources through library networks not only brings-in transparency and accountability but also demonstrates a commitment to greater collaboration. The collaborative building and distribution of information resources provides the best solution for improving the quantity of, and access to resources essential for conducting research, teaching and in rendering service.

The process and operations where collaboration can be achieved includes: i) pre-order searching; ii) integration of new bibliographic records in OPAC; iii) account keeping; iv) maintenance of address file for supplier / publisher name, etc.; v) negotiations for purchase of multiple copies of books; and vi) updation of databases when the documents are withdrawn.

- **Consortium Purchase**

Consortia-based subscription to e-resources is a way of maximising access to e-resources at minimum cost. It is a feasible strategy to increase the access to electronic resources across institutions at a lower cost. The consortia-based subscription can be successfully deployed to meet the pressures such as diminishing budget, increased user's demand and rising cost of journals. The libraries all over the world have formed consortia of all types and at all levels with the objective to take advantage of current global network to

promote better, faster and more cost-effective means of providing access to electronic information resources to the information seekers. The collective strength of consortia members facilitates the libraries to get the benefit of wider access to electronic resources at an affordable cost and at the best terms and conditions. Moreover, the technology has changed the expectations of researchers. Consortia based services helps library networks to:

- increase the cost-benefit periodical subscription for participating institutions;
 - promote the rational use of funds;
 - ensure continuous and long-term subscription to the subscribed resources;
 - provide opportunities of local storage and hosting of subscribed information resources;
 - help in developing local expertise in operation and handling of electronic resources;
 - prompt institutions with common interest to come together and purchase e-resources in a consortia mode at reduced cost; and
 - provide improved resource sharing amongst member institutions.
- **Joint Archives and Cooperative Storage Facilities**

Cooperative storage of documents is a recent trend, whereby a group of libraries finances the construction of a high-density facility with advanced climate-control systems. Materials stored in such a facility are considered important for research but are not used often enough to justify space in the prime-use area. Sharing of documents is in-built in the concept of cooperative storage since there is a little point in storing multiple copies of commonly owned documents. Dedicated remote-storage facilities have the potential for superior storage conditions because, in the absence of user interaction, the environment is much easier to control. Cooperative storage facilities need not be necessarily a repository for discarded or duplicate materials, it may also be an active facility to organise, house and disseminate materials too expensive or perhaps too little used to justify acquisition in an individual institution.

Besides printed documents, members of a library network can also have joint computer storage facilities that can be used for hosting archives and backfiles that can be made accessible to the members of the consortium. Such joint facilities may also be implemented for setting up e-print archives across members of a library network. The responsibility of digital archives can also be taken-up in a distributed mode by members of a library network.

- **Shared Core Collections**

Besides subscription to full-text electronic resources and bibliographic databases, the library networks may invest in purchase of back volumes of journals and costly reference sources. Several publishers, including Elsevier Science (Science Direct), Wiley Interscience, Institute of Physics (IoP) and Macmillan offer their electronic backfiles that may be loaded locally onto Intranet servers for local access. NetLibrary (EBSCO), Wiley and Kluwer

offer e-books to members of a library network wherein each member may buy a definite number of e-books and all members of the network may share such electronic books.

- **Shared Digital Library Project Development**

A library network may extend its activities towards shared digital library projects. Some of the important activities that a library network may take-up are:

- setting-up Interoperable Electronic Submission of Theses and Dissertations
- electronic Preprint Server for Members of a network.
- web-based Union Catalogue of Journals and other Serial Publications
- web-based Union Catalogue of Books; and
- cooperative Cataloguing of Internet-based Electronic Resources.

Member institutions of a library network may be prompted to set-up e-print servers for depositing electronic theses and dissertation, preprints of research papers, technical and research reports and other similar research material of mutual interest. These institutions as policy may be asked to use OAI-complaint software to ensure interoperability of digital collections.

Moreover, while individual institutions in a library network may set-up their digital repositories and function as electronic publishers and data providers, the library network may take-up the role of service provider, i.e., it may harvest bibliographic data from all OAI-complaint institutional repositories set-up in the member institutions and provide a unified index to all institutional repositories with link to respective repositories for full text. In effect, these servers would act as a unified indices to digital libraries distributed across member institutions.

- **Training of Users and Library Staff**

Training programme is a crucial requirement for functioning of a library and information network to facilitate optimum use of subscribed electronic resources. It acts as a bridge to facilitate better communication amongst members of a library network and find answers to common problems. Educational programmes are essential both for the user as well as for the library staff. Such programmes make users competent to conduct their own searches more effectively. “On-the-job” training programmes are better not only because it benefits large number of users but it also solve localised technological problems that can be solved with the availability of experts at the time of imparting training.

- **Technology Support to Member Institutions**

It is a major challenge for libraries to select appropriate technology from several technological alternatives that are now available in the market place. All libraries invariably require consultation and expert advice in implementation of new technologies.

Open systems and standards are accepted norms to ensure interoperability. Existing library systems, which are generally proprietary systems, may not

have the capacity to interface with developing open systems architecture. It is often difficult to balance local library systems development and collaborative solutions with other libraries. Since most traditional library systems use proprietary standards, it is important to work towards finding solutions or developing interfaces that facilitates traditional system to interoperate with other systems, including those provided by commercial service providers. Software and systems capable of providing this interoperability are now available in the market place.

- **Communication Services Amongst Members**

Continuous communication amongst members of a library network is considered its life-line. Effective communication motivates members to cooperate, commit to the cause of a library network and align members toward a shared vision. Continuous communication is necessary to link each member with the practices of the consortium and to involve them at policy and operational level as a team. A library network may promote communication using the following communication media:

- **Listserv or Mailing List**

Listservs are electronic groups for sharing of e-mail message sent to the mailing addresses of a group of people. A listserv or mailing list with archival facility facilitates communication amongst members of a library network.

- **Website**

Maintenance of website of a library network provides an opportunity to propagate its services and facilities. Of course, it should be updated regularly.

Self Check Exercises

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

2) What are the various components of a library and information network? Why is human factor most important for functioning of such a network?

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3) Mention different types of library and information networks based on their activities and services offered by them.

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- 4) Enumerate five major services and activities of a library and information network.

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9.3 SUMMARY

Application of new information technology has brought in dramatic changes in the library and information field. With technological advancement, libraries and information centres around the world have computerised their library routines, developed databases for shared use on computer networks. Besides, improving services and operations for improved performance, libraries have also been able to evolve effective computer networks with an aim to optimise utilisation of resources and facilities. The library and information networks have potential to improve library services in several ways. It brings down the cost of information products and services in the network environment in shared mode. It enables libraries to offer need-based services to the end users eliminating the limitation of size, distance and language barriers among them. With evolution in library networks, the emphasis has moved from the networks as physical entities to the resources available through the networks. These network-accessible resources include databases of library holdings, journal articles, electronic text, images, video and audio files, scientific and technical data, etc.

This Unit introduces library networks, their objectives and basic characteristics. It provides definition of library and information networks and identifies human network, online databases, computer hardware and software infrastructure, data networks and members of a library network as its major components. The unit describes physical and economic limitation, literature explosion and increased awareness and demand from the users as basic needs of libraries that led to the growth and development of library networks the world over. It provides a brief history and evolution of library networks.

A library and information network can offer a number of services depending upon its objectives and demand from the member libraries. The unit elaborates on the services that a library can offer to its members with detailed description of the library and information networks and their services at the international and national in India.

9.3 ANSWERS TO SELF CHECK EXERCISES

- 1) Role of a library is to meet the information requirement of its members. The use of modern information technology helps the libraries to serve their users in a much better way than before. The library networks help libraries and its user in accessing electronic resources globally. The benefits and by-products of networking include: preparation of union catalogues, library automation, access to databases, optimum use of resources, cooperative acquisition of

documents, resource sharing, cost optimisation of library services. Major objective of a library and information network are as follows:

- Encourage interlibrary cooperation and resource sharing at all level amongst members of the library and information network;
 - Provide help to member institutions in computerisation of their libraries, retro-conversion of bibliographic records and development of standardized databases for shared use;
 - Develop union catalogues of various resources so as to provide reliable access to document collection available in member libraries;
 - Provide effective access to combined holdings of library resources through computerised databases of various member institutions;
 - Provide document delivery services to member libraries;
 - Rationalisation of acquisition of information resources in member libraries and optimise their usage through resource sharing;
 - Evolve / adapt protocols and standards, guidelines, methods and procedures for bibliographic records, their storage, inter-library loan, hardware and software;
 - Facilitate communication amongst users of member institutions;
 - Provide training to members of library staff of participating libraries for effective use of libraries in the networks;
 - Provide access to information resources at reduced rates through consortium arrangements; and
 - Develop and promote collaborative digitisation projects.
- 2) Major components of a library and information network are: human network, online databases, computer hardware and software infrastructure, data networks and members of a library network. The most important component of a library network is the library staff and their willingness to participate and share resources of their respective libraries. While a library network focuses primarily on the availability and delivery of information, it is the human resource that makes it possible. Willing professional librarians and associated professional staff members can work together to produce innovative and far-reaching improvements in library services. Conferences, annual meets, training programmes for members of a library network helps to bring the members together and induces a sense of comradeship amongst them.
- 3) The library networks can be grouped under the following categories based on their services and activities:
- i) Umbrella or Supermarket.
 - ii) Bibliographic Utility Networks.
 - iii) Online Search Service Networks.
 - iv) Service Centre Networks /Networks for Subscription to Electronic Resources.

4) Five major services and activities of a library and information network are as follows:

- Cooperative Cataloguing;
- Database Services;
- Document Delivery Services;
- Inter Library Loan;
- Collective Acquisition of Resources;
- Consortium Purchase.

9.5 KEYWORDS

Bibliographic record : A record containing a structured description of library materials (i.e., book, serial, etc.). Elements generally included are: author(s), title, pagination, publisher, place of publication, and date of publication.

Document Delivery : Document delivery refers to the complete process of supplying a document to its ultimate user, including formulating and issuing the request, as well as managing the physical or electronic delivery of the document.

File Transfer Protocol (FTP) : The protocol used on the Internet for exchanging files.

Interlibrary Loan : An arrangement by which a library can make a document that is not in its own collection available to its patron by temporarily acquiring it from a library that does own it.

MARC : MARC refers to a computer record structure; a set of tags and indicators to identify parts of the record; the level of cataloguing information contained in the Library of Congress's MARC records; and the body of records distributed by the Library of Congress MARC Distribution Service.

Network : A structured arrangement of connecting devices such as computer terminals, or libraries, created for the purpose of communications, information exchange, computer and cooperative services.

**Catalogue (OPAC)
Online Public Access** : OPAC provides access to the library's holdings via a computer monitor, replacing the traditional card catalogue.

Protocol : A protocol is a standardised means of communication among machines across a network. Protocols allow data to be taken apart for faster transmission, and

then reassembled at the destination in the correct order. The protocol used determines the way errors are checked, the type of compression, the way the sender indicates the end of the transmission, and the way the receiver indicates that the message has been received. Protocols can describe low-level details of machine-to-machine interfaces (e.g., the order in which bits and bytes are sent across a wire) or high-level exchanges between allocation programs (e.g., the way in which two programs transfer a file across the Internet).

- Remote Access** : OPAC is an online catalog of a library collection that is available to the public. Today most libraries make their OPAC publicly accessible via the Web.
- Resource Sharing** : A cooperative arrangement among libraries to make available the resources of library for use by the partners of another library, usually through interlibrary loan or reciprocal borrowing.
- Retrospective Conversion** : The conversion of previously catalogued library materials to machine-readable form. Retrospective conversion is most often undertaken in preparation for installation of a local automated (circulation/catalogue) system of for a cooperative resource sharing project.

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UNIT 10 LIBRARY AND INFORMATION NETWORKS AND CONSORTIA: NATIONAL AND INTERNATIONAL

Structure

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10.0 OBJECTIVES

The objective of this Unit is to discuss the development of library and information networks in India and some other countries. After reading this Unit, you will be able to:

- trace the history of library and information networks;
- discuss the functions and services of select library and information networks;
- explain the factors that led to the development of library consortia; and
- discuss the functions and services of select library consortia.

10.1 INTRODUCTION

Due to multi-faceted uncontrolled growth of information and financial constraints none of the library or information centres can claim to be self-sufficient in terms of finance and collection. Unaware of the situation, a user wants all relevant documents published in her/his area of interest. In this situation the only solace libraries had, was, locating the documents in the union catalogue for getting them on Inter-library Loan (ILL). Due to geographical, postal and bureaucratic constraints it took days or months to get just one document. Revolution of telecommunication technology has opened a new world for library cooperation. Due to recent developments, initiatives were taken at regional and national level to bring libraries together in order to share their collections. Several library and information networks have been created that serve towards library cooperation but they also provide variety of services like Internet connectivity, e-mail, and central repository for data storage, and so on. In such networks, union catalogue is transformed to Online Public Access Catalogue (OPAC) and linking of the digital collection with OPAC has led towards creation of digital libraries. The National Commission on Libraries and Information Science (NCLIS) in its National Programme Document (1975) defines a network as “Two or more libraries and/or other organisations engaged in a common pattern of information exchange, through communications, for some functional purpose. A network usually consists of a formal arrangement whereby materials, information and services provided by a variety of libraries and other organisations are available to all potential users. Libraries may be in different jurisdictions but agree to serve one another on the same basis as each serves its own constituents. Computer and telecommunications may be among the tools used for facilitating communication among them”. UNISIST II working document defines it as “A set of inter-related information systems associated with communication facilities, which are cooperating through more or less formal agreements in order to implement information handling operations to offer better services to the users.” Thus, library networking helps in cooperation among libraries. These libraries are connected through telecommunication networks to share documents and services, form consortium, subscribe journals, and so on.

10.2 DEVELOPMENT OF LIBRARY AND INFORMATION NETWORKS IN INDIA

It was in the mid 1980's that the telecommunication boom came to India and networking was given thrust by the Government of India. In India Department

of Telecommunication is responsible for maintaining national telecommunication infrastructure which is the backbone for network architecture of country. The major breakthrough was establishment of NICNET by National Informatics Centre (NIC) in 1975. In library parlance NISSAT was a major development. It was established in 1977 under Department of Scientific and Industrial Research (DSIR) with the objective of development of national information systems and services. It played a major role in development of Ahmedabad Library Network (ADINET), Bombay Library Network (BONET), Calcutta Library Network (CALIBNET), Developing Libraries Network (DELNET), Mysore Library Network (MYLIBNET), Bangalore Library Network (BALNET) and Pune Library Network (PUNENET).

Development of INFLIBNET (Information and Library Network) in 1988 facilitated a nation-wide effort to improve information access and transfer, initiated by University Grants Commission (UGC). Besides, there were several networks developed for resource sharing among organisations like SIRNET of Council of Scientific and Industrial Research (CSIR).

Table 10.1: Chronology of Development of Networks in India

Year of Establishment	Name of the Network	Supported by
1977	NICNET	NIC
1986	CALIBNET, Kolkata	NISSAT
1988	INFLIBNET	UGC
1992	DELNET, Delhi	NISSAT
1993	ADINET, Ahmedabad	NISSAT
1993	MALIBNET, Chennai	INSDOC
1994	MYLIBNET, Mysore	NISSAT
1995	BALNET, Bangalore	NISSAT

Due to growth of Information Technology (IT) now Internet is being heavily used as communication channel. This has given a chance for these restricted networks to become global networks. Almost all the networks use Internet for dissemination of their service.

10.3 LIBRARY AND INFORMATION NETWORKS: INDIA

There have been several initiatives in setting library and information networks in India but not many of them are active. Some of the most active networks and consortia are INFLIBNET, DELNET, INDEST, NKRC, etc.

10.3.1 INFLIBNET (Information and Library Network)

INFLIBNET has played an important role in automation and modernisation of university library system in India. It provided universities and research institutions the bandwidth for accessing e-journals. It has become a major player in enhancing scholarly communication in India. INFLIBNET was set up by University Grants

Commission (UGC) India in 1991. Initially it was started as a project under Inter-University Centre for Astronomy and Astrophysics (IUCAA) to be converted later into a full fledged programme of UGC. Its headquarters are located at Gujarat University Campus, Ahmedabad.

Objectives

The INFLIBNET 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 pursuits. It was established with following objectives:

- “To promote and establish communication facilities to improve capability in information transfer and access, that provide support to scholarship, learning, research and academic pursuit through cooperation and involvement of agencies concerned.
- To establish a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R & D institutions, etc. avoiding duplication of efforts:
 - i) to promote and implement computerisation of operations and services in the libraries and information centres of the country, following a uniform standard;
 - ii) to evolve standards and uniform guidelines in techniques, methods, procedures, computer hardware and software, services and promote their adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchange of information towards optimal use of resources and facilities;
 - iii) to evolve a national network interconnecting various libraries and information centres in the country and to improve capability in information handling and service;
 - iv) to provide reliable access to document collection of libraries by creating on-line union catalogue of serials, theses/ dissertations, books, monographs and non-book materials in various libraries in India;
 - v) to provide access to bibliographic information sources with citations, abstracts, etc. through indigenously created databases of the Sectoral Information Centres of NISSAT, UGC Information Centres, City Networks and such others and by establishing gateways for on-line accessing of national and international databases held by national and international information networks and centres respectively;
 - vi) to develop new methods and techniques for archival of valuable information available as manuscripts and information documents in difference Indian languages, in the form of digital images using high density storage media;
 - vii) to optimise information resource utilisation through shared cataloguing, inter-library loan service, catalogue production, collection development and thus avoiding duplication in acquisition to the extent possible;

- viii) to enable the users dispersed all over the country, irrespective of location and distance, to have access to information regarding serials, theses/ dissertation, books, monographic and non-book materials by locating the sources wherefrom available and to obtain it through the facilities of INFLIBNET and union catalogue of documents;
- ix) to create databases of projects, institutions, specialists, etc. for providing on-line information service;
- x) to encourage co-operation among libraries, documentation centres and information centres in the country, so that the resources can be pooled for the benefit of helping the weaker resource centres by stronger ones; and
- xi) to train and develop human resources in the field of computerised library operations and networking to establish, manage and sustain INFLIBNET.
- To facilitate academic communication amongst scientist, engineers, social scientists, academics, faculties, researchers and students through electronic mail, file transfer, computer/audio/video conferencing, etc;
 - To undertake system design and studies in the field of communications, computer networking, information handling and data management;
 - To establish appropriate control and monitoring system for the communication network and organize maintenance;
 - To collaborate with institutions, libraries, information centres and other organisations in India and abroad in the field relevant to the objectives of the Centre;
 - To promote R&D and develop necessary facilities and create technical positions for realising the objectives of the Centre;
 - To generate revenue by providing consultancies and information services; and
 - To do all other such things as may be necessary, incidental or conducive to the attainment of all or any of the above objectives”.

Services

Document Delivery

INLIBNET provides inter library loan and document delivery services from the comprehensive collection of subscribed journals under JCCC@UGC- INFONET. It has designated 22 libraries to fulfill ILL request from the users, affiliated to 149 universities covered under UGC. The ILL libraries together subscribe 2000 plus journals that are not available through consortia. Universities can request for articles from the journal holdings of those libraries wherever they find useful articles in JCCC search.

OJAS

Open Journal Access System (OJAS) is an open source journal management and publishing software developed and freely distributed by the Public Knowledge Project at the University of British Columbia. INFLIBNET has installed and

configured the software at its server and provides the facility of uploading the e-versions of journals of universities and even individuals for open access.

Library Automation

INFLIBNET has developed a library automation package called SOUL (Software for University Libraries). It has all the necessary modules which a library needs. Besides SOUL, INFLIBNET has developed several small utilities for day-to-day libraries operations. It also develops solution on demand by university libraries, like retro conversion, preparation of catalogue cards; duplicate checking of library records and so on.

Human Resource Development

INFLIBNET runs several short-term courses for professionals in order to train them with new automated tools and techniques. It has conducted many programs for working university library professionals. The course contains training module in computer application for library and information centres.

Databases

Bibliographic

INFLIBNET has developed the following bibliographic databases pertaining to the collection of participating libraries to enable sharing of resources:

- Serials Holdings
 - Current Serials
 - Secondary Serials Catalogue
 - Theses
 - Books
- a) Shodhganga

INFLIBNET has been assigned the responsibility of hosting, maintaining and making available Ph.D. research work submitted in Indian universities to all in open access mode by UGC. INFLIBNET responded by developing Shodhganga, a digital repository of theses and dissertations submitted in Indian Universities. It has been built using the open source software DSpace that is OAI- PMH compliant. It collects, stores, indexes, disseminates and preserves the rich knowledge reservoir of Indian universities. Shodhganga provides a platform for researchers to share their research findings reported in their Ph.D. theses with the entire scholarly community in open access. There have been efforts earlier in this direction, e.g. the Vidyanidhi Project by the Mysore University. It served the purpose quite well but suffered due to lack of updation. The involvement of UGC and INFLIBNET would enable it to remain updated. Till now 8500 theses have been uploaded on the repository.

b) Shodhgangotri

This is a database of research-in-progress in universities in different disciplines. Researchers and their supervisors can send synopsis approved by appropriate bodies to be uploaded on the site. It helps researchers to know that areas actively being researched and the status of research. It helps to

avoid unnecessary duplication of research. Once a thesis is approved the synopsis in Shodhgangotri would be linked to the thesis uploaded on the Shodhganga.

c) Infoport

InfoPort is a subject gateway for Indian electronic resources. It is designed and developed to serve as a comprehensive gateway to all Indian scholarly content. The gateway collects the Indian scholarly content scattered over the Internet through an integrated interface that supports searching and browsing online resources of Indian origin available in open access. InfoPort is classified according to DDC, indexed subjectwise and arranged alphabetically subjects.

Non-bibliographic

It has also developed non-bibliographic databases on research projects and experts in different fields by the name “Vidwan” to help improve communication and collaboration in research.

Programmes

NLIST

National Libraries Information Services Infrastructure for Scholarly Content (N-LIST) Is a project of Ministry of Human Resource Development under National Mission on Education through ICT being jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium. The N-LIST project provides access to e-resources to students, researchers and faculty from colleges and other institutions. The authorised users from colleges can now access e-resources and download articles required by them directly from the publisher’s website once they are duly authenticated as authorized users through servers deployed at the INFLIBNET Centre.

a) Components

The project has four distinct components, i.e.: i) to subscribe and provide access to selected UGC-INFONET e-resources to technical institutions (IITs, IISc, IISERS and NITs) and monitor its usage; ii) to subscribe and provide access to selected INDEST e-resources to selected universities and monitor its usage; iii) to subscribe and provide access to selected e-resources to 6,000 Government/ Government-aided colleges and monitor its usage; and iv) to act as a Monitoring Agency for colleges and evaluate, promote, impart training and monitor all activities involved in the process of providing effective and efficient access to e-resources to colleges.

The INDEST and UGC-INFONET are jointly responsible for activity listed at i) and ii) above. The INFLIBNET Centre, Ahmedabad is responsible for activities listed at iii) and iv) above. The INFLIBNET Centre is also responsible for developing and deploying appropriate software tools and techniques for authenticating authorised users.

b) Current Status

A total number of 3398 registrations have been done with the N-LIST programme till now that includes 3094 colleges comprising 2214 Government/

Government-aided colleges covered under the section 12 B/2F of UGC Act as well as 880 non-aided colleges. All e-resources subscribed for colleges under the N-LIST Project are now accessible to these colleges through the N-LIST website

Project

a) e-pathshala

e-pathshala is a project of the MHRD, under its National Mission on Education through ICT (NME-ICT), for development of e-content at postgraduate level. At present it caters to 77 subjects in different subjects across all disciplines of social sciences, arts, fine arts and humanities, natural and mathematical sciences, linguistics and languages.

b) UGC's E-Journals Consortium

The UGC's E-Journals Consortium aims at providing online access to electronic journals and databases in all disciplines to the universities in India. All universities which comes under the purview of UGC will be beneficiary members of the programme. The scheme would be gradually extended to colleges as well. The programme is being executed by Information and Library Network (INFLIBNET) Centre, Ahmedabad, Access to various electronic resources have formally commenced from January 1, 2004, initially for 50 universities and has been extended to 100 universities with effect from January, 2005.

The programme aims at increasing accessibility of electronic resources to the universities. It will go a long way in mitigating the severe shortage of periodicals faced by university libraries for several years. The E-Journals programme is a cornerstone of the UGC-INFONET effort, which aims at addressing the teaching, learning, research, connectivity and governance requirements of the universities. The E-Journals programme demonstrates how communication networks and computers can be used to stretch and leverage available funds in furthering these aims. A bouquet of e-journals were presented to the nation by His Excellency the President of India Dr. A P J Abdul Kalam on 28th December 2003 during the concluding day of UGC's Golden Jubilee Celebrations.

(Detailed information on UGC- INFONET is available in the Sub-section 10.5.3 in this Unit)

Conference and Workshops

INFLIBNET conducts an annual event called Convention on Automation of Libraries in Education and Research Institutions (CALIBER) on different places in India. The topics covered in conference are recent and related to library automation.

INFLIBNET also supports workshops all over India which are related to library automation and digital libraries. Currently, INFLIBNET is supporting a series of workshops on Dspace (Digital library software) in collaboration with Documentation Research and Training Centre, Bangalore.

INFLIBNET is playing a major role in modernisation of university libraries. It is supporting creation for infra-structure by providing financial support besides it is running several courses as well as conducting workshops for training of library professionals.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

1) Describe role of INFLIBNET in library automation?

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10.3.2 DELNET (Developing Library Network)

DELNET has been sponsored by the National Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Research, Government of India and is currently being promoted by the National Informatics Centre, Department of Information Technology, Ministry of Communications and Information Technology, Government of India and India International Centre, New Delhi. Though it became a registered body in 1992 but was functional since 1988. DELNET was originally established as Delhi Library Network and subsequently the name was changed to Developing Library Network. The Headquarter of DELNET is in New Delhi.

Objectives

DELNET is fully functional with following objectives:

- “To promote sharing of resources among the libraries by developing a network of libraries, by collecting, storing and disseminating information and by offering computerised services to the users.
- To undertake scientific research in the area of Information Science and Technology, create new systems in the field, apply the results of research and publish them.
- To offer technical guidance to the member-libraries on collecting, storing, sharing and disseminating information.
- To coordinate efforts for suitable collection development and reduce unnecessary duplication wherever possible.
- To establish /facilitate the establishment of referral and /or research centres, and maintain a central online union catalogue of books, serials and non-book materials of all the participating libraries.
- To facilitate and promote delivery of documents manually or mechanically.

- To develop specialised bibliographic database of books, serials and non-book materials.
- To develop databases of projects, specialists and institutions.
- To possess and maintain electronic and mechanical equipment for speedy communication of information and delivery of electronic mail.
 - To coordinate with other regional, national and international networks and libraries for exchange of information and documents”.

Currently, DELNET has about 4667 libraries as its members of which 241 are from Delhi, 4402 from states and union territories outside Delhi and 24 outside India.

Services

a) Inter Library Loan Online

Member libraries can request online for a document using inter-library loan facility of DELNET through DELNET server and the document is couriered to the requesting library. The member library needs to pay an annual subscription for this service.

b) Reference Service

DELNET has a referral centre that provides reference service to participating libraries.

Online Databases

DELNET provides online access to several databases to member libraries and information centres.

- Union Catalogue of Books – It comprises around 7160 lakh records and can be searched by author, title and subject.
- Union List of Current Periodicals – The database covers periodicals in science and technology, social sciences and humanities. It covers 35,990 periodicals
- Union Catalogue of Periodicals enumerates 20,235 periodicals with the holding data of libraries.
- Database of Periodical Articles – It has 9,22,042 records searchable by author, title, subject and name of periodical.
- CD-ROM Database – a database of CD-ROMs available in member libraries has 6,000 records.
- Union List of Video Recordings has 6,000 records.
- Union List of Sound Recordings has 1,025 records.
- Union List of Newspapers The database has 70 records and contains information about the newspapers including title, name of the editor, published from, E-mail address and also the Web address of the INTERNET edition if available on the WWW.
- Database of Theses and Dissertations has 70,293 records.
- Database of e-books has 1613 records.

Training Programmes

DELNET organises monthly training program with NIC on topics like Web page design, Internet search strategies and other resources, etc. It also conducts courses on Machine Readable Cataloguing and bibliographic standards like MARC21.

Conferences, Lectures and Workshops: National Convention on Library and Information Networking (NACLIN) in an annual conference by DELNET which is organised at different parts of country. Besides DELNET regularly organises workshops lectures in different parts of country and abroad.

Newsletter

DELNET publishes newsletter called 'DELNET Newsletter' in communicate the activity of DELNET to professionals.

Research

DELNET has actively played an important role in imparting knowledge of international standards applying them in libraries particularly Marc 21. Recently it has been advocating the open source softwares and teaching their use by conducting training programmes in KOHA and D- Space.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

2) Describe different services offered by DELNET.

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10.3.3 CALIBNET (Calcutta Library Network)

The CALIBNET was envisaged as a metropolitan network in 1993, linking 38 libraries in Calcutta with financial support from NISSAT. The prime objective was to institute systematic interlibrary co-operation and document delivery among the networked libraries for effective resource sharing. The applications to be supported are electronic mail, file transfer, remote logging to databases and document access. The participating libraries computerised their in-house functions such as cataloguing, serials control, acquisition and fund accounting, circulation and user services. These have been interconnected through X.25 protocol. The Network Services Centre provides global information services for all the users of the participating libraries. The services include current awareness, union catalogues, database, access to national and international networks.

CALIBNET provides libraries and their members an efficient solution for their information needs. The project was supported by NISSAT in 1986 and managed by the CALIBNET Society established under the West Bengal Government's Societies Registration Act 1961. The centre is stationed at Jadavpur University Campus, Kolkata.

Objectives

CALIBNET is established to pursue the problems of eastern region of country, mainly West Bengal. The primary objective of the organisation is creating and facilitating access to available library and information resources in West Bengal. The main objective is supported by other objectives like given below:

- Facilitating remote online access to the holding data of Calcutta libraries and other specialised databases; and
- Providing electronic access to globally available information, imbibing its information centre approach.

Services

a) Software Development

By intense in-house research and development two software have been developed for supporting library activities.

- i) Sanjukta: This in-house software has been developed for storage and retrieval which is used in Centralised Database of CALIBNET for providing online access from remote locations. The software provides options and flexibility for record generation, organising and searching information.
 - ii) Parapar: Parapar has been developed to support interchange of bibliographic data between different bibliographic standards like, USMARC, UNIMARC and CCF. It converts other format data to ISO-2709 format which can be imported into the centralised Database of CALIBNET.
- b) Current Content Service: Confile Service: Confile is a current content service. It covers almost 20,000 journals of different disciplines. It economizes library service on journal subscription and reduces the drain on precious foreign exchange resources.
- c) Document Delivery Service: Caliborder
- Caliborder is a document delivery service which delivers full text of any article and even patents on demand.
- d) Selective Dissemination of Information: ConAlert service is designed to give current and tailored bibliographic information. A user profile is created based on the keywords. Notification about the arrival or availability of the document is sent to the user. On demand document is also delivered at user's desk.
- e) Institutional Resources Development Services: CALIBNET supports institutes to build library. It also assists and provides consultancy in library automation and creation of databases and electronic resources. It runs wide range of training programs and customized courses based on institutional needs.

Databases

CALIBNET maintains a centralized database of holding of Kolkata libraries. It also maintains database of Asiatic Society Journals, and current serials acquired by Kolkata Libraries. Through website, CALIBNET also provides links to:

- Overseas Library Resources on India;
- Worldwide Library Catalogues;
- National Libraries of the World.

CALIBNET is an active library network in West Bengal. It is running few of its services through website <http://www.calibnet.org>.

10.3.4 ADINET (Ahmedabad Library Network)

ADINET was established for developing cooperative mode of working amongst the libraries and information centres in and around Ahmedabad. It was established in 1994 with the help of NISSAT. ADINET promotes sharing of resources and disseminates information among member libraries by networking them. It is stationed in INFIBNET Centre, Ahmedabad.

Objectives

ADINET was established with following objectives:

- “To bring about cooperative mode of working amongst libraries and information centres in and around Ahmedabad;
- To integrate the economic, scientific and technical information systems into an effective network in and around Ahmedabad;
- To facilitate and promote sharing of resources amongst the libraries and information centres in and around Ahmedabad by developing and maintaining a central on-line Union Catalogue containing bibliographic information on books, serials and non-book materials of all the participating libraries;
- To coordinate with other regional, national and international networks, libraries, information and documentation centres for exchange of information and documents;
- To offer technical guidance to member libraries on selecting, storing, sharing and disseminating information;
- To coordinate efforts for suitable collection development and reduce unnecessary duplication whenever possible;
- To develop databases of projects, specialists and institutions in and around Ahmedabad; To create awareness amongst all users’ groups and to educate them in the utilisation of information;
- To develop resources and to propagate information in ways appropriate to the needs of users in and around Ahmedabad; and
- To help library and information centre users and also individuals who practice different professions in getting specialised information of their interest”.

Services

a) Document Delivery and Inter Library Loan

ADINET acts as referral centre for finding any periodical, book, report, theses and non-book material like audio-video materials, etc. It facilitates inter library loaning among the libraries of Ahmedabad region. Besides, it procures and provides Photocopies of articles from Journals received by the libraries in the region.

b) Current Content for Library and Information Science (CUCOLIS)

ADINET prepares consolidation of content pages of library and information science journals and provides the list to member libraries. On demand full texts of selected articles are also provided under document delivery service. It is based on 5,000 journals received from 19 major publishers.

Databases

ADINET acts as referral centre and maintains a database of all the databases available in different libraries in and around Ahmedabad. It also has a database of 5500 current periodicals received by more than 140 libraries in and around Ahmedabad. It has also prepared a Directory of Libraries in Gujarat having 2,077 entries.

Continuing Education and Skill Enhancement of Library Professionals

ADINET performs several professional activities round the year. It runs course for fresh graduates of library science in Internet surfing and CDS/ISIS. It also maintains a database of available jobs in and around and helps professionals in finding suitable jobs. It is consultant to several institutes for their requirement of suitable staffs. It conducts lectures of eminent scholars and professionals from time to time. Besides, ADINET provides several services on demand like Computerisation of library, Cataloguing, classification of library documents, Labeling and Shelving of books, Stock verification of library documents, Staff training, Planning for library development, etc.

ADINET maintains a website with URL as <http://www.alibnet.org>.

10.3.5 MYLIBNET (Mysore Library Network)

Mysore Library Network (MYLIBNET) was initiated in 1995 with the support of NISSAT. It is stationed in Central Food Technology Research Institute (CFTRI), Mysore. About 116 colleges/institutions are affiliated to the University of Mysore; of these 34 college libraries are located within Mysore. These were networked in the first phase.

Objectives

The objectives of the network are as follows:

- “To share resources available with all the libraries;
- To provide a faster communication to all the libraries through Electronic Mail facility;
- To develop software tools for better library management;
- To create awareness in the field of latest Information Technology by conducting seminars/workshops/training programmes;
- To setup a Information base in collaboration with industries and
- To flash arrival of new books/journals, announcement of events like seminar/workshop/training programmes”.

Services

a) E-Journals

MYLIBNET provides links to several free online e-journals in the field of medicine, physics, mathematics and chemistry.

Union Catalogue of Journals

In order to achieve the objective of 'Resource Sharing' for optimum utilisation of available resources and to avoid as far as possible duplication, a project was initiated in 1990 by Academy of Information Science to conduct a survey and bringing out a hard copy of the "Union Catalogue of S&T Serials in Mysore City Libraries". The project has been completed and a hard copy of the catalogue was published in 1991.

Experts Database

The database contains the list of library professionals and their details. One can search for details of an Expert either by selecting the Name of the Expert or by selecting the Name of the Institute. The database is not very exhaustive and is still being developed.

10.3.6 MALIBNET (Madras Library Network)

MALIBNET was established in 1993 with the support of Indian National Scientific Documentation Centre (INSDOC). Now it is a registered society of Tamil Nadu Government. It provides information to the users in and around Chennai. Nearly 83 libraries in Madras are members contributing actively to the creation of various databases on MALIBNET. It has around 37 educational and research institutions as members.

Objectives

The main objectives of MALIBNET are:

- "To foster growth in the field of information science and technology;
- To undertake scientific research in the field of library and documentation;
- To evolve a network of libraries and information centres in India;
- To establish appropriate links to national and international libraries and networks; and
- To facilitate resource sharing and information dissemination through networks".

Services

MALIBNET provides following services:

a) Content Search Service

This service allows a search of journal database of MALIBNET having 7747 journals. It can be searched online through journal title, volume, year and issue number options.

b) Document Procurement Service

MALIBNET provides full text of articles from the journals available in its database. One needs to provide journals, year, volume, and issue along with page numbers. The service is available on payment of Rs. 3 per page for members and Rs. 5 per page for non-members.

c) Internet Services

MALIBNET provides facility of Internet search for which it charges the users for the time spent on searching. It is preparing Directories of Current

Journals available in Madras City in different areas like Engineering Sciences, Basic Sciences, Medical Sciences and Social Sciences.

