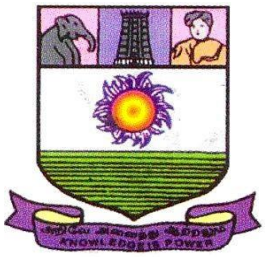
TYPES OF LIBRARY SYSTEMS

Curriculum, Programme Structure and Course Contents (Prepared in conformity with LOCF)(2025-2026 onwards)



DEPARTMENT of Library and Information Science Directorate of Distance and Continuing Education Manonmaniam Sundaranar University Tirunelveli - 627012

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METHODS OF ASSESSMENT	
Remembering (K1)	- The lowest level of questions require students to recall information from the course content. - Knowledge questions usually require students to identify information in the textbook.
Understanding (K2)	- Understanding of facts and ideas by comprehending, organizing, comparing, translating, interpolating and interpreting in their own words. - The questions go beyond simple recall and require students to combine ideas.
Application (K3)	- Students have to solve problems by using/applying a concept learned in the classroom. - Students must use their knowledge to determine an exact response.
Analyze (K4)	- Analyzing the question is one of the tasks where students breakdown something into its component parts. - Analyzing requires students to identify reasons, causes, or motives and reach conclusions or generalizations.
Evaluate (K5)	- Evaluation requires an individual to make judgment on something. - Questions are asked to judge the value of an idea, a character, a work of art, or a solution to a problem. - Students are engaged in decision-making and problem-solving. - Evaluation questions do not have single right answers.
Create (K6)	- The questions of this category challenge students to get engaged in creative and original thinking. - Developing original ideas and problem-solving skills.

Pre-Requisites
- Foundational knowledge of Library and Information Science principles. - Understanding of the basic functions and services of a library. - Familiarity with the concept of library organization and management.

Learning Objectives
- To understand the role, functions, and services of public libraries, including their organizational structure and legislative framework. - To explore the various services offered by public libraries, including web-based services, ICT applications, and resource sharing. - To understand the role of academic libraries in higher education, their services, management, and the role of UGC and INFLIBNET. - To understand the functions and services of special libraries, including the role of various national organizations like CSIR, ICAR, etc. - To learn about resource planning and development, including information, physical, human, and financial resources, and mission-oriented networks/consortia.

UNITS	**Course Contents**
UNIT I: PUBLIC LIBRARY: FUNCTIONS AND SERVICES	Role of Public Libraries: Public Library as Knowledge Centers; Changing Dimensions of Public Library Services; Public Library Management; Organizational Structure of Public Library System; Role of UNESCO, IFLA, RRRLF, NKC, NLM, IPLM. Information / Intellectual Resources; Physical Resources including ICT Infrastructure; Human & Financial Resources; Resource Mobilization in Public Library; Library Legislation in India.
UNIT II: PUBLIC LIBRARY SERVICES	Public Library as Community Information Centre; Web-Based Public Library Services - Trends and Development;

	ICT Application in Public Libraries; Resource Sharing and Networking.
UNIT III: ACADEMIC LIBRARIES: FUNCTIONS AND SERVICES	Role of Academic Libraries in Higher Education; Academic Library Services - Management; Role of UGC - Staffing Norms and Standards; Continuing Education Program for Academic Libraries; Personnel Management; INFLIBNET - Objectives, Functions and Services; e-Shodh Sindhu and N-LIST.
UNIT IV: SPECIAL LIBRARY: FUNCTIONS AND SERVICES	Types of Special Libraries; Special Library Management; Role of CSIR, ICAR, ICMR, DRDO, ICSSR, NISCAIR, etc. - Reference and Referral, Alert Services, Web-based Services.
UNIT V: RESOURCE PLANNING AND DEVELOPMENT	Information / Intellectual Resources; Physical Resources including ICT Infrastructure; Human Resources and Manpower Planning; Financial Resource; Planning of Technical Information Units / Centres; Mission oriented networks and consortia with special emphasis on India (INDEST, FORSA, UGC-INFONET, CSIR Consortium, IIM Consortium, HELINET).
UNIT VI: PROFESSIONAL COMPONENTS	*This unit is for practical application and may include:* - Case study of a public library system in a state. - Analysis of a library legislation in India. - Evaluation of academic library services in a university. - Study of a special library/information centre. - Report on resource sharing and networking among libraries.

TEXT BOOKS

1. Ranganathan, S. R. (2017). *New Education and School Libraries*. Sarada Ranganathan Endowment for Library Science.
2. Ranganathan, S. R. (2006). *Library Administration*. Ess Ess Publications.
3. Semertzaki, Eva. (2015). *Special Libraries as Knowledge Management Centres*. Chandos Publishing.
4. Mittal, R. L. (1984). *Library Administration: Theory and Practice* (5th ed.). Metropolitan Book Co.

REFERENCE BOOKS

1. Evans, G. Edward. (2004). *Developing Library and Information Centre Collections* (4th ed.). Greenwood.
2. Krishan Kumar. (1987). *Library Administration and Management*. Vikas Publishing House.
3. Venkatappaiah, Velaga. (1994). *Indian Library Legislation* (2 Vols.). Daya Publishing House.
4. Bryson, John. (1990). *Effective Library and Information Centre Management*. Gower.

WEB SOURCES

1. https://www.ifla.org/
2. https://www.unesco.org/en/communication-information
3. https://www.inflibnet.ac.in/
4. https://rrrlf.gov.in/
5. https://www.csir.res.in/

Unit - I: Public Library: Functions and Services

Content:

This unit introduces the concept and role of public libraries in society. It covers the role of public libraries as knowledge centres, their changing dimensions in the modern context, and their management. The unit discusses the organizational structure of public library systems. It explores the role of various national and international organizations in promoting public libraries, including UNESCO, IFLA, RRRLF, NKC, NLM, and IPLM. It also covers the information, physical, human, and financial resources required for public libraries, resource mobilization strategies, and an overview of library legislation in India.

Unit – 1

PUBLIC LIBRARY FUNCTIONS AND SERVICES

Objectives:

- To learn about the role of public libraries.
- To learn in-depth about the organizational structure of the public library system.
- To learn about the role of UNESCO, IFLA, NKC etc.
- To gain knowledge about library legislation in India.

Introduction:

Bad libraries build collections; Good libraries build services; great libraries build communities." – R. David Lankes

A public library is a library that is accessible by the general public and is usually funded by public sources, such as taxes. It is operated by librarians and library paraprofessionals, who are also civil servants. Public libraries share five fundamental characteristics: they are generally supported by taxes (usually local, though any level of government can and may contribute); a board governs them to serve the public interest; they are open to all, and every community member can access the collection; they are entirely voluntary, no one is ever forced to use the services provided, and they provide library and information services without charge.

Public libraries exist in many countries worldwide and are often considered essential to having an educated and literate population. Public libraries are distinct from research, school, academic, and other special libraries. Their mandate is to serve the general public's information needs rather than the needs of a particular school, institution, or research population. Public libraries also provide free services such as preschool story times to encourage early literacy among children. They also provide an ieansetudy and learning areas for students and professionals and foster the formation of book clubs to encourage the

appreciation of literature by g and adults. Public libraries typically allow users to borrow books temporarily and other materials outside the library premises, usually for a given period, have non-circulating reference collections and provide computer and Internet access to their patrons.