MALIBNET maintains a website with URL as <http://www.malibnetonline.com>

10.3.7 BONET (Bombay Library Network)

Bombay Library Network (BONET) was established in 1994 with financial support from the NISSAT. It has 25 members in the city of Mumbai. Located in the National Centre for Software Technology (NCST, now CDAC) a number of computers and software for shared use to the members. The services offered includes access to bibliographic databases, email, CD-ROM, etc. The BONET conducts seminars and training programmes for member institutions.

The metropolitan areas networks in India were sponsored by the erstwhile NISSAT in 1980s. These are not active today except for DELNET which has been providing active services and has extended its scope from Delhi to developing countries.

10.4 ISSUES RELATED TO LIBRARY AND INFORMATION NETWORKS

The objective of library and information network is for resource sharing among libraries as well as easy access to information. But it requires heavy implementation of Information Technology (IT). Though IT has facilitated the access to information but unfortunately there are many issues needed to be addressed. The libraries require high-speed connectivity to Internet which in turn require specific hardware and software for creation of system. Installation of a system is not the only issue which should be addressed. Libraries should make conscious effort for training the staffs who are involved in delivery of service and the user who are to be served. One of the major outcome of such networks is accessibility of Online Public Access Catalogue (OPAC), which in turn requires adhering to particular standard. Library network must follow one bibliographic standard but selection of a particular standard is a subjective issue which needs to be addressed in very beginning.

India is big country with many different languages and culture. Growth of literature is there in all the language. In such a multilingual environment rendering service in once own language and script is very big challenge. There is a conscious effort at Documentation Research and Training Centre, Bangalore towards rendering multilingual OPAC service for users. A system has been developed which converts records on the fly in different Indian scripts.

10.5 LIBRARY CONSORTIA IN INDIA

As we have stated earlier, consortium is ubiquitous because of digital form of information published across the world through Internet. It refers to cooperation, coordination and collaboration among the libraries for the purpose of sharing information resources. In India, the real drive for cooperation was seen during 1980s due to the developments in Information and Communication Technology. Some of the academic libraries in India have formed consortia. A few of the major consortia in India are given below:

- INDEST
- FORSA

- UGC – INFONET
- CSIR E – CONSORTIA
- HELINET
- IIM CONSORTIA

10.5.1 INDEST (Indian National Digital Library in Engineering Sciences and Technology)

INDEST stands for Indian National Digital Library in Engineering Sciences and Technology. It is a “consortia based subscription to Electronic Resources for Technical Education Systems in India”, set up by the Ministry of Human Resource Development based on the recommendations made by the Expert Group appointed by the Ministry under the Chairmanship of Prof.N.Balakrishnan. The headquarter of the consortium is located at Indian Institute of Technology, Delhi.

Objectives

The main objectives of the INDEST consortium are to:

- provide a common gateway of journal literature subscribed by seven IITs and the Indian Institute of Science, to subscribe, access and manage their journals.
- provide common access and search interface for the journals subscribed by all members.
- provide access to the common database for the usage benefit of students and researchers in regional engineering colleges (National Institutes of Technology) and support them in sharing the collection of IITs and IISc.

Features

The common features of INDEST are:

- It provides common access to TOCs (Table of Contents) and full text articles;
- It allows to search common TOCs and database for both print as well as online journals with scholarly content subscribed by all members of consortium;
- It provides links to full text articles, where available;
- It facilitates to search a bibliographic database of articles and links to full text;
- It has provision to mirror the content in the server of each participating consortium member;
- It has also provision to view the list of journals subscribed by each consortium member; and
- It is possible to send E-mail request for the photocopies from one consortium member to the other.

Operation

The Consortium operates through its Headquarter. The Ministry of Human Resource Development (MHRD) has agreed to provide funds required for:

- subscription to electronic resources for IISc, IITs, NITs, RECs and a few other institutions; and
- operation of the consortium.

The consortium headquarter functions under a National Steering Committee, which consists of 21 members, for inter-institutional coordination and for taking decisions on policy issues under the overall policy direction of the Government of India. The Ministry has also set-up a National Review Committee, which comprises 6 members, for the INDEST Consortium. The National Review Committee shall be responsible for overall policy, monitoring and coordination with UGC and AICTE for this Consortium.

Membership

Based on the recommendations of the MHRD Task Force, institutions have been grouped into three categories as detailed below:

- **Category I (Core Members).**
- The members in this category include IITs , IIScs, Nits, ISM, SLIET, NERIST, IISER, IIMs, IIITs, IIITM and NITIE. Ministry of Human Resource Development provides funds for differential access to e-resources to core members. These are 62 in number.
- **Category II (AICTE supported members)**
These members are provided funds to access e-resources by AICTE. At present they are 60 in number. It includes government engineering colleges and other technical institutions.
- **Category III (Self- supported institutions)**
The category includes all other AICTE accredited and UGC recognised engineering institutions. These institutions pay themselves for the e-resources accessed by them. At present around 1233 institutions are registered under this category.

E-Resources

The following are the Electronic Resources available through INDEST for different categories of members as mentioned above. The details of resources, and the category of members who can access the resources are mentioned hereunder (see table 10.1). These can be searched by journal title, words in a title and name of publisher:

Table 10.1: Details of Resources and Member Category

Resources	Member Category who can access the resources
Full Text Sources	
IEL Onlin	All Categories
Science Direct and Ideal*	I
Science Direct (on trial)	II
Springer Verlag* ^{\$}	I & II
ABI/INFORM	I & III
ACM Digital Library	I & III
ASTP	II & III
India Informer*	III

CRIS INFAC Business Intelligence Service*	III
CERC's Insight*	III
Springer's Link	III
Bibliographic Databases	
COMPENDEX + and INSPEC	I
Web of Science	I
SciFinder Scholar	I
MathSciNet	I
JCCC (J-Gate Custom Content for Consortia)	I, II, and III
J-Gate (Free for the first year	I and II

* Print subscription to be maintained by the beneficiary institutions

\$ Limits on number of downloads

10.5.2 FORSA (Forum for Resource Sharing in Astronomy/ Astrophysics)

In the early 1980s, librarians working in institutes where astronomy and astrophysics was one of the major research areas felt the need to establish a forum among the libraries to enable sharing of resources due to the following reasons:

- Very few institutes in the country were involved in research in astronomy and astrophysics;
- Considerable interaction already existed between astronomers of institutes doing research in astronomy and astrophysics;
- No library can be self-sufficient in the resources, and access to the holdings of the member libraries would help in minimising duplication; and
- The information resources should be used to the mutual advantage of the members as well as for optimum use.

Based on the proposed plans made by the members of Forum, the first meeting of the Forum for Resource Sharing in Astronomy/Astrophysics (FORSA) held on July 29, 1981, at Raman Research Institute, Bangalore. Emphasis was placed on obtaining detailed information related to literature in Astronomy and Astrophysics for speedier dissemination of information.

Objectives

The objectives of FORSA are:

- Collection development in IT environment;
- Facilitate e-access to journals and books;
- Actively participate in resource sharing, ILL;
- Document delivery by fax, e-mail, speed post, courier, etc;
- Database merging by library holdings (books/ journals) and facilitate access to merged database;

- Digitisation of archival materials of the institutes and making available on website for access by all;
- To facilitate access to website of each institute's library;
- Participate actively in consortia plans for sharing e-journals, e-books and other databases with various publishers and academic societies publications and joining existing consortia where forum members are benefited;
- To come forward for open access and to develop institutional repositories; and to welcome new members of institutes where astronomy is one of the subjects and library has collection pertaining to the subject".

Members

FORSA has 12 members. The member libraries are:

- Aryabhata Research Institute of Observational Sciences (ARIES), Manora Peak, Nainital
- Bose Institute, Kolkata.
- Harish- Chandra Institute, Allahabad.
- Indian Institute of Astrophysics (IIA), Bangalore.
- Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.
- National Centre for Radio Astrophysics (NCRA), Pune.
- Nizamiah Observatory, Department of Astronomy, Osmania University, Hyderabad.
- Physical Research Laboratory (PRL), Ahmedabad.
- Raman Research Institute (RRI), Bangalore.
- S.N.Bose National Centre for Basic Sciences, Kolkata.
- Saha Institute of Nuclear Physics, Kolkata.
- Tata Institute of Fundamental Research (TIFR), Mumbai.

Services

All the participating libraries are well equipped with recourses and share them for mutual benefit. They provide the following services:

- Access to OPAC
- Access to online journals
- Inter library loan
- Document Delivery (by e-mail, speed post, courier and fax)

Workshops and Conferences

FORSA organises workshops and conferences on emerging areas. Some such programmes were organised on KOHA and DSpace. A meeting is done every year along with the Annual Meeting of the Astronomical Society of India.

10.5.3 UGC – INFONET

University Grants Commission (UGC) is a national body for the coordination, determination, and maintenance of the standards of University Education in India.

It initiated a programme called the UGC-Infonet E-Journals Consortium to provide online access to electronic journals and databases in all disciplines to the universities in India. The programme aimed at increasing accessibility of electronic resources to the universities. INFLIBNET is the coordinating and monitoring agency in the UGC - Infonet Project. INFLIBNET is also responsible for providing training to university library professionals in the use of this network for providing variety of services to the users. The project aimed to provide e-resources and state-of-the-art technology for providing access to these resources. The part responsible for providing connectivity for the e-resources has been closed with effect from 31st March 2012.

Subscription to Electronic Journals

With globalisation of education and competitive research, demand for journals has increased over the years. Due to lack of funds and increase in the prices of journals, libraries have been forced to cut subscriptions of journals. Infonet provides access to more than 7500 core and peer-reviewed and peer-reviewed journals and 10 bibliographic databases from 26 publishers and aggregators in different disciplines. So far 209 universities including 14 National Law Schools and central universities along with private universities who are associate members have been provided differential access to e-journals.

UGC-Infonet Training

Training manpower is one of the most critical resources for successful implementation of high-tech programmes like UGC-Infonet. INFLIBNET/ERNET is giving training to network managers and library professionals for managing the WAN connectivity, network security, Mail Server, Web Server configuration and e-journal access management at their premises. More than 108 network managers from around 99 universities have been trained at ERNET India, New Delhi. Around 63 Library professionals from more than 63 universities have been trained at ERNET India, New Delhi. Above 63 Library professionals from 63 universities have been trained for e-resources management at INFLIBNET Centre, Ahmedabad.

10.5.4 National Knowledge Resource Centre (NKRC)

CSIR E – Journals Consortium has been re-named as NKRC due to the change in its scope. Earlier it served the laboratories of Council of Scientific and Industrial Research (CSIR) but now it serves 24 Department of Science and Technology institutions and 39 CSIR laboratories. It provides access to more than 5,000 e-journals, patents, standards, citations and bibliographic databases. It also provides access to large number of open access resources in science and technology.

The Council of Scientific and Industrial Research (CSIR) which has thirty eight constituent laboratories together subscribes to over 4,000 scholarly and research journals at a cost about Rs. 25 crores every year. The collection of print editions creates an annual depository of 5,00,000 plus printed articles spread across the labs in stand-alone manner. In order to enhance the accessibility, use and increase the resource base of world S&T literature, the fifth meeting of the Heads of CSIR Laboratories and Information Centres held at RRL in Trivendrum in February 2001, had recommended that a Consortium for access to E-journals be set up. Consequently, Director General, CSIR set up a Study Group to collect and compile information on the journals presently subscribed to by the CSIR

laboratories, including CSIR Headquarter and also to study the feasibility and economic viability of CSIR laboratories subscribing to identified journals on-line on a consortium basis and devise a system for the management of the consortium and equitable sharing of the expenditure thereof. The Study Group submitted its report in October 2001 with the following recommendations:

- The CSIR must set up a Consortium to provide electronic/online access to journals for the CSIR laboratories.
- No major additional requirements of manpower or hardware are foreseen.
- Informational resources are a basic necessity for an R&D organisation.
- CSIR is a premier R&D organisation and presently invests around Rs.25 crore annually for books and journals, some of which are being subscribed in duplicates/triplicates by the labs of CSIR.
- Individual labs of CSIR spend between Rs.10 and Rs.150 lakhs per annum on information resource building.
- Many publishers now are offering their products in electronic formats. They encourage the formation of consortia and accordingly offer consortia friendly pricing strategies.
- Information technology has enabled users to access online many of the research journals. Publishers of the journals offer concessional rates of their e-format journals subject to maintain status-quo of print subscription.

Based on the recommendations made by study group, the CSIR accepted the recommendations and decided to set up a consortium, 'CSIR E – Journals Consortium' for electronic access to journals.

Objectives

The main objectives of the CSIR E – Journals Consortium are:

- To provide CSIR S&T staff electronic access to world S&T literature to strengthen the facilities for pooling, sharing and electronically accessing the CSIR information resources;
- To provide access to world S&T literature to CSIR labs; and
- To nucleate the culture of electronic access with a view to catalyse the evolution of digital libraries.

Activities of Consortium

The following are the broad activities envisaged to be involved in carrying out the project:

- Identification of vendors
- Invitation of proposals
- Negotiation
- Signing of agreement
- Enabling access
- Training

- Payment to vendors
- Monitoring
- Usage statistics
- Analysis
- Reports

Roles and Responsibilities of NISCAIR

National Institute of Science Communication and Information Resources (NISCAIR formerly INSDOC), New Delhi is the nodal organisation of the Consortium. As nodal agency of the consortium, it performs the following roles and responsibilities:

- to collect the link-up fee from CSIR and release payment as per the contract terms and conditions to vendor(s);
- to make certification of bills;
- to receive and keep secret the passwords that are supplied by the publishers to the laboratories as well as NISCAIR;
- to co-ordinate training to staff of participating labs for E-journals access;
- to monitor the analysis of usage data and appropriate reports generation and use the report for strategic planning;
- to undertake various studies related to E-journals for planning, monitoring, etc.;
- to monitor complaints and access problems of the laboratories; and
- to maintain smooth functioning of the Consortium.

Resources available through Consortium

As a first step, CSIR entered into an agreement with Elsevier Science which is one of the leading publishers of S&T journals, to enable all its laboratories access to 1,200 odd electronic/online journals. Afterwards it started subscribing to e-journals from many publishers. At present, all 38 CSIR laboratories have access to 3500 e-journals of different publishers. In addition, the labs have access to about 1500 e-journals from Directory of Open Access Journals (DOAJ) which are free for every one. Thus, the consortium provides an opportunity for CSIR labs to have access to 5000 international reputed e-journals.

10.5.5 IIM Consortium

The Indian Institutes of Management are premier national business management education institutions set up by the Government of India. They are independent societies governed by independent Board of Governors. The major objective of the institutions is to train young graduates to become professional managers. The IIMs are available at 6 places – Ahmedabad, Bangalore, Calcutta, Indore, Kozhikode, and Lucknow.

The concept of IIM Library Consortium was floated a few years back. Since the year 2000, the Librarians of all the IIMs had been interacting extensively on the possible resource sharing of the CD-ROM/Digital Databases being regularly subscribed to by them.

A pilot study was conducted in this regard on the CD-ROM/Digital Databases being currently subscribed to by the various IIMs and it was found that:

- ABI/Inform (Abstracts), ABI/Inform (Full-Text - Business Periodicals Ondisk - BPO) are being subscribed to by IIMA, IIMB, and IIMC respectively,
- Business Source Elite (BSE), the Full-Text journal service of EBSCO, is being subscribed to by IIMA, IIMI, and IIMK, and
- Econlit (Silver Platter) is received at IIMA and IIMK, and Econlit (Ovid) at IIMI.

The Librarians of IIMs discussed and deliberated in one of their meetings and resolved that:

- while doing this exercise, the information resources of any of the Institute(s) should not be affected in any manner, and shall ensure quality improvement and revenue saving to each Institute.
- it is high time for all IIMs to jointly approach publishers for journals and databases of common interest for better services and prices.
- they may approach publishers of CD-ROM Databases to begin with, as Consortia, for better pricing and services.
- eventually, other digital databases and journals shall also be covered by the Consortia programme.
- the proposal of IIM Library Consortium seeks the authorisation and guidance of the Heads of all the IIMs, to proceed further.

Based on the above, four of IIMs placed orders for databases such as BSE and Econlit and the rest two IIMs placed orders for ABI/Inform. Subsequently, the Directors of all IIMs in one of their meetings held in August 2001 approved the formation of IIM Library Consortium and encouraged the librarians to actively participate for mutual benefit.

Objectives

The objectives of the IIM Consortia are to:

- ensure among the IIMs, optimum utilisation and enhancement of the resources;
- minimise the expenditure by consortia based subscriptions to the commonly subscribed databases and journals;
- approach publishers of CD-ROM databases to begin with as a consortia for better pricing and services; and
- cover other digital databases and journals by the programme.

E-Resources

In the case of journals, all the six IIMs put together subscribes to over 2550 scholarly titles of which around 1200 are duplications (overlapping titles). Among these, 33 titles are being subscribed to by all the IIMs. Having convinced on the dire need for journals consortia, major publishers such as Elsevier, Kluwer, Wiley, Blackwell and MCB University Press were approached and they all represented in the second meet which was held at IIM Bangalore in 2001. The end result has been highly praiseworthy, that over 740 E-journals IIMs are able to get online access, across all the IIMs, by paying a nominal additional amount.

The present information resource base of the IIM Consortium is as follows:

- Blackwell Hss Collection
- Capitaline
- Nexis.com+Corporate Information
- ISI Emerging Markets
- Kluwer Online
- Talyor & Francis
- John Wiley.

10.5.6 HELINET (Health Sciences Library and Information Network)

The Rajiv Gandhi University of Health Sciences (RGUHS) launched HELINET (Health Sciences Library and Information Network) Consortium, on the 15th of March 2003.

The importance and the role of quality medical journals in medical education are known. Moreover, in a survey conducted in early 2002, the colleges of RGUHS were spending enormous amount of money to get only about 150 journals each, and even among these 150, many were duplicates. This spurred the need for reducing the cost while making the core medical journals more affordable and easily accessible.

Objectives

The main objectives of the consortium are to:

- “network the libraries in the colleges affiliated to the University to promote resource sharing;
- move these libraries gradually to digital main-stream; and
- bring all the libraries under HELINET for minimising the cost of acquisition and maintenance of learning resources and maximising their utilisation, among the faculty, students and researchers the colleges and institutions affiliated to the University”.

E-Resources

Under the HELINET scheme, the member libraries can get access to around 600 scholarly, international biomedical journals, from 24 leading publishers, at about one-third the price of their print subscription. Moreover, the member libraries can get all time access to the current journals as well as archives i.e. the back-volumes of journals for a period of 7-10 years.

The University has already spent Rs. 2 crores for establishing the consortium on a cooperative e-access model. For this purpose, the university has set up digital library infrastructure for managing and providing access to e-content. Participating institutes can get access to full-text of e-resources through 11 gateways,

Science Direct;

Ovid;

MD Consult;

Annual Reviews;
Springer;
Theme Verlag;
Taylor and Francis;
Blackwell;
Bentham;
Ebrary; and
Oxford University Press.

Membership

- There are members from colleges of medicine, dentistry, pharmacy, nursing, physiotherapy, ayurveda/ unani/ homeopathy and other paramedics. A differential fee is charged from the categories, highest from the users in medicine and lowest from other paramedics.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of this Unit.
3) Discuss the salient features of UGC - Infonet.

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10.5.7 SPACENET

Spacenet is a communication network of Indian Space Research Organisation (ISRO) using Very Small Aperture Terminal (VSAT) network. The hub is located at the ISTARAC, Bengaluru and remote stations at 44 centres/divisions of ISRO at different places in India. It is a Closed User Group (CUG) network facilitating transmitting and sharing of data, information and other resources between the members.

ISRO libraries exchange various resources including print, electronic. The libraries provide access to their resources by having their OPACs on the intranet. E-journals and e-books are also shared amongst the participating libraries. The divisions generate lot of information internally in the form of reports, pre-prints, re-prints, conference proceedings, lectures, etc which are shared amongst them. Effective document delivery services enable sharing and transfer of information amongst them.

10.5.8 CeRA (Consortium for e-Resources in Agriculture)

Consortium for e-Resources in Agriculture (CeRA) was formed in November 2007 at the Indian Agriculture Research Institute (IARI), Pusa, New Delhi. It was funded by the National Agricultural Innovation Project (NAIP). It was set up to provide access to information in agriculture particularly the e-resources to researchers, teachers and scientists, students, extension workers, policy planners and administrators in the National Agricultural System(NARS).

Objectives

The objectives of CeRA are:

- 4) “To upscale the existing R&D information resource base of ICAR institutions/ universities comparable to world’s leading institutions/organisations.
- 5) To subscribe e-journals and create e-access culture among scientists/ teachers in ICAR institutes/ Agricultural Universities.
- 6) To assess the impact of CerRA on the level of research publications measured through NAAS Id and Science Citation Index”.

Membership

The members of CeRA comprise the ICAR institutes and state agriculture universities. At present the membership is 147.

Services

a) Online Access

Members in CeRA are provided IP authenticated online access to full text articles in more than 2900 journals in agricultural sciences. These comprise those subscribed by the consortium, by the participating libraries and the open access journals.

b) Document Delivery

Members are provided access to full text of journal articles not subscribed by CeRA but subscribed by individual libraries through the Document Delivery Request System.

Training

Training programmes are held regularly for members in different institutions under NARS to enable use of the resources and services in CeRA. Around 40 such programmes have been held in the last four years benefiting more than 3500 members. They are also helped in their day today use of services through online help and chat with experts in the consortium.

10.5.9 ICMR e-Consortia

ICMR has two types of consortia, JCC@ICMR which covers all subscribed journals of ICMR and free journals also. The other, ICMR e-Consortia provides full text access to the journals subscribed by ICMR.

JCCC@ICMR

J-Gate C custom Content for ICMR provides a single point access to all subscribed and free open access journals in medicine. It provides a platform to access the

journals, search articles of interest, locate the library possessing it and put a request for acquisition. It acts as a common gateway and search interface to the journals. JCCC provides access to the table of contents, abstracts, full-texts and facilities to access.

ICMR e-Consortia

It provides access to the subscribed journals to the users in different ICMR institutes through IP authentication. The consortia organises training programmes for users to enable effective use.

10.6 LIBRARY NETWORKS: INTERNATIONAL

10.6.1 OCLC (Online Computer Library Centre)

The Online Computer Library Center, Inc. (OCLC), a non-profit corporation, is a membership-based, service and research organisation dedicated to the purpose of furthering access to the world's information at reduced cost. The OCLC members are institutions, primarily libraries, which use OCLC products and services to locate, acquire, catalogue, lend and preserve books and other library materials. Researchers, students, faculty, scholars, professional librarians, and other information seekers use OCLC systems through libraries to obtain bibliographic, abstract, citation, and full-text information. The OCLC cataloguing and resource sharing system is the largest and most heavily used computer library system in the world. The OCLC FirstSearch service ranks among the leaders in the online information industry in terms of connect hours. The OCLC bibliographic database, WorldCat (the OCLC Online Union Catalogue), is one of the most consulted electronic databases in higher education.

The OCLC and its member libraries cooperatively produce and maintain WorldCat, the Online Union Catalogue of Books available in the libraries of member institutions. Members of the OCLC can also get access to a wide range of services and databases, including WorldCat. The OCLC is the world's largest library network.

History of OCLC

In 1967, the presidents of the colleges and universities in the state of Ohio founded the Ohio College Library Center (OCLC) to develop a computerised system in which the libraries of Ohio academic institutions could share resources and reduce costs. Mr. Frederick G. Kilgour was the first President of OCLC, responsible for the growth of OCLC from a regional library computer system for 54 Ohio colleges into an international network. The objective of the OCLC as stated in its Articles of Incorporation is to “establish, maintain and operate a computerized library network and to promote the evolution of library use, of libraries themselves, and of librarianship, and to provide processes and products for the benefit of library users and libraries....”

In 1977, the OCLC changed its policy that enabled libraries outside Ohio to become members and participate in its governance. The Ohio College Library Center became OCLC, Inc. in 1981, the legal name of the corporation became Online Computer Library Center, Inc.

Membership

More than 25,900 libraries in 170 countries and territories around the world are members of OCLC.

Services

The OCLC offers several products and services; a few of them are described below:

WorldCat

WorldCat is a worldwide union catalogue created and maintained collectively by more than 72,000 libraries representing hundreds of languages and cultures. Built from the bibliographic and ownership information of contributing libraries, it is the largest and most comprehensive database of its kind. WorldCat is the foundation of many OCLC services that facilitates libraries to process, manage and share information resources.

The WorldCat includes catalogue records dating back to thousands of years nearly in every format. Records exist for everything from stone tablets to electronic books, wax recordings to MP3s, DVDs and Web sites. Whether an item is physical or digitally preserved, popular or one-of-a-kind, the integrity of its record is maintained by the input of cataloguing members, OCLC's standards and quality control. World Cat holds 302 million bibliographic records for 2 billion items in 470 languages and dialects. Every 10 seconds a new record is added to the catalogue, and it is searched every second.

NetLibrary

The OCLC's NetLibrary platform provided access to electronic books from a wide range of publishers forming monographs and reference resources on hundreds of subject areas that could be accessed through an intuitive, easy-to-use interface that offered a single point of access. Users could find the latest titles, reference sources, business and economics resources, best-selling fiction, and more. It has been acquired by EBSCO in June 2010.

OCLC's Electronic Collections Online

OCLC's Electronic Collections Online is a powerful electronic journals service that offers web-based access to a growing collection of more than 5,000 titles in a wide range of subject areas from over 70 publishers. It provides access to 4.2 million records from 1995 onwards. It also provides a robust archiving solution and searching across journals. OCLC has secured archival rights to journal content, subscription to e-journals through the OCLC thus it ensures perpetual access to the journals subscribed through OCLC for the paid period of subscription.

OCLC Database Service: FirstSearch

The FirstSearch (FS) is an online service that provides web access to research databases consisting primarily of journal. The service provides seamless electronic access to more than eighty databases containing 258 million full-text and full-image articles via World Cat in most subject fields. Libraries have an option to select databases based on their needs. Some of the more important databases included in FirstSearch are:

- Article First
- Clase and Periódica
- Electronic Books
- Electronic Collections Online
- ERIC
- GPO Monthly Catalog
- MEDLINE
- OAster
- PapersFirst
- ProceedingsFirst
- SCIPPO
- WorldCat (The OCLC Online Union Catalog)
- WorldCat Dissertations and Theses (WorldCatDissertations).

The size and period covered in FirstSearch varies between the individual databases but many include data going back as far 1980. The FirstSearch facilitates search across multiple databases through its simple menu-driven search interface. Full-image articles from Electronic Collections Online journals are linked to corresponding citations in databases throughout the FirstSearch service. Subscribers to FirstSearch may also place their orders online for articles that are not accessible to them.

EZ Proxy Authentication and Access Software

It is the world's leading access and authentication solution. EZproxy helps provide users with remote access to Web-based licensed content offered by libraries, and is easy to set up and maintain. More than 2,500 institutions in over 60 countries have purchased EZproxy software. EZproxy is now also available as a hosted solution, giving libraries the option to outsource the set-up and ongoing management of their proxy configuration.

Question Point: Cooperative Virtual Reference Service

QuestionPoint is a unique virtual reference service, supported by global network of cooperating libraries worldwide, as well as an infrastructure of software tools and communications. QuestionPoint is also a source of unique centralized knowledge resources built by a collaborative network of member libraries.

Benefits

24/7 Cooperative benefits and features

- **Meet users at their point of need**—provide reference service around the clock with trustworthy, real-time one-on-one reference assistance from professional librarians, right from you library Web page or other Web portal.
- **Expand your reference desk hours without increasing staff.** For a modest weekly contribution of staffing to the Cooperative, you can provide failsafe coverage 24 hours a day, 7 days a week, to your customers.

- **Belong to several groups simultaneously**, such as a local consortium and a subject-specific group. Any number of librarians may monitor the service at any time. Within the Cooperative, this means that an individual customer's library is more likely to be monitoring.
- **Q&A knowledge base** that is carefully reviewed and maintained by Cooperative contributors.
- **Automatic subject referral through the Global Reference Network** routes your submitted question or chat session to a partner library based on criteria such as subject, language or hours of coverage.
- **Pricing based on population**—more locations mean a lower cost for each participating library.

Reference Management benefits and features

- **Web-based chat**, cobrowse and cooperative reference tools use best-in-class technology and require no special software or browser plug-ins. A librarian does not need to use Windows Operating System to do simple chat and page push (for highest-level co-browsing, Internet Explorer browser is required). A streamlined conference process allows librarians to transfer to another librarian smoothly. There is also support for multilingual reference transactions.
- **Unique Customisable Messages.** Instead of just one list of scripted chat messages for an entire group of libraries, each library can add their own individual scripted messages, which appear when one of their customers comes into the queue.
- **Expanded Patron Link Views.** This feature allows patrons, while still in session, to click on previous links sent to them by the librarian.
- **Administrative Monitoring.** Administrators can join any of their librarian's chat sessions, to send private notes or suggestions unseen by patrons, or to communicate directly with the patron. In addition, librarians can add notes during (or after) a session which are visible only to other librarians. These librarian notes assist in question follow up as well as in quality control and other administrative functions.
- **Customisable Surveys and Reporting Tools.** Each library can customise its own unique survey for patrons and make it available after the chat session, after a follow up is complete, or after an answer is sent in response to a student email. Surveys help libraries measure user satisfaction levels and make service improvements. Librarians have the flexibility to characterise sessions and retrieve statistical information through descriptive categories such as research, business, instruction, etc. to help them identify trends and perform usage analysis.
- **Flexible, institution-based pricing** model, instead of per-seat; even greater savings are possible if you work cooperatively within a group of libraries.
- **Fully accessible user interface** that supports users with accessibility needs, including those who use screen readers.
- **User customisation of interface** color scheme and font size and an optional chime for new messages.

- **Customisable management reports.**
- **Reach out to users from every Web page** with “Qwidget,” QuestionPoint’s chat widget. Qwidget combines the simplicity of a chat widget (on the user side) with the full features of QuestionPoint’s reference management system. Embed the link to Qwidget anywhere on the library Web site, in social networking spaces—anywhere you want to reach out to your users.

Implementation Services

We ensure your virtual reference service is well designed and executed delivering expected benefits to both library staff and patrons. We customise our services to fit any size library or group—from a small public library to a group of large academic libraries.

From the very beginning, we work closely with your staff and guide them through each step of the implementation process. We understand your staff is hard at work assisting patrons. We help to save their time, and leverage their knowledge of your library.

As part of the Implementation Services package you receive:

- A dedicated Implementation Manager, who is your single point of contact throughout the project. The Manager partners with you to set milestones, define key tasks, design workflows and educate library staff.
- One virtual or self-paced training program configured for your staff and their needs. There is also the option to receive further training, including live instruction, for an additional fee.
- First-line technical support during and after the implementation to help resolve any technical issues or questions that arise as you use the QuestionPoint service and participate in the 24/7 Reference Cooperative.

Benefit from step-by step support

Our implementation managers have superior understanding of the QuestionPoint solution plus an outstanding knowledge of reference services and libraries. They know the key steps and activities to effectively implement your library’s virtual reference service.

Your Implementation Manager works with you to:

- Develop your library’s goals, objectives and implementation schedule
- Create a work plan consisting of key activities
- Develop customised, virtual reference workflows
- Identify resources that will help library staff to be proactive in using the services
 - Build an effective marketing and communication plan for your library’s virtual reference service

Receive a customised implementation program tailored to your library’s objectives. Quickly launch your virtual reference service and begin meeting patrons at their point of need anytime, anywhere.

Other Services

The OCLC's digitisation, microfilm and archival services are designed to protect and share collections for their members. The OCLC has infrastructure and skilled staff at their preservation centres. The OCLC's collection development services can assess the strengths and gaps of collection available in the libraries if a member institution using their analysis tools.

10.6.2 RLG (Research Libraries Group)

The Research Libraries Group (RLG), a not-for-profit organisation consisting of over 150 research libraries, archives, museums, and other cultural memory institutions was founded in 1974 by the New York Public Library, Columbia University, Harvard University and Yale University. The reason for the formation of yet another consortium in US when OCLC already existed, was the dissatisfaction of research libraries with OCLC record keeping. The RLG was founded to provide solutions to the challenges presented by information access and management of digital resources. It served researchers by providing access to research materials held in libraries, archives, and museums. It designed and delivered innovative information discovery services, organised collaborative programs, and takes an active role in creating and promoting relevant standards and practices.

After three decades of its serving libraries, RLG merged with OCLC in 2006. After its merger, its catalogue merged with OCLC WORLD Cat and its databases merged with OCLC First Search service. RLG merged with OCLC to be known as RLG Programs as part of OCLC Programs and Research Division. The latter was renamed as OCLC research in 2009 and the former as RLG Partnership. RLG Partnership was renamed as OCLC Research Library Partnership in 2011. The changes depict the steady adoption and integration of RLG into OCLC.

Activities

OCLC Research Library Partnerships provides the following services to find solutions to the problems faced by research libraries and archives:

- Shared Network Resources – The research library collections in print are available for sharing amongst the members.
- Sharing Special Collections – It is a document delivery service in which rare and unique materials are delivered to users. It helps to economise on resources.
- COBOAT – It is a metadata publishing tool developed by RLP to transfer information between databases and different formats.
- SHARES Programme – It is a interlibrary loan programme that strives to introduce innovative methods for sharing of collections.
- Demistifying Born Digital – The programme focuses on enhancing the effective management of born-digital documents.
- Sharing and Aggregating Social Metadata – This is a programme wherein efforts are made in identifying user contribution to enhance descriptive metadata created by libraries.

10.6.3 Jisc

Jisc, leads the further and higher education community in the use of ICT for learning, teaching, research and administration. It is advisory in nature and is funded by all further and higher education councils. It has the following sub-committees to facilitate work:

- JISC Organisational Support Committee
- JISC Content Services Committee
- JISC Integrated Information Environment Committee
- JISC Learning and Teaching Committee
- JISC Network Committee
- JISC Support of Research Committee

It works with the following aims to fulfill the needs of the education and research communities:

- “develop solutions that help enable the UK education and research communities to keep their activities world class through the innovative use of Information and Communications Technology.
- provide advice to institutions to enable them to make economic, efficient and legally compliant use of Information and Communications Technology, respecting the individual’s and corporate rights and responsibilities.
- help the sector provide positive, personalised user learning experiences and to aid student progression.
- develop mutually advantageous partnerships with organisations in the UK and abroad.
- advise, inform and help implement the strategies of government, funding councils and research councils”.

Services

Online resources

Jisc provides electronic collections to the education and research community in the UK at subsidised rates. It acquires resources for members in consortium mode ensuring economy and quality. The economy has been estimated to the tune of £75 million to the members.

The aims of the online resources division are to:

- “Provide leadership for national negotiations designed to lower the cost of access to electronic information resources;
- Facilitate debate and, where appropriate, action to help implement possible long-term solutions to the rising costs of scholarly communication;
- Develop and advance strategy for cost-effective content acquisition and the delivery of electronic information resources which takes account of the dynamic nature of the information market place and the changing needs of the community;
- Assist the community in achieving and demonstrating value for money;

- Commission research to assist the community in the effective exploitation of electronic information resources to support research and teaching;
- Work in collaboration with JISC to support the enhancement of innovative resource discovery and library collection management services;
- Communicate to all stakeholders to foster a mutual understanding of the issues around electronic information resources;
- Ensure the best possible licensing terms and conditions and preservation arrangements for the library community”.

Union Catalogue

Access to research materials in major libraries of UK and Ireland is provided through the union catalogue, Copac that includes bibliographic records of more than 70 libraries. These include the national libraries, university libraries and research libraries. Copac also provides details of the collections of British Library. The catalogue is frequently updated on the basis of user feedback.

SUNCAT

SUNCAT is the union catalogue of serials held in libraries all over UK. It provides information on print and electronic journals, newsletters, magazines, newspapers and annual reports from 91 libraries in UK. It is developed and maintained by University of Edinburgh and designated as an EDINA service (EDINA is a Jisc designated national data centre at the University of Edinburgh).

Jisc Journal Archives

Journal archives is very important in view of the fast changing information world. Access to current journal articles is easier than the old articles. Jisc Journal Archives provides access selectively to over 4 million journal articles.

Zetoc is one of the world’s most comprehensive research databases, providing access to over 28,000 journals, 45 million article citations and conference papers through the British Library’s electronic table of contents providing free access to HE and FE.

Jorum

Jorum, is a free online repository of learning and teaching materials. It is intended to integrate it with repositories being developed by other institutions and in different subjects. It is designed in a modified version of DSpace.

Training

Jisc offers different types of activities to enhance the competencies of LIS professionals. It has specially worked for development in areas like digital literacy and e-learning. Programmes have been organised regularly for professionals to update these skills which are essential today.

10.6.4 JANET (Joint Academic Network)

JANET is dedicated to the needs of the UK education and research community. It connects education and research organisations in UK to each other, as well as to the rest of the world through the Internet. In addition, JANET includes a separate network that is available to the community for experimental activities

in network development. The JANET connects all universities in UK, FE Colleges, Research Councils, Specialist Colleges and Adult and Community Learning providers. It also provides connections between the Regional Broadband Consortia. The JANET network currently serves over 16 million end-users.