Role of Public Libraries:

The role of public libraries in the present society may be described as under:

a. Economic development:

Human society has travelled the journey from an Agrarian society to an information or knowledge society where the development of society depends greatly on how much information is exposed to its members. Information has become a crucial fifth factor in the production of materials. Information is identified as the driver of economic growth and productivity. For national development, economic growth depends upon updated and new information. In the spread of new and updated information, public libraries play a very important role in its services.

b. Informal and continuing education:

Countries like India where liIn countries like India, where the literacy rate is only 65% and n is less than 12%, public libraries have a vital role and opportunity to spread education. Public libraries provide information and educational opportunities free educational opportunity their socio-economic status. It helps in continuing education by providing a common discussion forum. Public libraries work as Peoples‟ University here. There are various extension services provided by public libraries which help continue education.

c. Recreation and leisure opportunities:

Public libraries provide a place of public juncture and allow leisure time for amusement, education, skill development, and so and so forth. According to the American Library Association[3] Survey, twenty-five per cent of users who go to the library; learn about political or cultural organizations or leisure activities taking place in the local community, 20% work on a common assignment, 17% use the internet, 16% used to know and discuss the local social and political issues they are involved in, 14% participate in organized meeting speech such as author‟s night, lecture, meeting with politicians etc.; and 10% use library as meeting place to gather family members and friends before going to see movies or shopping etc. Apart from providing such opportunities and books & reading materials to its users; libraries also organize quiz hours, videos; puppet shows etc., for better utilization of leisure hours. Thus,

we see that public libraries play a very important role in people‟s lives to have recreational and pleasant leisure activities.

d. Cultural exchange and engagement:

A public library is where members of different communities, religions and social & religious practices come together to meet and understand each other. It leads to social harmony and, finally, to national integration. Public libraries organize activities like dramas, lecture series, debate competitions, book exhibitions etc., to enhance and advertise their services. At the same time as its‟ positive side effects, it also serves as an engagement of cultural association and exchange.

e. Promotion and preservation of local culture and history:

Public Libraries preserve historic artefacts, oral histories, and monographs relevant to the local community. Public Library, as an organized archive, is a place where people can research genealogy and immigration history, do environmental research and many more. Public libraries also preserve and restore maps and paintings, digitalize vital records and try to create records of oral history. It also helps promote local culture through its different promotional activities.

f. Promotion of democratic values:

Public libraries are where people in society are equally treated, irrespective of their social status, religious status and economic status. In the same manner, democratic values address each member of society. Democratic values do not differentiate between members of society. Every member has equal value, whether from the royal family, bureaucratic family or a commoner of society. Public libraries promote democratic values among people in society. Public libraries play an important role in the political life of the people by providing opportunities to gather community members and encourage them to talk about issues of freedom, justice and democracy.

g. Catalyst to address the social problems:

The staff members of the public libraries know the local pressures and needs of their patrons first hand because they interact with them every day and are from every walk of life. This

provides a good opportunity to bring local problems before the local government, Municipal Corporations and other social agencies. In the USA, PIL‟s library in the „Summer Food Science Programme‟ is a compelling example of how a library recognizes a social need. Brought it to the attention of the community? And partnered with local agencies to address an important issue?

h. Promotes local talent and artists:

Public libraries provide collections and services of various natures and work closely with a local artists to do so. An author in the local community may seek the services of the public library to promote and make his new creation on the internet; a public library may organize an art programme ranging from the simplest to finest of fine art useful for children to adults; it may be on local history, creative writing workshop, and painting classes etc.; are some examples of libraries‟ opportunities to explore local talent and promote it.

i. Help in women's empowerment:

Public libraries provide equal opportunity to all sexes. The women, whether career women or homemakers, get a place for discourse to explore opportunities that may be educational, social activity, childcare or exposure to the rest of the world. Public libraries are more important for homemakers exploring their knowledge and recreational needs.

j. Personality development of children:

Public libraries help in children‟s personalities by organizing activities like painting competitions, book fairs, and essay competitions and promoting socialization through sharing different study materials and providing an opportunity for these activities to help in their character building and, finally, their personality.

Public Libraries as a Foundation of Knowledge:

A public library is a social institution mainly concerned with the education and social and cultural activities of the people in society. The public library is a local gateway to knowledge that provides basic conditions for lifelong learning, independent decision making and economic and cultural development of individual and social groups.

In its Public Library Manifesto, UNESCO described public libraries as a democratic institution for education, culture and information. The Manifesto further states that the public

library should be established under a clear law mandate. It should be maintained wholly from public funds, and no direct charge should be made to any one for its services.

Features of the Knowledge economy

The advances in information communication technology moved society towards a knowledge society. Applying knowledge in education, entrepreneurship, innovation, and product design is now widely believed to be one of the key sources of global economy growth.

A knowledge economy creates, disseminates and uses knowledge to enhance its growth and competitiveness. A successful transition to a knowledge economy is founded on four essential pillars.

Four pillars of the Knowledge Economy

1. An economic and institutional regime that provides incentives for the efficient creation, dissemination, and use of existing knowledge
2. An educated and skilled population that can create and use knowledge.
3. An efficient innovation system of firms, research centres, universities, consultants, and other organizations that can tap into the growing stock of global knowledge and assimilate and adapt it to local needs, as well as create new knowledge
4. Dynamic information infrastructure

Effective use of knowledge in any country requires developing appropriate policies, institutions, investments and coordination across these four pillars because of their strong interdependencies.

Missions of the Public Library

The public libraries following key missions related to information, literacy, education and culture should be the core of public libraries.

1. Creating and strengthening reading habits in children from an early age
2. Supporting both individual and self-conducted education as well as formal education at all levels

3. Providing opportunities for personal creative development
4. Providing adequate information services to local enterprises, associations and interest groups.
5. Facilitating the development of information literacy skills.

Services provided by Public Library

- Inter library loan
- Photocopying
- Document delivery, including electronic document delivery
- Extension services for women, children, senior citizens and physically disabled persons
- Community information services
- Online Public Access Catalogue
- Electronic /AV resources, workstations and appropriate infrastructure for use and delivery
- Training users in information literacy
- Identify non-users and promote the use of libraries among them and

Public Library as Community Knowledge centres:

Public libraries are a living force for popular education, culture, information and development of the masses. They are the essential agents for fostering socio-economic development. Public libraries translate the information needs of the masses into action. The advances in ICT have changed the pattern of acquisition and dissemination of information. The accessibility of worldwide information through the internet and similar developments have changed the role of public libraries and their shape and terminology. Hence buzz words 'Knowledge Centres," Information Kiosks, ' ' Community Information Centres ', ' and so on. Modern public libraries thus can't afford to restrict their scope of activity within four walls and wait for users to come. They must go beyond to reach the mass and act as community knowledge centres.

Establishment of Knowledge centres (KIOSKS):

The public library's role is based on lifelong learning and education. Education is the fundamental enabler of the knowledge economy; well-educated and skilled people can create, share and disseminate knowledge effectively. The development of a knowledge economy requires lifelong learning and education. As now we are getting information in the digitized form and far more accessible through new technology, it is a new role for public libraries, not only to provide access to t networked information but to teach people how to get the most value from it and to discerning in the use of the information.

The choice of public libraries is not books or information technology. They must now supplement the printed word with huge resources available electronically. In doing so, Public libraries need to become trainers and learning centres, enabling the public who come to them for information to access the increasingly wide range of electronic information. Considering the importance of knowledge, it is proposed that knowledge centres should be established in each state's public libraries and learning centres. Knowledge centres will cull out knowledge from various sources, including printed services such as newspapers, books, journals, and grey literature. Digital information sources such as CDs, Internet databases etc. and adopt research methodologies to collect information on the particular interest of each knowledge centre.

The library and information sector is committed to supporting the creation of a knowledge society by providing equitable, high-quality, cost-effective access to information and knowledge resources. Public libraries play a vital role in communicating existing knowledge which provokes the creation of new knowledge. The Public Library services everyone irrespective of age, sex, or religion. The Public library strengthens public reading habits and helps in people's self-education. Hence the Public Library is the foundation for the Knowledge economy.

New Dimensions' of Library and Information Service:

Before identifying some services for discussion, a look at the published annual reports of one or two major special libraries in the country (for the representative years 1969- 70, 1979-80 and 1989-90) revealed that during 1969-70 libraries emphasised collection development and reprography, during 1979-80, use of computers and delegated online search of databases and during 1989-90 it is direct online access of databases and searches services on CD-ROM databases. Library services are broadly grouped into the following six categories:

(1) Document delivery services

(2) Bibliographic (or citation) services

(3) Information (or reference or answer) services

(4) Instruction services

(5) Facilities services and

(6) Adjunct services (behind the screen enabling activities like acquisition and technical services) (Orr, 1973 p321).

Excluding the regular facilities and routine adjunct background services, we can examine the services of special libraries under the heads of Bibliographic services, Document delivery services, Information services and Instruction services.

Bibliographic Services:

Current Awareness Services:

Firstly, many of us have a ritual of publishing (?) a list of additions and other current awareness bulletins. A large majority of them do not attract potential users, and they are not much used by either users or nonusers of the respective libraries. The current awareness services are mundane, less attractive, bulky and often obsolete and only add to scientists' and engineers `information overload". Tailoring them to smaller user groups, making them really `current", and creating a healthy completive spirit among users having similar interests through these current awareness services are necessary. One will be surprised to see many such lists carrying bibliographical details of six months to one-year-old acquisitions, perhaps of two to three-year-old primary documents.

Abstracting and Indexing Services/ Journals:

Secondary journals have been helping special libraries mainly in compiling large and comprehensive bibliographies and, at times, in the procurement of primary documents. Information technology offers some effective substitutes for these costly and bulky secondary journals. But no substantial change in services to ultimate users is felt except that compiling bibliographies has been made simple and easy but not necessarily cost-efficient.

Library Card Catalogues

If only we had attempted to see how our catalogues are used, we would have discarded many parts like classified catalogue, author and title indexes to reports, etc. (Sridhar,1986), saving

substantial time of professional human resources in preparing and filing these cards. But we believe that users will use all standard approaches to access all documents. We will be surprised to know that in most cases, users prefer to directly browse the shelves or consult a professional colleague rather than using card catalogues and consulting library staff. Somebody even made fun of us by saying that cataloguing has become a handicraft in this country (McCarthy, 1975; Jones, 1984, p29). From this state of affairs, we are trying to move on to the online Public Access Catalogue with the erroneous belief that change in the medium will result in better use of the services hitherto underutilised.

On the other hand, users accidentally get bibliographical references and factual information in unplanned and unintentional browsing or skimming through reading materials or while discussing something else with colleagues. These `lucky accidents" bring useful information as frequently as what a deliberate search in an organised information system brings and pose a challenge to formally organised information systems. Yet there are no attempts to facilitate and increase these most desired `lucky accidents „among users.

`Exhaustive' Services/ `Everything' on the Earth on a Given Topic:

Disregarding the different purposes for which users seek information and assuming that only the `thorough approach „of academic and pure research nature is predominant, we believe and provide exhaustive bibliographies on a given topic even though users need and can afford only a short list of the latest references. Prohibitive costs of online searches have accidentally (and partly) helped curb these trends. We wrongly believe that a bibliography's utility and professionalism increase with exhaustiveness. Unfortunately, this is one of the three criteria (the other two being pin-pointedness and expeditiousness) to which we are wedded in our library schools. Most systems are designed based on an `exhaustive approach", whereas users (particularly engineers) are more inclined to an `everyday approach".

`Surrogate' Mode of Service:

We are fond of providing a surrogate mode of service and traditionally reference mode and lending mode of service from libraries. We do not have any direct mode of service like that of circulating documents amongst potential users. Our authoritarian, custodian and audit-feared minds do not allow us to think of circulating journals, reports and other materials directly to the users concerned. Indirectly we are glorifying becoming store keepers than information providers. As such, we carry out the ritual of stock verification with nightmares of loss and mutilation of documents.

Document Delivery Service:

Having seen the trends in bibliographic services in special libraries, let us examine the crucial document delivery services. Capability and satisfaction indexes of library effectiveness are some of the measures gaining increasing acceptance in evaluating a library. Document delivery services are concerned with the capability of a library to provide users with the items they need at the time they need. Capability measures both the service as well as the collection of a library. The satisfaction indexes tend to address the delivery of services to fulfil the expressed demand.

On the other hand, the book availability factor is also concerned with the chances that an item owned by the library will be on the shelf when sought by the users. These capabilities of the library depend largely on facilities services, adjunct services and other background services, as well as the quality of manpower. As mentioned earlier, we have had no indication whatsoever and even confidence to say that there is a positive change in the document delivery services, including an increase in the satisfaction level of users or book availability factor.

Information Services:

Professionally and academically, we are proud to talk more about information services than other „basic" services like document delivery or instruction services. Unfortunately, information services, particularly answer or reference services, have not changed in their qualities in the last two decades. The major factor behind such services is the quality of the manpower. As one cannot see any dramatic positive change in library professionals' skills, attitudes, knowledge and morale to provide better information services, no new dimension in these services is regrettably visible.

Instruction Services

We are inadequate and bad in providing systematic and regular user instruction services, particularly user induction, user-orientation and user-education. Even after decades of theoretical statements, we do not find even a single user education module to proudly present to an average user of a special library. Some have imported AV programmes and shown them to their users. There is no local orientation to such programs. Most special libraries do not have regular user induction and orientation programmes except for providing a copy of the rules and regulations of the library. Hence it is quite undisputed that no worth the name „new

dimension‟ has been added to the instruction service of special libraries in the last two decades.

Reasons for Lack of 'New and Innovative Services'

Having examined the services of special libraries and found a lack of innovative services, a dig at the reasons for such a lapse may be worth and interesting for honest introspection. The reasons must be many. But three important reasons are discussed here.

Lack of Clear Objectives of Information Systems:

Very rarely, information systems in this country have clear, consistent and laid down scope and objectives. They have more hidden and derived objectives than laid-down objectives. Sometimes it gives doubt that our libraries (and technical information centres) are kept as part of welfare activities, as a fringe benefit to employees, as a centralised way of providing Xerox and printing services or to have centralised budgetary and expenditure control over reading materials. The cognizable roles the libraries/ information systems play in realising the parent organisations' objectives and enhancing their employees' work performance must be spelt out before designing, organising and operating them. Today the objectives of most of our information systems are implied and assumed but not authoritatively defined and set. This flexibility allows the stretching of idiosyncrasies, whims and fancies and inducting of conveniently called good and bad things into information systems. Unless and until the policies and objectives are stiffly defined, it may not be easy to steer an information system through cumulatively effective and efficient growth and performance in terms of its services.

Inadequate Understanding of Requirements of Users:

Having no clear objectives, it is not surprising that we do not have a clear understanding of our users' information requirements, and we have not had sound user-studies. Even though considerable research has been done in the area of user studies in developed and information-rich countries, especially the U.S.A., Britain, and Western and Eastern European countries, practically nothing substantial is done in less developed countries in general and India in particular. Not even a single major user-study in any of the areas of science and technology has been done in the country. Even the design and establishment of major national information systems were not preceded by systematic, reliable and comprehensive user studies. As such many present systems survive under the `symmetry of ignorance‟ (Kunz et

al., 1977, p67-68), mathematical induction of convenient good or bad things, subjective considerations and idiosyncrasies of people involved in planning information systems. Other systems are thriving under dubious reasons of avoiding the duplication of research and the resultant economic benefit arising from information systems. Still, the apparent hidden reasons for an information system could be treating an information system as a prestige centre or a form of fringe benefit to employees or a paid-up insurance to serve an unanticipated need or to sublimate the feeling that one does not read or a centralised way of budgetary control over expenditure on documents (Myers,1970, p26). There is a dire need for conducting scientifically based studies to help define the information needs of a given set of users (Saracevic, 1980, p226). Unfortunately, user studies are considered in this country as the academic work of a few librarians or teachers and students of library and information science and not as a process of designing and operating information systems. Some piecemeal studies are not carried out by persons `living with the tribe‟ but by teachers and students of library schools.