JANET allows videoconferencing and video streaming capabilities to be used to deliver lectures to remote groups of students. For researchers, the high capacity of the JANET backbone allows the linking of large data storage and high performance computing facilities at a national and international level.

Role of UKREN

UKERNA (United Kingdom Education and Research Networking Association) manages the operation and development of JANET on behalf of JISC (Joint Information Systems Committee) for the UK Further and Higher Education Funding Councils. JISC also works in partnership with the Research Councils. UKERNA is funded by the UK government, with the primary aim of providing and developing a network infrastructure that meets the needs of the education and research communities. The JANET consists of a backbone, known as SuperJANET which, in turn, is linked to Regional Networks. Education and research institutions are connected to the JANET backbone through Regional Networks.

JANET Services

The JANET offers a wide range of network, support and information services to help educational institutions to maximise their benefits from JANET. Major services offered by the JANET includes:

JANET Customer Service (JCS): JCS (JANET Customer Service) is the primary point of contact for enquiries concerning JANET. The JCS is in contact with technical experts and service managers both within UKERNA and throughout the education community, and is, therefore, able to provide relevant assistance at any level. The JCS responds to a large volume of customer queries and facilitates provision of new and upgraded connections to JANET. It also assists in the registration of domain names and applications for IP addresses.

Mail Services: A range of mail services is available, including an electronic mailing list service, a Mailer Shield service, a SPAM-relay Tester System and the Mail Abuse Prevention System. A Web Mail Service is also offered to a limited number of organisations, which do not have the resources to support an e-mail service themselves.

Networking Support Services : Networking Support Services include a co-location service for hosting equipment within the JANET backbone, a Network Time Service offering organisations a stable time reference and a Managed Router Service for those needing expertise in managing their network router.

Usenet News Services : Subscribing organisations with their own news servers can accept a news feed sent from central JANET servers. Organisations without their own news server can let their users read news directly from a JANET server.

Videoconferencing Services : Videoconferencing over IP networks and ISDN (Integrated Services Digital Network) are provided. A Booking Service lets

registered users book a videoconference online. The Video Technology Advisory Service evaluates products, develops documentation and offers an on-site consultancy service.

Web Services : A pilot Web Filtering Service is available to provide protection against access to inappropriate content on the Internet and to allow the maintenance of lists of blocked or permitted URLs. Two other pilot services – Web Hosting and Web Mail – are available to small organisations only, such as specialist colleges or adult and community learning centres.

Training : The Training Section was set up initially to provide for the needs of technical staff at sites new to JANET. It has been extended to include education and training for staff charged with the management of networking and networking services at JANET sites with Primary Connections.

Workshops and Conferences : UKERNA ensures that the JANET community is kept up-to-date with networking developments by organising workshops and conferences to cover either general networking issues or more specific topics. The annual events cover a number of different networking issues, from strategy to technical support. UKERNA also organises events in conjunction with other organisations.

Other services include Advisory Services, Domain Name Services, Information Dissemination services etc. JANET web site provides further details.

10.6.5 CALIS (China Academic Library and Information System)

The China Academic Library and Information System (CALIS), launched in 1998, is a nation-wide resource-sharing system among Chinese academic libraries. Its mission is to serve directly those universities, which are funded by the central government, by providing document and information services to the users through the China Education and Research Network. The CALIS also serves users in other universities and colleges so long as they have network connections to the China Education & Research Network (CERNET). The CALIS is just like a nation-wide academic library consortium in China, half supported by the government, half by the libraries themselves. At present, it provides service to 1251 academic libraries and 792 journal content users in China.

Aims and Objectives

CALIS aims to build a national information infrastructure along with CERNET. The priority of CALIS is to reveal what already exists in academic libraries in China and to increase its utilisation. Two main tasks of CALIS are i) to build an information service network that contains hardware and software; and ii) to introduce and produce various databases.

Governance and Organisation

A top-level committee that consists of officers from related departments of the Ministry of Education and two university presidents from Beida and Tsinghua governs CALIS. An expert team acts as consultants to the committee. CALIS Administrative Centre located at Beijing University coordinate and execute various activities of the network under the leadership of the committee.

CALIS is organised into four national information centres, i.e., Science, Social Science and Humanities Information Centre, Engineering and Technology Information Centre, Medical Information Centre and Agricultural Information Centre. These Centres provides information support to users. Seven regional information centres divided as East China South Regional Center, East China North Regional Center, South China Regional Center, Central China Regional Center, Southwest China Regional Center, Northwest China Regional Center, and Northeast China Regional Center, which provides secondary support for the information users.

Current Status of CALIS

CALIS has established a three-level resource and service infrastructure. Cooperative activities are undertaken in various cities and regions. Currently, CALIS has undertaken six major activities drafted in its plan. These activities include: Coordinative Acquisition, Online Cataloguing, OPAC, ILL, Document Delivery and Internet Navigating.

A number of bibliographic databases and full-text databases are being subscribed / acquired either as central-funded acquisition or consortium acquisition, covering almost all the disciplines and subjects. Some major bibliographic databases and full-text resources include:

- Science Citation Index (SCI)
- Social Science Citation Index (SSCI)
- Engineering Information (EI)
- Biological Abstracts (BA)
- Chemical Abstracts (CA)
- Cambridge Scientific Abstracts (CSA)
- ABI/Global
- ProQuest Academic Research Library
- Science Online
- Elsevier ScienceDirect Onsite
- Academic Press
- IEEE/IEE Electronic Library (IEL)
- Genome Database
- China InfoBank , etc.

Besides, a series of databases are produced in-house. These databases includes:

- Union Catalogues of Books and Journals: 150 members have contributed 1.4 million titles and more than 3 million holdings;
- Current Contents of Chinese Journals: 28 members have contributed more than 2 million abstracts of 5500 Chinese journals;
- Chinese Dissertation and Proceedings Abstract Databases: 85 members have contributed more than 70,000 abstracts;
- Chinese Databases with Unique Features: 23 members have contributed 25 databases which contain more than 450,000 records;

- Navigating Databases for Key Subjects: 45 members have contributed more than 290 disciplines;
- An application platform operated on networks, which are Unicode, Z39.50, ISO10160, and 10161 compliant. The platform includes:
- online cataloguing server and client, through which librarians can download and upload MARC records and holdings;
- data-making tools and database servers for TOC and other self-made databases;
- web-based search engines for accessing self produced databases;
- software for ILL and desktop document delivery services.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

4) Describe major developments in library networks at international level?

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10.7 LIBRARY CONSORTIA: INTERNATIONAL

10.7.1 CARLI (Consortium of Academic and Research Libraries in Illinois)

CARLI was formed in July 2005 to serve the consortia needs of academic and research libraries in Illinois. There had been consortia existing in Illinois since the 1980s prior to the formation of CARLI. These were:

- Illinois Cooperative Collection Management Program (ICCMP), formed in 1986, provided statewide collection studies and grants.
- Illinois Digital Academic Library (IDAL), formed in 1999 to provide centralised electronic resource licensing.
- Illinois Library Computer Systems Organization (ILCSO), formed in 1980, provided the shared integrated library system Illinet Online which later became I-Share.

CARLI took birth as a result of consolidation of these three consortia. Its mission is to create and maintain a rich, supportive, and diverse knowledge environment to facilitate teaching, learning, and research through the sharing of collections, expertise, and programs.

Membership

CARLI serves 8.5 lakh students and thousands of faculty and staff covering almost 94% of the higher education clientele in Illinois. It has 145 libraries as its

members. Any institution that is recognised by Illinois Board of Higher Education (IBHE) and a member of Illinois Library and Information Network (ILLINET) can join CARLI. Those institutions that do not meet the above criteria may also be considered for membership to the consortium.

There are two kinds of members, viz., governing members and affiliate members. The difference is due to the facilities in terms of services provided and programmes available to them. Governing members are eligible for all services and can participate in all programmes whereas affiliate members can avail most services and programmes.

Services

- E-Resource Program

Participating libraries are provided access to a large number of e-resources in a consortium mode enhancing the collections of individual libraries. It not only increases access to resources for libraries but also provides access to collections of lasting value. CARLI has arrangements with EBSCO, Sage, Springer, etc whose databases are provided free to all members. Besides these, CARLI helps its members by providing access to other databases on discount.

- I-Share

I-Share database is the union catalogue of all participating libraries. It contains 11.5 million unique bibliographical records and 36 million item records. These pertain to 82 CARLI I – Share member institutions. I-Share acts as an OPAC also for individual libraries.

- Document Delivery

I-Share libraries allow users to borrow documents from other libraries. Libraries are assigned user id which can be quoted to borrow documents from other libraries. Libraries participating in the I-Share programme have to pay a fee. This goes towards paying the vendor of the Voyager software that is used for I-Share.

- Training

CARLI organises training programmes for the staff of participating libraries. It also conducts training programmes for the users. Webinars are also conducted on topics related to e-resources for their effective and efficient utilisation.

10.7.2 CONCERT (CONsortium on Core Electronic Resources in Taiwan)

The CONCERT was set up in 1990 to take advantage of the growing popularity of web-based full-text documents. It consists of members mainly from universities, colleges as well as research institutes in Taiwan. As the coordinator of CONCERT, Science and Technology Policy Research and Information Center (STPI) tries its best to fully exploit the economies from group-purchase and resource sharing. In the year 2002, CONCERT leased 22 international database systems, partly funded by the Ministry of Education and National Applied Research Laboratories.

Objectives

The main objectives of CONCERT include the following:

- To enhance sci-tech policy research and establish knowledge bank: major themes include critical national issues; and
- To establish national integrated information service mechanism.

Features of CONCERT

The following are some of the salient features of CONCERT:

- **To Sustain Academic Research Progress** — developing and integrating national information resources and introducing international information resources to foster the domestic research through our information service databases like CONCERT, ILL, etc.
- **To Support Policy-Decision Makers** — providing critical insights for governmental policy decision-makers by undertaking policy research of S&T development and value-added analysis, establishing the monitor system of manpower allocation in the S&T industry as well as performing information & communication security endorsed by the Executive Yuan of ROC.
- **To Facilitate Circulation of Industrial Innovation** — serving as a major dissemination gateway of knowledge innovation in support of cutting-edge technology research through taking part in nation-based nanotechnology programme, performing patent analyses, and offering technology transfer interface, and bringing about economic benefits as a result.
- **To Enhance S&T Cooperation Across Nations** — accelerating bilateral & multi-lateral collaboration via participating in the information activities worldwide, and introducing our research accomplishments throughout nations as so to upgrade our image.

International Cooperation

Cooperation with international Organisations is not just a means to acquire international resources; it has also opened more channels to disseminate the information about the national S&T activities and performance to the international arena. It provides access to over 100 databases to about 230 members. There are two types of members, full or core members, 9 at present and affiliate members that number to 220. The members include universities, national and private (70), science and technical universities and colleges (51), junior colleges (15), R&D organizations (30) and government organisations (18).

10.7.3 SANLIC (South African National Library and Information Consortium)

SANLIC is a consortium of higher education and research libraries in South Africa. It works with a mission to provide high quality research materials to participating institutions at cost-effective rates. Its mission is to “facilitate, on a nonprofit basis, affordable access to scholarly electronic information in support of the learning, teaching and research activities of its members. This is achieved mainly through collective negotiations with publishers and aggregators. It also promotes the use of high-quality, open access electronic information resources”. It offers access to e-journals, e- books and open access resources. It also publishes

regularly its newsletter 'SCANLiCTALK' informint its clientele about its activities and resources.

10.7.4 CURL (Consortium of University Research Libraries)

The CURL is a Consortium of University Research Libraries in UK. Several activities of CURL are funded by the JISC. The CURL helps member institutions to build distributed and hybrid research library in their institutions with an aim to help researchers all over the world: i) to search, locate and request resources of all kinds in different formats, easily and quickly from their desktops; ii) have quick and easy access to an increasing amount of electronic resources, both born-digital and digitized; iii) have physical access to manuscripts, archives or printed items that have not been digitised and cannot be moved, wherever these are held; and iv) have other printed items from outside their own institutions delivered to them efficiently. The CURL's mission is to increase the ability of research libraries to share resources for the benefit of the local, national and international research community.

The total membership of CURL has grown to 28 libraries in UK including 22 university libraries, as well as the British Library, the National Library of Scotland and the National Library of Wales.

Services and Projects

CURL's services and related projects are as below:

Online Databases: The CURL database consists of bibliographic records of documents available in members libraries as well as data from other sources (like Library of Congress). Records are stored in UKMARC and can be accessed via telnet or Z39.50 client. The database is available to non-members of CURL on charged services. The database currently consists of more than 38 million records, which is growing constantly. As libraries progress their retrospective conversion programmes the number of records for older material and for non-book material is increasing. The records are of good quality and CURL has established bibliographic standards for contributors and records are flagged to indicate standard. The service is open to any non-profit organization.

COPAC (<http://copac.ac.uk/>) : Copac is a union catalogue that provides free access to the merged online catalogues of members of the CURL. There are some 30 million records on Copac representing the merged holdings of 26 CURL member institutions, including the British Library and National Library of Scotland, plus special collections from a small number of non-CURL libraries. The remaining CURL libraries' catalogues are also being loaded. The Copac web site contains service information and support materials. Copac is funded by the JISC.

Archives Hub (<http://www.archiveshub.ac.uk/>) : The Archives Hub is a collaborative service, which provides a single point of access to descriptions of archive collections held in universities and colleges throughout the United Kingdom. Over 60 institutions are contributing high-quality information to the Hub, which covers over 20,000 archives. The website is free to use and contains information relevant to a wide range of research areas. The service is funded by the Joint Information Systems Committee (JISC) and is overseen by CURL. MIMAS runs the service at the University of Manchester and development work

on the Archives Hub software is undertaken by the Cheshire Development Team at the University of Liverpool.

Britain in Print (<http://www.britaininprint.net/>) : The Britain in Print project, funded by the Heritage Lottery Fund, is a collaborative venture led by Edinburgh University Library involves participation of ten CURL libraries including the Edinburgh Royal College of Physicians and the Mitchell Library in Glasgow. All ten libraries have significant collections of pre-1700 British books which are not yet catalogued in electronic form. Launched in January 2003, the Britain in Print project will provide free access to information about the rich collections of early British books that are held in twenty-one of the nation's most important libraries.

CURL-CoFoR (<http://www.cocorees.ac.uk/>): CoFoR (Collaboration For Research) is a new CURL initiative, set up to provide its members and other research libraries with practical tools (templates, guidelines and recommendations) for collaborative acquisition and retention. It will also give special attention to techniques for serial de duplication and to the mapping of relationships between research activity and library provision.

10.7.5 EIFL (Electronic Information for Libraries)

EIFL is a not- for- profit organization based in Europe to provide access to knowledge through a global network to developing and countries in transition in Africa, Asia, Europe and Latin America. Starting with providing access to e-journals libraries in Central and Eastern Europe in 1999; it has spread wings enabling access to knowledge for learning, teaching, research and sustainable development into 60 countries.

Programmes

EIFL provides the following programmes:

- **EIFL-Licensing:** EIFL negotiates with publishers to provide access to scholarly material for research and education on discount rates. It provides consortia access to libraries in more than 60 countries. E-resources ranging from scholarly journals, e-books to bibliographic databases from more than 25 vendors are available. It also trains local librarians in the licensing and management of e-resources. An estimate puts the savings in subscription fees accrued from consortia purchase of the order of \$215 million achieving a discount of 97%.
- **EIFL-OA: Open access:** EIFL is a strong advocate of open access. It helps institutions to build and sustain open access repositories.
- **EIFL-FOSS: Free and open source software for libraries:** EIFL helps libraries to install and use free and open source software . It also provides training to professionals to use open source software.

10.7.6 ICOLC (International Coalition of Library Consortia)

ICOLC refers to International Coalition of Library Consortia. It is a Consortium of Consortia, and first met informally in 1997. It comprises over 200 library consortia across the world and the Coalition represents thousands of member

libraries worldwide. The Coalition serves primarily higher education institutions by facilitating discussion among consortia on issues of common interest. Additional information about the ICOLC can be found at <http://www.icolc.net>

Activities of ICOLC

To accomplish the task, it performs the following activities:

- It conducts meetings twice a year generally in March/April in North America and September/ October in Europe to keep participating consortia informed about new electronic information resources, pricing practices of electronic providers and vendors, and other issues of importance to directors and governing boards of consortia.
- The Coalition meets with members of the information provider community, providing a forum for them to discuss their offerings and to engage in dialog with consortial leaders about issues of mutual concern.
- It also maintains listservs and web pages for the benefit of its members.

10.8 SUMMARY

This Unit delineates the activities and services of library networks and consortia in India and abroad selectively. It begins with an introduction to the developments of library and information networks in India. Thereafter, the activities of INFLIBNET and metropolitan area networks in India have been discussed. Library consortia have come up in a big way in the country. Some of these from different areas and fields have been taken up and discussed here.

OCLC has the credit of introducing the concept of resource sharing and networking. It covers a major portion of international networks in this Unit. Other important networks like RLG, Janet, CALIS, etc have been covered. EIFL has played an important role in spreading e-resources in developing countries. Its activities have been discussed followed by that of ICOLC.

Note: Students are advised to visit the relevant websites for more details.

10.9 ANSWERS TO SELF CHECK EXERCISES

- 1) INFLIBNET is playing a major role in the development of library automation. The thrust is more in following areas:

Library Networking: INFLIBNET is a national body which is promoting library automation of Indian University Libraries. INFLIBNET is providing leased line for university libraries to access Internet for communication among scholars, students and researchers. With this network backbone it is connecting the libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R&D institutions, etc.

Same line is used by Indian universities to access online e-journals subscribed by UGC under UGC-INFONET scheme. INFLIBNET has become the hub for UGC-INFONET program.

Library Automation: INFLIBNET has developed a automation solution for Indian libraries called SOUL (Software for University Libraries). It works in client server environment. Currently, it is developed in Windows environment and UNIX version of SOUL is under development.

Education: INFLIBNET runs courses in library automation and training in SOUL. The duration of courses are one week. It also provides on site training for library staff. It also conducts workshops and seminars in designing and developing digital libraries.

2) DELNET runs following services for its members:

- Inter Library Loan Online;
- Retro-Conversion and Creation and Maintenance of Bibliographic Databases;
- Training Programmes;
- Conferences, Lectures and Workshops;
- Newsletter;
- INTERNET, Electronic Mail AND Videoconferencing. Besides, there are many databases to which it provides online access:
- Union Catalogue of Books in Common Communication Format (CCF);
- Union List of Current Periodicals: in science and technology, social sciences and humanities;
- Union Catalogue of Periodicals.

3) The salient features of the UGC-Infonet are:

- Scaleable Architecture to grow from Universities to affiliated Colleges;
- Nation-wide Terrestrial Backbone using Fiber Optic links;
- Integrated Satellite WAN supporting broadband and SCPC VSAT technology;
- Comprehensive Network Management Systems for overall monitoring of the network, down to each and every device;
- Linkage with other Academic and Research Networks all over the world;
- Data security and virus protection using firewalls and Intrusion Detection Systems;
- Dedicated Data Center for Web hosting, e-Journals and Mail Boxes;
- Mirror sites spread all over the country for content hosting;
- Broadband Multimedia and Video Channels for Distance Learning.

4) The library networks in USA are at the most advanced level of development. The some of the enabling factors responsible for successful development of library networking in USA includes long tradition of cooperation among libraries, introduction of library automation as early as from 1960's, advances in information science during 1970's and 1980's and introduction of MARC format by the Library of Congress in 1968. The Library of Congress has played a pivotal role that led to the development of successful networks such as OCLC, RLIN and other networks in USA.

In USA, the OCLC is a non-profit membership organization serving 50,540 libraries in 84 countries and territories around the world. Its mission is to further access to the world's information and reduce library costs by offering services for libraries and their users, and to be the leading global library cooperative, helping libraries serve people by providing economical access to knowledge through innovation and collaboration. Research Library Group (RLG) is another important library network in USA that is devoted to the mission of "improving access to information that supports research and learning". In UK, JANET is a network operated and developed by UKERNA under a Service Level Agreement from the Joint Information Systems Committee (JISC) of the UK Higher and Further Education Funding Councils. JANET is connected to the equivalent academic networks in other countries and to many commercial networks in the UK and abroad forming part of the global Internet. Consortium of University research Libraries (CURL) is a library network fully devoted to enhance cooperation amongst university libraries in UK.

10.10 KEYWORDS

- CAS (Current Awareness Service)** : A service designed to aid research workers in keeping themselves abreast of the current developments taking place in their subjects of interest.
- CD-ROM Database** : An organised collection of information available on a CD ROM
- Centralised Database** : It refers to centralised storage and usage of unified reference information.
- Consortia** : A group of libraries or other organisations that form a partnership to achieve a goal, such as resource sharing, that cannot be achieved by the individuals alone.
- Digital Collection** : A digital collection is a body of materials in digital format treated as a group or considered as a whole.
- Document Delivery Service** : A service whereby the Library provides full-text copies of the documents research papers, conference papers journal articles etc. to the users on demand irrespective of the location and form of the original
- E-Resources** : Electronic information resources accessed via the internet.
- Gateway** : A network point that acts as an entrance to another network, such as the server through which people on a company's local area network access the internet.

Inter Library Loan : A cooperative arrangement among libraries by which one library may borrow materials it does not own from another library.

Internet : The vast collection of interconnected networks that all use the TCP/IP protocols and that evolved from the ARPANET of the late 60's and early 70's.

Intranet : A private network inside a company or organisation that uses the same kinds of software as the Internet, but is only for internal use and is not connected directly to the global Internet.

MARC : Machine Readable Cataloguing. The MARC formats are standards for the representation and communication of bibliographic and related information in machine readable form.

Metropolitan Area Network : A network of computers spread over a metropolitan/city-wide area such as buildings located throughout a town or city.

Online Database : A database located in a remote computer and accessed through the Internet.

Online Union Catalogues : Union catalogues of the libraries available online.

OPAC : Online Public Access Catalogue. It is an online catalogue of a library collection that is available to the public.

Resources Sharing : Collaborative arrangements made between libraries for mutual assistance, by the sharing of resources or division of costs, which can be advantageous and efficient.

Retro conversion Service : Retrospective Conversion Service is a service that involves conversion of a library's paper catalogue records into machine-readable form.

SDI : SDI is a current awareness system which alerts the user to the latest publications in his/her specified field(s) of interest.

Shared Catalogues : A form of cataloguing undertaken by the Library of Congress and other agencies responsible for material bibliography.

Union Catalogues : Union catalogues reveal information about the collections of more than one library. They are a way for groups of libraries to share information about their collections in a consistent way, both for cataloguing and inter-library loan purposes.

Virtual Reference Service : Virtual reference is reference service initiated electronically where patrons employ computers or other Internet technology to communicate with reference staff, without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing etc.

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BLOCK 4 LIBRARY AND INFORMATION PROFESSION AND RELATED AGENCIES

Introduction

LIS is a profession. Like any other profession its members possess specialised knowledge and skills that they apply for the benefit of the society. They exist to serve the information needs of the public. LIS professional associations exist to guide the progress of the profession in the right direction. There are other agencies also involved in its growth and development. The Block presents a detailed discussion on all these aspects.

There are four Units in this Block.

Unit 11 **Librarianship as a Profession** presents a detailed discussion on whether LIS is a profession or not. Difference between a vocation, an occupation and a profession has been presented. It also discusses the characteristics of, and developments in the LIS profession.

Unit 12 is titled **Ethical Issues in Librarianship**. Every profession has ethics of its own that helps it to function effectively. LIS profession too has ethics formulated by its professional associations. This Unit discusses ethics promulgated by different LIS associations.

One of the important characteristic of any profession is the existence of professional associations. Professional associations exist to give the profession a direction and monitor its progress. A professional association maintains standards in the profession, gives forum to the professionals to interact and update themselves professionally. Unit 13, **Role of Professional Associations** describes role, functions and activities of LIS associations in India, U.S.A. and U.K.

There are many organisations and institutions that work towards the development of libraries and information centres. They promote libraries and information centres and coordinate and undertake the development of their services. These range from inter-governmental to governmental to autonomous as well as voluntary organisations. Their nature varies from advisory, to those giving financial assistance, to those involved in providing services. Unit 14 **Organisations and Institutions involved in the Development of Libraries and Information Services**, dwells on some of these organisations discussing their functions, programmes and activities and role in the development of libraries and information centres.

UNIT 11 LIBRARIANSHIP AS A PROFESSION

Structure

- 11.0 Objectives
- 11.1 Introduction
- 11.2 Definition
- 11.3 Profession vs. Occupation vs. Vocation
- 11.4 Characteristics of a Profession
- 11.5 Library and Information Science (LIS) as a Profession
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 - 11.5.2 LIS is a Profession
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 - 11.9.1 Ancient Period
 - 11.9.2 Medieval Period
 - 11.9.3 British India
 - 11.9.4 Independent India
- 11.10 Summary
- 11.11 Answers to Self Check Exercises
- 11.12 References and Further Reading

11.0 OBJECTIVES

Library and Information Science (LIS) is a noble profession. The BLIS Programme provides students a base for entering into the profession. It is important for anyone entering the profession to know its characteristics. An awareness of the professional duties, functions and obligations would help the students to perform their roles as young professionals effectively. This Unit explains the meaning and characteristics of a profession. It discusses the difference between related concepts, 'occupation', 'vocation' and 'profession'. The Unit also dwells in brief on the evolution and developments in the LIS profession.

After reading this Unit, you will be able to:

- explain the concept of a profession;
- distinguish between a vocation and a profession;
- describe the characteristics of a profession;
- explain how library and information science is a profession; and
- discuss briefly the developments in LIS profession in India.

11.1 INTRODUCTION

A profession is defined as an activity/ set of activities constituting a calling. A calling is defined as an activity for which the performer has a legal and moral right to be paid reasonably whether he works in an organisation or is self-employed. All professions are callings but all callings are not professions. A profession is a specialised occupation or vocation characterised by intensive education and training in a specific field of knowledge with an intension to apply and serve the humanity. Classically there were only three professions: Divinity, Medicine, and Law. Historically, the word "profession" meant an acknowledgement or declaration and it referred to the vow or pledge taken by a cleric or monk. Later it came to be associated with the hippocratic oath taken by a physician and a similar one by a barrister. And the term thereafter came to be associated with all the activities of a religious monk or that of a physician, or a lawyer. (Butler, 1951). These classical professions followed by the coming up of Dentistry, Civil Engineering, Logistics, Architecture and Accounting. With the rise of technology and occupational specialisation in the 19th century, other bodies began to claim professional status e.g. Pharmacy, Logistics, Veterinary Medicine, Nursing, Teaching, Librarianship, Optometry and Social Work. All of these could claim the status of a profession by 1900. Thus, new disciplines including librarianship rose in status and power as a profession.

Every profession strives to persuade the community to sanction its authority to the profession within certain spheres by conferring upon it a series of powers and privileges. The society accords to it recognition in the form of social acceptance. The recognition is accorded to the profession due to the expertise possessed by it that is beneficial to the society.

11.2 DEFINITION

The term 'profession' has been defined differently by the various schools of thought. Some of the accepted definitions are discussed below.

According to the *Oxford English Dictionary*, “professions involve the application of specialized knowledge of a subject, field, or science to fee-paying clientele.” In other words, the professional provides service to the society on the basis of her/his specialised knowledge and skills, and in turn gets paid for it.

Merriam-Webster Online Dictionary defines a profession as “a calling requiring specialized knowledge and often long and intensive academic preparation”. The definition mentions that appropriate education needs to be imparted for preparing professionals. It further stresses that the education should be in-depth and comprehensive. A thorough preparation of the professional would enable her/him to serve the society.

Dictionary of the Social Sciences states that “The term profession denotes occupations which demand a highly specialized knowledge and skill acquired at least in part by courses of a more or less theoretical nature and not by practice alone, tested by some form of examination either at a university or some other authorized institution, and conveying to the persons who possess them considerable authority in relation to ‘clients’. The definition again differentiates a profession from an occupation by mentioning that a professional possesses theoretical knowledge acquired during a specialised programme conducted at a higher level. Sound theoretical knowledge forms the basis of the practice. It helps the individual to practice with confidence, update and evolve with changing time.

Funk & Wagnall’s Standard Dictionary of the English Language defines profession as:

- 1) An occupation that properly involves a liberal education or its equivalent, and mental rather than manual labour; especially, one of the three learned professions, law, medicine, or theology; and
- 2) Any calling or occupation other than commercial, manual, etc., involving special attainments, or disciplines, such as editing, music, teaching, etc. and also the collective body of those following such vocation.

The New College Encyclopedia defines a profession as “a vocation based on long, specialized educational training that enables a particular service to be rendered, representing a high degree of thought, and is distinguished from vocations calling for technical skill alone”.

It can be concluded that a profession warrants:

- A specialised body of theoretical knowledge that is scientific and scholarly;
- Intensive preparation (training) for acquiring needed skills and methods to put the knowledge to work;
- A set of principles, a social code or ethics;
- An organisation (association) that will bind all the members together for consented opinion, collective thinking and achieve high standards in performance; and
- Working with prime purpose of rendering public service.

Professionalism involves a professional character, spirit or methods and standard practices as distinguished from an amateur. An expertise is expected of

professionals with full involvement in, and commitment to those who receive services from them.

Oxford Dictionary defines professionalism as the competence or skill expected of a professional. Ward (2004) observes that professionalism is about individual modes of behaviour that command respect and build trust. It is about excellence in service as measured by recognised standards. It is about delivering services or working to standards that meet the needs and expectation of clients.

Therefore professionalism requires a focused approach towards a particular goal. A professional needs to be confident, competent, and motivated. S/he is expected to be accountable, responsible and committed to the profession.

11.3 PROFESSION VS. OCCUPATION VS. VOCATION

The terms vocation, occupation, job, business are used synonymously with the term profession. But a profession has distinct attributes and differs from a vocation and an occupation. Occupation refers to denote one's source of livelihood, being most generic lowermost in the pyramid starting from occupation, moving on to vocation and then to profession. Vocation is an occupation that demands practical skills on the part of the individual. A profession, on the other hand requires theoretical and practical skills. To clarify by an example, we may say that the job of an electrician is a vocation and that of an electrician engineer is a profession. Theoretical knowledge empowers a professional to know the reasons for the practical actions that s/he takes. It enables her/him to change the course of her/his actions in changed circumstances.

In fact the LIS profession in early stages was considered as a vocation and still, there are people who so believe it. Hence, to give a clarification on the terminology and justify the professional status of LIS the terminology is further explained here. Let us have a look into the related terms that are closely associated but are distinct in their scope.

Occupation: According to Merriam - Webster Online Dictionary, occupation means “an activity in which one engages” or “the principal business of one's life”

Vocation: Merriam - Webster Online Dictionary defines vocation as “the work in which a person is regularly employed”. It involves a routine activity of some kind – physical or scholarly and needs certain or no skills.

Thus, “vocation” and “occupation” are somewhat interchangeable, although “vocation” implies more education or experience. Profession, on the other hand is generally considered related to the higher educated positions like medicine, law.

A profession differs from a vocation in the following aspects:

- A profession is mainly service based and not job based.
- The professionals acquire skills by virtue of intellectual training and not on job training.

A profession must have associations at national and state level which a vocation does not have.

Self Check Exercise

Note: i) Write answer in the space given below

ii) Check your answer with the answers given at the end of this Unit.

1) Define a profession and distinguish it from a vocation and an occupation.

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11.4 CHARACTERISTICS OF A PROFESSION

Several authorities attempted a closer review and identified specific elements, which go to characterise a profession. Greenwood identified the following as specific elements that constitute a profession.

- 1) A systematic theory which delineates and supports the skills that characterise the profession;
- 2) A level of authority which comes from extensive education in the systematic theory;
- 3) Community sanction and approval of this authority as expressed in conferring on the profession of such powers as accreditation, formulation of standards of performance, and establishment of rules for admission into the profession;
- 4) A code of ethics which regulates relations of professional persons with clients and colleagues;
- 5) A professional culture sustained by formal associations, consisting of values, norms, and symbols and having at its center the career concept; and
- 6) A service orientation.

According to Martin a profession must have the following attributes:

- 1) A body of specialised complex knowledge;
- 2) Practice based on knowledge that must be of vital importance to the client and the society;
- 3) The practitioner must enjoy the respect of the community due to her/his competence;
- 4) The profession must be organised (professional association);
5. It must have a formal code of ethics which should be enforceable;
- 6) There should be evidence of formal training or education in the body of knowledge identified with the profession;
- 7) The organised association or other recognised body must have the right to test that knowledge and its application;
- 8) The interest of the client and the public must be placed above the immediate interests of the practitioner;

- 9) The practitioner of the profession must be paid directly for her/his services either by individuals or by a group; and
- 10) Admission to the practice and the right to continue in the profession must be the concern of, and in direct control of the society.

According to Ganesh Bhattacharya, the term profession is used to denote a calling with the following attributes:

- It requires specialised knowledge and often long and intensive preparation including learning of skills and methods as well as the scientific, historical or scholarly principles underlying such skills and methods;
- It maintains by force of organisation or concerted opinion high standards or achievement and conduct; and
- A profession commits its members to continued study and to a kind of work which has for its prime purpose the rendering of public service.

A profession displays its self-consciousness in the following ways:

- Dissatisfaction with available training and education for the profession;
- Attempt to standardise practice and introduce theoretical analysis of work;
- Concern with low standards, bad workmanship, and indifferent handling of clientele;
- Attempt to establish co-ordination and co-operation among practitioners;
- Protest about lack of recognition for the occupation; and
- Belief in the emergence of a new and different discipline with wide application.

Chopra listed the following as essential characteristics of a profession:

- 1) Specialised knowledge (learning) and skill (practice);
- 2) Research and continuous in-service updating of specialised knowledge;
- 3) Intellectual activity;
- 4) Social necessity;
- 5) Service to the society rather than personal gains;
- 6) Recognition by public and status in the society;
- 7) Standardised terminology;
- 8) Closely knit professional organisation having an altruistic philosophy;
- 9) Stability of the profession through permanent membership (life career);
- 10) Code of ethics for the practitioners;
- 11) Autonomy of the profession; and
- 12) Authority for the practitioners.

We can conclude by saying that a profession has a philosophy and theory providing it a sound academic pedestal. Research in the discipline should continuously add to the base of knowledge. Professional practice should be based on the critical mass of specialised knowledge. For anyone to be called a professional, one should have gone through a rigorous programme at higher education level. The knowledge and skills should be used to serve the society which should be

uppermost for the professional. It provides a status and recognition to the professionals in the society. Ethics is another important aspect of any profession which the professionals need to practice for selfless service. It should have an association that helps a profession for its advancement and liaison with the society.

Self Check Exercise

Note: i) Write answer in the space given below

ii) Check your answer with the answers given at the end of this Unit.

2) List any six attributes of a profession.

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11.5 LIBRARY AND INFORMATION SCIENCE (LIS) AS A PROFESSION

Librarianship is a distinct and distinguished profession in modern society. It is engaged in public service and plays an important role in national development. Librarianship today is termed as “Library and Information Profession” since the concept of librarianship has changed in view of the changing information needs of the society.

11.5.1 LIS is not a Profession

For a long time there was dilemma whether librarianship is a profession or not. One of the views is that it is not a profession, it is believed to exist between a profession and a vocation. The medical and legal professions are ancient and hence accepted as professions from time unknown but it is not so in librarianship. Different opinions have been expressed by social scientists about librarianship being a profession. There are those who do not agree with the professionalism of library services. Lancour (1962) does not consider librarianship as a profession on the following grounds.

- 1) It doesn't have the community sanction.
- 2) Librarians' services are not indispensable in the same way as that of doctors. Most of the library employees, both professionals and non-professionals, hide behind the shelves when looked upon for service. They are not able to serve the society confidently to earn their reputation.
- 3) They exercise no real authority with the clients.

Sills (1968) observed that “the profession of the librarianship has not been included in the long list of the professions, even in the International Encyclopedia of Social Science”.

11.5.2 LIS is a Profession

A librarian conserves the cultural and intellectual heritage of mankind and acts as an agent of communication from information generation to the point of use. His services are indispensable in information transfer chain. This opinion was shared by many social and information scientists like Melvil Dewey, Butler, Greenwood, Schaffer et al and they tried to prove that librarianship is a profession as it has many attributes of a profession. Robert D Leigh wrote that librarians have accepted professional status as a goal on the following factors:

- 1) “They are identified with knowledge, which is prime service of occupational prestige in our society
- 2) They are service oriented rather than self-interested at least in certain senses.
- 3) Library and information professionals belong to professional association (state and national)
- 4) They are trained in professional schools, associated with universities.
- 5) They have code of ethics.”

Thus, librarianship can be considered as a profession, as it possesses the following basic characteristics of a profession:

- A body of knowledge imparted in LIS schools;
- Intensive training and continued practice to gain mastery over the skills for knowledge organisation and retrieval;
- Oriented towards service to the society;
- Associations bind the professionals;
- Standard terminology and practices; and
- Code of ethics.

Education for librarianship at middle and higher levels is imparted at post-graduate level for two years. Teaching different theoretical aspects and intensive training of skills support the view that it is a profession.