Lack of `Objective' Assessment of Information Systems, Services and Subsystems:

Lastly, libraries and information centres have been designed without a clear understanding of users' objectives and requirements, and they are also operated without systematic and objective evaluation. "Evaluation is as much a way of looking at things as a body of techniques and tools"(Cronin, 1982, p231). Nothing can be said about any system or service without proper feedback and evaluation. "The library is only as effective as the user is satisfied" (Katz, 1985, p378). Without a clear picture of increased user satisfaction, it is very difficult to say that libraries' new or changed services are productive. Many services may appear successful. But success and satisfaction are two different things. We are forced to say that satisfaction is more important than success. We have not made a systematic input-output analysis as part of the evaluation of library services to confidently say that there is an increase in the satisfaction level of users.

Factors behind Changes & Innovation in Library & Information Services:

Assuming that there have been some marginal changes in the services of special libraries over the last two decades, it is interesting to see what factors have caused these changes or, if there are no changes, what factors might cause changes and innovation in information services.

Information Technology:

The largest single factor that has caused changes in the library and information services IT has made it possible to introduce a few new services, revolutionise many existing services by providing new media, increase the speed of processing and retrieval, overcome distance and communication barriers and so on. Often, these changes and innovations in library and information services are more cosmetic, psychological, publicity oriented and prestigious imitations rather than obsolete necessities. It is forgotten that these changes in services by using IT do not assure better results if traditional manual ways of providing library services are themselves defective, irrelevant and unsatisfactory. New technology will supplement the old and not replace it, mainly due to the conservatism of users and the value of the old methods. Secondly, new systems will succeed only if they provide something the user wants and wants enough to pay for, like an improved service or saving resources. Clever technology alone is not enough (Simkins, 1983, p94). Implementation of new services based on IT does not take place within a reasonable time frame like conveyor belt system, a lending system based on magnetic strips, burglar‟s alarms, bar code/wand reader-based lending and stock verification, CCTV coverage for theft detection, press button systems, paperless society concept, etc., or face economic no viability like costly dedicated online access experiments, integrated library and information retrieval packages, etc. for having ignored the proper evaluation of all alternatives as well as local constraints and conditions. There is a wide gap, at least in terms of time, between academic or theoretical possibilities and fantasies and costly experience-gaining experiments on one hand and their practical implementation for reaching ultimate beneficiaries. In the case of fast changing IT time gap, i.e., a delay in implementation is more risky and costly than other shortfalls.

Changes in Objectives of Libraries and their ParentvOrganisations:

Changes in the objectives of libraries and their parent organisations should cause changes and call for innovation in library and information services. But there appears to be no significant change in the objectives of the libraries irrespective of changes in the objectives of parent organisations. Consequently, the changes in the library and information services on this account are quite insignificant. On the other hand, the lack of clear objectives for library and information systems discussed earlier continued even after decades of establishing the systems.

Changes in Requirements of Users

Substantial changes in requirements of users are by and large not taken into account, and hence any possible relation between changed requirements of users causing changed services is ruled out. The basic understanding of users' requirements is quite inadequate, as described earlier, and rarely enough attention is paid by libraries to changes in users' requirements.

Professional Advancement

Development of techniques and tools within librarianship (i.e., other than IT), which took away substantial research efforts during the last two decades, has also made no impact in changing library and information services. Many theories and theoretical findings have not been implemented in environments other than experimental models. "It is true that each year the relevant indexing services cite tens of thousands of contributions to library and information work literature. Still, it is equally true that there seems to be little advancement of our understanding of the foundation concepts of the field" (Osborn, 1986, p119). Further, the ways and means of doing things have been given the greatest attention by the profession and methodology, and means have become an end in themselves. "How to do it has become more important than why it should be done, except that methodology almost seems to have become its justification" (Osborn, 1986, p121).

Adoption of Allied Tool Subjects

The application of new management techniques, OR and Systems Analysis to librarianship has been discussed for the last two decades. But no substantial impact of such applications of allied tool subjects on the library and information services can be seen.

Development of Professional Manpower and Competence

Another important factor (in addition to professional advancement) the profession should have been proud of is the development of appropriate manpower and professional competence. Identification and nourishment of personality characteristics, skills and attitudes of information workers have not made any significant progress to cause qualitative changes in the library and information services. From the preceding discussion, it is quite clear that the changes in library and information services are more or less driven only by technology and not by professional advancement, user requirements, or management desire. Yet a mention of a few specialities of special libraries at this juncture is necessary. Special libraries are known for using specialised and modern techniques and tools much in advance of any

other library type. Some common features in special libraries are the cataloguing of non-book material of analytical entries, depth classification, in-depth indexing systems, and a host of advanced information technologies. It is special libraries which necessitated more private schemes of classification or standard schemes with many local variations and depth schedules. No special library confines itself to studying one subject but spreads across the boundaries of traditional disciplines. It not only necessitates more relation in classification schemes but also requires versatile faceted and analytico synthetic schemes. In addition, the emphasis on subject areas keeps changing in the organisation resulting in re-classification and modification of classification and indexing systems. Special libraries are the first ones to adopt advances in micrographic, reprographic and information technologies. Due to their smallness, liberal budgets, closeness to users and easy access to several gadgets, they also pioneered in mechanisation and automation of library activities. Special libraries do a substantial part of computerisation and online access to databases. They are planning to harness optical/compact disc technology, telecommunications, DTP etc. Most special libraries are blessed with a cream of professionals with better encouragement and rewards than other libraries. Despite such high inputs, it is yet to be established that the outputs of special libraries are commensurate with inputs in quality and quantity.

Anticipated New Library and Information Services

Having examined the reasons for the lack of innovative library and information services and the possible factors which promote qualitative changes in services, a few desirable new services are presented here.

Tailor Made Services

As mentioned earlier provision of uniform or standard service to all is unsuitable in special libraries. Many need-based tailor-made services are expected to increase the effectiveness of services.

Intensified Current Awareness Services

Provision of increased opportunities to browse the latest literature in core and related/ peripheral areas and carrying current awareness services (tailored to the need) to the work spots and laboratories of otherwise busy users is necessary.

Extensive Provision for Browsing

Past research has repeatedly revealed that browsing is the most often used method to learn about printed information sources. Special libraries must make extensive provisions to enable users to browse information sources. Such intensified current awareness services and provision for browsing may facilitate users to discover relevant information in an unexpected accidental way.

Direct Mode of Service

Special Libraries should evolve a more liberal policy of promoting the use of journals, reports, standards and trade catalogues among the users concerned without expecting them to visit the library to consult a document or to, reserve a document or borrow a document for a limited period and, at times, pay fine as a penalty for having not returned in time. This may necessitate a need to be more flexible in applying library rules and regulations.

Inducting Non-users to Libraries

A library is, by and large, a minority affair. A small cross-section of the target user population normally uses their „primary" library. Special libraries must find ways and means of inducing and inducting the nonusers.

User Orientation

There is a greater need for specific orientation programmes for the users of special libraries (especially for new entrants and less frequent users) in the use of the library. We need a few modules of user-orientation programs locally developed and tested.

The organisation of Personal Information Systems

As a logical extension of user education, there is a need for informal training for users of special libraries in organising personal information systems consisting of references, notes, abstracts and documents in various forms like registers, notebooks, files, loose sheets, cards and desk diaries, etc. Users in special library environments consider personal libraries more important than institutional libraries. For all the concerns librarians have lavished over management and automation of institutional collection, and for all the expertise they have gained, little effort/interest is shown in personal information management (Dow, 1987, p30). Using the knowledge and experience of management of a bibliographic environment, librarians can help their patterns in searching literature through online or CD-ROM databases

and further processing downloaded data through PC using several online utilities and off-shelf software to organise the traditional personal collection. Wherever possible, the personal and departmental systems should be integrated with the formal information systems.

Origin/Evolution of Public Libraries:

The modern concept of the public library was developed in the United States of America in the 19th century in response to popular demand for universal education. The Peterborough public library was the first public library. Public funds built and supported it to create a free public service. This led to the establishment of several other such libraries in 1933. America continued to make improvements until the 1960s and 1970s, when public libraries in America introduced the innovation of outreach services which involved taking materials and programmes to people who were not regular patrons or who, for certain reasons, could not come to the library. (Nnadozie, 2007). The development of public libraries in Africa reflects the various library systems of the colourizing countries. For instance, the development of public libraries was highly influenced by the colonial masters and the level of the economic viability of African countries. The history of public libraries in Nigeria has been traced to the establishment of Tom Jones library in 1910, which served as a subscription library. This followed in 1932, with Sir Alan Buns, the Chief Secretary of Nigeria, setting up the Lagos library. These two libraries were later merged to become Lagos Public Library, administered by the British Council and Lagos Town Council. These were also followed by establishing Lagos's Public Relations Office library and the numerous reading rooms in the then Eastern, Northern and Western regions.

The government of the Eastern region under Dr Nnamdi Azikiwe passed an ordinance establishing a library board in the region in 1955. This was a notable development in the history of public librarianship in Nigeria because the legislation and the Board were the first of their kind in Nigeria. These developments resulted from the decision taken during the UNESCO seminar on developing public libraries in Africa held in Ibadan in 1953, which required that UNESCO sponsor a pilot project in an African territory to demonstrate public library development. Mr Kalu Okorie surveyed the library situation in the region in 1956. His recommendations were accepted by the government and formed the basis of the Acts of the Library Board on library development. These include;

- A central library at Enugu
- 5 divisional libraries at Port Harcourt, Ikot-Ekpene, Umuahia, Owerri and

Onitsha

- Branch libraries under the surveillance of divisional libraries
- A school book mobile service.

It is worthy of note that this Eastern Nigeria Public Library pilot project became the first of such projects by UNESCO in Africa. It was a show piece for the whole country for several years until the outbreak of the Nigerian Civil War in 1967, when it suffered severe damage. The state creation exercise of 1967 split the Eastern Region into East Central, Rivers and South Eastern states. These states were further split into six states by the 1976 state creation and more states with subsequent state creation. Almost all these states have library boards charged with providing library services to the citizens. The Northern regional government started its library service in 1952. The aim was to help the Native authorities in the region develop the Reading Rooms established during the Second World War into public libraries. The government"s planned to purchase books and send them to the Reading Rooms. According to the arrangement, qualified staff would come from the headquarters in Kaduna to supervise the work being done in the local libraries. This plan was adequate, and consequently, the Northern region government appointed Mr F. A Sharr to look into the problems of the library needs of the region. Sharr, in his report, recommended that a public library be established in each of the thirteen provincial towns of the region. These libraries later formed the nucleus of library services in the various provinces. The Northern Region was broken into states in 1967 and nineteen in 1996. Each state inherited these facilities. Public libraries exist in the Western Region of Nigeria, especially Ibadan, the headquarters. There were also public libraries in some major towns in the region. With the creation of states within the region in 1967, many libraries were established, especially in the state capitals. On the enactment of the library Acts in Nigeria, according to Aguolu and Aguolu in Opara (2011), legislation helped to speed up library services in the region. There is no library in Nigeria today which is not backed up by law. This is because, without legislation, public library services would be provided at the whims and caprices of whoever is in charge of the establishment. Some of the historical circumstances that led to the establishment of public library services in Nigeria include:

- Efforts of some individuals who donated buildings and collections later formed the nucleus of public library services.

- Established regional reading rooms by colonial masters, which later transformed into public libraries.
- Increase in several academic institutions and students‟ enrolment.
- Establishment of regional government and subsequent creation of states
- Second World War necessitated the establishment of libraries to disseminate war information.

Administration and Governance:

Public libraries are the government's responsibility at various levels – National, State and Local. Librarians manage or control; they do not govern; there can hardly be found a case in which the librarian is in complete control. He may be powerful with immense freedom to manage a library's day-to-day management. Yet, he is always acting as a professional executive who exercises his skill or expertise as the employee of his governing body. The Governing Board is in charge of making policy Statements. A Library Board is in charge of the governance of the public library. The Imo State Library Board was established as a corporate body with perpetual succession and a common seal with the power to sue and be sued in its corporate name. The functions of the Board are:

 To establish, equip and maintainfollowing this Law, the State Library;

 To establish, equip and maintain following this Law branches of the State Library in parts of the State;

 To provide by Law, such services, as in the opinion of the Board, are necessary to be provided in connection with the establishment, equipment and maintenance of the State Library.

The organizational structure of public library systems:

According to Edoka (2000), Every library, like any other formal establishment, is designed and run by a special group of people whose job is to combine and utilize the organizational resources of men, money, information items and other resources to achieve organizational objectives. The management gets things done through other people to secure the optimum achievement of the objectives.

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Departments and Sections in the Public Library

Within the public library, departments and sections are performing various activities to enhance effective library services to the clientele. These are:

1. The administration department – handles the administrative duties of the library like job assignments, staff and users‟ welfare and public relations.

2. The accounts department – handles the financial activities of the library, like payment of salaries and registration of users.

3. The technical services division – this division comprises three sections. These include acquisition, cataloguing and the bindery section. The division provides behind the scene services which are very relevant in the library organization of materials for use and preservation, as well as conservation of the materials fort present and future use. Selection, acquisition, processing, and repairs of information materials are some of the activities performed in these divisions.

4. The public service department – This division could be said to be the heart of the library service because it directly serves the readers or users of the library. It is an open-access library division where registered members of the library and other external users are allowed to have access to the library resources Ojeadokun in Afolabi and Etuk 2014, described it as a division that provides direct services to readers or users through document-delivery, reference services, serials control, etc. processed library resources are constantly sent to this division to be displayed, usually by the use of an open shelves arrangement. The resources in this division are meant to be used by library patrons or readers by reading or borrowing from home. The sections under this department are lending, reference/Nigerian and the children section with the current trend in Information and Communication Technology (ICT). Public libraries now provide Internet Facilities: The contribution of the internet and its wide range of current information to today‟s research cannot be overemphasized. An electronic library is an organized collection of digital information accessed through electronic media devices. It is

an electronic media holding where information can be accessed, stored and retrieved through computer information technology. (Afolabi and Etuk, 2014) Some of the services provided by the internet section of the public library are e-mail services, online literature search, online registration for local and international examinations and retrieval of results of such examinations. Finally centre for the disabled. This is a section where those who are physically challenged are attended to. They are provided with Braille and a tape recorder. The Braille is printed for the blind, with raised dots representing printed characters, while the tape recorder is recorded for the deaf.