S.R.Ranganathan contributed to the development of library profession in India by developing standard terminology, theoretical principles, LIS education – from certificate to research level, and introducing specialisation and standardised practices. Library profession in India owes a lot to his contributions. To quote Ranganathan “Librarianship is a noble profession. A librarian derives his joy by seeing the dawn of joy in the face of the readers who were helped in their search for the right information at the right time.”

Self Check Exercise

Note: i) Write answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

3) Why is librarianship not considered as a profession?

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11.6 EVOLUTION OF THE LIS PROFESSION

M.A.Gopinath opined that there are three distinct stages in the evolution of the LIS profession.

11.6.1 Scholarly Period

Before the middle of the 19th century the libraries were owned by kings, noblemen and monasteries. Only monasteries were interested in the collective use of libraries that were managed by scholars. Nalanda and Taxila University libraries belong to that period in India. The libraries during the period are characterised as collections with access to limited few. The books were prized possessions in view of the treasure of knowledge they represented and also the labour involved in their production.

11.6.2 Vocational Period

The next century saw the birth of librarianship. In UK and USA public libraries were started in the 19th century and managed by persons devoted to the work. This led to the development of a new vocation – librarianship – that involved the art of book selection, classification, cataloguing, and reference service. Later, programmes were designed to train librarians. The specialisation resulted into considering librarianship as a ‘skilled occupation’.

11.6.3 Professional Period

Over the period librarianship developed from a vocation to a profession having a body of knowledge, laws, principles, techniques for processing information and serving the users. The application of scientific method to librarianship gave it the status of a profession. It has been six decades now but there is still a cross section of the society who like to debate on whether librarianship is a profession or not.

Librarianship as an Occupation: In ancient times, during the civilisations of Mesopotamia and Babylonia librarianship emerged as an occupation. There were libraries at Alexandria, Taxila, Nalanda and in Rome that were managed by librarians. Librarians were employed in libraries maintained by kings and monasteries. Thus the profession emerged as an occupation / employment.

Librarianship as a Vocation: In the medieval times more and more libraries were established that were managed by scholars. In the initial stages they developed special skills for organisation knowledge and recalling it as per user requirements. Many of these skills were applied on trial and error basis with no scientific foundation. This was the time when librarianship was considered as a vocation and not as a profession.

Librarianship as a Profession: With the industrial revolution and universalisation of education, knowledge production had increased. The academic institutions considered libraries as centres of knowledge activity. Further the establishment of British Museum (London), Bibliotheca Nationale (Paris) and the Library of Congress (Washington D.C) inspired for the development of public libraries and other types of libraries. The library legislation in UK that enacted Public Library Act also boosted the situation. Consequent to the increase in number of libraries and the librarians, associations were developed in USA (American Library Association) and UK (Library Association). Library science courses were offered

by universities as graduate or post graduate programmes. Library science got its own knowledge base when codes like Cutter's 'Rules for a Dictionary Catalogue' and 'Dewey Decimal Classification' were developed to achieve standardisation in the technical aspects of librarianship. Thus librarianship emerged as a profession from vocation.

Self Check Exercise

Note: i) Write answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

4) What are the stages in the evolution of librarianship?

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LIS Profession

The discovery of writing and media for recording accumulated knowledge resulted in the possibility of preserving recorded information for reference beyond the barriers of space and time. The invention of paper and printing opened up larger opportunities in this line. The twentieth century witnessed the emergence of various professions and librarianship is one among them. The mechanism of communication, through print, non print and electronic media and informal communication through invisible colleges has been duly institutionalised through the library. In simple terms, library is a channel of communication and librarian is the mediator of communication. Librarianship is developed both as a science (body of knowledge) and an art (the skills). The motto of the LIS profession is to meet the needs and demands of users. However the variety of sources is changing from print to digital; the services changing from traditional reference service to internet based services for online access. Librarianship today has an even more critical role to play in building up awareness among the members of the society and help them to adjust to changes in the information environment.

What is Librarianship/Library Science?

The primary purpose of LIS profession is to provide access to information pertinent to user request with great speed and thus, achieve user satisfaction. Hence it is service based. Keeping this basic purpose in view many LIS scientists define the LIS profession (librarianship) in different ways. In essence it is the science and art of managing libraries.

Harrod's Librarians' Glossary (Fifth edition) defines library science as: "A generic term for the study of libraries and information units, the role they play in society, their various component routines and processes, and their history and future development. Library science is used in the United States in preference to the British term *librarianship*"

R.L. Mittal describes librarianship "as a noble and service oriented profession which encourages all types of reading and education."

P.N. Kaula defines “Librarianship developed as practice; as a body of techniques evolved from certain adhoc assumptions about how people use books”

According to Danton “Librarianship is that branch of learning which has to do with recognition, collection, organisation, preservation and utilisation of graphic and printed material”.

Mayors defines librarianship as “That branch of human knowledge which is concerned with the production, care and use of recorded human knowledge”.

Dakhole characterises librarianship in the following words:

- 1) “Librarianship is a branch of human knowledge
- 2) It is a profession
- 3) It is tool for information or knowledge
- 4) It involves social service
- 5) It is a department of scholars not mere a craft”.

Self Check Exercise

- Note:** i) Write answer in the space given below.
 ii) Check your answer with the answers given at the end of this Unit.
- 5) Define librarianship/library science.

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11.7 TRANSFORMATION OF THE LIS PROFESSION

There is a profound change in theory and practice of library profession over the passage of time. The custodian librarian had to grow in to become a knowledge organiser and information transmitter. It is axiomatic that libraries and civilisation go hand in hand. The concept of librarianship has been changing according to the demands of the society and the bewildering growth of the communication media. The whole history of librarianship indicates some broad landmarks, with different phases. The first phase of librarianship comprised of the “custodianship of the resources of knowledge”. From that stage it traversed to the contemporary roles of “knowledge manager” and “digital librarian”.

Social institutions are affected by movements and changes in the society around them and the library is no exception. The media revolution, the computer and communication technology, the changing behaviour of user community and the increasing social responsibility of libraries have had a great impact on the LIS profession. The present librarian is vested with new responsibilities like managing information networks, and conducting online searches, managing digital preservation and development of digital libraries. The profession is more active and meaningful in the present day information world. Librarian acts as an advisor,

interpreter and mediator for user's information needs. Thus the work performed by today's information professional, seems quite different and challenging in both forms and formats than in the past. Thus, LIS profession is gaining a new identity. LIS professionals are now identified as webmasters, network administrators/managers, information literacy providers, information facilitators etc. The following paragraphs explain the stages in the evolution of LIS profession.

11.7.1 Custodian

The library custodians are keepers of culture, preservers of creation, and defenders of future. Their duty earlier was to keep the books intact rather than allow them to circulate freely among readers. Thus the first generation of librarians was mere custodians / keepers of recorded knowledge and culture.

11.7.2 Librarian

With the invention of printing in 15th century there was less need for the protective function of libraries. The librarian moved away from just being the "custodian of books" to information / knowledge collection manager. The philosophy changed, library resources were meant to be put into use, it was felt to circulate the books for better utilisation of knowledge. So the diffusion of knowledge by lending books became the predominant function of the library in 20th Century. It was also realised that the utility of library resource depends upon the skills and knowledge of people who direct, operate and manage the library. Hence a human agency, the librarian was felt necessary to provide personal assistance to users in providing relevant information and assisting them in its utilisation.

Thus the traditional librarianship started shifting from material handling to information handling. In this process of transmission of knowledge, librarian stood as mediator between the originator (author) and the end user. With the bombarding generation of information termed "information explosion" and the need for the same growing in a big way, importance of librarianship has been realised among people in the society. It was during the postwar period that the responsibilities of the librarian changed drastically, because of rapid growth in book collection and new emphasis on the 'use' of library resources. The amount of literature published in every subject grew exponentially. In addition the growth and production of secondary sources also increased significantly. Hence it became very difficult to find out specific information from this huge mass of information. Since the needs of the information seekers are varied, information is processed, preserved and disseminated according to the users' specific demands. In the process specialised services like documentation, current awareness, selective dissemination of information and translation etc. are provided.

11.7.3 Documentation Officer

With changing times, users expected specific information to be culled out from sources to be provided to them. This gave birth to the concept of documentation activities in libraries. Increasing specialisation resulted in the post of documentation officer in libraries. Documentation centres have been set up to meet the requirements of specialised users in research organisations. The job of the documentalist is to collect, organise and disseminate the information from books, monographs, serial publications and non print sources and provide information pin pointedly and precisely according to the users' requirements. Bibliographical, information

consolidation and digest type of services are provided in documentation centres to serve specific needs of users.

Documentation officer needs to be aware of the subject/area of interest of her/his users. S/he should constantly update herself/himself in the ongoing developments in the field. S/he should have a good command over the language and skills of summarising, etc. Technology has enabled to provide these services more effectively and efficiently.

11.7.4 Information Officer/Scientist

It is the responsibility of the library to build up collection of information in anticipation of future use. The increasing information and its increasing importance have led to the evolution of libraries into library and information centres. Identification of distinct user groups and developing suitable information services like providing access to the virtual collection through a website at any time and anywhere is the responsibility of information scientist. As the use of information increases in the society, the importance of library and information centres also increases. This demands for special skills in information professionals to create, collect, communicate and consolidate the information on behalf of the clients. The speedy and radical explosion of information has greatly transformed the role of libraries and information centres. Thus, the change in the mission of librarianship has significant implication for the library profile in the 21st century. In this new environment library networks play major role in the process of global networking of information. Hence the scope of library becomes universal and the information specialist works as a disseminator of digital information, rather than the custodian of information.

Moreover the emergence of information society transforming into knowledge society has increased the complexities of information accessibility, reliability and dependability. With the advent of internet, books and journals arranged on library shelves in traditional libraries are also getting into virtual shelves in electronic libraries, thereby enabling digital seamless remote access to information for all users. This has paved way for the emergence of concepts ‘digital library’ and ‘digital librarian’.

11.7.5 Digital Librarian

Digital libraries are electronic libraries wherein all the collections in full text are in digital form and access to the collection is through networks. The very mission of digital libraries is to create new approaches to acquisition of resources, new storage and preservation, classification and cataloguing, intensive use of electronic systems and networks. Thus the present role of digital librarian extends his services far beyond physical boundaries. They provide innovative resources and services, and play an important role as digital librarian in connecting old graphic records, to machine readable forms, and create new records of text, graphics, and sounds and multi media. They integrate all the memory institutions like libraries, archives, museums. Thus they have stemmed out of the traditional brand of gatekeepers of information, to information gateways and information skill developers. In this scenario of transformation Swarupanandan (1995) felt that “Change from the information custodian to information salesman passing through the information transmitter indicates the growth of information industry on the one hand and the proliferation of professional arenas on the other”.

Self Check Exercise

- Note:** i) Write answer in the space given below.
ii) Check your answer with the answers given at the end of this Unit.
- 6) What is meant by digital libraries?

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11.8 CATEGORIES OF LIS PROFESSIONALS

LIS professionals are generally involved in the process of acquisition, processing, organising and maintaining documents in a library and providing various types of information services based on these documents and their experience. In certain cases, say, in a small library, all these activities are performed by a single individual. In certain cases, an individual may be involved only in a single activity, say cataloguing. Generally, these personnel are trained through certain institutions like universities and associations, and are paid for the jobs they perform.

In our country, many libraries are being run by untrained persons. According to definition, these persons do not fall under the category of library professional. Similarly, accounts staff, clerical staff, class four staff like security guards, cleaners are not considered as library professional. Technical staff like binders, cameramen for microfilming, and photocopier operators are also not included in this category.

Library professionals include among others library administrators, classifiers, indexers, cataloguers, reference librarians, classificationists, teachers of library and information science, and thesaurus constructors. We can also include librametrician, bibliometrician and bibliographer in this category. The library professionals can also be categorised according to the institution they serve, e.g. school librarian, college librarian, and university librarian. Categorisation is also possible according to the subject, i.e. medical librarian, law librarian, and so on.

You are aware of the functions of many of these personnel. Hence, we shall describe them briefly in this Unit. A person in charge of a library is called a librarian. Sometimes, he/she is also termed as library manager.

11.8.1 Library Administrator

A library administrator is responsible for the administration of a library. The head of a library is usually designated as chief librarian and his/her subordinates as deputy librarian, assistant librarian, etc. Sometimes, he/she is simply called a librarian, a library manager or a director. He/She possesses expertise in planning, organisation and management of various activities and services of a library and is considered to be a good source of information in these areas.

11.8.2 Classifier

A classifier generally classifies books following certain scheme of classification, say Dewey Decimal Classification. While classifying, first of all the classifier has to ascertain the subject the book is dealing with. For this purpose, he/she has to go through the title, contents, and sometimes even through the text and index of the book. This apart, many a time he/she is to consult reference books like dictionaries, encyclopaedias, gazetteers and who's who. This process helps him/her to learn the topography and ramifications of a number of subjects bit by bit. A classifier of a general library gradually becomes knowledgeable practically in all subjects. While classifying, sometimes he/she encounters books on subjects that do not figure in the classification schedule giving an indication that the subject may be new. Thus, the classifier becomes aware of a new subject much before its entry in a classification scheme, dictionary or an encyclopaedia. He/She also comes to know about the word denoting the new subject. Thus, a classifier knows better than others about the books on new subjects that have entered a library because he/she has to spend more time on the book while deciding its class number. Needless to say, this process helps him/her to remember the book for a long time and turns him/her into a good source of information about books available in the library, the subjects in which the library is strong and weak.

11.8.3 Cataloguer

You all know that one who catalogues documents following a catalogue code or a set of cataloguing rules is a cataloguer. While cataloguing, a cataloguer gathers information about the title, author, collaborator, edition, imprint, collation, ISBN, price, etc. of the book. He/She also gathers information usually from the class number about the subject of the book. In the course of his/her work, a cataloguer gradually comes to know about the authors writing books, the subjects in which the library is becoming strong or weak, the publishers renowned for publishing books in particular subjects, etc. In these areas, the cataloguer becomes good source of information.

11.8.4 Classificationist

One who designs and builds up a scheme of classification on sound principles is a classificationist. For example, Melvil Dewey, S R Ranganathan, H E Bliss were all classificationists. There are two types of classificationists: general and specialist. A general classificationist builds a scheme of classification covering all subjects. On the other hand a specialist classificationist builds up a scheme on a particular subject, say education. A classificationist is an expert not only in the principles of classification but also in epistemology. He/She studies the origin, nature, growth, proliferation and limits of human knowledge; does research as to how a new subject comes into being, how it proliferates into branches and sub-branches, and how a particular subject decays. They also study the relationship of various subjects. The structuring of knowledge and fitting every component of knowledge in that structure also figure within the purview of their expertise. Expertise in all these areas makes them to be useful sources of information on different aspects of classification and knowledge.

11.8.5 Indexer

Since long, various types of indexes are being provided in documents to locate information using author's name, title of the document, key term, geographical name, chemical formula, etc. With the advent of computers, computer-aided subject indexes like KWIC, KWAC, and KWOC have also come into being requiring least human involvement.

An indexer compiles indexes based on some principles, guidelines and tools. To aid indexers standard lists of subject headings, thesauri, etc. are being developed and updated from time to time. Indexing systems like PRECIS, POPSI and Chain Indexing have also emerged. Indexing does not always prove to be a simple job. In compiling some indexes like formula index in chemistry subject knowledge becomes an essential prerequisite.

An indexer who has been continuously indexing for years knows how a subject is developing, proliferating into its various branches, and building up linkages with other subjects. He/She also becomes an expert in compiling and consulting indexes and using indexing tools like Library of Congress List of Subject Headings. Thesaurus of Engineering and Scientific Terms, etc. Such people prove to be highly useful in providing expert advice on indexing and solving various indexing problems.

11.8.6 Reference Librarian

All of you have studied reference service in the BLIS programme and learnt about the qualities, qualifications, experience and job requirements of a reference librarian.

We are not dwelling up on these aspects of a reference librarian here, but highlighting the role he/she plays as a powerful information source.

In response to the demand of users, a reference librarian has to consult more books and documents compared to other staff of the library. In this process he/she becomes more knowledgeable about the contents of books held in a library and provide answers to queries from unimaginable sources. To illustrate this point a few real examples are being cited here. In mid-1960s, B S Kesavan, the then Director of INSDOC (now NISCAIR), was interested to find out the address of an Australian librarian. Internet was non-existent in those days. Who's Whos did not provide the answer. One very young staff providing reference service basing the nucleus of National Science Library searched out the information from the Australian Library Journal! In early 1980s, a query was received from an engineering institution at the National Science Library, New Delhi as to the meaning of 'tribology'. All possible reference sources including the latest dictionaries were silent about the word. It was thought that the word might have been derived from the word 'tribes'. But the enquirer pointed out that he/she knew this much that it was an engineering topic, and had nothing to do with tribes. Finally, one senior staff of the Library ferreted out the information from a booklist informing about new books. The publication recorded a conference proceeding on the subject [probably it was the first conference on it] where the definition of tribology was given. The word connotes the science and technology of friction! These examples show that a reference librarian should be well read and well informed, person having a fair knowledge of information sources.

11.8.7 Library and Information Science Teacher

All of you have seen library and information science teachers. They take classes in various courses of library and information science and many of them guide research students. They also write textbooks, course materials, etc. In our country, a library and information science teacher generally teaches more than one subject. However, specialisation is gradually setting in. Today you may find that all library and information science teachers cannot teach bibliometrics or computer applications. Only specialist teachers are teaching those subjects.

A teacher is not only an expert in the subject he/she teaches, but also knowledgeable in various methods of teaching, and courses and curricula of various universities and institutions teaching the subject. Many of the teachers suggest the research topics to the students. In some foreign universities, e.g. University of Malaya, a teacher announces in advance the research topics in which he/she can guide the students for doing their project works. Here, a student gets a very good opportunity to select the topic of his/her choice.

11.8.8 Thesaurus Designer

A person who designs a thesaurus is called a thesaurus designer. This is a new group of professionals that emerged several decades ago especially with the advent of computers in the field of library and information science. Thesauri being developed for information retrieval purposes are different from Roget's Thesaurus. Designing and construction of these thesauri require specialised knowledge of thesaurus construction as well as the knowledge of the subject for which the thesaurus is designed. For deciding descriptors for the thought content of a particular document, and for its subsequent retrieval from a computerised database, a thesaurus provides immense help.

A thesaurus constructor knows all the essential principles and methodologies of thesaurus construction and thereby can guide or impart advice to others for the construction of a thesaurus.

11.8.9 Bibliographer

Compilation of bibliographies is one of the important library activities. Many libraries of the world, especially special libraries provide bibliographical services to its users. While preparing a project report or pursuing research work, a student is also to compile bibliographies or look for already existing bibliography on that subject. Compilation of a bibliography is an interesting job and helps the compiler to go through numerous sources, some of which might be rare, uncommon, or totally new. Thus, the process of compiling a bibliography makes the compiler an expert about the various types of sources of information available on a particular topic and also about the methodology of compilation.

11.8.10 Librametrician

An expert on librametrics is termed as a librametrician. The word 'librametrics' was coined by S R Ranganathan in 1949. Later on A Neelameghan elaborated its scope. Librametrics is a discipline that measures library activities, library collection, personnel, building, furniture, etc. Librametric studies quite often entail mathematical and statistical applications. Librametricians are the sources of information relating to quantitative studies of various library objects and activities.

11.8.11 Bibliometrician

An expert on bibliometrics is called a bibliometrician. Though the bibliometric study initiated more than a century ago, it started developing only after the World War II. Like librmetrics, it also deals with measurement or quantification and involves mathematical and statistical techniques. In this case, the objects of measurement are the documents and their contents.

Bibliometricians study among others the growth of literature in a subject, scattering of literature of a subject in various types of documents, ranking of journals from various angles, ranking of authors of a subject depending on their output, active life of literature, obsolescence, and so on. They can easily find out the extent of use of various types of documents in a library, weak and strong areas in terms of collection of a library, rate of growth of a library, and so on. Bibliometric study has picked up quite well in our country. Every year a good number of papers are emanating from India.

Bibliometricians can provide answers to many queries relating to the ranking of periodicals in the world, important contributions being produced from a country, rate of growth of literature of a country, use of journals and other documents in a library, various indicators of periodicals like impact factor, immediacy index, and so on.

11.8.12 Content Developer

With the advent of Internet, engendered the idea of content development. It involves designing, creation, and deployment of the content in cyber space. Usually it includes text, sound, images, animation and provision for interaction. Suppose you want to develop a website for your institution, first of all you will have to think about the content of the website, that is, the information you intend to place in the website for your institution. Normally, you would like to include among others the following information about your institution: name, postal address, telephone no., telegraphic code, e-mail address, fax no., year of foundation, name of the head of the institution, names of various divisions and their respective heads, history, objectives, functions, achievements, special facilities available, library and the services being rendered by it, and publications. The textual matter relating to all these will have to be written by somebody and authenticated by the head or someone nominated by him/her. You may like to make your website colourful. Hence, you will also have to decide the colour of the various parts of the text. Also you are to decide the format, types of fonts, and the font size for various headings and other parts of writing. You can include pictures of your institution, various divisions, important personnel and so on. Taking care of all these, you will make the text ready. If you want to include some speeches along with the sound, you can do so. Some portion of the website can be animated. The provision for interaction can also be there. The person who has visited your website can be requested to sign and give his/her opinion about your website. Many might give their opinion and some good suggestions whereby you can improve upon your website.

The job of a content developer has been described above very briefly. There are specialised courses on content development which one may undergo to gain required knowledge about the same. Normally, a content developer is a computer

professional and he/she possesses sound knowledge about the software packages available for content development.

In many of the LIS courses ‘Content Development’ has been included as one of the courses.

A content developer also acts as an information source in as much as he/she can give advice about various facets of content development to the clientele.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

7) Explain why all persons working in a library are not called library professional.

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8) Name different categories of library professionals.

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9) Describe for what type of information you will approach a classificationist.

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11.9 LIS PROFESSION IN INDIA

Libraries have a long existence in India. They date back to millennia before the birth of Christ. The professional development and changing trends can be attributed to the prevailing information environment. The following paragraphs present the developments under different periods.

11.9.1 Ancient Period

During the ancient period knowledge was not documented. There was no script and hence no written records. Vedic literature was preserved by scholars by word of mouth from generation to generation. The scholars were known as the “living libraries” or “walking encyclopaedias” who preserved the nation’s culture and religious heritage.

With the invention of script records were made on both perishable and non-perishable materials like “bhurjapatra” (the bark of a tree) and palm leaves. The bhurjapatras were smeared together into pustaka or book. To facilitate memory and for the purpose of reference, the great Rishi’s collected Vedic literature and piled it in a cottage called “Grantha Kutir”. These are examples of reference libraries during the ancient period. Priests and scholars maintained those libraries. As such the profession of librarianship was not known during ancient times.

11.9.2 Medieval Period

According to Chinese travellers Fa-Hien and Hiuen Tsang, library facilities were provided under the name of “Buddhist Viharas in Pataliputra”. Kings like Ashoka, Kanishka, Harsha and Bhoja maintained libraries with huge collection of literature on different subjects. This indicates that kings maintained large libraries but there was no indication of trained librarian-s managing them. As such, librarianship as a professional category did not exist during this period also.

The Mughal emperors are well known for their love for books. During the period, great poets like Tulsi Das, Kabir, Meera and Rahim produced religious literature. The literature produced by literary persons was preserved and kept in closed access. It is evident that the existence of libraries was there during this period. It was during the Delhi sultanate that many libraries were established. Sultan Jalaluddin Khilji established an imperial library and appointed “Amir Khusru” as its librarian. Babar the founder of Mughal Empire brought a treasure of rare manuscripts from his forefather’s personal libraries in 1526. Thus the first Mughal Library was established in 1526. His son Humayun Khan was also fond of books. He appointed a librarian for his personal library.

Although many of the Mughal emperors had personal libraries it was in the regime of Akbar (1556-1605) that a separate department for libraries was created to look after the public libraries in the capital. Akbar maintained a library called “Triki-I-Akbari” which contained rich collections in the field of history, philosophy, science in addition to Hindu and Muslim culture. The other Mughal emperors like Jahangir (1605-1637) also established libraries. The Mughal kings not only maintained libraries but also kept them under management of librarians. “Faizi” a Persian poet was appointed as librarian of the imperial library of Akbar. So also the king Humayun appointed “Lal Beg” librarian for his collections.

11.9.3 British India

The British rulers brought English education to this country and rejuvenated the Indian tradition of scholarship and learning. A number of learned societies and institutions were founded by the British rulers including the three universities, Bombay, Calcutta and Madras in 1857. In the beginning, scholars and bibliographers were appointed to manage the affairs in a library and gradually the profession of librarianship came into existence. One can say that the profession owes its existence to Gutenberg who brought innovation with printing technology.

11.9.4 Independent India

In the beginning of 20th century special libraries like Geological Survey of India, Indian Institute of Science etc., were established. All these were manned by part

time librarians. Librarianship on professional grounds started only during the first half of the twentieth century.

Special training for librarianship was initiated in 1911 by an American trained librarian W.A.Borden at Baroda with the initiation of Maharaja Sayajirao Gaekwad. The king was instrumental in the development of library system in the princely state of Baroda. He also undertook the training of librarians to manage these libraries.

The real feel of the profession of librarianship came when another American Asa Don Dickinson started a training programme for Indian librarians with the help of Panjab Library Primer in the year 1916. However the real sprit in the profession was noticed after India got independence when a large number of universities, college and autonomous research organisations were founded. New libraries were opened and job opportunities for librarians increased to a great extent. "Indian librarianship secured the status of a profession mainly because of the contributions and teachings of Ranganathan as a life time venture."

Ranganathan's contribution to Indian LIS profession: Indian librarianship is recognised in India and abroad due to the able leadership of Dr. Ranganathan. The development of the profession is closely associated with the development of the subject as a science with unique body of knowledge. S.R.Ranganathan through his Five Laws of Library Science, dynamic theory for knowledge organisation (Canons and Principles for Classification and Cataloguing) and introducing specialisations and special services like documentation contributed to the development of the profession in India. The development of education in library science in India is the primary contributions of Dr Ranganathan as he started BLSc, MLSc and PhD programmes. He formulised the research programme, organised seminars, inspired the formation of associations at national and state level, and advocated the need for library cooperation. He was the driving force in the establishment of Indian National Science Documentation Centre (INSDOC), now National Institute of Science Communication and Information Resources (NISCAIR) and Documentation Research and Training Centre (DRTC).

Having had initially the powerful influence of Ranganathan to be bestowed with recognition and respectability, the library and information profession, over the years, has acquired importance for its service orientation and status of honor as purveyor of knowledge and information. The qualifications, skills and knowledge required for library and information personnel, have enabled them to get salary and service conditions and other privileges at par with academics and scientists. By and large the profession is vibrant and moving forward. The society recognises its role and contribution.

Self Check Exercise

Note: i) Write answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

10) Trace out the developments of LIS profession in pre-independent India?

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11) Mention the changes occurred in LIS profession in independent India.

11.10 SUMMARY

A profession involves the application of specialised knowledge in a specific domain for the benefit of the society. In other words, the professional activity involves systematic knowledge and proficiency and its societal application. Librarianship is a young profession compared to other established professions like medicine, law etc.

There is subtle difference between ‘occupation’ that means employment or job; ‘vocation’ that demands some sort of skill in performing a job that can be gained as on job training; and profession that requires specialised knowledge and skills to handle a specialised field of study.

A profession has the following characteristics:

- a) A professional has requisite knowledge and skills based on long and intensive preparation in an institute of higher learning, beside self-learning and self-practice;
- b) The knowledge should cover the scientific, historical and scholarly principles underlying the skills practiced. Such knowledge should enable the professional to answer the ‘what’, ‘why’ and ‘how’ of the practice;
- c) The members of the profession should maintain high standards of performance conducting themselves individually and by force of the profession;
- d) The profession should ensure that its members remain constantly aware of updated in the latest developments in knowledge and skills; and
- e) The professionals must provide dedicated public service based on the knowledge and skills acquired.

Besides the above listed characteristics, a profession should have the characteristics of self-consciousness by exhibiting the following behaviour:

- i) Realisation of shortcomings in education and training facilities and motivation and commitment to update knowledge and skills amongst the professionals;
- ii) Standardisation in the professionals tools and techniques so as to use them easily resulting in increased effectiveness and efficiency;
- iii) Concerted efforts in bringing professionals together in resource sharing for professional work and service;
- iv) Monitoring the professionals for maintaining standards in performance and rectification of any shortcomings in services or handling of the users;

- v) Lodging appropriate protests on the lack of recognition of the profession in respect to status, working conditions, responsibilities, salary, etc. and
- vi) Encouraging a scientific outlook in professionals and ensuring research and development in the foundation discipline for wider applications and maintaining it a mission- oriented discipline.

The mission of the foundation discipline of any profession is social. For medical profession, it is 'health for all', for the legal profession, it is 'justice for all' and for the library and information science profession it is 'information for all'.

Librarianship deals with handling universe of knowledge, hidden in documentary sources – print, microforms or electronic. There are views in support of and against the acceptance of library science as profession. However in the present day information environment it is being accepted as a profession.

The evolution of librarianship has a long history. Librarianship as called by the British or Library Science as termed by the Americans has struggled a lot to become a profession. In fact it started as occupation, changed to vocation and transformed to profession over centuries.

“Librarianship is that branch of learning which has to do with recognition, collection, organisation, preservation and utilisation of graphic and printed material”.

The role of a librarian has transformed from being a custodian or keeper of books to librarian – to collect and keeps track of their use. However after World Wars, drastic changes occurred and special libraries were established for the industry and scientific research. The position of documentalist aiming at specialised services to specialist users emerged followed by the emergence of information scientist to serve the users using Information Communication Technologies.

The latest trend is for digital libraries and virtual libraries that interconnect the libraries at global level through internet and handle digital collections. Libraries that were judged by the collection that they possessed are judged today by the access to information that they provide.

History of librarianship in India can be divided into ancient, medieval, British and independent India. There was no librarianship in ancient times though libraries were present; Mughal Emperors contributed to the development of libraries and librarians. British India has seen the growth of academic librarianship. However the real growth of library profession in India is visible only after independence.

Therefore the growth of library profession has a long history and it has passed through several stages before attaining the status of a full fledged profession.

11.11 ANSWERS TO SELF CHECK EXERCISES

- 1) Profession is a specialised occupation characterised by intensive education and training in a specific field of knowledge with an intension to apply and serve the humanity.

Vocation and occupation are interchangeable. The major difference between a profession and a vocation, occupation is that a profession is mainly service

based and not job based whereas avocation and occupation is a routine activity where one engages so that the person is regularly employed. Secondly a profession acquires the skills by virtue of intellectual training not on job training but in a vocation, occupation does not require any specialised skills.

- 2) The profession should have the following six attributes:
 - 1) A body of specialised complex knowledge.
 - 2) The practitioner must enjoy the respect of the community.
 - 3) The profession must be organised.
 - 4) A code of ethics which regulates the relations of professional persons with clients and colleagues.
 - 5) A professional culture sustained by formal associations consisting of norms, symbols and having at its centre the career concept.
 - 6) A service orientation.
- 3) Librarianship is not considered as a profession according to some social scientists like Lancour (1962) and Sills (1968) on the grounds that it does not have community sanction and librarians services are indispensable. In their opinion a library could function without the library employees consisting of both professionals and nonprofessionals. Third factor is that library employees could not exercise any authority on the clients where as a doctor or a lawyer could command respect from their clients. Last important factor was that the profession of librarianship has not been included in the list of the professions mentioned in the International Encyclopedia of Social Science.
- 4) According to M.A.Gopinath there are three distinct stages in the evolution of library profession.
 - 1) *Scholarly Period* (roughly to 1850): During the mid 19th century libraries were owned by kings, noble men and monasteries. Scholars managed the libraries that were attached to the monasteries like Nalanda and Taxsila Universities that were great centers of learning during that time period. At this point of time Librarianship was not formed completely.
 - 2) *Vocational Period* (1850-1950): In 1950 the evolution of Public Libraries in United Kingdom and United States of America lead to the development of a new vocation Librarianship. It involved the art of book selection, classification, cataloguing and reference service. Later many training programmes were developed and finally this profession was considered as a “skilled occupation”.
 - 3) *Professional Period* (after 1950-): With the passage of time Librarianship developed from vocation to profession having a body of knowledge, laws, principles, techniques for processing and serving the users. The application of scientific method to every library technique made it a learned profession. Thus Library Profession became full fledged for managing different types of Libraries.
- 5) Librarianship is defined “as a noble and service oriented profession which encourages all types of reading and education”. Library Science is defined

as “ a generic term for the study of libraries and information units, the role they play in society, their various component routines and processes and their history and future development”.(Harrold’s Librarian Glossary fifth edition) The British term librarianship is referred in United States as Library Science.

- 6) Digital libraries are electronic libraries where in all the collections in full text are in digital form and access to the collection is through networks. The very mission of digital libraries is to create new approaches to acquisition of resources, new storage and preservation, classification and cataloguing, intensive use of electronic systems and net works.
- 7) A library professional is one who has been trained in library and information science. S/he is also paid for the job that he/she does. In a library all are paid for the jobs they do. However, all are not trained in library and information science. For example, a library clerk is not trained in library and information science. Hence, all persons working in a library are not library professionals.
- 8) Library professionals may be categorized as the library administrator (designated variously as chief librarian, librarian, library manager, deputy librarian, assistant librarian, etc.); classifier, cataloguer; classificationist; indexer; reference librarian; library science teacher; thesaurus designer; bibliographer; librmetrician; bibliometrician; and content developer.
- 9) A classificationist possesses deep knowledge of the principles of classification as well as epistemology. He/She studies the origin, nature, growth, proliferation and limits of human knowledge; does research as to how a new subject comes into being, how it proliferates into branches and sub-branches and how a particular subject decays. He/She also studies the relationship of various subjects and structure of knowledge. Hence, one can approach a classificationist for any type of information discussed above.
- 10) The development of Library and Information Science profession in pre-independent India dates back to the establishment of the special libraries in Geological Survey of India, Indian Institute of Sciences. These libraries were managed by part time librarians. Thus librarianship on professional grounds started only during the first half of the twentieth century. Later a special training in Librarianship was initiated in 1911 by an American trained librarian W.A.Borden at Boroda under the patronage of the king Maharaja Sayajirao Gaekwad. Another American Asa Don Dickinson started a training programme for Indians with the help of ‘Punjab Library Primer’ in the year 1916 at Lahore (now in Pakistan). In 1926 the most significant development is the contributions and leadership of S. R. Ranganathan who is considered as the father of Library Science. He developed Five Laws of Library Science and Normative Principle, Canons for Classification and Cataloguing. Ranganathan provided a knowledge base to LIS.
- 11) S.R.Ranganathan’s contributions and teachings towards Indian librarianship secured a status of a profession in independent India. After India got independence a large number of universities, colleges and autonomous research organisations were established. New libraries were opened and job opportunities for librarians increased to a great extent. The qualifications,

skills and knowledge have enabled Library and Information Science profession to get salary and other privileges at par with scientists and academicians. Finally society recognises its role and contribution.

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UNIT 12 ETHICAL ISSUES IN LIBRARIANSHIP

Structure

- 12.0 Objectives
- 12.1 Introduction
- 12.2 Ethics
 - 12.2.1 General Ethics
 - 12.2.2 History
- 12.3 Professional Ethics
 - 12.3.1 Objectives
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 - 12.3.3 Professional Ethics for Librarianship
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 - 12.4.2 Library Association Code of Professional Conduct
- 12.5 Code of Ethics for LIS Profession in India
- 12.6 Facets of LIS Code of Ethics
- 12.7 Code of Ethics in Digital Era
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- 12.9 Summary
- 12.10 Answers to Self Check Exercises
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12.0 OBJECTIVES

Professional ethics is a topic of considerable importance to determine, set and maintain acceptable standards in professional performance. This Unit explains the meaning and scope of professional ethics for librarians and information scientists. It also discusses the code of ethics for LIS professionals promulgated by American Library Association (ALA) and Library Association (LA). Views of professionals and attempts to formulate professional ethics for librarians in India have also been presented.

After studying this Unit, you should be able to:

- explain the meaning of ethical values;
- appreciate ethical values which enhance quality in professional performance to ensure societal recognition and appreciation;

- realise the responsibility of being a library/information professional to work according to prescribed ethical standards; and
- discuss various ethical standards for LIS professionals.

12.1 INTRODUCTION

You have been introduced to the concept of a profession in Unit 11. One of its characteristics is that it has a code of ethics that regulate the relations of professionals with clients and colleagues. Selfless service keeping the interest of the user uppermost is the key to ethical service. Objectivity in routines and practice is essential. Service without discrimination should be the motto of professionals.

Professional performances should conform to ethical principles to give customers full satisfaction for services rendered by professionals. A set of ethics is necessary for a profession to regulate and guide its conduct in professional activities. This Unit introduces the concepts of ethics and ethical codes in library profession.

12.2 ETHICS

The word 'ethic' is derived from the Latin word 'ethicus' meaning the custom or character or attitude of community or people. Ethic is the science of moral. It is one of the branches of the subject of philosophy. Each facet of this branch is concerned with character, attitude and conduct. It deals with what is right or wrong, good or bad. Ethics is the set of moral principles that governs the person's professional conduct, behaviour, morality, values, commitment and obligation to the society / profession. When such guidelines of do's and don'ts is codified for practice it is termed as 'code of ethics'

12.2.1 General Ethics

According to the web definition (en.wiktionary.org/wiki/ethics) ethics is "The study of principles relating to right and wrong conduct; morality; the standards that govern the conduct of a person, especially a member of a profession"

The Oxford Dictionary defines ethics as "the science of morals, the department of study concerned with the principles of human duty".

Encyclopedia Britannica explains ethics "as the branch of Philosophy that is concerned with what is morally good or bad, right and wrong". A synonym for ethics is moral philosophy.

Encyclopedia of Philosophy and Psychology defines ethics as "the art to conduct, just as logic has been called the art of thinking".

Webster's International Dictionary defines Ethics as:

- 1) The discipline dealing with what is good and bad or right and wrong with moral duty and obligation;
- 2) A group of moral principles or set of values; a particular theory or system or moral values; the principles of conduct governing an individual or a profession; standards of behaviour.
- 3) The adjective 'Ethical' connotes conformity to professionally endorsed principles and practice or a system/philosophy of conduct and principles practiced by a person or group.

Ethics versus Morals

Ethical framework of a profession gives its members a playing field and a rule book. The mission statement guides the profession in the framing of the ethics. Ethics and morals are related terms. Moral is more generic in nature, it refers to one's own principles for what is right and what is wrong. Ethics is the guidance on what is right and what is wrong provided to an individual by her/his profession. Morals of an individual are reflected in an individual's actions which reflect her/his principles and ideals. These come from within though imbibed from one's family and society. When one has to act against one's morals s/he feels uncomfortable and pained. Morals are stable in nature though they may change with a change in one's beliefs.

Ethics are not moral or immoral, legal or illegal. They guide the members for an optimal behaviour and educate them on the values of the profession. Ethics are important when values conflict one another. In such a situation ethics guide the course of action. Ethics of a profession speak of its character. The professions established since long had strong ethical base. The source of ethics is external to an individual; one is bound to follow them to be part of the community and may have to face action on not following them. One may even be barred from the community for not following the ethics, e.g. a doctor may be expelled from the Medical Council or an advocate from the Bar Council for not acting ethically.

12.2.2 History

Ethics has been a subject of study and enquiry in philosophy which is as old as human history. There are three philosophical positions in ethical enquiry in the West, viz. monistic, relativistic and pluralistic. In Indian philosophical thought, moral behaviour is closely 'associated with religious beliefs and practices. All these ideas; thoughts and theories lead to different aspects of studies of ethics, particularly in modern societies. Some of these studies relate to personal, organisational, professional; business ethics which quite often introduce conflicts in practical applications in the real life of an individual.

In this Unit, however, we are concerned only with professional ethics, although the other aspects of ethical values are relevant and are in many ways interconnected.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answer given at the end of this Unit.

1) What do you understand by ethical values?

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12.3 PROFESSIONAL ETHICS

Every profession establishes a code of conduct to govern ethical behaviour within that profession. Professional ethics is considered as an expression of the ethos (i.e character, spirit, culture, practice) of an occupation. In other words, it should reflect or be based upon, all the basic values associated with the occupation. It should reveal what the occupation is, what the practitioners think of themselves and of their place in society. It should indicate what is distinctive about the group. The quality of service offered by them should be of a class that makes them distinguished. Very often; we refer to the quality of the work of a person being highly professional, meaning thereby that there is a near-perfection in the nature of the performance, the intellectual and/or technical expertise and her/his sense of responsibility and commitment to the clientele. So professionals carry, generally, this kind of a reputation, although there may be on occasions poor performance too. In order to sustain societal recognition and to give their best, almost every profession, attempts to evolve a code of professional behaviour to guide practitioners.

Interest in ethical behaviour of occupations, often formalised into codes, has a long history. Although rules of conduct have existed since many centuries; the modern codes had their origin in the nineteenth century. For example in the United States, the Code of Ethics of the American Medical Association (AMA) was adopted in 1848 when AMA was organised.

12.3.1 Objectives

According to P.S.G. Kumar, the motto of professional ethics in library and information science is to:

- provide dedicated service;
- build up the knowledge base of the professional;
- maintain neutrality to caste, creed, religions and idealisms;
- uphold the six freedoms – study, thought, speech, press, dissemination of knowledge and instruction; and
- voice the convictions relating to library legislation, censorship etc.

12.3.2 Importance

The value of ethics can be summarised as follows, they:

- guide the professionals in decision making in professional work;
- enhance and validate the image of a profession and professional;
- help the librarians to project their practices; and
- inculcate professional zeal among the members.

P.S.G. Kumar stated that the ethics help a profession in the following ways:

- “Helps a person to know what is expected of him by the profession;
- How he should conduct himself;
- How he should prepare himself to meet the demands of the clientele;
- How to uphold the values;
- Above all to keep his profession at a higher pedestal in the eyes of the users or society in general”.

According to Bob Usherwood (1981) code of ethics have a role to play in:

- 1) “Protection of client – as a code informs the clients of the quality of the service they have right to expect;
- 2) Protection for librarians – against unethical practices that may be forced on them by institutions/individuals;
- 3) Enhancement of the status of the profession; and
- 4) Enhancement of the ability of the individual professional to influence the direction of his/her organisation.”

12.3.3 Professional Ethics for Librarianship

Ethics are essential elements for the profession of librarianship. Librarianship has an indispensable role in the society in collecting, preserving and disseminating knowledge. Library and Information Science (LIS) professionals have to deal with users, administration, and people in book/information trade and colleagues. There are varied expectations from different groups at different stages from the LIS professionals. To resolve these complexities while practicing the profession, certain moral guidelines or ethical norms are essential.

According to A.K.Mukherjee, “Librarianship as a vocation has evolved through the ages, allowing values to accrue to the principles observed in the long sojourn of human civilization. It has undergone certain metamorphism. The modern professional librarian displays in his principles of acquisition, organisation, utilization and ultimate dissemination of knowledge.”

Broadfield, Foskett and others have provided the professional librarian with a creed and a code of ethics and it should be remembered in this context that the principles of library service, ethics of librarianship and librarian’s creed are all indistinguishable features in the moral, intellectual and professional make up of the librarian.

According to IFLA professional ethics means “A collection of professional guidelines for librarians and other library employees adopted by national library or librarians associations or implemented by government agencies”.

According to Navalani, “Professional ethics is the science of right conduct and character; the science which treats of the nature and grounds of moral obligation; the doctrine of man’s duty in respect of himself and the right of others.”

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of the Unit.

2) Discuss the concept and objectives of professional ethics.

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3) What is the role of professional ethics?

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12.4 CODE OF ETHICS FOR LIS PROFESSIONALS

Johan Bekker a leading authority on ethics in librarianship stated that “a code of ethics should be an expression of ethos of an occupation. It should reflect or be based upon all the basic values associated with occupation. It should reveal what the occupation is, what the practitioners feel and of their place in society. It should indicate what is distinctive about a group. The code should reflect the nature of library and the library like agencies as one of the functioning systems.”

He has suggested a few broad principles for designing a code.

- 1) Librarians should exercise their best professional judgment on behalf of users. They should therefore: provide the highest level of service; not only complying with requests, but also anticipating needs; consider the needs of users the central focus of their work; assist actively in preventing incompetence and misconduct in their profession and in encouraging adherence to this code and other standards; protect each user’s right to privacy.
- 2) Librarians should strive to improve libraries and library services. They should therefore: be active members of local and national professional associations; pursue continuing education in order to improve their skills, knowledge and qualifications; protect and enhance the reputation of libraries by exemplary professional conduct and service; involve themselves in research’ and other systematic efforts to understand’ and improve library service; avoid’ situations that could compromise professional judgement or provide personal benefits at the expense of the library and its users.
- 3) Librarians should help to create and maintain conditions under which learning and scholarship can flourish freedom of inquiry and of thought and its expression: They should therefore ensure the free flow of information between libraries; allow access to the library holdings and services to everyone in need of information; avoid bias in the acquisition and presentation in information; resist efforts to censor library materials or restrict intellectual freedom.
- 4) Librarians should be sensitive to the concerns of the larger society of which they are a part. They should therefore protect and preserve sources of information for future use; assure that confidential and proprietary information is safeguarded; avoid transgression into the practice of other professions; take care that the access to information provided to users is not misused to curtail the freedom of others.

This type of code attempts to present, both to those who work in libraries and to those who use libraries, an indication of what it is that librarians stand for and what should be expected of them by the public.: The implementation of such a code would depend on the ability and willingness of librarians and the public to take such statements seriously and to see that breaches of the code do not occur.

The word ‘ethics’ was first used in 1908 during a discussion on the topic at Boston. The results pronounced as ‘Librarian’s Canons of Ethics’ 1909 was the first set of ‘Code of Ethics’ in librarianship in USA. These were revised by Botton in 1912 and published as an article in *The Annals of American Academy of Political and Social Sciences* entitled as “*The Ethics of Librarianship*”. The first code of ethics from ALA was prepared in 1938 by Ms Flora B Ledington. According to IFLA on *Professional Codes of Ethics / Conduct* (<http://www.ifla.org/faife/ethics/codes.htm>) so far national bodies / libraries of 34 countries have devised code of ethics. India has *no* place in the list.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this Unit.

4) What are the initial attempts made for professional ethics in library science?

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12.4.1 American Library Association Code of Ethics

Since 1939, the American Library Association has recognized the importance of codifying and making known to the public and the profession the principles which guide librarians in action and revised the same from time to time to reflect changes in the nature of the profession and its social and institutional environment. The ethical statements help when values are in conflict.

The ALA drafted the code of ethics for library professionals on the following relations:

- 1) the governing authority;
- 2) their constituency;
- 3) their fellow employees within the library;
- 4) their profession; and
- 5) society.

The statements of code provide a framework; they cannot and do not dictate conduct to cover particular situations.

- i) We provide the highest level of service to all library users through appropriate and usefully organised resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all requests.
- ii) We uphold the principles of intellectual freedom and resist all efforts to censor library resources.
- iii) We protect each library user's right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted.
- iv) We respect intellectual property rights and advocate balance between the interests of information users and rights holders.
- v) We treat co-workers and other colleagues with respect, fairness, and good faith, and advocate conditions of employment that safeguard the rights and welfare of all employees of our institutions.
- vi) We do not advance private interests at the expense of library users, colleagues, or our employing institutions.
- vii) We distinguish between our personal convictions and professional duties and do not allow our personal beliefs to interfere with fair representation of the aims of our institutions or the provision of access to their information resources.
- viii) We strive for excellence in the profession by maintaining and enhancing our own knowledge and skills, by encouraging the professional development of co-workers, and by fostering the aspirations of potential members of the profession.

(Adopted June 28, 1997, by the ALA Council; amended January 22, 2008.)

12.4.2 Library Association Code of Professional Conduct

The Library Association (UK) appointed a working party on professional ethics in 1978. The Code of Conduct indicates the standards of behaviour expected of a member of the Association. It sets out, in general terms, the standards and duties which it is reasonable to expect a professional to observe. This can be used as a point of reference when dealing with disciplinary procedures against members. This is intended to protect the profession, individual practitioners, and their clients. Some important aspects of the Code are:

- 1) Members of the Association must conduct themselves in such a way that their conduct would not be reasonably regarded by their professional colleagues within the field of librarianship (including the provision of information services) as serious professional misconduct or as professional misconduct. It is by this overall test that the conduct will be judged.
- 2) Members must comply with the Charter and Bye-laws of the Association and the provisions of this Code of Conduct (Details provided).
- 3) Failure to comply with the requirements set out in paragraph 2, if proved before the Disciplinary Committee, be regarded as serious professional misconduct and, the member concerned is liable to be expelled or suspended.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answer given at the end of this Unit.

5) Give the features of the codes of ethics of ALA of USA and LA of UK?

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12.5 CODE OF ETHICS FOR LIS PROFESSION IN INDIA

In India the importance of code of professional ethics is recognised but there were no constructive attempts. It was few professionals like A.K. Mukherjee, Megnanand, R.L.Mittal, Amitabha Chatterjee, P.S.G. Kumar et al who wrote about Code of Ethics in their books. Some seminars/conferences like IASLIC (1984) addressed the issue. However these attempts are inadequate as code of ethics will have validity if devised by national professional association. Unfortunately, no ethical code has so far been adopted by the library profession in India, though such a code has become all the more necessary.

According to Megnanand, the code of ethics has to consider the following factors:

- Librarian and his committee
- Librarian and his staff
- Librarian and his book supplier
- Librarian and the book trade
- Librarian and his professional colleagues
- Librarian and his clientele
- Librarian and society
- Librarian and the state laws and nation.

A.K. Mukherjee stated that the essence of the professional is the consciousness to provide quality service to users and proposed twenty points as code of ethics. Some important points among them are:

- 1) Libraries have demonstrated their ability to enrich community life. The librarian should retain the belief in his/her job. One must believe that libraries are good for people and that he/ she is good for libraries. One must not expect gratitude.
- 2) In our cultural work all branches of learning pay them role. Librarians must be trained to know the essence of culture and do their work of promoting culture (Brodfield).

- 3) The librarian enjoys perfect freedom and autonomy of individual judgment. He should uphold the sanctity of six freedoms of our creed – the freedom of study, freedom of thought, freedom of speech, freedom of press, freedom of the circulation of knowledge and the freedom of instruction.
- 4) The librarian must have the conviction that libraries are indispensable to society. They should never be apologetic about their profession.
- 5) A good librarian must himself be an avid reader and eager to help others find their way in the collection. Techniques can be learned quickly by those keen to learn. The important factor is enthusiasm for the job. Librarians must be book men quite distinct from administrators in general.
- 6) The function of the library is to serve as a store of information from which each reader can draw the required information. A store requires a key so the librarian and his professional technology can only provide it.

Amitabha Chatterjee suggested the following aspects for consideration while developing code of ethics.

- 1) “Loyalty to one’s own work, institution, fellow professionals, the society and the self;
- 2) Integrity of character;
- 3) Cooperation and team spirit in library work;
- 4) Service above self;
- 5) Devotion to duty;
- 6) Impartiality and fairness in dealings with staff, clientele and vendors/suppliers;
- 7) Allegiance to the laws of the land.”

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.
- 7) What factors should be taken into account for LIS professional ethics?

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12.6 FACETS OF LIS CODE OF ETHICS

According to R.L. Mittal ethics of librarianship denotes the conduct and behaviour of those who adopt the profession. A library professional owes certain obligations to the library’s public and its books; and to the profession in general. The Five Laws of Library Science are the basic principles for librarians in India to render their duties with morals. R.L. Mittal has suggested the ethical principles to be followed by LIS professionals as under:

- Duty to the Readers
- Duty to the Books
- Duty to the Profession
- Duties to the Staff
- Duty to Himself.

The 'Seven Lamps of Conduct' that are 'musts' for library professionals are:

- 1) Impersonal book selection
- 2) Service before self
- 3) Split-mind
- 4) Sympathetic behaviour
- 5) Tact
- 6) Industry
- 7) Scholarship

In 1989 Joint Council of Library Association in India (JOCLAI) had finalised a draft code of ethics. The draft covered eight aspects:

- Library and Information Science service to clientele
- Library and Information professional and their upgradation
- Library and Information professional and information resources
- Library and Information professional and professionalism
- Library and Information professional and ethical values
- Library and Information professional and timely service
- Library and Information professional and professional organisations
- Library and Information professional and cultivation of professional knowledge.

Amitabha Chatterjee (2008) recommends the following facets for code of ethics:

- 1) Librarian/information worker and the authority of the library/information center;
- 2) Librarian/information worker and his/her colleagues in the library/information center;
- 3) Librarian/information worker and his/her clientele;
- 4) Librarian/information worker and suppliers/vendors of books, journals, equipment, stationary, etc.;
- 5) Librarian/information worker and the resources of the library/information center;
- 6) Librarian/information worker and himself/herself;
- 7) Librarian/information worker and library and information profession;
- 8) Librarian/information worker and the society;
- 9) Librarian/information worker and the laws of the land.

Based on these facets he prepared a draft 'code of ethics' for Library and Information profession.

12.7 CODE OF ETHICS IN DIGITAL ERA

The contemporary information environment is influenced by information communication technologies. Now we have electronic collections, network based and internet based access to global information and provision of net based services round the clock (24x7). Libraries are bestowed with the responsibility of providing equal access to information and balanced services to users. There are problems with the authenticity of information on the internet and providing quality information is a challenge to libraries. They are further challenged with privacy issues as digital information can be accessed from anywhere, beyond library premises. Now the deal is not to purchases / subscribe but to get license with several terms and conditions for privacy. More over the libraries hitherto acquired copyrighted documents, but now accessing intellectual property of others under free and fee based environment. It is the accountability and responsibility of librarian to check the validity of information, protection of privacy, equal access to information and provision of services to all without discrimination of caste, creed, gender, class, social status and he has to bridge the gap in digital divide. In other words the primary issues in digital era are:

- Privacy
- Authenticity /validity
- Accuracy and timeliness
- Intellectual property
- Accessibility.

As a result the libraries commitment to users (now renamed as customers), management, information security and access, and commitment to society at large in bridging the digital divide has increased. Therefore ethical issues have a major role in the present digital era.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of this Unit.

8) What are the ‘Seven Lamps of Conduct’?

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9) What are the ethical issues in digital era?

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Professional misconduct consists in the failure of a librarian to fulfill his duties. Stern action is required to control such misconduct of the professionals. For example in medicine the Medical Council of India cancels the registration of a doctor if s/he is found guilty of his professional duties. However such national council does not exist for library science in spite of several proposals and recommendations.

12.8 ISSUES AND PROBLEMS

Apart from the difficulties in designing an acceptable ethical code for professionals, there are also many other issues and problems which emerge with professional ethics. Some of these are:

- 1) Image of the library and information profession in society;
- 2) More than one professional body;
- 3) Authority in implementation with provisions for disciplinary action in case of violation of the ethical principles enunciated by ethical codes;
- 4) Expanding dimensions of the profession;
- 5) Consequent undefined state of the profession;
- 6) Quality of professional work;
- 7) Immigration of specialists from other disciplines and professions.

12.8.1 Professional Image

The image of the library profession, particularly in India, is not very high in society as library and information work is considered auxiliary to education, research, industrial or business development etc. As a result librarians and information workers constitute a group of specialists in their respective parental organisation and their independent image does not get the proper focus in the eyes of the public. It is only a small group of users that gets high quality of library and information service that appreciates the support given to it in its activities. Such a limited appreciation does not contribute to the image of the profession in the society as a whole. As far as Indian public libraries are concerned, there has never been any remarkable performance/ achievement that would enhance the professional image in the eyes of country.

12.8.2 Professional Bodies

In many countries, there are more than one professional body each of which may have different goals and objectives, although there may not be any serious conflicts between them. The ideal condition for effective disciplinary action in the case of violation of ethical codes enumerated by the leading American expert Bekker are:

There should be only one national occupational association;

There should be only one basic national code of ethics;

Subscriptions to the code should be a condition for the acceptance or renewal of membership;

Membership in the occupational association should be a condition for licensing to practice;

There should be only one national committee on occupational conduct.

Notwithstanding the desirability of the above stated basic approach to the design of professional codes, it is not possible in practice to have such a single central authority: But it is essential to have coordination and cooperation among the various professional bodies in designing of a code of ethics, because all persons are basically librarians and information personnel.

12.8.3 Authority in Implementation

Even assuming a central professional authority, it is not always possible to penalise anyone who may violate professional ethical codes. There are no legal validity to these ethical codes. Conforming to ethical codes are invariably more voluntary individual effort arising out of personal belief or faith in ethical values.

12.8.4 Expanding Dimensions

The dimensions of professional activity have expanded unprecedentedly in the last quarter of 20th century. The conventional and traditional functions of a library have undergone a tremendous change. New skills are expected in library and information work and such skilled persons are to be drawn from outside the profession. Professional education and training in this changing context have, therefore, been in a state of flux. This creates numerous problems, particularly the new entrants acquire a new view of professional work and activities. This is not peculiar to the library professional alone. Other professions are too facing similar situations, for example the medical profession. But the medical profession has an established public image and hence has no such problems as faced by the library profession. What would be the stature of librarians of the future? It is difficult to predict at this stage of transition but, it is bound to be different from what it is now and what it had has been in the past.

12.8.5 Professional Quality

Today's insistence on quality assurance has been a major concern of those involved in every human activity. Consumers' societies have been asserting their right to have quality in whatever they buy and seek legal protection in consumer courts to ensure quality. Library and information products and services also have to face this problem sooner or later as pricing for library and information services is on the anvil.

12.8.6 New Entrants

Library and information activities are attracting persons with different educational and professional backgrounds and qualifications: Persons with different professional experience are migrating to the library and information fields with varied conviction, faith, world views, – and political influences. All these are affecting professional conduct and behaviour.

In the final analysis, it is important to note that it is only personal conviction, involvement, commitment and faith in library and information service that would largely, determine professional behaviour and conduct.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

10) Enumerate the problems and issues in designing professional ethical codes for librarians.

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12.9 SUMMARY

Professional performances should conform to ethical principles to give customers full satisfaction for services rendered by professionals. Ethics is science of morals. The word is derived from Latin word ‘ethicus’. A set of moral principles are necessary for a profession to regulate and guide the conduct of its members in professional activities.

The general meaning of ethics is the science of morals concerned with the principles of human duty. However in this Unit we are more concerned with professional ethics as librarianship is a profession. In order to sustain societal recognition and to give their best, almost every profession, attempts to evolve a code of professional behaviour to guide practitioners. For example in the United States, the Code of Ethics of the American Medical Association (AMA) was adopted in 1848 when AMA was organised.

Librarianship though started as vocation soon became profession having a specialised body of knowledge and specialised skills to serve the users with best collections of information that are organised for easy access. Thus the librarians ought to follow standard moral principles in selection, collection, organisation and dissemination of knowledge. The basic objective of LIS code of ethics is neutrality to caste, creed, religions and idealisms; to uphold the six freedoms – study, thought, speech, press, dissemination of knowledge and instruction.

The code of ethics in librarianship has a vital role to play as it helps a professional to know what is expected of him and how he should conduct himself to meet the demands of the clientele and uphold values to keep up the profession’s image. It has a role in protection clientele, librarians and enhancing the status of the profession.

Though the code of ethics for librarianship can be traced back to the publication of ‘Librarian’s Canons of Ethics’, 1909, the ALA (USA) code of ethics, 1938 provided the base for the development of coded by the world at large. Now 34 countries have code of ethics for librarianship but not India.

A code of ethics should be an expression of ethos of an occupation, indicate what is distinctive about librarianship and should reflect the nature of library. In

India, A.K. Mukherjee, Megnanand, R.L. Mittal, Amitabha Chatterjee, P.S.G. Kumar and others discussed the issue of code of ethics and suggested model code of ethics. JOCLAI has suggested a draft code of ethics. The facets / components of code of ethics should reflect the core activities of the profession and include duty of libraries and librarians to the readers to the books, to the profession, to the staff and to him. There are, however, a number of practical difficulties in implementing a code of professional' ethics. Some of these are:

- 1) Image of the library and information profession in society;
- 2) More than one professional body;
- 3) Authority in implementation with provisions for disciplinary action in case of violation of the ethical principles enunciated by ethical codes;
- 4) Expanding dimensions of the profession;
- 5) Consequent undefined state of the profession;
- 6) Quality of professional work;
- 7) Immigration of specialists from other disciplines and professions.

Despite these difficulties, problems and issues, professional ethics are necessary for professional practices; to ensure quality in service and in social recognition.

12.10 ANSWERS TO SELF CHECK EXERCISES

- 1) The study of principles relating to right and wrong conduct; morality; the standards that govern the conduct of a person, especially a member of a profession.
- 2) Professional ethics means a collection of professional moral guidelines for librarians and other library employees. The basic objective of LIS code of ethics is neutrality to caste, creed, religions and idealisms; to uphold the six freedoms – study, thought, speech, press, dissemination of knowledge and instruction.
- 3) The code of ethics in librarianship has a vital role to play as it helps a professional to know what is expected of him how he should conduct himself to meet the demands of the clientele and uphold values to keep up the profession's image. It has a role in protection of clientele, librarians and enhancing the status of the profession.
- 4) The code of ethics for librarianship can be traced back to the publication of 'Librarian's Canons of Ethics' 1909 which was revised by Botton in 1912 and published as an article in *The Annals of American Academy of Political and Social Sciences* entitled as "*The Ethics of Librarianship*". The first code of ethics from ALA was prepared in 1938 by Ms Flora B Ledington that was revised several times so far. According to IFLA, now 34 countries have code of ethics for practicing librarianship.
- 5) The American Library Association (USA) code of ethics for library professionals followed the relations between the governing authority; their constituency; their fellow employees within the library; their profession; and society.

Library Association (UK) Code of Conduct indicates the standards of behaviour expected of a member of the Association. It sets out the standards and duties which it is reasonable to expect a professional to observe. This is intended to protect the profession, individual practitioners, and their clients.

- 6) According to Johan Bekker a code of ethics should be an expression of ethos of an occupation; It should reflect the basic values associated with occupation. It should reveal what the occupation is, what the practitioners feel and of their place in society. It should indicate the distinct feature or the specialty of the profession. The code should reflect the nature of library on the basis of its functions.
- 7) The code of ethics has to consider the commitment of the library and librarian to the library clientele; Library Committee or management; library staff; book suppliers and book trade; professional colleagues; and commitment to society in general.
- 8) The 'Seven Lamps of Conduct' that are 'musts' for library professional:
 - 1) Impersonal book selection
 - 2) Service before self
 - 3) Split-mind
 - 4) Sympathetic behaviour
 - 5) Tact
 - 6) Industry
 - 7) Scholarship
- 9) The contemporary library environment changes under the influence of information and communication technologies. Now the collections are in digital format and accessible through networks without possessing the physical unit as in case of books. This has brought in new responsibility and accountability on librarians and they have to bridge the digital divide by providing equal access to information and balanced services to all. The important issues that attract ethical values in this digital environment are:
 - Privacy
 - Authenticity /validity
 - Accuracy and timeliness
 - Intellectual property
 - Accessibility
- 10) The problems and issues that crop up while developing the code of ethics are: professional image; too many professional bodies; authority for implementation of ethics and body to punish the guilty; unprecedented expansion of the profession beyond the core areas of library science, embracing ICTs; quality of profession in serving the customers; people from different subjects and sectors without service motto for the profession entering the library science.

12.11 REFERENCES AND FURTHER READING

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UNIT 13 ROLE OF PROFESSIONAL ASSOCIATIONS

Structure

- 13.0 Objectives
- 13.1 Introduction
- 13.2 Role and Functions of Library Associations
- 13.3 Programmes and Activities of Library Associations
- 13.4 Library Associations in India
 - 13.4.1 Indian Library Association (ILA)
 - 13.4.2 Indian Association of Special Libraries and Information Centres (IASLIC)
- 13.5 Library Associations in USA and UK
 - 13.5.1 American Library Association (ALA)
 - 13.5.2 Chartered Institute of Library and Information Professionals (CILIP)
- 13.6 International Associations
 - 13.6.1 Association for Information Management (ASLIB)
 - 13.6.2 International Federation of Library Associations and Institutions (IFLA)
- 13.7 Summary
- 13.8 Answers to Self Check Exercises
- 13.9 Keywords
- 13.10 References and Further Reading

13.0 OBJECTIVES

After studying this Unit, you will be able to:

- elaborate the aims and objectives of a professional association in library and information science; and
- discuss the programmes and activities of associations in library and information science.

13.1 INTRODUCTION

By now you must have had a fairly good insight into the historical perspective of libraries, library development in modern society, types of libraries and their functions, categories of users and their information needs, etc. In all these types of libraries you would have discovered that there is an underlying unity of purpose, i.e. to provide effective library and information services to the users. This common goal has brought together all persons working in library and information / documentation centres to form associations and focus attention on their common objectives.

Library associations are considered as learned societies. Their role is vital to the development of the library movement in a country. They continuously strive for

better provision of library and information services. During this process, library associations also work for the advancement of the profession and the professionals.

Professional associations are established by and for the professionals. Their membership is open to librarians, library staff members, library science teachers, libraries, library associations and even users of libraries. An association is what its members make it by their active collaboration and participation in its programmes and activities. As an entrant to the profession, it is worthwhile for you to know how you can participate in the activities of a professional association to serve its ultimate cause.

After completing BLIS programme, you will be qualified to work as a library and information professional. You should know your responsibilities and obligations to the profession, i.e. striving for improvement of library and information systems and services and advancement of library and information science. After all, it is members who build up the image of a profession. Performing duties of the highest standards and adherence to ethical principles are essential to bring credibility, and to hold the status of the profession high. This Unit acquaints you with library associations in India, the USA, and the UK and their activities and programmes including their administrative and organisational structures and functions. It also offers a short account of the international associations, such as IFLA and ASLIB.

13.2 ROLE AND FUNCTIONS OF LIBRARY ASSOCIATIONS

Professional issues that have far and wide reaching concern cannot be handled by an individual or a single institution. A collective action by an interested group is necessary. Professional associations serve as a forum for collaborative and coordinated efforts of individuals and groups.

Library development is dependent upon professional planning, farsightedness, understanding and involvement. These issues can be managed effectively by library associations than by individual institutions. Hence, the solidarity of the profession is a prerequisite for working for a common cause and to achieve the desired results. In fact, the strength and effectiveness of professional associations reflect this solidarity. Library associations, if they play their part well, can help in spreading the public library movement in a country and ensure better library service and building up a good image of the profession. They, indeed, assist in development of libraries and library and information services, and also present appropriate proposals to the right quarters.

Associations and professional societies are also powerful forces representing the voice of the professional community to solve the problems related to the welfare, status, working conditions, physical facilities, education and training including the research and development activities. Although the central purpose of the associations has always been to serve the needs and to protect the interests of the community, they strive to broaden the purpose and serve the overall needs of the nation.

Associations gain significance as the society advances in science and technology, complexity and scale and hence their study is becoming the part of study of social change. In the contemporary situation, due to rapid social change,

associations are important as a means of organising people in order to achieve new ends. They are also of great significance to the professionals in that they reveal cultural values and goals that the members themselves alone are unable to formulate. Another important aspect of rapid social change is the way new forms of organisations create new roles and relationships.

Library associations are established with the following aims and objectives:

- To herald the library movement in a country to spread knowledge and information and ultimately contribute to human resource development;
- To work for the enactment of public library legislation, drafting of the bills along progressive lines and based on sound principles; to make the people library conscious so that they demand the right of access to public library services; mobilise social pressure for the healthy development of library services;
- To strive for the evolution of an integrated national library and information system based on a national policy; and bring to the attention of the authorities the deficiencies, defects, etc., in the existing library infrastructure;
- To provide a common forum for library professionals for exchange of information, ideas, experience and expertise; and work for the betterment of salaries, grades, service conditions, status, etc. of library professionals;
- To hold the image of the library profession high in society; and promote cooperation among libraries and library professionals;
- To share resources and avoid duplication of efforts; and
- To contribute towards manpower development for library and information work by organising education and training programmes, and promoting research, incentives, awards and rewards, etc.

13.3 PROGRAMMES AND ACTIVITIES OF LIBRARY ASSOCIATIONS

Library associations undertake many important programmes and activities which vary from association to association. These associations interact with concerned governments from time to time, using every conceivable opportunity for sound development of a library system in the country. These tasks are done by advising, representing and helping in drafting legislation, formulation of policy statements, guidelines, etc. Library associations undertake various activities and programmes, such as:

Conferences

Organising conferences, seminars, lectures, etc. to offer opportunities for library professionals to meet, discuss, and exchange information, ideas, experiences and expertise. Association also helps in providing an opportunity to establish network of fellow librarians.

Library Publicity and Advocacy

Organising library week, exhibitions, book fairs, competitions, etc. for promoting library consciousness and reading and learning habits among citizens. Library associations also play a vital role in greater visibility of libraries and librarians.

Service conditions

Taking up with the management at all levels, through appropriate means, the issues relating to improvement of salary grades, service conditions and status of library professionals and also help in recruitment of library personnel.

Education

LIS associations conduct training courses that are necessary to supplement university education in library and information science as well as continuing education programmes for working professionals. Associations also function as accrediting bodies to maintain standards in library and informational science education. They also institute awards and rewards to recognise outstanding performance of the professionals and library systems.

Publications

Library associations publish professional literature like professional journals and newsletters as well as adhoc publications such as proceedings, directories, catalogues, bibliographies, course manuals, textbooks, reference books and others.

Standards, Services, and Research

Library associations are involved in:

- Formulating standards, guidelines, codes and manuals with regard to practices, procedures, techniques, tools and equipment, as a step towards fostering cooperation among libraries.
- Undertaking bibliographical projects on their own and through outside contract.
- Offering advisory and consultancy services.
- Undertaking research surveys of library facilities and services, user demands, learning and reading habits, book production etc. in order to identify strengths and weaknesses so as to take necessary steps to improve the system.

Ethics

Library associations formulate codes of ethics for library professionals in order to set high values in conduct and service.

Cooperation

They establish cooperation with international and national associations of other countries having similar objectives. They maintain liaison with book and publishing trade for attending to mutual problems in library acquisitions.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

1) State the aims and objectives of library associations.

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- 2) List under six broad groups the programmes and activities of library associations.

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13.4 LIBRARY ASSOCIATIONS IN INDIA

We have historical records of early library associations in India such as Baroda Library Association (1910), Andhra Desa Library Association (1914), Bengal Library Association (1927) and Madras Library Association (1927). The Indian Library Association was founded in 1933. The post-independence period has witnessed an increase in the number of library associations in the country.

We have, at present, many national and state level library associations. At the national level, we have Indian Library Association. There are also associations devoted to special categories of libraries, subjects, fields and other special interests. For example, the Government of India Library Association, (GILA), Indian Association of Teacher of Library and Information Science (IATLIS), Society for informational Science (SIS), Indian Academic Library Association (IALA), Medical Library Association (MLA), Society for Advancement of Library and Information Science (SALIS) and Indian Association of Special Libraries and Informational Centres (IASLIC).

Some of the state/regional level regional library associations include:

- Bengal Library Association
- Andhra Pradesh Library Association
- Andhra Pradesh Public Library Association
- Haryana Library Association
- Karnataka Library Association
- Kerala Library Association
- Madras Library Association
- Punjab Library Association
- Rajasthan Library Association
- Uttar Pradesh Library Association

There are some library associations in India whose contributions to the development of national consciousness are immense and deserve to be remembered by the future generations of library professionals. Two associations at the national level are described in the following sections, namely, the Indian Library Association (ILA) and the Indian Association of Special Libraries and Informational Centres (IASLIC).

13.4.1 Indian Library Association (ILA)

The Indian Library Association was formed on 13th September 1933 on the occasion of 1st All India Library Conference held at Calcutta (now Kolkata). The Indian Library Association is the largest professional body in the field of library and information science in the country. It is the premier national association representing the library profession in the country.

ILA, right from its inception in right earnest has identified itself with the library movement in the country. In due course of time it has also worked for the upliftment of the professional education and cadre based status by providing the necessary training and education avenues. It has made consistent efforts to provide an opportunity for the development of library and information professionals at all levels, all over the country.

a) Objectives

The Association aims at establishing high standards of librarianship and library services in the country. It has the following objectives:

- Promotion of library movement in the country and enactment of library legislation;
- Improvement of library services;
- Development of library science education and training and accreditation of library schools towards maintaining proper standards of education;
- Betterment of salaries, service conditions and status of library personnel;
- Promotion of cooperation among libraries and professionals;
- Promotion of research and bibliographical studies;
- Affiliation with state and other library associations;
- Cooperation with international and other national associations with similar objectives;
- Publication of serials and other publications for dissemination of information;
- Providing a common forum by organising conferences, seminars and meetings;
- Promotion and formulation of standards, norms, guidelines, etc., for management of library and information systems and their services;
- Establishments of libraries, documentation and information centres and assistance in their development; and
- Carrying out all such other activities that are incidental or conducive to the attainment of the above objectives.

b) Organisation

The membership of the Association comprises patrons, life and ordinary members, and institutional and associate members.

The general body elects, for a three year term, a President, six Vice Presidents, a General Secretary and Council Members, up to 20, at the rate of one representative for every 100 personal members, and one representative for

every 40 institutional members. There are Sectional Committees to look after professional work in different areas, such as: University Libraries, College Libraries, Government Department Libraries, School Libraries, Academic Status and Parity, Public Libraries, Library and Information Schools, Educational Projects and Consultancy, etc. These Sectional Committees consist of working librarians and experts in the subject including teachers in library and information science.