Role of the United Nations Educational, Scientific and Cultural Organization (UNESCO):

The constitution of the 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 disseminating and sharing information and knowledge – while helping the Member States build their human and institutional capacities in diverse fields. UNESCO promotes international co-operation among its 193 Member States and 6 Associate Members in 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 play an active role in society. Constructive participation and the development of democracy depend on good education and 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 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. Therefore, UNESCO encourages national and local governments to support and actively engage in developing 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;

• Provide 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;

• Provide 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 to help individuals and organisations improve access to information and knowledge. It strives to create conditions conducive to the 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 improve information access for the public and 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 underdeveloped countries so 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 the 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".

A 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 envisioned protecting and preserving endangered documents due to natural or manmade disasters.

An International Advisory Committee (IAC) was formed in 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 the 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 Radzivill 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 also includes the Vedas, one of the first produced literature 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, 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 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 society to improve their access to information and build their capacities. The principal on-going UNESCO activity in e-governance is a crosscutting project on E-Governance Capacity-Building. This project aims to promote the use of ICT tools in municipalities to enhance good governance by developing 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 a local 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 many data manipulation and validation facilities and a wide range of classical and advanced statistical techniques. Interactive components allow for constructing multidimensional tables, graphical exploration of data and time series analysis. WinIDAMS software (IDAMS for 32-bit Windows operating system) and 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 information processing tools are as important as the tools themselves. Currently, UNESCO offers various traditional training forms in 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 the Member States should recognise and enact the right of universal online access to public and government-held records, including information relevant to 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 each state's right to access 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." 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 with 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 cultural and educational resources are being produced, distributed and accessed digitally. 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 "The 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 to preserve and disseminate valuable archive holdings and library collections worldwide.

Digital Heritage comprises 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 require active preservation approaches if the 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, cultural, educational, scientific and administrative, or embracing technical, legal, medical and other information, are increasingly created digitally or converted into digital from existing analogue resources.

• Digital materials include texts, databases, still and moving images, audio, graphics, software, and web pages, among various formats. They are frequently ephemeral and require purposeful production, maintenance and management to be retained.

• Many of these resources have lasting value and significance constituting a heritage that should be protected and preserved for current and future generations. This heritage may exist in any language, any part of the world, and 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 and across space. This is evidence of digital heritage. It is a heritage of many parts, sharing many common characteristics and subject to many common threats.

General Information Programme:

The General Information Programme was created by 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 Intergovernmental Council guides the work of the General Information Programme 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 the following:

• "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 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 implementing the General Information Programme".

The Information has replaced the General Information Programme for All (IFAP) since 2001. IFAP strives to overcome the digital divide in society. It advocates for all people on the wrong side of the information divide. The programme takes special concern for the needs of women, youth, 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 UN Millennium Declaration's objectives link poverty development and eradication 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 the 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". A divide has been created due to the unequal availability of information among the different cross-sections. Economic concerns also create barriers towards the free availability of information in society. UNESCO has encouraged global efforts in this direction. Outcomes have been granted in the areas such as Free and Open Source Software (FOSS), Open Educational Resources (OER), etc.

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 the 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 among 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 the 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 is located in 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 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 act as a clearing house of ideas and information on library development in India and abroad;

• promote research in problems of library development;

• advise the government on all matters about 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 assistance schemes.

Matching assistance is provided:

• "towards building up of adequate stock of books and reading materials.

• Towards the 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 the purchase 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 a computer with accessories for library application and TV, CD player, DVD player for educational purposes for public libraries".

Assistance under these schemes is given from the resources shared on a matching basis with the States/Union Territory Administrations. For developed States, it has a ratio of 50: 50, developing and lagging States, it has a ratio of 60: 40 and for the North-Eastern States, this ratio is 90: 10.

Non-Matching Assistance is 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 sections, senior citizen sections, and neo-literate sections of general public libraries.

• To public libraries towards the celebration of Golden/Diamond/Platinum, etc. Jubilee years.

• towards organising seminars/conferences by professional organisations, 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 sponsor libraries.

• towards the establishment of RRRLF Children Corner".

Promotion of District Youth Resource Centres (DYRCs):

The DYRCs are assisted towards:

• building up an 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 the qualitative improvement of library services. It has significantly prepared the National Policy on Library and Information Systems (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 development of Public Library Systems and Services or suggesting measures for promoting reading habits. It helps to disseminate innovative, new concepts and ideas for developing the Public Library Systems 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. Since2005 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 out research projects on public libraries or allied subjects. It has prepared and published a report on the loss of books in libraries for the Government of India.

Publications:

RRRLF has brought out several 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 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 to provide 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 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 the National Digital Preservation Programme. This Digital Repository will also host content on Libraries, Library Systems 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 digitised 8896 journals/books at Rabindra Bhavan since 30th June 2013. NIC authority has been approached for hosting 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 a future public library and strategic planning workshops for 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 on ICT and 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 are responsible for the upkeep of the libraries. This will be held in different parts of each state and conducted by local resource persons in the local language.

Global information resources:

UNISIST:

The launching of UNISIST (United Nations Information System in Science and Technology), also known as the World Scientific Information System programme in 1973, marked a new phase in UNESCO‟s work in the library, documentation and information field. UNISIST, emphasising scientific and technological information, is a conceptual framework, not an operating system. It envisages the development of an international network of information services. The broad objectives are the improvement of tools of system inter- connection, strengthening institutional components of the information transfer chain, development of manpower for information work, the 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 the formulation of information policy by member countries, the development of information infrastructure, especially in developing countries, the establishment of special information systems, facilities for training of information manpower and above all, the 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 existing 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, with the 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 databases 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 the UNISIST Newsletter, which is informative 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 valuable to the library and information science literature.

From the beginning, India, a member of UNESCO, has taken an active part in its programmes and 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. It 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. Overall, India‟s association with UNESCO regarding the library and information field has been rewarding.

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 Atom index and associated magnetic tapes, were issued in April 1970. It has since grown into one of the most 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, provide quality nuclear information services to the Member States and assist with developing 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 the Member States are also developed. INIS's strength is based on this international co-operation. Representation in the system is at the 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 the Member States. This mechanism allows INIS to achieve the widest coverage of national nuclear-related literature, some cultural and language barriers and gives every INIS Member the right to access the other INIS Memmembers' nuclear information

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). A user-friendly version of the INIS Online Database is also available. It offers direct online 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 users in the Member States. 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 the Member States are 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 requester's country. Orders for reports published before 1997 are addressed to the INIS and NKM Sections. By clicking on the

Document Delivery Service, Users 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 before 1997 can also be delivered electronically, depending on the size of the report or analytic requested.

INIS Multilingual Thesaurus: INIS specialists from the 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 due to 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 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, particularly to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

Library legislation in India:

Sixteen states of India have put into state books 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 the reorganisation of the states, merged into 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 the state's reorganisation, the state of Kolhapur was merged with Maharashtra State. The Maharashtra Public Libraries Act of 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) Establish an institutional network to provide, care and preserve documents.

c) Establish committees to provide guidelines concerning 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.

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

Review questions:

1. What is the role of the public library?

2. Briefly explain Public Library as Community Knowledge centres.

3. What do you know about library legislation in India?

S. No	Questions	LOCF Mapping
Small Questions		
1.	Define a public library.	K1
2.	List five key missions of a public library as per the UNESCO Public Library Manifesto.	K1
3.	Name the major national organization in India that supports public library development.	K1
4.	What is the role of a public library in promoting democratic values?	K2
5.	State one key feature of library legislation in India.	K2

S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the multifaceted role of public libraries in the socio-economic, cultural, and educational development of a community.	K2, K4
2.	Explain the organizational structure of a public library system, describing the functions of different departments and sections.	K2, K3
3.	Elaborate on the role of UNESCO and IFLA in the development of public library services globally.	K2, K4
4.	Analyze the role of RRRLF in promoting public library services in India. What are its major objectives and activities?	K2, K4
5.	Discuss the need for library legislation in India. What are the key provisions of public library acts in Indian states?	K2, K4

Reference:

Ranganathan, S.R. Library Legislation: Hand Book to Madras Library Act. Madras: Madras Library Association, 1953. Print.