The Chairmen of the Sectional Committees, one representative of each member state library association and ex- Presidents of the Association are also members of Council. An Executive Committee Consisting of the President, one Vice-President, the General Secretary, the Treasurer, two Secretaries, P.R.O. and three Council Members look after routine management. While the general body meets once a year, usually at the time of All India Library Conference, the council meets at least once in a quarter and the Executive Committee meets as often as necessary. The annual report and accounts of the Association are passed at the General Body Meeting.

c) **Activities**

An All India Library Conference is held every year at some place in the country. The host institution is a university, an institution or a local library association. National seminar, on one or more themes of importance and relevance is a part of the programme of the All India Library Conference. In addition national seminars on themes of topical interest are also held from time to time.

The Association arranges lectures, round table discussions and other activities in Delhi and other cities. It associates itself with libraries, other library association, institutions, etc. in the programmes generally organised during the National Library Week in November each year.

d) **Publications**

The Association brings out a quarterly journal entitled Journal of Indian Library Association as an official organ and a vehicle for publishing learned articles contributed by professionals in the library and information science field. Another publication 'ILA Newsletter', a monthly keeps ILA members abreast with activities of the ILA and news and activities of the library profession in the country. Since 1978, the Association has been publishing regularly the proceedings of the All Indian Library Conference, which includes the seminar papers discussed at the meeting.

e) **Continuing Education**

The Association conducts need - based continuing education programmes from time to time for the benefit of working professionals.

f) **Awards for Excellence**

ILA has instituted many awards for encouraging excellence in the professional practices such as:

- ILA-Kaula Best Librarian Award
- ILA- Vendanaikkee Fellowship

- ILA-C D Sharma Award
- ILA- AG Verghese Award
- ILA-Dr. K Padma Umaphathy and Dr. S K Umaphathy Fellowship in Library and Information Sc.
- ILA-Dr. L M Padhya Best University Library Award
- ILA-S M Ganguly Award

g) **Professional Issues**

The Association takes up with the state governments, at every conceivable opportunity, the issue of enacting library legislation in order to develop the public library system. It has been repeatedly sending a memorandum persuading the state governments to initiate action on library legislation .It has been active in pursuing with the government, with the University Grant Commission (UGC) and with other bodies management matters relating to the betterment of salary grades, service conditions and status of library professionals. It took initiatives in drafting a national policy for library service and held a seminar on the topic, as a result of which, the Government of India appointed a Committee to prepare a National Policy on Library and Information System. During the All India Library Conference, a number of resolutions are usually passed on matters of professional interest and concern, which the Association takes up with appropriate authorities for implementation.

h) **Participation in Official Bodies**

The ILA represents the profession to discuss various policy level issues with the Government. The ILA is also represented on the Raja Ram Mohun Roy Library Foundation, Good Offices Committee, National Bureau of Standards, National Book Trust (NBT), World Book Fair Committee, etc.

i) **Relations with other Associations**

ILA plays a leading role in the Joint Council of Library Associations (JOCLAI) in India towards evolving a coordinated approach and a common strategy on professional issues of concern to all library associations in the country. It has good working relation with IASLIC and State Library Associations in the country.

ILA represents the professionals in India at the IFLA and the Commonwealth Library Association. It hosted the 1992 IFLA General Conference in Delhi. The International Conference on Ranganathan's Philosophy organised by ILA in November 1985 was an event of great significance. The ILA also organised the IFLA Universal Availability of Publication (UAP) Regional Seminar in October 1985 and FID/CR Regional Seminar in November 1985 in New Delhi. ILA celebrated its 75th year in 2008 and organised an International Conference. Under the auspicious of ILA 'Unesco Public Library Manifesto' has been translated into about 15 Indian Languages.

j) **Perspectives for Future**

The ILA is now firmly organised, with the confidence of the library profession assured, to carry on and expand its programmes and activities with a view to

meet the hopes and aspirations of the profession and to serve the cause of librarianship and library service in the country. We are marching towards knowledge society. In the knowledge society, creation, building and developing knowledge infrastructure, is one of the main functions of the government and others. A new visionary approach for National and Regional Library Associations in India would be drawn from some of the recommendations of the National Knowledge Commission. The Indian Library Association needs to participate actively in implementing the recommendations of the National Knowledge Commission, relating to libraries, such as:

- Setting up the National Commission on Libraries.
- Census of all libraries.
- LIS education and public private participation in LIS development.
- Translation of pedagogic materials.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answer given at the end of this Unit.

3) List the main activities and programmes of the Indian Library Association.

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4) State the professional issues that were taken up by the Indian Library Association with state and centre government authorities.

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13.4.2 Indian Association of Special Libraries and Information Centres (IASLIC)

The Indian Association of Special Libraries and Information Centres (IASLIC) was founded in 1955. It is a registered society with headquarters located in Kolkata. It was formed with the aim of having an association in India similar to the Association for Information Management (ASLIB) in the UK and the Special Libraries Association (SLA) in the USA.

At a largely attended meeting of librarians held at Calcutta on 25 June 1955 under the Chairmanship of Dr. S.L. Hora, the idea of starting an all India

association devoted to the progress of special libraries and information centres was mooted. Following this initiative, another meeting held on 3 September 1955 formalised the decision to establish the Indian Association of Special Libraries and Information Centres (IASLIC). The spontaneous cooperation and enthusiasm shown by professionals in the formative period as well as dedicated efforts of some founding members have helped in laying a firm foundation for the association over a period of fifty years and more. IASLIC has grown in stature and in range of activities and has been contributing in many ways to the improvement of special libraries and information centres in the country. It has earned recognition for its regular and systematic work all these years.

a) **Objectives**

IASLIC has the following major objectives:

- To undertake, support and coordinate research and studies;
- To organise general and special meetings, seminars, workshops and conferences at national and regional level;
- To publish journals, monographs, manuals, newsletters, papers, proceedings and reports;
- To conduct short term training courses;
- To coordinate with other fraternal bodies in promoting the interests of the library and information profession; and
- To undertake such other activities which are incidental and conducive to the attainment of the objectives of its objectives”.

b) **Organisation**

The membership of IASLIC consists of donor members, life and ordinary members and institutional members. IASLIC is a democratic body, the General Body elects for a three-year term, a President, six Vice Presidents, a General Secretary, a Treasurer, three Joint Secretaries, a librarian and 47 Governing Body Members, 6 Institutional Governing Board Members. The Council appoints from among its members the Executive and Finance Committees. The work of the Association is distributed among seven divisions with specific responsibilities assigned to them. The divisions are:

- Library Division
- Education Division
- Information Service Division
- Publication and Publicity Division
- Study Circle Division
- SIG (Special Interest Group) Division
- Serial Division

c) **Activities**

IASLIC holds biennial seminar and a conference in alternate years in different parts of the country at the venue of host organisations that are usually university libraries/departments of library and information science, institutions, associations, etc. It has Special Interest Groups (SIG) devoted

to areas like Industrial Information, Social Science Information, Computer Application, Humanities Information, Informatics, and Library and Information Science Education. The SIGs choose themes for discussion during conferences/ seminars.

Library and information professionals meet at the time of the annual conference/seminar to discuss problems of common interest. IASLIC organises from time-to-time ad hoc seminars, lectures, exhibitions, etc. In 2005, IASLIC celebrated Golden Jubilee celebration and International Conference was organised at Mumbai as a part of year-long celebration. Since 1993, it has instituted a lecture series “Ranganathan Memorial Lecture” delivered on any aspect of LIS by an eminent professional. Another annual lecture is delivered annually by an eminent person from a field or area of common interest.

It has a study circle at Kolkata. The meetings of the study circles are held every month, wherein technical issues are discussed.

d) Publications

The IASLIC Bulletin (started in 1956) is the official organ of the Association and is devoted to the advancement and dissemination of the fundamental and applied knowledge of library and information science in an accessible form to professional colleagues who have a common interest in the field in this country and abroad. The bulletin is issued quarterly; new volume begins with the March number every year.

The IASLIC Newsletter is the official newsletter of the Association and is aimed to inform members about the professional activities in general and IASLIC in particular. It is published monthly. Indian Library Science Abstracts (annual), another publication of the Association covers literature published in the country in the field of library and information science.

Apart from IASLIC Bulletin and Newsletter, it also publishes books, monographs, directory, conference and seminar proceedings, annual report, etc.

e) Information Services

The IASLIC undertakes compilation of bibliographies and English translation of documents from Russian, German, French, Chinese, Japanese, etc. and also undertakes imaging of documents for archiving. All these services are provided on non-profit basis. The Association also undertakes consultancy services like creation of computerised bibliographic databases, retrospective conversion of records, preservation and conservation of documents cataloguing, classification and stock verification in public and private organisations on non-profit basis.

f) Awards for Excellence

The IASLIC has instituted different awards for librarians. These are awarded to the best librarian of the year, best teacher in LIS, best young teacher in LIS, a retired librarian and the best article award.

g) Professional Issues

The Association strives to improve the standards of service in special libraries and information centers. In this connection, it has made attempts to evolve a

code of ethics for librarianship. It brings to the attention of authorities, issues which call for improvement and corrective measures. It concerns itself in sound planning and development of library and information systems and promotes suitable measures in this regard. It has taken measures like drafting an inter-library loan code for library cooperation. It has been quite responsive to the need for securing better salary scales, service conditions and status for library professional. It brings together library and information professionals at all levels and speaks for them as a whole on professional issues.

h) Education and Training

The Association in its continuing education programmes conducts short term courses, workshops, round tables, seminars etc. Organising short-term training courses in various topics is now a regular feature of the continuing education programme to improve professional competency. These courses are usually held in collaboration with university departments, specialised institutions, National Library of India and other professional bodies etc. in different parts of India.

i) Relation with other Bodies

IASLIC maintains a healthy relationship with the Indian Library Association and other library associations. It has taken a leading part in the formation of the Joint Council for Library Associations in India (JOCLAI). It took an active interest in implementing the common programmes of this Joint Council for Library Associations in India. IASLIC in different ways had cooperated with the erstwhile National Information System for Science and Technology (NISSAT).

By taking up specific assignments and projects, it is represented in Indian Standards Institution, Documentation and Information Committee (ISI/EC2) (now known as Bureau of Indian Standards). IASLIC collaborated with SLA Asian Chapter in hosting 'International Conference of Asian Special Libraries' in November 2008. Similarly, IASLIC in association with regional associations and organisations like, BLA, West Bengal Public Library Association and Raja Ram Mohun Roy Library Foundation jointly organised Librarians day on 12th Aug to commemorate the birth anniversary of Dr. S.R. Ranganathan.

j) Perspective for Future

IASLIC has had satisfying accomplishments in playing a leader/coordinator role in the special library and information field in the country. It is now poised for assured growth and development in the period ahead for serving the cause of special librarianship in India.

Self Check Exercise

- Note:** i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of this unit.
- 5) List the activities of IASLIC that distinguish its special character.

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6) Name the publications of IASLIC.

13.5 NATIONAL LIBRARY ASSOCIATIONS IN USA AND UK

Two library associations, one each of the United States of America and the United Kingdom are described in this section. These associations have a long and distinguished record of activities and service and have been pattern setters for the creation of national associations in many countries. The associations described in this section are the American Library Association and Chartered Institute of Library and Information Professionals (CILIP, U.K.)

13.5.1 American Library Association (ALA)

The American Library Association (ALA) has the uniqueness of being the oldest and largest library association in the world .It was founded in 1876 with its headquarters at Chicago.

A group of 103 library activists, at a meeting held in Philadelphia in the fall of 1876 to coincide with the nation’s centennial celebrations, resolved on a motion moved by Melville Dewey, the father of librarianship, to form the American Library Association. ALA, thus born, has been a success story by dedicated efforts of eminent librarians who steered the association in its formative periods, the ALA grew in strength steadily and became even in the early part of this century the national voice for library interests. Today, with a solid foundation, wide base expanding programmes and activities and social impact, ALA plays a dynamic role to foster American library interests with great success.

a) Objectives

ALA is an organisation of librarians and libraries having the following objectives:

- “Increase awareness and support for libraries by increasing their visibility in a positive context and by communicating why libraries are both unique and valuable;
- Update the image of libraries, librarians and all library staff for the 21st century, sustaining and strengthening their relevance;
- Bring renewed energy to the promotion of libraries and librarians; and
- Bring library messages to a more diverse audience.

It also has the following **internal objectives**:

- “Develop a campaign that represents and is useful to all types of libraries;
- Create turnkey tools, resources and materials that could be utilised by all types of libraries;
- Provide an opportunity to share public relations/marketing/advocacy best practices within the library community;
- Tie together ALA promotions into one unified brand, reinforcing key messages;
- Quickly respond to emerging issues such as library funding cuts;
- Develop more cross-collaboration across the association to ensure that new Campaign projects and initiatives are inclusive and effective; work more closely with ALA Chapters and Affiliates to help them achieve their public awareness objectives;
- Promote the contribution of all library staff, including both librarians and support staff;
- Seek increased foundation and sponsor funding to expand Campaign activities;
- Conduct public opinion research to refine and expand Campaign messages on an ongoing basis; and
- Increase coordination with other public relations and marketing efforts, such as READ posters, National Library Week, Library Card Sign-up Month, etc”.

b) **Organisation**

Any person, library, or other organisation interested in library service and librarianship may become a member of ALA upon payment of the dues provided for in the byelaws. The officers of the Association shall be a President, a President-elect, who shall serve as Vice-president, an Executive Director, and a Treasurer. The Executive Board shall consist of the officers of the Association, the immediate Past President, and eight members selected by the Council from among the members of that body, as provided in the byelaws. It has 11 divisions such as those relating to those school librarians, collections and technical services, services to children, trustees, advocates, friends and foundations, college and research libraries, specialised and cooperative library agencies, library and information technology, library leadership and management, public library, reference and user services and young adult library services. Apart from divisions, there are offices, round tables, committees and external groups. A.L.A. offices are units that address broad interests and issues of concern to ALA members. Round Tables are membership groups and may charge dues, develop programs, issue publications (with the approval of the ALA Publications Committee), and affiliate with regional, state or local groups with the same interests.

c) **Activities**

ALA holds annual conference each June which is attended by more than 25,000 librarians, educators, writers, publishers, friends of libraries, trustees and special guests. The conference includes more than 2,000 meetings,

discussion groups, programs on various topics affecting libraries and librarians as well as tours and special events. Topics include libraries and technology, censorship and literacy. A number of pre and post-conference seminars, workshops, etc. also takes place at the time of conference. The ALA also holds an annual business meeting known as the ALA Midwinter Meeting, generally held in January.

d) **Publications**

The American Library Association develops many resources for the library and information services communities. Almost 300,000 of ALA products are purchased every year, and the proceeds help to support the ALA's general programs. The ALA Store features titles from ALA Editions, the general publishing operation of the Association, and ALA Graphics, the unit specialising in promotional products supporting libraries, literacy, and reading, as well as other products from around the Association. ALA Store purchases fund advocacy, awareness and accreditation programs for library professionals worldwide. ALA's serial publications include: American Libraries, Book List, Book Links, ALA Tech Source, Library Technology Reports, and Guide to Reference. Apart from these different divisions, offices, roundtables and sections bring out various newsletters, magazines, and journals.

e) **Awards for Excellence**

Each year, the American Library Association and its member units honour people and institutions through an awards program that recognizes distinguished service a libraries and librarianship. ALA manages its overall awards program through different divisions and offices. ALA and its member units offer a variety of grants that provide funding or material support for present or future activities. Professional recognition awards are given to individuals, groups or organisations that have shown outstanding leadership in one of the many areas of great importance to the mission and goals of the ALA. Awards are provided by ALA, Divisions, Offices, and Round Tables.

Grants may be offered to support the planning and implementation of programs, to aid in the preparation of a dissertation or other publications, and to promote research in library and information science. Grants are also given to support travel to conferences or other events that can broaden an individual's experience or education in librarianship. Grants are administered by the ALA Awards Program, as well as ALA divisions, offices, and round tables.

f) **International Activities**

International Relations Office of the ALA coordinates international activities. It acts in support of official ALA delegations to international events such as book fairs and congresses; promotes international library exchanges and partnerships; recruits international librarians to become members of ALA and attend ALA conferences; responds to international inquiries concerning library issues and activities in the United States; serves as a point of contact for ALA's routine communication with international organisations to which ALA belongs, including IFLA; and provides support for the ALA International Relations Committee (IRC) and the International Relations Round Table

(IRRT). ALA has assisted many countries through advisory services, technical assistance, fellowships and awards, travel grants, supply of reading material, etc.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

7) List the various divisions of the American Library Association.

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8) State the international activities of the American Library Association.

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13.5.2 Chartered Institute of Library and Information Professionals (CILIP)

CILIP (The Chartered Institute of Library and Information Professionals) is the leading professional body of library and information professionals in U.K. It came into existence in 2002 with the merger of the erstwhile Library Association (U.K.) and Institute of Information Science. CILIP provides practical support for members throughout their entire careers, helping them with their academic education, professional qualifications, job hunting and continuing professional development.

a) Objectives

The CILIP aims at: activism and enterprise to build its community, a strong voice to advance the profession and modern professionalism to develop the workforce. Its objectives are to:

- set, maintain, monitor and promote standards of excellence in the creation, management, exploitation and sharing of information and knowledge resources;
- support the principle of equality of access to information, ideas and works of the imagination which it affirms is fundamental to a thriving economy, democracy, culture and civilisation; and
- enable its members to achieve and maintain the highest professional standards in all aspects of delivering an information service, both for the professional and the public good.

b) Organisation

Anyone working with knowledge, information or in library services can join CILIP. It has different categories of membership for people of different experience levels from student to fellow. The Council, set up under the Royal Charter, governs the work of CILIP. Its President and Councillors are elected by the membership in an annual election. Council is comprised of 12 Trustees elected directly by the Membership. There is a provision for co-opting up to three members.

- CILIP has special interest groups, namely:
- Academic and Research Libraries Group;
- Aerospace and Defence Librarians Group;
- Affiliated Members of CILIP;
- Branch and Mobile Libraries;
- Career Development Group;
- Cataloguing and Indexing;
- Colleges of Further and Higher Education;
- Commercial, Legal and Scientific Information Group;
- Community, Diversity and Equality Group;
- Education Librarians Group; and
- Government Information Group.

c) Activities

CILIP organises one-day conferences with expert speakers, demonstrations from suppliers of associated technology and unrivalled networking opportunities. It also organises managed events – two and three day conferences, often with associated exhibitions, organised on behalf of CILIP's Special Interest Groups – including the biennial Umbrella event. Apart from conferences, CILIP InForums are a series of discussion workshops where one can network with like-minded library and information professionals. InForum allows face-to-face sharing and collaboration, complimenting the online platform of the CILIP Communities.

d) Education and Training

Professional development underpins every successful career. CILIP members benefit from Certification, Charter ship, Fellowship, Revalidation and course accreditation to get their careers started and to make all their achievements and learning count.

CILIP Training & Development provides the widest range of training for the LIS community in the UK. With over 120 one and two-day courses running annually on around 90 different topics, training caters for all sectors and levels of experience. All the courses are tailored to meet the learning, training and developmental needs of the modern library and information community. It provides onsite courses that deliver high quality training at the convenience of members workplace – saving them both time and money. Some such programmes were done on services for beginners and researchers, e-books,

collection care, preservation policy, indexing etc. Professional Knowledge and Skills Base (PSKB) has been designed and provided by CILIP that outlines broadly the knowledge and skills required by a professional. One can use these to analyse one's own knowledge and skills set as well as demonstrate to the employees.

e) **Publications**

CILIP brings out CILIP Update magazine. It is published in print and digital formats monthly. Using state-of-the-art page turning technology, the Digital Edition has live web links and is available prior to Update's print publication date. With an internationally established list of over 200 titles, Facet Publishing is the publisher of choice for the information professions worldwide. It also publishes under the banner of CILIP directly.

f) **Awards**

CILIP promotes excellence through recognizing best practices awards. Different groups manage these awards, e.g. Publicity and Public Relations Group offers the following awards in marketing and public relations:

- International Library and Information Group Award
- PPRG Marketing Excellence Award: Rewarding excellence and innovation in libraries.

g) **Information and Advice Enquiry Services**

The Information and Advice Team provides support to members on a range of practical professional issues related to library work. It provides different services e.g. current awareness services (CAS), Employment, Law Helpline, and Information Centre Online database. CILIP gives general advice to the members on employment related subjects such as pay, job evaluation or redundancy.

If the problem is more complicated and requires more detailed advice. Individual CILIP members have the back up of The Work Foundation Employment Law Helpline to help them with confidential employment issues.

It has developed web pages to help members find the answers to practical matters relating to library and information management. Individual members also have access to a range of e-journals and online databases, which can be searched. These include:

- Emerald journals
- IRWI (Information Research Watch International)
- LISA (Library and Information Science Abstracts)
- LISTA Proquest
- JOLIS (Journal of Library and Information Science)

Keeping within the Law is a new online service which will help members stay informed about protecting and respecting intellectual property rights in the most challenging area of information practice, with a particular emphasis on copyright and licensing. It will help members to manage any legal risks, assess potential hazards and to implement sound risk management policies and procedures.

h) **Policy and Advocacy**

CILIP has developed a new resource for its members to demonstrate the value of their professional skills. The Campaigning Toolkit is a resource designed by CILIP to help members create an effective grassroots action plan to demonstrate their value as a library and information professional. CILIP broadly supports proposals to extend copyright exceptions for preservation, education, and fair dealing for non-commercial research or private study but extensions to the latter must be mirrored in the library and archive copying exceptions. It also calls for legislation to confirm application of the exceptions to the digital environment and to prevent them from being overridden by contracts. As convener of Libraries and Archives Copyright Alliance (LACA) and its majority stakeholder, CILIP is joined with LACA in its response. It has also brought out Equal Opportunities and Diversity Statement. CILIP has developed a set of Ethical Principles and a Code of Professional Practice for Library and Information Professionals. The information society is a professional policy priority area. This area of work is developing constantly.

i) **International Relations**

CILIP is an association member of the IFLA and encourages its members to involve in IFLA activities as contesting elections for the Standing Committees and other bodies. CILIP has organised IFLA conference in 2002 just after its emergence. CILIP takes up an opportunity to publicise its activities through participation in exhibition during the IFLA conferences. It brings out International News Bulletin to cover up international activities and news. CILIP also actively participates in European Information Society Initiatives. It has formal/ informal relations with EBLIDA (The European Bureau of Library, Information and Documentation Associations) and UNESCO.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

9) List the education and training activities of the CILIP.

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10) List the conference activities of the CILIP.

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13.6 INTERNATIONAL ASSOCIATIONS

Library associations don't only operate within a country, but also operate outside the country, e.g. ASLIB members are private and public sector companies and organisations throughout the world, concerned with managing information resources efficiently. At the same time Federation of Library Association also exists, as IFLA has associational/ institutional members in more than 150 countries. In this section you will know about the activities of both these associations.

13.6.1 Association of Information Management (ASLIB)

The ASLIB (Association of Special Libraries and Information Bureaux) was founded in 1924 with the aim of co-ordinating the activities of specialist information services in the UK. It is presently known as Association for Information Management. Its members are private and public sector companies and organisations throughout the world, concerned with managing information resources efficiently. Aslib had Special Interest Groups to cater to the needs of particular subjects/ areas. These have evolved into communities of practice. The expertise is in helping and advising organisations, from small and medium enterprises to large corporations and governments, on any of their issues and problems, information management great and small.

a) Objectives

The key roles of ASLIB are to:

- stimulate awareness of the benefits of good management of information resources and its value;
- represent and lobby for the interests of the information sector on matters which are of national and international importance varying from copyright and data protection to the role of scientific journals; and
- provide a range of information related products and services to meet the needs of the information society

b) Organisation

The Aslib Special Interest Group network provides invaluable support to members in the pursuit of their professional duties within their organisations, large and small.

One of the most important aspects of group membership is the invaluable network of contacts formed between members that creates an effective information resource as well as providing business and career opportunities.

c) Activities

To fulfil these roles Aslib has developed four main functions within the Association. They are consultancy, publications, training and recruitment.

Consultancy activities drawn principally from the network of leading information professionals range from giving answers to specific questions for individuals or small companies, to major studies for the British Government, and recommending policies and strategies to the People's Republic of China.

Managing Information, the association's colour magazine, is the magazine for everyone who uses information. It combines the successful print magazine with a web-based news service, doubling the impact of the publication. The magazine continues to develop its winning combination of high-calibre features, top-level interviews, analysis and practical solutions all packaged in a readable and attractive style. The news service, available at <http://www.managinginformation.com>, harnesses internet technologies to provide up-to-the minute news updated every weekday. It also offers chat, forum, events, reviews and opinion polls.

d) **Training**

Aslib provides training in key aspects of information work in the form of public courses, on-site training, conferences and distance learning.

Some of the areas in which training has been provided include:

- Business and Official Information Sources
- General Management and Communication Skills
- Knowledge Management
- Library and Information Management Skills (New courses)
- Managing Internet Sites
- Research Skills.

Aslib Training offers On-site Service, delivered on the premises to meet members needs. If one is training staff in any aspect of information and knowledge management, these are the unique advantages Aslib on-site training can provide:

- Training tailor-made for ones requirements
- Taught within the culture of ones organisation
- The value of team sharing
- In-house confidentiality
- Key personnel remain on site
- No travel or accommodation costs for delegates
- Save money on public course fees

Aslib's training courses have earned a worldwide application and quality, and the Aslib Open Learning Programme provides an opportunity for anyone, anywhere to take advantage of the world's best courses in information skills.

e) **Publications**

Aslib publications are an important element in Aslib's mission of supplying practical, leading edge support in managing information and knowledge. Aslib titles are produced by Emerald and Europa Publications. Members are entitled to receive two learned journals of their choice published by Emerald. They are also entitled to receive 'Managing Information' magazine published 10 times a year. They are also entitled to receive any other publication of Emerald on a discount of 20%.

f) **Consultancy**

Aslib has a Consultancy Group that undertakes projects for organisations for information support. The projects have included IT selection and implementation, user needs surveys, business information and on-line sources.

g) **Professional Recruitment**

Over the last 50 years, Aslib Professional recruitment has established a reputation as a leading consultancy for information professionals. Aslib specialise in supplying permanent, temporary and contract staff to libraries and information departments at all levels, throughout the UK. Roles Aslib recruits for include: Librarians, Editors, Researchers, Information Scientists, Know-How Analysts, Information Officers, Library Service Managers, Archivists, Cataloguers, Indexers, Loose-Leafers, Information Analysts, Knowledge Managers , Records Managers, Intranet Content Managers, Information Specialists, Information Assistants.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

11) State the names of special groups of Aslib.

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12) Name the broad areas of training offered by Aslib.

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13.6.2 International Federation of Library Associations and Institutions (IFLA)

IFLA (The International Federation of Library Associations and Institutions) is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession.

Founded in Edinburgh, Scotland, in 1927 at an international conference, IFLA celebrated 75th birthday at its conference in Glasgow, Scotland in 2002. IFLA now has more than 1600 Members in approximately 150 countries around the

world. IFLA was registered in the Netherlands in 1971. The Royal Library, the National Library of the Netherlands, in The Hague, generously provides the facilities for the headquarters.

a) **Objectives**

IFLA is an independent, international, non-governmental, not-for-profit organisation. Its aims are:

“To promote the international support, cooperation, exchange of information, education, research, and development within the scope of the library and information services sector in general. In addition, the Foundation seeks to protect, preserve, and document written and printed cultural heritage and all that is in connection with these purposes”.

In pursuing these aims IFLA embraces the following core values:

- 1) the endorsement of the principles of freedom of access to information, ideas and works of imagination and freedom of expression embodied in Article 19 of the Universal Declaration of Human Rights.
- 2) the belief that people, communities and organisations need universal and equitable access to information, ideas and works of imagination for their social, educational, cultural, democratic and economic well-being
- 3) the conviction that delivery of high quality library and information services helps guarantee that access
- 4) the commitment to enable all Members of the Federation to engage in, and benefit from, its activities without regard to citizenship, disability, ethnic origin, gender, geographical location, language, political philosophy, race or religion.

b) **Organisation**

IFLA has two main categories of voting members: Association Members and Institutional Members. Associations of library and information professionals, of library and information services and of educational and research institutes, within the broad field of library and information science, are all welcome as Association Members. Institutional Membership is designed for individual library and information services, and all kinds of organisations in the library and information sector. International organisations within its sphere of interest may join as International Association Members. National Association Members, International Association Members and Institutional Members have voting rights in elections and meetings. They are entitled to nominate candidates for the post of IFLA President and for places on the Executive Committee. Individual practitioners in the field of library and information science may join as Personal Affiliates. They do not have voting rights, but they provide invaluable contributions to the work of IFLA, by serving on committees and contributing to professional programmes.

The governing structure of IFLA has been revised and came into force in 2001. The revision was necessary in order to reflect the opportunities presented by its increasingly global membership and the greater ease of worldwide communications.

The General Council of Members is the supreme governing body, consisting of delegates of voting Members. It normally meets every year during the annual conference. It elects the President and members of the Governing Board. It also considers general and professional resolutions which, if approved, are usually passed to the Executive Committee and the Professional Committee for action as appropriate.

The Governing Board is responsible for the managerial and professional direction of IFLA within guidelines approved by Council. The Board consists of the President, the President-elect, 10 directly elected Members (by postal and/or electronic ballot, every 2 years) and 9 indirectly elected members of the Professional Committee (by the professional groups through the sections and divisions); up to 3 Members may be co-opted.

The Governing Board meets at least twice per year, once at the time and place of the Annual World Library and Information Congress.

The Executive Committee has executive responsibility delegated by the Governing Board to oversee the direction of IFLA between meetings of this Board within the policies established by the Board. The Committee consists of the President, President-elect, the Treasures, the Chair of the Professional Committee, 2 members of the Governing Board, elected every 2 years by members of the Board from among its elected members, and IFLA's Secretary General, ex-officio.

It is the duty of the Professional Committee to ensure coordination of the work of all the IFLA units responsible for professional activities, policies and programmes. The Committee consists of a chair, elected by the outgoing Committee, an officer of each of IFLA's 8 Divisions plus 3 members of the Governing Board, elected by that Board from among its members.

The Professional Committee meets at least twice per year, once at the time and place of the annual IFLA General Conference.

Divisions and Sections: Sections are the primary focus for the Federation's work in a particular type of library and information service, in an aspect of library and information science or in a region. All IFLA Members are entitled to register for Sections of their choice. Once registered, voting Members have the right to nominate specialists for the Standing Committee of the Sections for which they are registered. The Standing Committee is the key group of professionals who develop and monitor the programme of the Section. Sections are grouped into eight Divisions.

Regional Activities: Three Regional Sections (Africa, Asia and Oceania, and Latin America and the Caribbean) make up the Division of Regional Activities (Division 8). They are concerned with all aspects of library and information services in their regions. They promote IFLA activities and work closely with the IFLA Regional Offices, located in Pretoria, South Africa; Singapore and Rio de Janeiro, Brazil.

Special Interest Groups: Discussion Groups may be set up, on a temporary and informal basis, to enable groups of Members to discuss specific professional, or social and cultural issues relating to the profession.

Discussion Groups may be established for a two-year renewable term and must be sponsored by a Section. Groups of IFLA Members, or representatives of IFLA Members, may establish Special Interest Groups (SIGs) to address emerging issues or trends or issues of continuing interest to a relatively small number of IFLA members. Special Interest Groups bring together IFLA members with common and continuing interests that they wish to discuss or explore, but which are not included in the Mission and Goals of an existing Section. Interests may cut across the concerns of multiple Sections, identify and follow an emerging issue or trend, be very specialised or narrow and be relevant to a small number of members.

During its meeting in December 2008 IFLA's Professional Committee approved the following SIGs:

- ATINA: Access to Information Network - Africa
- Agricultural Libraries
- E-Learning
- E-Metrics
- Environmental Sustainability and Libraries
- Indigenous Matters
- Library History
- LIS Education in Developing Countries
- National Information and Library Policy
- National Organisations and International Relations
- New Professionals
- Religious Libraries in Dialogue
- RFID
- Semantic Web
- Women, Information and Libraries.

c) **Activities**

IFLA General Conference and Council is held in August or early September in a different city each year. More than three thousand delegates meet to exchange experience, debate professional issues, see the latest products of the information industry, conduct the business of IFLA and experience something of the culture of the host country.

Issues common to library and information services around the world are the concern of the IFLA Core Activities. Directed by the Professional Committee, the objectives and projects of the Core Activities relate to the Federation's Programme and the priorities of the Divisions and Sections. One, ALP (Action for Development through Libraries Programme) has very wide scope, concentrating on the broad range of concerns specific to the developing world. The others cover current, internationally important issues: Preservation and Conservation (PAC), IFLA - CDNL Alliance for Bibliographic Standards (ICABS) and IFLA UNIMARC. The Core Activities are each managed by a Director, who reports to the Executive and Professional Committees.

With generous initial funding from the Danish government, the City of Copenhagen, and the Danish library community, IFLA's office for Free Access to Information and Freedom of Expression (FAIFE) was established in Copenhagen in 1998. It has a steering committee made up of professionals from around the globe. FAIFE reports to the Executive Committee. Also reporting to the Executive Committee is the Committee on Copyright and other Legal Matters (CLM).

A range of professional meetings, seminars and workshops are held around the world by the professional groups and Core Activities. Use IFLANET and *IFLA Journal* to find out what is going on when and where.

d) **Publications**

The results of the programmes developed by IFLA's professional groups are recorded and disseminated in the publications. *IFLA Journal* is published four times a year. Each issue covers news of current IFLA activities and articles, selected to reflect the variety of the international information profession, ranging from freedom of information, preservation, services to the visually impaired and intellectual property. The biennial Council Report records IFLA's achievements in five key areas: access to information, the electronic environment, preservation and conservation, services and standards and professional development. The IFLA publications series, published by IFLA's publisher, K G Saur Verlag in Munich, Germany includes such titles as *Intelligent library buildings*, and *Adapting marketing to libraries in a changing worldwide environment*. The IFLA Professional Reports series feature reports of professional meetings and guidelines to best practice. Recent reports include *Proceedings of the IFLA/UNESCO pre-conference seminar on public libraries and Guidelines for easy-to-read materials*.

e) **Awards for Excellence**

IFLA offers the following awards and fellowships/ prizes:

- Dr Shawky Salem Conference Grant
- The MargreetWijnstroom Fund for Regional Library Development
- Jay Jordon IFLA/OCLC Early Career Development Fellowship
- IFLA International Marketing Award
- Guust van Wesemael Literary Prize.

f) **Resources**

Many librarians and information professionals throughout the world, who contribute their time, expertise and financial resources, make its achievements possible. About 80% of IFLA's income is derived from membership fees. Other sources of income include sales of publications, contributions in cash and kind from the corporate partners, grants from foundations and government agencies. The professional programme is supported by grants from UNESCO, several national and international funding agencies. Twenty national libraries contribute financial support for the Core Activities in addition to the six national and university libraries which, between them, host those programmes and its headquarters.

g) **IFLANET**

The web site IFLANET has rapidly become a prime source of information not only about IFLA, but also on a broad spectrum of library and information issues. It is hosted by the Institut de l'Information Scientifique et Technique (INIST), France.

h) **Relations with other Bodies**

IFLA has established good working relations with a variety of other bodies with similar interests, providing an opportunity for a regular exchange of information and views on issues of mutual concern. It has Formal Associate Relations with UNESCO, observer status with the United Nations, associate status with the International Council of Scientific Unions (ICSU) and observer status with the World Intellectual Property Organization (WIPO) and the International Organization for Standardization (ISO). In 1999, it established observer status with the World Trade Organization (WTO). In turn, IFLA has offered consultative status to a number of non-governmental organisations operating in related fields, including the International Publishers Association (IPA). All are members, along with the International Council on Archives (ICA), International Council of Museums (ICOM) and the International Council on Monuments and Sites (ICOMOS), of the International Committee of the Blue Shield (ICBS). The mission of ICBS is to collect and disseminate information and to co-ordinate action in situations when cultural property is at risk.

Self Check Exercise

Note: i) Write your answers in the space given below.

ii) Check your answers with the answers given at the end of this Unit.

13) Mention names of the IFLA core activities.

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14) Mention in very short about IFLA publications.

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13.7 SUMMARY

Library Associations are learned bodies which foster a spirit of public service among their members, promote library services, protect the interests of their members and build up the image of the library profession. In this unit, we have dealt with the following aspects:

- The role, aim and objectives, programmes and activities of library associations at national levels in India as well as in the USA and the UK.
- Two major associations of India, viz. the Indian Library Association and the Association of Special Libraries and Information Centers have been described, with reference to their objectives, organisations activities, publications, education and training programme, consultancy service and other information services, professional issues, relation with other professional bodies, international relation and future perspectives.
- The American Library Association, the CILIP and the IFLA and the Association for Information Management of UK, are described with reference to their aims and objectives, Organisations activities, publications, public library legislation, library research relations with other institutions, awards and rewards, international relation and future perspectives.