Public Library System: India, Srilanka, UK, USA, Comparative Library Legislation. Ed by S.R. Ranganathan and A. Neelameghan. Bangalore: Sarada

Ranganathan Endowment for Library Science, 1972. Print. Rath, P.K. Public Library Finance. New Delhi: Pratibha Prakashan, 1996. Print.

Venkatappaiah, Velaga. Indian Library Legislation. 2Vols. New Delhi: Daya Publishing House, 1994. Print.

---. Model Library Legislation. New Delhi: Concept Publishing Company, 1995. Print.

---. Model State Library Policy and Legislation (For the States and Union Territories). Delhi: Indian Library Association, 1995. Print.

Unit - II: Public Library Services

Content:

This unit focuses on the various services provided by public libraries to their communities. It discusses the concept of the public library as a community information centre. The unit explores the trends and development of web-based public library services, including Web OPAC and online resources. It covers the application of Information and Communication Technology (ICT) in public libraries, including hardware, software, and networking. The unit also discusses the concepts of resource sharing and networking, their objectives, benefits, and barriers, with examples from India and abroad.

Unit – 2

PUBLIC LIBRARY SERVICES

Objectives:

- To briefly learn about the services provided by public libraries.
- To learn about Public Library as a community information centre
- To get to know about web-Based Public Library Services
- To gain knowledge on Resource Sharing and Networking.

Introduction:

Libraries today are a widespread vital service institution. The new attitude of the public library is to carry its message' out to the people who are still unaware of it and to serve the people who visit it in their pursuit of knowledge. The public library services are provided based on equality of access for all, regardless of age, race, sex, religion, nationality, language or social status.

The four main functions of the public library are to foster education, disseminate information, provide scope for recreation, and promote culture; planning and Role Setting of Public Library, published by the ALA in 1987, identifies the following roles of the public library:

- community activities centre,
- Community information centre,
- formal education support centre,
- independent learning •centre,

- pre-schooler's door to learning,
- reference library, and
- research centre.

Library services available throughout the world vary so much from country to country, from one area in the same country to another area, and from one city, town, or village to another city, town or village.

As such, it is very difficult to draw a particular pattern for its services; however, they follow a broad but discernible pattern that has evolved over the last hundred and fifty years. Public libraries range in size from massive buildings with dozens of branches to small rural libraries that occupy only one room. The public library services are designed to facilitate and invite the use of resources and satisfy the reading goals of individuals of all ages and groups. The services rendered are numerous and, in most cases, not easily measurable. The UNESCO Statistical Yearbook only mentions holdings, budgets, and personnel for public libraries in each nation but says nothing about services. The services include 'organising materials for ease of access. And convenient use through cataloguing, classification and shelf arrangement; lending procedures that provide an equal opportunity for all patrons to use the materials; guidance to the user in finding materials and using library resources and stimulation of use of materials through publicity, display, reading lists, story hours, books and films discussions, and planned reading programmes.

Other 'services include providing information service, both to persons who come to the library and to those who may not come to the library but seek information through telephone (or write letters); giving assistance to cultural, civic, and educational organisations in finding and using materials; sponsoring cultural programmes in the library for children, young people and adults; collecting special materials of interest to the community; borrowing materials on interlibrary loan; making computer searches;' extending library services to all points of the community through branches, deposit stations, and book mobiles; organising the library for easier access and specialised services into subject departments and departments for age levels; and coordinating the library programme with other educational and cultural services in the community' (Gates, 1990).

The public library as a community information centre:

Community Information (CI) is the combination of two terms, i.e. Community and Information. The term "Information" is used to identify many concepts; hence it is extremely difficult to define it precisely. Normally, information is a message communicated by a communicator to a receiver. It is the product of human action in mind, which may be abstract or concrete. Therefore it is the raw material used in knowing, making decisions, taking actions, thinking and learning. Reid defines information as "a process rather than as material. Data only becomes information by the act of imparting it."1 Information can be regarded as data transmitted between individuals, and individuals can use it in whatever form they want.

When information becomes publicly recorded, it becomes objective knowledge available to all.

Community Information (CI) is the information for the survival and growth of the community, or it is the community member who requires that information to make effective use of the available resources around them. In this context, Kempson has rightly defined CI as "information of self-reliance and self-determination. Thus CI is that information which helps to solve their day-to-day problems related to survival, such as health, education, housing, legal protection, sound economic development, political rights etc. and also to participate in the social, political, cultural, legal and economic progress of the society either individually or collectively. The information services through which community information (CI) is provided to communities is called Community Information Service (CIS).

Web-based public library services:

Need and purpose:

Web-based services are the emerging trends in libraries and are giving users a richer experience in search and retrieval. Web resources are e-resources that libraries acquire directly or through consortia participation. These web resources are full-text resources that reside outside the physical library space, accessible as virtual resources in the virtual world of the Internet. Authorised users can access them online from any place of their interest, from home or office 24×7. Looking from a historical perspective, web-based services have replaced traditional online services to a large extent.

The need and purpose of introducing Web-based services are:

- ensuring that the needs of users and the information accessible to them suitablymatch;
- delivering information to the user in a timely and appropriate fashion;
- making sure that the information provided is accurate and appropriate, and of high quality;
- promoting user awareness about new services and information sources; and
- providing userswith individualised guidance and support.

The Web-based library services by a library should be

- flexible and scalable to support the needs of a large, diverse user population;
- robust with intuitive user interfaces;

- Internet-oriented and reliable;
- interactive and user-oriented;
- up-to-date and dynamic;
- participating and demanding; and
- satisfactory to experienced users.

Web OPAC:

Web OPAC is an online catalogue of resources of a library or libraries on the Web. It is the main tool of a library to locate material from within its collections. Integrated into a Library Management System, Web OPAC allows users to access and search library catalogues remotely on the web. Web OPACs have also been developed as standalone online catalogues accessible from a server worldwide. Web OPAC is no longer a tool to know what the library owns but rather for everything to which a library has access. This can take users directly to the electronic resource outside the physical library space and establish links with resources such as e-journals and e-books.

Web OPAC is more useful since it displays electronic resources' results and their URL (web address). This can take users directly to the resource outside the physical library and establish links with resources such as e-journals and e-books. Web OPAC is an improvement over the local OPAC system in many ways. From just a list, it has changed to a comprehensive delivery mechanism. Web OPAC demonstrates remote access, online reservation, and borrower status features and integrates print, electronic, and digital documents via a single interface. Users can log in to Web OPAC from any web browser, browse the catalogue, or search. Web OPAC interfaces are more intuitive and easier to use. Most web OPACs provide both simple and advanced search options. The simple search is for searching mandatory fields such as author, title, subject, accession number, keyword, etc. Advanced search allows users to search the database on a single field or combination of fields with Boolean operators and proximity and truncation features. Apart from these, users can search indexed fields. For example, if you want to know all books by Ranganathan, you type „Ran‟, and the author index displays all authors beginning with these words; scroll down the list, pick the author of choice and then browse the collection. On web OPAC you can mark individual records and build up a list of marked records from all your searches in a particular session. These records can then be displayed in your browser, or these can be e-mailed to you directly from the web

OPAC. Web OPAC indeed has emerged as a gateway of library services. Examples of major web OPACs are INNOPAC, WebCat, Voyager, GeoWeb and ALEPH.