13.8 ANSWERS TO SELF CHECK EXERCISES

- 1) The aims and objectives of library associations are:
 - a) Promote/spread Library movement in a country to disseminate knowledge;
 - b) Work for enactment of public library legislation in the country;
 - c) Work towards the evolution of integrated national library and informational systems;
 - d) Professional development including improving service conditions for the professionals;
 - e) Contributes towards manpower development.
- 2) The programmes and activities of a library association can be broadly grouped under the following categories:
 - a) Undertaking surveys of library facilities and services;
 - b) Continuing educational programmes;
 - c) User studies;
 - d) Organisation of conferences, seminars, workshops, etc.
 - e) Publication activities;
 - f) Professional development.
- 3) The activities of Indian Library Association are:
 - a) Holding conferences and meetings;
 - b) Publication of ILA: ILA Bulletin, ILA Newsletter, Conference Proceedings, ILA members directory, Annual Reports;

- c) Continuing education programmes;
 - d) Consultancy services; Directory of Library database;
 - e) Handling professional issues;
 - f) Participation in national library and information development;
 - g) Maintaining relational with other professional bodies;
 - h) Maintaining international relations;
 - i) Preparing for the future.
- 4) The professional issues taken by the Indian Library Association have been:
- a) Enactment of library legislation with the state governments;
 - b) Betterment of salary grades, service conditions and status of library professionals;
 - c) National Library and Informational Policy.
- 5) The activities of IASLIC that distinguished its special character are:
- a) Biennial seminars and conferences in alternate years in different parts of the country;
 - b) Formational of interest groups devoted to area like Industrial Informational, Social Science Information:
 - c) Organising special lectures, exhibitions;
 - d) Publications special lectures, exhibitions;
 - d) Publications of literature in the library and informational science;
 - e) Support research projects getting financial assistance form funding bodies.
- 6) The publications of IASLIC are:
- a) IASLIC Newsletters
 - b) Proceeding of seminars and Conferences,
 - c) Indian Library and Informational Science Abstracts,
 - d) Monographs, Manual, Codes and Glossaries etc.
- 7) The divisions of the American Library Association are:
- a) School librarians,
 - b) Collections and technical services,
 - c) Services to children, trustees, advocates, friends and foundations,
 - d) College and research libraries,
 - e) Specialised and cooperative library agencies,
 - f) Library and information technology,
 - g) Library leadership and management,
 - h) Public library,
 - i) Reference and user services; and
 - j) Young adult library services.

- 8) ALA's International Activities include:
 - a) Participation in the programmes of UNESCO, and IFLA
 - b) Assistance to other countries through Advisory Services, Technical Assistance, Fellowships, travel Grants, supply of Reading Materials, etc.
- 9) The educational and training activities of the CILIP Include:
 - a) Certification
 - b) Chartership
 - c) Fellowships
 - d) Revalidation
 - e) Accreditation
 - f) Training and Development
- 10) Conference activities of the CILIP include:
 - a) One-day conferences with expert
 - a) Two and three day conferences of the SIGs
 - c) InForums- series of discussions
- 11) ASLIB aims to facilitate the coordination and systematic use of source of Knowledge and informational in all public affairs and in industry and commerce and in all the arts and sciences. It is to increase the contribution of information to the economic, social and cultural life of the community by the promotion of effective information management.
- 12) Aslib mainly concentrates on info services, publications of professional literature and professional development.
- 13) IFLA Core Activities include:
 - a) Action for Development through Libraries (ALP)
 - b) Preservation and Conservation (PAC)
 - c) CDNL Alliance for Bibliographical Standards (ICABS)
 - d) UNIMARC
- 14) Some important IFLA Publications include:
 - a) IFLA Journal
 - b) IFLA Membership Directory
 - c) International Cataloguing and Bibliographical Journal
 - d) Library Statistics for the 21st Century, in IFLA Publication Series

13.9 KEYWORDS

Continuing Education : Non-Formal education for the benefit of working professionals to upgrade knowledge and skill.
Ethics: Rules of conduct recognized in respect to particular group.

- Forum** : Public place for discussion of matter of common interest to a given group.
- Library Movement** : Progressive development of library towards providing the public access to knowledge and information.
- Objectives** : Specific aims, goals to be achieved.
- Official Organ** : A journal, newsletter or other publication representing a special Group.
- Profession** : Body of person engaged in an occupation, requiring an extensive education in a branch of science, arts, etc.
- Programme** : A coordinated group of thing to be done or performed.
- Standard** : Model, Guide or pattern for guidance.

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UNIT 14 ORGANISATIONS AND INSTITUTIONS INVOLVED IN THE DEVELOPMENT OF LIBRARY AND INFORMATION SERVICES

Structure

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14.4.3 Agricultural Information System (AGRIS)

14.5 National Information Systems

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14.7 Summary

14.8 Answer to Self Check Exercises

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14.0 OBJECTIVES

This Unit is devoted to some of the important national and international organisations, institutions and information systems involved in development of library and information services. After reading this Unit, you will be able to:

- elaborate on (a) international organisations engaged in the development of library and information services, (b) global information systems devoted to collection processing and dissemination of information, (c) national information systems in India involved in the promotion and development of information services and (d) national level information centers in India actually performing certain information functions;
- explain programmes and activities that are being undertaken by such organisations in the promotion, coordination and development of library and information services; and

- identify specifically the role played by some representative organisations and systems, such as UNESCO, UGC, RRRLF, NASSDOC, UNISIST, INIS, AGRIS, NISSAT and NISSAT sponsored library networks, NISCAIR, DESIDOC and NASSDOC.

14.1 INTRODUCTION

Many organisations, institutions and associations in India and abroad are functioning towards promotion, coordination and development of library and information services. Some of these are government funded and others are professional bodies and voluntary organisations. These are playing roles as professionals, advisory bodies, funding agencies and services providers, etc. It is difficult to cover all such kinds of national and international organisations, therefore, some of the well established ones are being described in this Unit. These include United Nations Educational, Scientific and Cultural Organisation (UNESCO), University Grants Commission (UGC), Raja Rammohun Roy Library Foundation (RRRLF), United Nations Information System in Science and Technology (UNISIST), International Nuclear Information System (INIS), Agricultural Information System (AGRIS), Chemical Abstract Service (CAS), Institute for Scientific Information (ISI), National Information System for Science and Technology (NISSAT), National Institute of Science Communication and Information Resources (NISCAIR), National Social Science Documentation Centre (NASSDOC), Defence Scientific Information and Documentation Centre (DESIDOC), Bhabha Atomic Research Centre (BARC), Information and Library Network (INFLIBNET), Developing Library Network (DELNET),– INFONET, international organisations, institutions and systems,

Library and information networks e.g. INFLIBNET, DELNET, CALIBNET, INFONET, etc. have contributed in the development of library and information services and discussed in detail in Unit 13.

14.2 INTERNATIONAL ORGANISATIONS

14.2.1 United Nations Educational, Scientific and Cultural Organization (UNESCO)

The constitution of United Nations Educational, Scientific and Cultural Organization (UNESCO), signed on 16 November 1945, came into force on 4th November, 1946 after ratification by 20 countries including India. Today, UNESCO functions as a laboratory of ideas and a standard-setter to forge universal agreements on emerging ethical issues. It also serves as a clearinghouse – for the dissemination and sharing of information and knowledge – while helping Member States to build their human and institutional capacities in diverse fields. UNESCO promotes international co-operation among its 193 Member States and 6 Associate Members in the fields of education, science, culture and communication. Article I Clause 1 Sub-clause (c) of its Constitution stipulated that the “*Organisation shall maintain, increase and diffuse knowledge by assuring the conservation and protection of the world’s inheritance of books, works of arts and monuments of history and science, and recommending the nations concerned the necessary International conventions; by encouraging cooperation among the nations in all branches of intellectual activity, including the international exchange of*

persons active in the field of education, science and culture and the exchange of publications, objects of artistic and scientific interest and other materials of information; by initiating methods of international cooperation calculated to give the people of all countries access to the printed and published materials produced by any of them”.

Freedom, prosperity and the development of society and individuals are fundamental human values. They will only be attained through the ability of well-informed citizens to exercise their democratic rights and to play an active role in society. Constructive participation and the development of democracy depend on satisfactory education as well as on free and unlimited access to knowledge, thought, culture and information. The public library, the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups. The Public Library Manifesto, adopted in 1994, proclaims UNESCO's belief in the public library as a living force for education, culture and information and as an essential agent for the fostering of peace and spiritual welfare through the minds of men and women. UNESCO, therefore, encourages national and local governments to support and actively engage in the development of public libraries. The following key missions which relate to information, literacy, education and culture should be at the core of public library services:

- creating and strengthening reading habits in children at an early age;
- supporting both individual and self-conducted education as well as formal education at all levels;
- providing opportunities for personal creative development;
- stimulating the imagination and creativity of children and young people;
- promoting awareness of cultural heritage, appreciation of the arts, scientific achievements and innovations;
- providing access to cultural expressions of all performing arts;
- fostering inter-cultural dialogue and favouring cultural diversity;
- supporting the oral tradition;
- ensuring access for citizens to all sorts of community information;
- providing adequate information services to local enterprises, associations and interest groups;
- facilitating the development of information and computer literacy skills;
- supporting and participating in literacy activities and programmes for all age groups, and initiating such activities if necessary.

The UNESCO's School Library Manifesto adopted in 1999, aims to define and advance the role of school libraries and resource centres in enabling students to acquire the learning tools and learning content that allow them to develop their full capacities; to continue to learn throughout their lives; and to make informed decisions. The following are essential to the development of literacy, information literacy, teaching, learning and culture and are core school library services:

- supporting and enhancing educational goals as outlined in the school's mission and curriculum;

- developing and sustaining in children the habit and enjoyment of reading and learning and the use of libraries throughout their lives;
- offering opportunities for experiences in creating and using information for knowledge, understanding, imagination and enjoyment;
- supporting all students in learning and practising skills for evaluating and using information, regardless of form, format or medium, including sensitivity to the modes of communication within the community;
- providing access to local, regional, national and global resources and opportunities that expose learners to diverse ideas, experiences and opinions;
- organising activities that encourage cultural and social awareness and sensitivity;
- working with students, teachers, administrators and parents to achieve the mission of the school; proclaiming the concept that intellectual freedom and access to information are essential to effective and responsible citizenship and participation in a democracy;
- promoting reading and the resources and services of the school library to the whole school community and beyond.

Activities

Access to Information: UNESCO aims at helping individuals and organisations in improving access to information and knowledge. It strives to create conditions conducive to free flow of information. Universal access to information is high on its agenda. To achieve universal access to information it sets standards, creates awareness and develops management tools to strengthen libraries.

Archives: Archives are important components that help at improving information access, both for the public at large and for specialised groups. Since its creation, UNESCO has contributed to the reinforcement of these types of services. The development of information technologies and in particular the Internet, networking, cooperation and digitisation modify substantially the functions of acquiring, storing and disseminating information and knowledge. UNESCO pays special attention to the underdeveloped countries so that they do not lag behind technological advances. In the area of archives, UNESCO, through its Records and Archives Management Programme - RAMP (established in 1979) aims at:

- “making the general public and decision-makers aware of the importance of records and archives for planning and development safeguarding of the national heritage;
- assisting Member States in the establishment of efficient records and archives management infrastructures through standardization , archival legislation, training, and enhancing infrastructure (buildings and equipment);
- promoting international debates on main issues in the archival field” .

Memory of the World

UNESCO established the *Memory of the World* Programme in 1992. It provides access to the documentary heritage of the world. The programme was envisioned to protect and preserve documents that are endangered due to natural or man-made disasters.

An International Advisory Committee (IAC) was formed 1993 that formulated an action plan giving UNESCO the role of coordinator and catalyst to sensitise governments, international organisations and foundations, and foster partnerships for the implementation of projects. General Guidelines for the Programme were drafted through a contract with IFLA (International Federation of Library Associations) and ICA (International Council on Archives). UNESCO prepared a list of endangered library and archive holdings and a world list of national cinematic heritage through its National Commissions. Under the programme a range of pilot projects was commenced employing contemporary technology to reproduce original documentary heritage on other media. (These included, for example, a CD-ROM of the 13th Century Radzivil Chronicle, tracing the origins of the peoples of Europe, and Memoria de Iberoamerica, a joint newspaper microfilming project involving seven Latin American countries). These projects enhanced access to this documentary heritage and contributed to its preservation.

It includes the Vedas also that is one of the first produced literatures in the world.

Community Multimedia Centres: UNESCO's International Initiative for Community Multimedia Centres (CMCs) promotes community empowerment and addresses the digital divide by combining community broadcasting with the Internet and related technologies. A CMC combines community radio by local people in local languages with community telecentre facilities (computers with Internet and e-mail, phone, fax and photocopying services). The radio – which is low-cost and easy to operate – not only informs, educates and entertains, but it also empowers the community by giving a strong public voice to the voiceless, and thus encouraging greater accountability in public affairs.

Radio-browsing programmes: Presenters search the web in response to listeners' queries and discuss, on air, the contents of pre-selected websites with studio guests.

Multimedia databases for development: The CMC can gradually build up its own database of materials that meet the community's information needs.

Open learning: The CMC exists to meet development needs in such areas as education and training, health and income-generation.

E-Governance: E-governance is the use of ICT by different actors of the society with the aim to improve their access to information and to build their capacities. The principal on-going UNESCO activity in the field of e-governance is a cross-cutting project on E-Governance Capacity-Building. This project aims at promoting the use of ICT tools in municipalities to enhance good governance through the development of training modules for local decision-makers in Africa and Latin America.

Information Processing Tools: UNESCO develops, maintains and disseminates, free-of-charge, two interrelated software packages for database management (CDS/ISIS) and data mining/statistical analysis (IDAMS).

CDS/ISIS is a generalised information storage and retrieval system. The Windows version may run on a single computer or in a local area network. The JavaISIS client/server components allow remote database management over the Internet and are available for Windows, Linux and Macintosh. Furthermore, GenISIS

allows the user to produce HTML Web forms for CDS/ISIS database searching. The ISIS_DLL provides an API for developing CDS/ISIS based applications.

IDAMS is a software package for processing and analysing numerical data. It provides a great number of data manipulation and validation facilities and a wide range of classical and advanced statistical techniques. Interactive components allow for construction of multidimensional tables, graphical exploration of data and time series analysis. WinIDAMS software (IDAMS for 32-bit Windows operating system) as well as its documentation are available in English, French, Portuguese and Spanish.

IDIS is a tool for direct data exchange between CDS/ISIS and IDAMS.

Knowledge and training in the use of information processing tools is as important as the tools themselves. At present, UNESCO offers various forms of traditional training in the use of CDS/ISIS and IDAMS. A computerised tutorial “How to work with WinIDAMS”, available both on stand-alone PC configurations and in virtual courses through the Internet is available in English, French, Portuguese and Spanish.

Public Domain Information: UNESCO strongly promotes access to public domain information, also known as the “information commons”. The use of public domain information does not infringe any legal right or breach any other communal right (such as indigenous rights) or any obligation of confidentiality. Public domain information refers to the realm of all works or objects of related rights, which can be exploited by everybody without any authorisation, for instance because protection is not granted under national or international law, or because of the expiration of the term of protection or due to the absence of an international instrument ensuring protection in the case of foreign works or objects of related rights. UNESCO advocates that Member States should recognise and enact the right of universal online access to public and government-held records including information relevant for citizens in a modern democratic society, giving due account to confidentiality, privacy and national security concerns, as well as to intellectual property rights to the extent that they apply to the use of such information. International organisations should recognise and promulgate the right for each State to have access to essential data relating to its social or economic situation.

E-Heritage: Heritage is “our legacy from the past, what we live with today, and what we pass on to future generations.” A heritage is something that is, or should be, passed from generation to generation because it is valued. Examples of cultural heritage are: those sites, objects and intangible things that have cultural, historical, aesthetic, archaeological, scientific, ethnological or anthropological value to groups and individuals. The concept of natural heritage is also very familiar: physical, biological and geological features; habitats of plants or animal species and areas of value on scientific or aesthetic grounds or from the point of view of conservation.

More and more of the world’s cultural and educational resources are being produced, distributed and accessed in digital form. Born-digital heritage available on-line, including electronic journals, World Wide Web pages or on-line databases, is now part of the world’s cultural heritage. However, digital information is subject to technical obsolescence and physical decay. The instability of the Internet is an

additional risk for knowledge accumulated in html format. The need to safeguard this relatively new form of documentary heritage calls for international consensus on its collection, preservation and dissemination which resulted in the adoption of “UNESCO Charter on the Preservation of the Digital Heritage” Guidelines accompanying the Charter adapt and extend present policies, legal frameworks and archival procedures so that this new form of heritage will not sink into silence. UNESCO’s programme aims at preservation and dissemination of valuable archive holdings and library collections worldwide.

Digital Heritage is made up of computer-based materials of enduring value that should be kept for future generations. Digital heritage emanates from different communities, industries, sectors and regions. Not all digital materials are of enduring value, but those that are require active preservation approaches if continuity of digital heritage is to be maintained.

According to the UNESCO’s Charter for the Preservation of Digital Heritage:

- Resources of human knowledge or expression, whether cultural, educational, scientific and administrative, or embracing technical, legal, medical and other kinds of information, are increasingly created digitally, or converted into digital form from existing analogue resources.
- Digital materials include texts, databases, still and moving images, audio, graphics, software, and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained.
- Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved for current and future generations. This heritage may exist in any language, in any part of the world, and in any area of human knowledge or expression.

Using computers and related tools, humans are creating and sharing digital resources – information, creative expression, ideas, and knowledge encoded for computer processing – that they value and want to share with others over time as well as across space. This is evidence of a digital heritage. It is a heritage made of many parts, sharing many common characteristics and subject to many common threats.

General Information Programme

The General Information Programme was created bringing together two series of activities so far separately conducted by UNESCO: the UNISIST Intergovernmental Programme dealing with scientific and technical information, on the one hand and NATIS, UNESCO’s concept of integrated national information concerned with documentation, libraries and archives, on the other hand. The work of the General Information Programme is guided by the Intergovernmental Council for the General Information Programme whose members are elected by UNESCO’s General Conference. The Intergovernmental Council for PGI is the authority which is responsible for ensuring the continuity of past activities of UNESCO in the field of information and the future development of the General Information Programme in the interest of Education, Science, Culture and Communication.

In particular, the Council, composed of thirty-six Member States elected by the General Conference at its ordinary sessions, is responsible for:

- “*guiding* the conception and planning of the General Information Programme of UNESCO, in particular by putting forward recommendations on the Medium-Term Plan and its revision and on the content of future programmes and budgets to be submitted to the General Conference;
- *studying* proposals concerning developments and modifications of the Programme;
- *recommending* priorities among the various activities or groups of activities constituting that Programme;
- *reviewing* the results achieved and defining the basic areas requiring international co-operation;
- *encouraging* and assisting Members States to participate in the General Information Programme of UNESCO and to co-ordinate their activities to that end;
- *reviewing* the other information activities of UNESCO and making recommendations to the Director-General for a better co-ordination of the said activities;
- *seeking* voluntary contributions, either financial or in kind, to supplement the resources available under the regular budget for the implementation of the General Information Programme”.

The General Information Programme has been replaced by Information for All Programme (IFAP) since 2001. IFAP strives to overcome the digital divide in the society. It advocates for all people on the wrong side of the information divide. The programme takes special concern of the needs of women, youth and the elderly and the differently abled.

The Information for All Programme seeks to:

- “promote international reflection and debate on the ethical, legal and societal challenges of the information society;
- promote and widen access to information in the public domain through the organisation, digitisation and preservation of information;
- support training, continuing education and lifelong learning in the fields of communication, information and informatics;
- support the production of local content and foster the availability of indigenous knowledge through basic literacy and ICT literacy training;
- promote the use of international standards and best practices in communication, information and informatics in UNESCO’s fields of competence; and
- promote information and knowledge networking at local, national, regional and international levels”.

Information for Development

One of the challenges facing IFAP is to explain to governments and communities the value of information in addressing development issues. The objectives in the UN Millennium Declaration link the development and eradication of poverty to

good governance and transparency. Information Literacy is one such competency that empowers individuals to access and use information. It enables lifelong learning and decision making in all aspects of life. Information literacy in the digital world demands that individuals possess technology and media skills. IFAP promotes actions aimed at raising awareness of the importance of information literacy and supporting projects that build the literacy skills of users. Ethical use of information is an integral component of information literacy. IFAP is working to propagate ethical use of information in collaboration with its partner institutions.

Information Accessibility

“Information accessibility encompasses the many issues surrounding availability, accessibility and affordability of information, such as multilingualism, metadata, interoperability, open source software, open content, Creative Commons licences as well as addressing the special needs of people with disabilities”.

Divide has been created due to unequal availability of information among the different cross-sections of the society. Economic concerns also create barriers towards free availability of information in the society. UNESCO has encouraged global efforts in this direction. Outcomes have been projects granted in the areas such as Free and Open Source Software (FOSS), Open Educational Resources (OER), etc.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

1) Write a brief note on preservation of digital heritage.

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14.3 NATIONAL ORGANISATIONS

14.3.1 University Grants Commission (UGC)

The University Grants Commission (UGC) is a statutory organisation established by an Act of Parliament in 1956. This is a national body for the co-ordination, determination and maintenance of standards of university education. The UGC serves as a vital link between the Union and state governments and the institutions of higher learning. In addition to its role of giving grants to universities and colleges; the UGC also advises union and state governments on the measures necessary for the improvement of university education. It also frames regulations such as those on the minimum standards of instruction and qualifications of teachers on the advice of subject specialists and academicians with whom it frequently interacts in connection with the formulation, evaluation and monitoring of programmes.

Section 12 of the UGC Act provided that the Commission shall, in consultation with the universities concerned, take all such steps as it may think fit for the promotion and coordination of university education and for the maintenance of standards in teaching, examination and research. Schemes/programmes are implemented by the Commission for promoting excellence and in enhancing standards of institutions of higher learning.

The Commission, being an apex body in maintaining higher education in the country, has also played a major role in promoting library and information services in these universities and colleges. Besides, it has also established and constituted a number of libraries/information centers/study centers and committees to provide quality education and service in the field of library and information activities. Some of these are :

- a) Financial Assistance to University and College Libraries
- b) Curriculum Development Committee (CDC) on Library and Information Science
- c) Establishment of National Information Centres
- d) Establishment of INFLIBNET
- e) Modernisation of university libraries
- f) National Review Committee on University and College Libraries

a) **Financial Assistance to University and College Libraries**

Financial assistance is given to universities and colleges including Central Universities, State Universities, Deemed Universities, Government and affiliated colleges, which receive grants for building up libraries so as to meet the demands of the students, teachers and research scholars. The Commission provides substantial grants for the acquisition of books and journals.

For other infrastructural facilities also like library buildings, furniture and equipment grants are given in every five-year plan period. It also introduced a scheme of 'book bank' in colleges and universities by providing 'grants to acquire multiple copies of costly text books recommended in all the disciplines. The objective of this scheme was to provide text books to poor, needy and deserving students for home study on long term basis by charging nominal deposits. This Scheme is no longer in operation by UGC support.

b) **Curriculum Development Committee (CDC) on Library and Information Science**

The UGC constituted CDC on Library and Information Science in 1990 to restructure the courses of studies. The committee in its recommendations framed, guidelines for LIS schools, covering admission policy, students and faculty strength, instructional methodology, teaching aids, application of information technology, etc. Besides, it also constituted a committee called UGC Panel in Library and Information Science to suggest the changes to be brought in the education and training of LIS courses.

c) **Establishment of National Information Centres**

The objective of establishing National Information Centres in specialised areas is to provide improved access to information and to provide

bibliographic support to teachers and research scholars in their respective fields. Three such centers have been established and they have developed computer databases to render reference and information services, documentation services and current awareness services. These three centres are:

Name of the Centre	Disciplines Covered
1) National Centre for Science Indian Institute of Science, Bangalore	Physical, Applied and Natural Sciences Information
2) Maharaja Sayajirao University, Baroda	Social Sciences and Humanities
3) SNDT Women's University, Bombay	Social Sciences and Humanities

d) **Establishment of INFLIBNET**

The UGC established an Information and Library Network (INFLIBNET) Programme with headquarters at Ahmedabad as a project of the Inter University Centre for Astronomy and Astrophysics (IUCA) Pune in April 1991. The INFLIBNET Programme aims at the establishment of a national network of libraries and information centers in institutions of higher learning including universities, colleges, R&D institutions and national organisations like CSIR, ICMR, ICSSR, ICAR, DOE, etc.

INFLIBNET is a computer-communication network of libraries and bibliographical information centres. It is a co-operative network programme for pooling, sharing and optimisation of resources, facilities and services of libraries and information centres, in the university system as well as in the R&D complex. It provides access to information to students, academics and researchers in rendering various information and documentation services such as (a) catalogue based service (b) database service (c) document delivery service (d) collection development and (e) communication-based service. Details about the INFLIBNET activities and services are given in Block 3 of this course.

e) **Modernisation of University Libraries**

Recent advances in information and communication technology and its utility have forced the university libraries to computerise their services and connecting themselves to various network programmes like INFLIBNET so as to provide fast, efficient and reliable computerised information service to its users. The UGC provided special financial assistance to central university libraries (2 crore rupees) and university libraries established before independence (50 lakh rupees) during the 1994-95 and 1995-96 financial years for updating library facilities. The main objective was to computerise the library activities and connect them to INFLIBNET programme. The utilisation of the fund provided for the purpose is to meet the following expenses:

- 1) Purchase of computer system, monitor, printer, terminals, software, etc.
- 2) Computer, furniture and electrical fittings and air conditioning.
- 3) Mode, telephone line and connection to nearest mode.
- 4) Appointment of information scientist.

- 5) Support for data entry work.
 - 6) Purchase of books, journals, A/V and their processing.
 - 7) Data entry conservation (modernisation).
 - 8) Staff training.
- f) **National Review Committee on University and College Libraries**

The purpose of constituting such a committee is to review the utilisation of grants to central universities and some state university libraries of Rs. 2 crores and Rs.50 lakhs respectively. Secondly, to prepare a status report of university and college libraries in India and, finally to prepare a strategy plan/guideline for the future for smooth functioning of these university and college libraries.

14.3.2 Raja Rammohun Roy Library Foundation (RRRLF)

Raja Rammohun Roy Library Foundation (RRRLF) was established in May, 1972 by the Department of Culture, Government of India to spread library services all over the country in cooperation with state governments, union territory administrations and organisation working in the field. It is a central autonomous organisation established and financed by the Ministry of Culture, Government of India. It is the nodal agency of the Government of India to support public library services and systems and promote public library movement in the country. The supreme policy-making body of RRRLF is called the Foundation. It consists of members nominated by the Government of India from amongst eminent educationists, librarians, administrators and senior officials. The Foundation has 22 members. The Minister of the Department of Culture, Government of India or his nominee is the Chairman of RRRLF. The foundation works in close association and active cooperation with different state governments and union territory administrations through a machinery called State Library Planning Committee (SLPC/SLC) set up in each state at the instance of the foundation. A state government/U.T. is required to contribute a certain amount fixed by the foundation to participate in its programmes, The headquarters of RRRLF are located at Kolkata with four zonal offices located at Kolkata, Mumbai, New Delhi and Chennai.

Objectives

RRRLF functions as a promotional agency, an advisory and consultancy organisation and a funding body for public library development in India. Some of its significant objectives are to:

- “promote library movement in the country;
- enunciate a national library policy and to help build up a national library system;
- provide financial and technical assistance to libraries;
- provide financial assistance to organisations, regional or national engaged in the promotion of library development;
- publish appropriate literature and to act as a clearing house of ideas and information on library development in India and abroad;
- promote research in problems of library development; and

- advise the government on all matters pertaining to the library development in the country”.

Programmes and Activities of RRRLF

Assistance Programmes

RRRLF provides matching and non-matching grants and books to public libraries under different schemes of assistance.

Matching assistance is provided:

- “towards building up of adequate stock of books and reading materials.
- towards development of Rural Book Deposit Centres and Mobile Library Services.
- towards organisation of seminars, workshops, training courses (orientation/ refresher), books exhibitions and library awareness programmes.
- towards purchase of storage materials, reading room furniture and library equipment, like card cabinet, fire extinguisher, etc. including photo copier.
- towards increasing accommodation to public libraries.
- to acquire computer with accessories for library application and TV, CD Player, DVD player for educational purposes for public libraries”.

Assistance under these schemes are given from the resources shared on matching basis with the States/Union Territory Administrations. For developed States it has ratio of 50 : 50, developing and lagging States it has ratio of 60 : 40 and North-Eastern States this ratio is 90 : 10.

Non-Matching Assistance are provided:

- “towards building up of adequate stock of books through central selection.
- to voluntary organisations (NGOs) providing public library services.
- to children’s libraries or children’s section, senior citizen section, neo-literate section of general public libraries.
- to public libraries towards celebration of Golden/Diamond/Platinum, etc. Jubilee years.
- towards organising seminar/conference by professional organisation, local bodies, NGOs engaged in public library development/library movement and university departments of library science.
- towards collection and compilation of library statistics through official and non-official agencies.
- to centrally sponsored libraries.
- towards establishment of RRRLF Children Corner”.

Promotion of District Youth Resource Centres (DYRCs)

The DYRCs are assisted towards:

- building up adequate stock of books.
- acquiring storage materials and library furniture.
- construction of library building.
- acquisition of computers with accessories.

Promotional Activities

RRRLF has undertaken several promotional activities for qualitative improvement of library services. It has played a major role in the preparation of National Policy on Library and Information System (NAPLIS). It has also issued guidelines on public library systems and services. The Foundation introduced Annual Raja Rammohun Roy Award to the best contributor of an article covering the area of development of Public Library Systems and Services or suggesting measures for promotion of reading habit. It helps to disseminate innovative, new concepts and ideas for the development of Public Library System and Services in the country through research oriented activities. The Foundation has also undertaken a programme of giving seven awards annually – one for the best State Central Library and six for the best District Libraries of six regions in the country. Since 2005 the Foundation also instituted RRRLF Best Rural Library Awards – one for each State. The Foundation institutes “RRRLF Fellowship” to offer fellowship to five eminent men and women in the field of Library Services who have contributed to the library movement in the country through active involvement in the movement, organisational initiative or intellectual leadership or are dedicated to the propagation of reading habit among the masses.

Research Project

The Research Cell of RRRLF renders advisory and consultancy services whenever required, besides carrying on research projects on public library or allied subject. It has prepared and published a report on loss of books in libraries for the Government of India.

Publications

RRRLF has brought out a number of publications. The significant publications are:

- Indian Libraries : Trends and Perspectives
- Raja Rammohun Roy and the New Learning
- Directory of Indian Public Libraries
- Granthana, Indian Journal of Library Studies (bi-annual)
- RRRLF Newsletter (bi-monthly)
- Books for the Millions at their Doorsteps (Information Manual)

RRRLF Digital Library Initiative

Digitising of rare books, including pre-Independence newspapers, journals and other documents housed in public libraries will be taken up and a Digital Repository will be created for providing access to all stakeholders to digitised documents. Selected copyright-free materials, including paintings, photographs, manuscripts, etc. available in public libraries will also be digitized and will be made available to the public. This National Digital Repository will be progressively developed to contain metadata of all rare materials available in public libraries in India as well as the digital version of the copyright-free works as part of National Digital Preservation Programme. This Digital Repository will also host contents on Libraries, Library System and Services and Library Development in India.

For this purpose CDAC has already been entrusted to digitise the collection of Rabindra Bhavan, Visva-Bharati. CDAC has already digitised 8896 journals / books at Rabindra Bhavan as on 30th June, 2013. NIC authority has been approached for hosting of the Digital Library Portal.

Skill Development Programme

Training modules have been proposed to be developed for working librarians at three different levels, viz:

Level 1: The programmes would cover areas like public library of the future, strategic planning workshop, aimed at the senior officers dealing with state level public library policy and administrative matters. It is expected that 2 or 3 officials from each state will participate in this programme.

Level 2: Programmes at this level would aim at the middle level staff in the state central libraries, district libraries and large city libraries. It would include hands-on practical training focusing on ICT skills, administrative and management skills.

Level 3: It would include training on the day-to-day routines of the library, aimed at staff who interact with library users and visitors and who are responsible for the upkeep of the libraries. This will be held in different parts of each state and will be conducted by local resource persons in local language.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

2) State the functions and type of assistance provided by RRRLF to the libraries.

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14.4 GLOBAL INFORMATION SYSTEMS

14.4.1 UNISIST

The launching of UNISIST (United Nations Information System in Science and Technology), also known as World Scientific Information System programme in 1973 marked a new phase in UNESCO's work in the library, documentation and information field. UNISIST, with emphasis on scientific and technological information, is a conceptual framework and not an operating system by itself. It envisages development of international network of information services. The broad objectives are improvement of tools of system inter-connection, strengthening institutional components of information transfer chain, development of manpower for information work, evolution of national information policy by national governments and assistance to member countries to develop capability in information handling and service.

An inter-governmental council at the UNESCO Headquarters guides the implementation of the UNISIST programme. At the national level, liaison with UNESCO is ensured by a National Focal Point and a UNISIST National Committee. The action programmes of UNISIST have contributed to the creation of awareness about formulation of information policy by member countries, development of information infrastructure especially in developing countries, establishment of special information systems, facilities for training of information manpower and above all establishment of norms and standards for information work. While three major inter-governmental conferences namely, UNISIST I, NATIS and UNISIST II (1971, 1974, 1979) identified a number of recommendations, the implementation of actual programmes has been carried out in terms of UNESCO's Medium Term Plans (1977-1982, 1984-1989). The activities being carried out by PGI reflect a very clear policy of practical action on behalf of member states, emphasis being laid on pilot projects, training activities, application of modern technologies, exchange of experience and know-how and, in general, activities that have a catalytic and multiplier effect.

Apart from PGI, UNESCO has been responsible for the development of some specialised database and information systems such as the Data Retrieval System for Documentation in the Social and Human Sciences (DARE), Science Policy Information System (SPINES), International Information System for Architecture, International Bureau of Education Documentation and Information System (IBEDOC) and International Information in Research in Documentation (ISORID).

The bi-monthly UNESCO Bulletin for Libraries had been a widely circulated general periodical in library and information science but it is no longer published. It has been replaced by UNISIST Newsletter, which is of informative nature and appears quarterly. Other publications of UNESCO cover monographs, manuals, handbooks, standards and guidelines, training manuals and packages, reports, seminar proceedings, project documents, etc. These are authoritative documents and make a valuable contribution to library and information science literature. India, a member of UNESCO from the beginning, takes an active part in its programmes and has also been deriving benefits. While the Indian National Commission for UNESCO is the official channel; the NISSAT in the Department of Scientific and Industrial Research is the focal point for UNISIST/PGI and is the Coordinating Centre for the ASTINFO programme. NASSDOC/ICSSR is the focal point for – APINESS. In India, UNESCO has supported many projects and programmes and has provided technical assistance for specific missions; it has held meetings and seminars and has conducted training programmes. UNESCO has also drawn on the expertise and experience of India and its experts for its programmes in other countries. Presently, India is taking an active part in ASTINFO and APINESS projects. On the whole, India's association with UNESCO with regard to library and information field has been rewarding.

14.4.2 International Nuclear Information System (INIS)

INIS was established in 1970 in response to the International Atomic Energy Agency's (IAEA's) mandate "... to foster the exchange of scientific and technical information on peaceful uses of atomic energy". The INIS represents a wealth of experience and an extensive pool of information in the nuclear field. The first INIS output products, the printed Atomindex and associated magnetic tapes,

were issued in April 1970. It has since grown into one of the successful and comprehensive information systems on the peaceful uses of nuclear science and technology. INIS processes most of the world's scientific and technical literature on a wide range of subjects from nuclear engineering, safeguards and non-proliferation to applications in agriculture and health. For the past four decades, INIS has been successfully fulfilling its mission to create a reservoir of nuclear information for current and future generations; to provide quality nuclear information services to Member States and to assist with the development of a culture of information and knowledge sharing.

INIS is operated by the International Atomic Energy Agency (IAEA) in collaboration with, at present, 128 Member States and 24 International Organisations. Active partnerships with other organisations in Member States are also developed. INIS strength is based on this international co-operation. Representation in the system is at governmental level. National INIS Centres are responsible for all related activities in a country. Collecting relevant literature and disseminating INIS output products to end-users is decentralised to National INIS Centres in Member States. This mechanism allows INIS to achieve widest coverage of national nuclear-related literature; to overcome cultural and language barriers and to give every INIS Member the right to access nuclear information of all other INIS Members.

INIS Activities

INIS Database: INIS has operated on cooperative principles since 1970 as a service to its members. It consists of a bibliographic database and a collection of non-conventional literature (NCL) and is the largest IAEA information source in nuclear science and technology. INIS continually evolves and adjusts to changes in political and technological information requirements, the needs of its user base and information management technologies. An important aspect of INIS is the high quality of its database. Every input to the INIS Database is checked by experts of the INIS Secretariat assuring the correctness of bibliographic description and subject analysis (classification, indexing and abstracting). User-friendly version of the INIS Online Database is also available. It offers direct on-line access to full-text documents of non-conventional literature in PDF format. The database can be accessed with the same user ID, password, and IP address as the previous version.

Non-Conventional Nuclear Information: INIS unique collection of 7 lakh full-text documents of non-conventional "grey" literature, available on microfiche is being upgraded to digital format and made available through the INIS Online Database to users in Member States. At present, the full-text collection which consists of microfiche and electronic version (PDF) has grown to over nine lakh documents. More than 3 million bibliographic citations and abstracts of journal articles, scientific and technical reports, conference papers, books, patents, theses, laws, regulations and standards and web documents, covering publications in 63 languages; all records include keywords and most have an abstract in English. The INIS NCL collection on microfiche is being digitised at an annual rate of about one million pages. Other IAEA publications, policy documents and full-text reports from Member States are also being digitised and made available in electronic format.

Document Delivery Service: INIS has arrangements with 72 national INIS Centres to provide document delivery services to users within their countries. Requests for individual reports produced since 1997 are referred to these Centres if they exist in the country of the requester. Orders for reports published prior to 1997 are addressed to the INIS and NKM Section. By clicking on the Document Delivery Service, user can obtain information on services, cost, types of delivery, etc. All reports published after 1997 are also available electronically in Acrobat PDF format. Some reports published prior to 1997 can also be delivered electronically depending on the size of the report or analytic requested.

INIS Multilingual Thesaurus: INIS specialists from Member States and the IAEA have developed a controlled vocabulary for indexing and searching the INIS Database. Over the years the INIS Thesaurus has evolved as a result of systematic study. It contains over 30 000 terms. The INIS Thesaurus is now available in all official languages of the IAEA: Arabic, Chinese, English, French, Russian, Spanish and in German. It represents a unique multilingual thesaurus in the nuclear field.

Capacity Building: To assist its Member States, the IAEA transfers knowledge and know-how in data collection and information processing, in particular to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

3) Describe briefly the activities of INIS.

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14.4.3 Agricultural Information System (AGRIS)

AGRIS, the international information system for the agricultural sciences and technology, was created by the Food and Agriculture Organization (FAO) of the United Nations in 1974, to facilitate information exchange and to bring together world literature dealing with all aspects of agriculture. AGRIS is a cooperative system in which participating countries input references to the literature produced within their boundaries and, in return, draw on the information provided by the other participants. At present more than 240 national, international and inter-governmental centers are participating in this programme.

AGRIS provides worldwide bibliographic coverage of agricultural science and technology literature. Assembled by the AGRIS Coordinating Centre, the FAO, AGRIS offers an international perspective on crucial agricultural research. The many aspects of agriculture, including forestry, animal husbandry, aquatic sciences and fisheries, and human nutrition from over 135 participating countries are

covered. Literature includes unique material such as unpublished scientific and technical reports, theses, conference papers, government publications and more. Approximately 130,000 records are added each year with key words in English, French and Spanish.

WEBAGRIS

WEBAGRIS is a complete, multilingual web-based system for distributed data input, processing and dissemination (through the Internet or on CD-ROM), of agricultural bibliographic information. It is based on common standards of data input and dissemination formats (XML, HTML, ISO2709), as well as subject categorisation schema and AGROVOC Thesaurus. WEBAGRIS also allows to link to documents that are available in electronic format. WEBAGRIS provides the following functionalities:

Database maintenance functions:

- Data entry and update;
- Password control;
- Creation of new records;
- Updating of existing records;
- Validation by formats;
- Display of authority data for a selection.

Information dissemination functions:

- User friendly retrieval;
- Sort;
- Print and export options;
- Searching through a number of databases;
- Result paging;
- Saving option for query history, etc.

The WEBAGRIS system can be used in multiple ways depending on the need and resources of the individual AGRIS Resource Centre. The centre can host a website for data entry, searching and/or exporting data to the central AGRIS database and/or publishing on the CD-ROMs. It can be used as a local application or in a common networked environment for joint collection of information (through exporting, harvesting data, etc.). WEBAGRIS improves accessibility of information generally, through the use of multi-database searching and harvesting.

The WEBAGRIS system is based on the web technology and can be run from a standard Internet browser. It uses the WWW-ISIS software developed by the Institute for Computer and Information Engineering (ICIE), Poland with the cooperation and support of FAO for publishing CDS/ISIS databases on the Web. The interface is based on HTML forms, and has been implemented as a CGI program. The program is invoked by the web server process. The access to the CDS/ISIS databases is managed through BIREME's software ISIS-DLL, an API (Application Program Interface) for CDS/ISIS software of UNESCO in the Windows environment.

The current WEBAGRIS version 2.0 is developed by the AGRIS/CARIS and Documentation group of GILW, FAO (FAO-Agris-Caris@fao.org), in close cooperation with the Institute for Computer and Information Engineering (ICIE), Poland and IICA/CATIE, Costa Rica.

AGRIS Application Profile (AGRIS-AP)

The AGRIS-AP is a metadata standard created specifically to enhance the description, exchange and subsequent retrieval of agricultural Document-Like Information Objects (DLIOs). It is a format that allows sharing of information across dispersed bibliographic systems and is based on well-known and accepted metadata standards. The guidelines also provide recommended best practices for cataloguing and subject indexing. The AGRIS-AP is a major step towards exchanging high-quality and medium-complexity metadata in an application independent format.

Generating AGRIS-AP XML from local databases

This is a technical document mainly devoted to those libraries and institutions that wish to disseminate and export data from their local databases using the AGRIS-AP XML format, based on the AGRIS-DTD.

AGRIS-DTD

The AGRIS-DTD is a Document Type Definition that defines the legal building blocks of an AGRIS XML record. It defines the record structure with a list of legal elements for the AGRIS Application Profile and validates the XML inputs from AGRIS resource centers. A valid input meets all the requirements set out by the AGRIS AP, including cardinality and obligation.

AGRIS Metadata Elements

Metadata used in AGRIS and recommended by AgMES (the metadata standard) developed by FAO for the description and discovery of agricultural information resources.

AGROVOC Thesaurus

The AGROVOC Thesaurus was developed by FAO and the Commission of the European Communities, in the early 1980s. It is updated by AFO roughly every three months. This is a multilingual, structured and controlled vocabulary designed to cover the terminology of all subject fields in agriculture, forestry, fisheries, food and related domains. It consists of words or expressions (terms) in different languages and organised in relationships (e.g. “broader”, “narrow”, and “related”) used to identify or search resources. Its main role is to standardise the indexing process in order to make searching simpler and more efficient and to provide the user with the most relevant resources.

Access to Global Online Research in Agriculture (AGORA)

It is a program, launched in 2003, to provide free or low cost access to major scientific journals in agriculture and related biological, environmental and social sciences to public institutions in developing countries. AGORA provides access to 1278 journals from the world’s leading academic publishers. The goal of AGORA is to improve the quality and effectiveness of agricultural research, education and training in low-income countries and in turn to improve food security. Researchers, policy-makers, educators, students, technical workers and

extension specialists can have access to high-quality, relevant and timely agricultural information via the Internet. Access to AGORA is password controlled. Within the participating countries AGORA provides benefit not-for-profit national academic, research or government institutions in agriculture and related biological, environmental and social sciences.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

4) What are the functionalities provided by the WEBAGRIS?

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14.5 NATIONAL INFORMATION SYSTEMS

During the past six decades, a number of special libraries, documentation centres and information centers have come up in our country under a variety of ownership and jurisdiction. When they came to be established, they sprang up piecemeal, without any coordination. There has not been much of liaison between them. There has been realisation lately that their resources and facilities need to be coordinated towards optimum utilisation and elimination of wasteful duplication. Further, the existing libraries and information centres require to be upgraded to be able to meet the growing needs of information in the context of advances in information technology. Uniformity in techniques, methods, practices, etc. has to be aimed at in order to facilitate exchange of information between different components. The action programme in this regard envisaged interlinking and coordinating a large number of subsets of sources, services and centres into versatile, articulate and integrated information systems.

14.5.1 National Information System for Science and Technology (NISSAT)

National Information System in Science and Technology (NISSAT) was set up in 1977 to oversee the above functions. The project was later closed in March 2002.

The increasing role of science and technology in the economic and social development of the country has generated a pressing demand for faster technology transfer to industries. Apart from access to information generated within the country, it is also necessary to draw from externally generated information to support internal efforts on research and development. Information centres that have come up to serve the needs of different industries and R&D units are therefore required to be coordinated and organised into an integrated system to avoid a haphazard growth and duplication of activities and in conformity with national and international standards.

NISSAT programme envisaged promotion and support to the development of a compatible set of information systems on science and technology and interlinking these into a network. The approach adopted was to bring the existing centres, systems and services to a higher level of operation so that the interests of the national community of information users could be better served. For this purpose, the programme also contemplates experimentation with and introduction of modern information handling tools and techniques and the development of endogenous capabilities.

1) Objectives

NISSAT was established with the following objectives :

- Development of National Information Services
- Promotion of Existing Information Systems and Services
- Introduction of Modern Information Handling Tools and Techniques
- Promotion of National and International Cooperation in Information
- Development of Indigenous Products and Services
- Support to Education, Training and R&D in Information.

Strategies

- Emphasis on Contents Aspects
- Use of Existing Infrastructural Facilities
- Commercialisation of Information Services

NISSAT programmes were implemented through several sub-programmes which include the following.

- Establishment of information centres in specific sectors, subjects and products
- Development of information resource sharing systems like library networks, union catalogues and consultative committees
- Establishment of international database access centres
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools, techniques, etc.

2) NISSAT Information Centres

a) Sectoral Information Centres

The major instrument for information resource development and dissemination was the information centre which provided bibliographic as well as factual and numerical information on a product, discipline or mission; a series of information centres were established to create information awareness and to meet information needs of academicians, scientists, technologists, entrepreneurs, management executives and decision makers.

These Information Centres were built around the existing information resources and facilities. They maintained extensive collections of published and unpublished documents in the form of books, periodicals, research reports, development and trade reports, etc. in the relevant subject areas. Besides providing documents and preparing bibliographies on request, they offered SDI, CAS, reprographic, micrographic, industrial and technical inquiry service, translation and other services.

NISSAT played a very important role in computerisation of libraries in the country. It was the national distribution centre of CDS/ISIS and later WINISIS software. It also developed software Sanjay and Trishna for organisations. NISSAT was also instrumental in making LIS professionals computer literate by organising variety of courses of different levels in various parts of the country.

Library networks in the country also owe their origin to NISSAT. Metropolitan Area Networks were set up with the initiative and patronage of NISSAT. Starting with CALIBNET in Calcutta and DELNET in Delhi these spread to all parts of the country.

Self Check Exercise

- Note:** i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this Unit.
- 5) Write a brief note on the past activities of NISSAT.

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14.6 NATIONAL INFORMATION AND DOCUMENTATION CENTRES

14.6.1 National Institute of Science Communication and Information Resources (NISCAIR)

National Institute of Science Communication and Information Resources (NISCAIR) came into existence on 30th September 2002 following the merger of two establishments of Council of Scientific and Industrial Research (CSIR), i.e. National Institute of Science Communication (NISCOM) and Indian National Scientific Documentation Centre (INSDOC). INSDOC was established in 1952 for providing scientific and technical information and documentation services including abstracting and indexing services, design and development of databases, translation, library automation, access to international information sources, human resource development, consultancy services in setting up modern library and information centres. NISCOM, earlier known as Publications and Information

Directorate (PID) had been involved in diverse publications in science and technology ranging from those for the common man to researchers and policy makers. It had been publishing popular journals, learned journals, books, monographs and other publications. NISCAIR has its core activities to acquire, organise, store, publish and disseminate scientific and technical information for the benefit of the society. It has the following mandate:

- “To provide formal linkages of communication among the scientific community in the form of research journals in different areas of science and technology;
- To disseminate S&T information to general public, particularly school students, to inculcate interest in science among them;
- To collect, collate and disseminate information on plant, animal and mineral wealth of the country;
- To harness information technology applications in information management with particular reference to science communication and modernizing libraries;
- To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information;
- To develop human resources in science communication, library, documentation and information science and scientific and technical information management systems and services;
- To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR; and
- To engage in any other activities in consonance with the mission statement of NISCAIR”.

Services and Activities of NISCAIR

National Science Library (NSL)

NISCAIR serves as a single window to provide scientific and technical information. Its role as the national information resource is fulfilled through the National Science Library (NSL) that has a comprehensive collection of S&T publications in the country. NSL acts as a referral centre and clearinghouse for the best utilisation of the existing collection in the country. It aims to acquire all the important S&T publications published in the country and strengthening its resource base for foreign periodicals. It has a rich collection of over 2,40,000 volumes including monographs, 1.2 lakhs bound volumes of journals, 1250 Indian periodicals, 300 foreign periodicals and 4256 international e-journals published by 416 publishers and 2500 open access journals. The NSL is open to public to utilise the collection in library premises. It provides on the spot photocopies of articles from its own collection, at a prescribed rate and printout from journals on CDs available in-house. The library issues out its publications to the users of other libraries in Delhi through inter-library loan service. The NSL provides free access to electronic journals from various leading international publishers.

Access to On-line Databases

NISCAIR has access to international databases. Information is sought through online searching from over 1500 international databases. NISCAIR performs

searches for research scientists and the corporate sector who use these databases for the latest R&D, commercial and market information.

Access to E-journals

NISCAIR is the nodal agency for the e-journals consortium of CSIR and DST known as “National Knowledge Resource Centre (NKRC)”. The activity ranges from creation to monitoring of the access facility of scientific periodicals published by leading international institutions. The objectives of e-journals consortia are to strengthen the pooling, sharing and electronically accessing the CSIR library resources; to provide access to world S&T literature to CSIR laboratories and establishments; and to nucleate the culture of electronic access resulting into evolution of digital libraries. Under this scheme, CSIR scientists can access these journals and download materials for their use.

Development of Traditional Knowledge Digital Library (TKDL)

TKDL was a collaborative project between Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology and Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy- (AYUSH), Ministry of Health and Family Welfare. An inter-disciplinary team of Traditional Medicine (Ayurveda, Unani, Siddha and Yoga) experts, patent examiners, IT experts, scientists and technical officers were involved in creation of TKDL for Indian Systems of Medicine. TKDL would provide information on traditional knowledge existing in the country, in languages and format understandable by patent examiners at International Patent Offices (IPOs), so as to prevent the grant of wrong patents. TKDL would thus, act as a bridge between the traditional knowledge information existing in local languages and the patent examiners at IPOs. The project TKDL involved documentation of the knowledge available in public domain on traditional knowledge from the existing literature related to Ayurveda, Unani, Siddha and Yoga, in digitised format in five international languages which are English, German, French, Japanese and Spanish. As of June 2013, it provides access to 150 books in traditional medicine comprising 75 in Ayurveda, 50 in Siddha, 15 in Yoga and 10 in Unani system of medicine.

National Science Digital Library

NSDL is a learning repository developed by NISCAIR. It provides access to course material for under graduate students in different areas of science and technology. The material has been authored by faculties and validated by senior experts in the fields.

Information Services

National Centre for ISSN

International Standard Serial Number (ISSN) is a global code to identify serials. It is used by publishers, suppliers, libraries, information services, bar coding systems, union catalogues, etc. for citation and retrieval of serials. NISCAIR is the national centre of ISSN International Centre for assigning ISSN to serials published in India.

Bibliometric Services

NISCAIR carries out the following bibliometric services for studying growth, development and spread of any area of research and also for identifying centres of excellence, influential authors, etc.

- 1) *Citation Analysis* to check how many times and where a given paper has been cited in world literature.
- 2) *Impact Factor of a Journal* implies the frequency with which the average article of the journal has been cited in a particular year.
- 3) *Multifaceted Bibliometric Analysis* to calculate author's productivity, journal preferences, impact factor analysis, subject growth trend analysis, etc.
- 4) *Bibliometric Analysis* of research papers published by institutions, groups of scientists, individual scientists, etc. in comparison with other similar research.

Literature Search Service

Literature search is an important service for researchers. NISCAIR provides this service and compiles bibliographies on demand from indigenous as well as from international databases in the areas of science, technology, engineering, industry, etc.

Foreign Language Translation and Interpretation Service

Translation of S&T documents from 20 foreign languages into English is being provided by NISCAIR. The languages include Chinese, Czech, Danish, Dutch, French, German, Hungarian, Italian, Japanese, Norwegian, Polish, Portuguese, Rumanian, Russian, Serbo-Croatian, Spanish, Swedish, etc. NISCAIR provides reverse translation (English into foreign language) also. It also undertakes interpretation and consultancy assignments in Japanese language.

Contents, Abstract and Photocopy Service (CAPS)

It is a current awareness personalised information service provided by NISCAIR. One can choose from 7000 core journals in science and technology. Table of contents are provided monthly from the identified journals. After going through the table of contents, one can obtain the abstract or full-text of desired articles from NISCAIR.

Document Copy Supply Service (DCSS)

DCSS is an important service provided by NISCAIR. It supplies copies of articles from Indian and foreign journals available in NISCAIR as well as outside at prescribed charges. Copies of Indian and foreign patents and standards are also provided.

Indian Patents on CD-ROM

INPAT on CD-ROM is a bibliographic database that provides information on more than 52,600 patents granted in India since 1975. The information on a patent in the database comprises patent title, applicant(s) and inventor(s) names, patent and application numbers, application and publication dates, International Classification Code and country. The database can be searched by variety of parameters including keywords from title, applicant(s) and inventor(s) names, patent number, application number, application date, publication date, International Classification Code and subject.

Publications

NISCAIR regularly brings out 18 primary journals, 2 secondary journals, monographs and other popular publications. These are accessible full-text through the National Online Periodical Repository (NOPR).

Primary Journals

- 1) *Annals of Library and Information Studies (Quarterly)*
- 2) *Bhartiya Vaigyanik evam Audyogik Anusandhan Patrika (Hindi) (Half-yearly)*
- 3) *Indian Journal of Biochemistry & Biophysics (Monthly)*
- 4) *Indian Journal of Biotechnology (Quarterly)*
- 5) *Indian Journal of Chemical Technology (Bi-monthly)*
- 6) *Indian Journal of Chemistry "A" (Monthly)*
- 7) *Indian Journal of Chemistry "B" (Monthly)*
- 8) *Indian Journal of Engineering & Material Sciences (Monthly)*
- 9) *Indian Journal of Experimental Biology (Monthly)*
- 10) *Indian Journal of Fibre & Textile Research (Quarterly)*
- 11) *Indian Journal of Geo-Marine Sciences (Quarterly)*
- 12) *Indian Journal of National Products and Resources (Bi-monthly)*
- 13) *Indian Journal of Pure & Applied Physics (Monthly)*
- 14) *Indian Journal of Radio & Space Physics (Bi-monthly)*
- 15) *Indian Journal of Traditional Knowledge (Quarterly)*
- 16) *Journal of Intellectual Property Rights (Bi-monthly)*
- 17) *Journal of Scientific and Industrial Research (JSIR, Monthly)*
- 18) *Journal of Scientific Temper*

Secondary Journals

- 1) *Medicinal and Aromatic Plants Abstracts (MAPA, Bi-monthly)*: It covers global current literature on all aspects of medicinal, aromatic and allied plants. It is brought out by scanning, selecting and abstracting relevant papers from about 600 primary journals published from about 65 countries and in 25 languages, research reports, conference proceedings and patents. Each issue and volume of MAPA is supported by a keyword index. From 1988 onwards, MAPA is available on CD-ROM also.
- 2) *Indian Science Abstracts (ISA, Fortnightly)*: It reports scientific work done in India since 1965. Original research articles, short communications, review articles and informative articles published in current scientific and technical periodicals, proceedings of conferences and symposia, monographs and other publications, as well as patents, standards and theses are reported in ISA. Its CD-ROM version is a cumulative database of nearly 0.2 million Indian science abstracts covering the period from January 1990 to December 1999. The database is searchable by a variety of parameters such as keyword, author, corporate author, ISA issue number and year of publication, source journal and type of document.

CSIR News and CSIR Samachar

Fortnightly issues of CSIR News (in English) and monthly issues of CSIR Samachar (in Hindi) serve as an effective link between various CSIR constituents and users of information on various R&D programmes and other activities of CSIR, other R&D organisations, university departments and industry. R&D programmes include new processes and products developed, programmes undertaken, collaborative projects, sponsored projects and consultancies. In addition, news on technology demonstrations, marketing, transfer of technology, IPR, etc. are also covered.

Popular Science Publications

NISCAIR publishes popular science magazines in three languages to keep the masses aware of the latest scientific developments. Science Reporter (English) and Vigyan Pragati (Hindi) are brought out monthly, whereas Science Ki Duniya (Urdu) is a quarterly publication. NISCAIR also brings out large number of popular science books in various areas that includes fundamental science, contemporary areas of science, and science entertainment.

Wealth of India and Bharat Ki Sampada

It is an encyclopaedic series on India's raw material resources of plants, animals and minerals, details their occurrence, distribution, description, composition, utilisation and trade. The series is the quintessence of information scattered in a wide range of information sources. Each resource profile is a monographic presentation beginning with the correct nomenclature, the known names in vernacular, gives a brief description, chief areas of distribution in India, broad parameters of cultivation in case of plants, pathological problems in case of plants and animals, chemical constituents, products, utilisation, production, consumption (in case of minerals) and trade data.

Bharat Ki Sampada is the Hindi version of *The Wealth of India - Raw Material*. *Bharat Ki Sampada - Prakritik Padarth* is an encyclopaedia on Indian raw materials based on flora, fauna and minerals, in which the entries appear in Devnagari alphabetical order. The articles in *Bharat Ki Sampada* series cover those plants, animals and minerals which render medicines, food products, beverages, fruits, nuts, spices and condiments, fats and oils, essential oils, masticatory, fumigatory, fibre, pulp, wood and forest products, etc.

National Union Catalogue of Scientific Serials in India (NUCSSI)

This indigenous database of NISCAIR serves as an access tool for serials holdings information. It contains over 45,439 unique journal titles with 2.64 lakhs holdings data of 560 libraries of major universities, S&T institutions, R&D units of industries, higher institutions, like IISc, IITs and professional institutions in S&T disciplines within the country. The database provides information on the availability of journal titles in libraries enabling to locate a particular journal. This is integrated with e-mail for routing library/user request information. This is kept updated with the cooperation and support of the participating libraries so that updated information can be available to users regularly free of cost.

Directory of STM Journals

NISCAIR produces a directory of Indian science and technology journals in the fields of science, technology and medicine. It covers over 2,000 Indian print and

electronic scientific publications including primary and secondary journals, bulletins of learned bodies, government departments magazines and journals and reports.

Human Resource Development

NISCAIR develops human resources in library and information science and documentation particularly in contemporary areas of information science, technology and computer applications by conducting two year masters level academic course in information science (one course every year); short-term training courses in computer applications in library and information activities (10-12 courses per year); attachment training programmes; and on-site training programmes. It also develops human resource in the area of science communication by organising short-term training programmes in science writing and human resource in herbarium techniques by conducting training programmes.

Consultancy Services

NISCAIR provides the following consultancy services:

- Automation, modernisation and reorganisation of libraries and information centres.
- Design and development of specialised databases for organisations on turnkey basis.
- Editing, designing, production and printing.

Herbarium and Museum

NISCAIR has set up a Herbarium and Museum housing economically important raw materials of plant, animal and mineral origin from India at one place, to cater to the needs of scientists, researchers, industrialists students and the public. The Herbarium houses over 6000 specimen of economic and medicinal plants of India and the Museum comprises over 2500 samples of crude-drugs, animal and mineral specimens. The herbarium provides information on folk-lore, ethnomedicine and traditional medicine and is a source of knowledge for development of new herbal medicines.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

6) Discuss the mandate of NISCAIR.

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14.6.2 National Social Science Documentation Centre (NASSDOC)

NASSDOC was established in 1969 as a division of Indian Council of Social Science Research (ICSSR). Its objective is to provide library and information support services to researchers in social sciences working in academic institutions, autonomous research organisations, policy making, planning and research units of government departments, business and industry, etc. Its functions include:

- providing guidance to libraries of ICSSR Regional Centres and ICSSR supported Research Institutes;
- providing study grant to doctoral students for collection of research material from various libraries located in different parts of India;
- rendering financial assistance for taking up bibliographical and documentation projects;
- providing document delivery service by procuring books and journals on inter-library loan or by photocopying the documents; and
- organising short-term training courses for the research scholars, social scientists, librarians and IT professionals to acquaint them with the latest information and communication technology.

It has a rich collection of reference sources, bibliographies, doctoral theses, research project reports (funded by the ICSSR) and books and other documents. The library keeps priced and non-priced publications of ICSSR including those, for which, the Council has provided publication grants. Documents are available for consultation in the library premises only. Borrowing facility is extended to registered members only. It subscribes to about 450 current Indian/ foreign periodicals, including ICSSR journals and other abstracting and indexing journals in social sciences. The library has over 11,000 bound volumes of periodicals, census reports and other government publications. The following services are being provided by the library of NASSDOC.

Consultation Facility: Research scholars visiting NASSDOC for their research work can access various on-line databases, International Political Science Abstracts, Socio file, Psycinfo, etc.

Reference Service: Reference queries received in person, via e-mail, telephone, fax, are answered to by staff.

Referral Service: In case of non-availability of material in the library, research scholars are referred to other institutions/ libraries.

Literature Search: NASSDOC has a good collection of bibliographic data, both in printed as well as in digital format, including online and CD-ROM databases. It also has created its own databases, both in printed and in electronic format. These databases are used for conducting literature search on various topics.

Document Delivery Service: NASSDOC provides copies of research materials from its library and other libraries and institutions in India and abroad.

Bibliographic Service: Bibliographic service is provided on demand. This service is provided in two formats, namely bibliographical references and the other

bibliographical reference along with abstract or description of the thought content of the document.

Union Catalogue of Social Science Periodicals and Serials in India: The union catalogue work was undertaken in 1970 by NASSDOC. The complete database was published in 32 volumes, having details of holding records of 31,125 journals in 550 libraries, in 17 states and two union territories. There is a separate volume on National Library, Kolkata.

Union Catalogue of CD-ROM Databases in Social Science Libraries in India: This catalogue covers information of about 132 CD-ROM databases available in 40 major libraries and information centres in India. It provides information about the title of CD-ROM database, frequency, brief annotation, the producer/vendor and the holdings data.

Directory of Social Science Libraries and Information Centres in India: The Directory provides details of libraries and information centres attached to government agencies, research and training institutes under various ministries, universities and autonomous bodies, banks, industry and trade, etc. in the field of social science and allied disciplines. Libraries having independent name, are provided references from their parent institutions. Each entry provides address of the library, e-mail, strength of the staff, type of collection, budget, subject coverage, computerisation details, facilities and services provided like photocopying, bibliography services, inter-library loan, online databases, literature search, translation, etc. The data contained in the directory facilitates cooperation and resource sharing among Indian libraries and information centres. The directory covers 447 institutions.

Directory of Social Science Research and Training Institutions in India: The Directory provides a comprehensive list of about 450 social science institutions engaged in research and training in India. It contains details, on areas of research, important achievements, special facilities, current research projects, publications, type of staff, library collection and services, relations with national and international organisations, and complete address with telephone, telex, fax and e-mail.

Directory of Asian Social Science Research and Training Institutes/Organisations in India: It is a directory of teaching and research institutes on Asian Studies in India. These are 42 in number. Each entry provides information about the name, address of the institution, type of the organisation, type of staff, aims and objectives, activities, parent organisation, publications, name and level of training courses, library collection and services and facilities provided by the institution.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

7) Discuss briefly the library and information services rendered by NASSDOC.

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14.6.3 Defence Scientific Information and Documentation Centre (DESIDOC)

DESIDOC started functioning in 1958 as Scientific Information Bureau (SIB). It was a division of the Defence Science Laboratory (DSL) later on which became as Defence Science Centre. In 1967 SIB was reorganised with augmented activities and named as Defence Scientific Information and Documentation Centre (DESIDOC). It became a self-accounting unit and one of the laboratories of Defence Research and Development Organisation (DRDO) on 29 July 1970. It provides scientific and technical information, based on its library and other information resources, to the DRDO Headquarters and its various laboratories located all over the country. Today, DESIDOC is functioning as a central information resource for DRDO laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture. The main objectives of DESIDOC are to:

- function as a central resource for providing scientific and technical information, documentation, library, reprographic, translation to DRDO HQrs, laboratories, establishments and to coordinate their scientific information programmes;
- develop an information system for Defence Science and Technology;
- provide training and user education programmes in the field of scientific information;
- provide consultancy and referral service; and
- publish scientific and technical journals, books and monographs of DRDO.

Its various activities are discussed below:

Defence Science Library (DSL)

DSL is a unique specialised library caters to the information needs of researchers in defence science and technology. It has a rich collection on defence science and technology which includes micro and macro subjects. It provides a unique environment of traditional as well as modern library setup. It has books, journals and their bound volumes, technical reports, microfilms, microfiches, charts, atlases, slides, films, video tapes, sound recordings, etc. In the ever-expanding scenario of Information and Communication Technology, Internet/Intranet, Online, CD-ROM/DVD appliances occupy the centre stage of a modern library. DSL also reaching new heights with its digital library projects.

Training Programmes

Short term training programmes and workshops are being conducted by DESIDOC every year for DRDO personnel, mainly in the areas of library automation, Internet use, DTP, multimedia development, communication skills, stress management, etc.

Database Development

DESIDOC has developed and maintaining bibliographic databases of books, conference proceedings, technical reports acquired by the Defence Science Library.

Multimedia Service

This facility has been created to facilitate multimedia authoring, designing and presentation facilities to scientists and technologists.

Printing Service

DESIDOC has a full-fledged high quality printing facility including designing, layout, typesetting, DTP processing, printing for publication of in-house journals.

e-Journals

This service is available only at DESIDOC premises, DRDO users visit DESIDOC to avail this facility. The user directly access full-text content of the e-journals by selecting Title, Subject and Publisher wise.

Publications

DESIDOC functions as the publication wing of DRDO, providing scientific and technical information via specialised publications, monographs, technical bulletins, online journals and popular science publications. These cover current developments in Indian Defence R&D. The publications are unclassified and available free of charge online. Monographs and other publications are available on payment. The periodicals published are:

- Defence Science Journal – A bi-monthly research periodical.
- Technology Focus – A bi-monthly periodical focusing on the technologies, products, processes, and systems developed by DRDO.
- DRDO Newsletter – Monthly Newsletter with house bulletins of DRDO activities.
- DRDO Samachar – Monthly Newsletter with house bulletins of DRDO activities. Published in Hindi
- DESIDOC Journal of Library and Information Technology (DJLIT) (formerly known as Bulletin of Information Technology (DBIT)) – A bi-monthly publication bringing out the current developments in library and information technology.

Self Check Exercise

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

8) What are the main objectives of DESIDOC?

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14.7 SUMMARY

Information is a vital resource for socio-economic, industrial, cultural, educational, scientific and technological development of a country. Countries, optimally utilising this vital resource, are progressing towards fast development and strong national economy. Libraries, information centers are organising information resources, retrieving and dissemination right information and furnishing to the actual users within the available infrastructure and facilities. Developed countries have strengthened their information base as they have long back realised the role of information in national development. Many developing countries, like India, are also making efforts to create sound information base within the country. Many organisations, associations, professional bodies are contributing in this task. International organisations have rich experiences are being associated in information related activities to share their experiences and technical expertise. This may reduce the gap between demand and supply of information up to some extent.

14.8 ANSWERS TO SELF CHECK EXERCISES

- 1) Digital Heritage is made up of computer-based materials of enduring value that should be kept for future generations. It includes:
 - Resources of human knowledge or expression, whether cultural, educational, scientific and administrative, or embracing technical, legal, medical and other kinds of information, are increasingly created digitally, or converted into digital form from existing analogue resources.
 - Digital materials include texts, databases, still and moving images, audio, graphics, software, and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained.
 - Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved for current and future generations. This heritage may exist in any language, in any part of the world, and in any area of human knowledge or expression.
- 2) RRRLF provides financial assistance to the public libraries under the schemes of matching and non-matching assistance.

Matching Assistance are provided towards building up of adequate stock of books and reading materials; development of Rural Book Deposit Centres and Mobile Library Services; organisation of seminars, workshops, training courses (orientation/refresher), books exhibitions and library awareness programmes; purchase of storage materials, reading room furniture and library equipment; increasing accommodation to public libraries; to acquire computer with accessories for library applications and audio/visual equipment for educational purposes.

Non-Matching Assistance are provided towards building up of adequate stock of books through central selection; to voluntary organisations (NGOs) providing public library services; to children's libraries or children's section,

senior citizen section, neo-literate section of general public libraries; to public libraries towards celebration of Golden/ Diamond/Platinum, etc Jubilee years; organising seminar/conference by professional organisation, local bodies, NGOs engaged in public library development/library movement and university departments of library science; collection and compilation of library statistics through official and non-official agencies; to centrally sponsored libraries; establishment of RRRLF Children Corner.

3) INIS activities include creation of INIS Database of non-conventional literature (NCL). Every input to the INIS Database is checked by experts of the INIS Secretariat assuring the correctness of bibliographic description and subject analysis (classification, indexing and abstracting). User-friendly version of the INIS Online Database is also available. INIS has arrangements with 72 national INIS Centres to provide document delivery services to users within their countries. INIS specialists from Member States and the IAEA have developed a controlled vocabulary for indexing and searching the INIS Database. Over the years the INIS Thesaurus has evolved as a result of systematic study. It contains over 30 000 terms. The INIS Thesaurus is now available in all official languages of the IAEA. To assist its Member States, the IAEA transfers knowledge and know-how in data collection and information processing, in particular to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

4) WEBAGRIS provides the following functionalities:

Database maintenance functions:

- Data entry and update;
- Password control;
- Creation of new records;
- Updating of existing records;
- Validation by formats;
- Display of authority data for a selection.

Information dissemination functions:

- User friendly retrieval;
- Sort;
- Print and export options;
- Searching through a number of databases;
- Result paging;
- Saving option for query history, etc.

5) NISSAT undertook the following activities:

- Establishment of information centres in specific sectors, subjects and products.
- Development of information resource sharing systems like library network, union catalogues and consultative committees.

- Establishment of international database access centres.
- Promotion of application of modern information technologies.
- Development of skills in information technologies and information handling tools.
- Promotion of application of modern information technologies
- Development of skills in information technologies and information handling tools, techniques and so on.

The Sectoral Information Centres provided bibliographic as well as factual and numerical information on a product, discipline or mission. They were built around the then existing information resources and facilities. Besides providing documents and preparing bibliographies on request, they offered SDI, CAS; reprographic, micrographic, industrial and technical inquiry service; translation and other services.

NISSAT played a very important role in computerisation of libraries and spreading computer awareness among LIS professionals in the country. Library network in the country also owe their origing to NISSAT. Metropolitan Area Network were set up with the initiative and patronage of NISSAT.

6) NISCAIR has the following mandate:

- To provide formal linkages of communication among the scientific community in the form of research journals in different areas of science and technology.
- To disseminate S&T information to general public, particularly school students, to inculcate interest in science among them.
- To collect, collate and disseminate information on plant, animal and mineral wealth of the country.
- To harness information technology applications in information management with particular reference to science communication and modernizing libraries.
- To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information.
- To develop human resources in science communication, library, documentation and information science and scientific and technical information management systems and services.
- To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR.

7) Library and information services provided by the NASSDOC are:

- Consultation Service
- Reference Service
- Referral Service
- Literature Search Service
- Document Delivery Services

- Bibliographic Service
- Compilation of Union Catalogue of Social Science Periodicals and Serials in India.
- Compilation of:
 - Union Catalogue of CD-ROM Databases in Social Science Libraries in India
 - Directory of Social Science Libraries and Information Centres in India
 - Directory of Social Science Research and Training Institutions in India
 - Directory of Asian Social Science Research and Training Institutes/ Organisations in India.

8) The main objectives of DESIDOC are:

- To function as a central resource for providing scientific and technical information, documentation, library, reprographic, translation to DRDO HQrs, laboratories, establishments and to coordinate their scientific information programmes.
- To develop an information system for Defence Science and Technology.
- To provide training and user education programmes in the field of scientific information.
- To provide consultancy and referral service.
- To publish scientific and technical journals, books and monographs of DRDO.

14.9 KEYWORDS

AGORA : Access to Global Online Research in Agriculture (AGORA) is a program to provide free or low cost access to major scientific journals in agriculture and related biological, environmental and social sciences to public institutions in developing countries.

AGRIS : Agricultural Information System is an international information system for the agricultural sciences and technology.

DELNET : Developing Library Network

E-governance : Use of ICT by different actors of the society with the aim to improve their access to information and to build their capacities.

IAEA : International Atomic Energy Agency.

INIS : International Nuclear Information System.

ISI : Institute for Scientific Information.

NISSAT : National Information System for Science and Technology.

- RRRLF** : Raja Rammohun Roy Library Foundation, a promotional agency, an advisory and consultancy organisation and a funding body for public library development in India.
- SOUL** : A library management software developed by the INFLIBNET.
- UNESCO** : United Nations Educational, Scientific and Cultural Organization
- WEBAGRIS** : It is a complete, multilingual Web-based system for distributed data input, processing and dissemination of agricultural bibliographic information.

14.10 REFERENCES AND FURTHER READING

<<http://www.isinet.com>>.

<<http://www.niscair.org>>.

<<http://www.drdo.nic.in>>.

<<http://www.fao.org>>.

<<http://www.unesco.org>>.

<<http://www.knowledgateway.org>>.