Advances in information technology:

Revolutionary changes occur in computer and telecommunication technologies, using which information is transferred, recorded, edited, stored, manipulated, and. disseminated in the minimum possible time. Developments in computer hardware and software have made tasks much easier, together with the use of word processing. Micrographics, reprographics and video and other storage, retrieval and reproduction devices in a library environment.

Computer Systems

Computer systems comprise five components:

1) Hardware, The physical components that can be seen

2) Software: A sequence of instructions placed into the hardware to execute a task or to solve a problem

3) Networks: To link computers together so that they can communicate with each other.

4) Database: The form in which data is stored in the computer systems

5) People: Who use computers and design systems.

If we look at the basic configuration of a computer system, it comprises input devices, output devices, and internal and external storage devices apart from the processor. The detail of some of the input and output devices that are important for libraries are given below.

'Input Devices:

The input devices accept data ~nd convert data into a machine-readable form, and transmit data to the processor unit of the computer. There are varieties of different output devices, and they comprise (a) Key Board: (b) OCR reader; (c) Image scanners; (d) Barcode Readers; (e) Voice data entry systems; (t) Mouse: (g) Touch sensitive scanners; (h) Joy sticks; (i) Magnetic Card.

a) Key Board: The keyboard is the most common data entry device. Keyboards are used mainly for (a) entry of data from a source document: (b) inputting commands or search terms to interrogate a database: (c) creation and use of graphics; (d) entry of text data' as in word

processing. Keyboards are widely used in conjunction with a screen to display the data. However, the keyboard is a slow form of data entry and is prone to error. '

b) OCR Readers: Optical Character Recognition is a means for deciphering characters printed on a document. An OCR reader scans the document for reflected light patterns. The patterns are then translated into electric signals and passed to the computer store. The OCR readers can recognise a wide range of type fonts and even handwriting. OCR has great potential for text entry and the creation of electronic documents. '

c) Image Scanners: A page of text, drawings, and photographs can be directly input into a computer using a scanner. When scanning graphics, the scanner converts the pattern of light and dark images on a page into a series of dots called picture elements of pixels, this can then be stored as binary digits in computer memory and retrieved as required. The key problem is images occupy a lot of a memo I)'. Scanners have different applications, including scanning photographs and logos in databases and documents. The scanners are available in hand held or desktop versions.

d) Barcode Readers: Barcodes are widely used in libraries and commercial establishments. Each bar code represents a number. The barcode is a pattern of thick and thin bars divided by thick and thin spaces. Only the relative separations and thickness of the bars are important. Barcode is read either by passing a light-pen or hand-held scanner or by passing the bar code over a flatbed scanner. The bar code reading records a transaction, and information is fed back to a computer database. Barcode systems are easy to operate and have very low error rates. Since the barcode readers are linked to a computer system, it is easy to change the details and control transactions, adjust loan periods, update the database and indirectly provide management information.

e) Voice Data Entry system: Voice data entry involves the reception of speech via a microphone, converting that data into electronic signals for storage. When spoken words are recognised by a matching technique whereby the computer compares the speech pattern with the stored speech pattern, the closest match is displayed, and the word must be respoken if it is incorrect. The computer can only recognise the sound for which it has stored data. Therefore people must pronounce the word in the same way as in the stored data for successful recognition. Voice data entry is quick, cheap and attractive because it frees the user from using the keyboard. However, voice systems still have difficulties recognising accents and dialects.

f) Mouse: It is a small device with a ball underneath and one or two selection buttons on the top, which move the cursor or pointer across the screen of the computer. Once the pointer has been appropriately positioned, an item of option may be selected by clicking on the mouse. There are variations in the mouse design depending on the portable computers or otherwise. A standard mouse is normally moved on a flat surface beside the screen. A mouse is usually used in conjunction with a keyboard.

g) Touch-sensitive screens: They allow the user to select an item from a screen display by touching it with a finger. Tl~ touch breaks the network of horizontal and vertical infrared beams; thus, the touch can be detected. Such screens are becoming popular in various public access environments, such as multimedia kiosks, and for breaking the barrier of computer illiteracy.

h) . Joysticks: They are widely used in computer games to move the sensor around the screen.

i) Magnetic Card: Magnetic cards are in the form of plastic cards the size of a credit card. Data are encoded in a magnetic strip. These types of cards are used as a means of identification for library users and bank transactions.

Output devices: Output devices are how computer systems communicate with people; that is, the output devices translate the processed data into a suitable format for people to use, apart from printers and monitors. Multimedia kiosks are available as output devices.

"Multimedia Kiosks: are workstations specifically designed for public access. They may be stand-alone or networked' to a larger computer system. They present information in different media. For example, text, sound, graphics, images and video. The screen is often a touch screen. They are an alternative and. interesting means of presenting information having wide applications in advertising, retailing, banking education and training, provision of information and public access to community information and online catalogues in a public library environment. They can be used in a variety of ways for the display of documents and photographs. Objects, newspapers, maps and videos apart „from information contained in the catalogues. They can also be used as self-service terminals, thus freeing the staff from routine transactions and allowing them to engage in sophisticated information provisions.

2) External storage devices: A computer's computer processor has volatile memory and cannot permanently hold large quantities of data at a cheap cost. Hence it is necessary to have secondary, external or backing storage devices. The data on the computer programmes are

held in the backup store until they are needed, and then they are moved into the main store. They are currently only three types of external storage: Magnetic tape. Magnetic disk and Optical disk.

Data communication systems:

Data communication includes data transmission using electrical and optical scanners or electromagnetic waves. Data transmission is done using telecommunication links. The following are some data transmission devices that arc useful in the context of public libraries.

Facsimile transmission (fax)

A Fax machine is connected to a telephone or microcomputer. The document to be communicated is placed on the machine, and the recipient's fax number is keyed in. The document is then scanned and converted into digital form. After transmission, the original document is reassembled at the other end as an exact copy of the Facsimile. The advantage is that text, charts, handwritten documents and drawings can all be transmitted. Fax is also a document delivery option though it may be expensive. Using an inbuilt fax board Microcomputer allows computer-generated text and graphics to be faxed without a hard copy being generated. The main disadvantage of fax is its slow conversion and distortion in image transfer at times.

Videotext

Videotext uses a modified television set to present textual and graphic information directly to the end user. Videotext systems also use telephone lines to establish a two-way link. It is generally used for information dissemination to the general public on current affairs, sports, weather forecasts, financial data, traffic reports and television programmes. Broadcast systems are known as Teletext.

Electronic mail (e-mail)

E-mail allows messages to be sent over a telecommunications network from one computer to another without using paper. An e-mail system may be a local system that delivers messages using a Local Area Network (LAN) or a national or international system using-the telecommunications network like the Internet. The main advantage of e-mail is that messages may be sent and received by the computer whether or not the recipient is available. The recipient may read the message at their convenience.

Video conference

Video conferencing combines a Teleconference with a video (Television) conference link so "that the participants can see each other and view presentations. This technology could potentially change how people communicate, Interact and take decisions without physically meeting. However, the cost of video conferencing is very high. But the potential for Distance Education and Community Information Dissemination and demonstration of a technique through practice, and video conferencing, is very effective.

Internet

The Internet is a worldwide network of computers. Access to the Internet is channelled through the high-speed links provided by Internet Service Providers (lSPs). Anyone with a personnel computer, telephone line and modem can access the Internet. The connectivity depends on the sophistication of the telephone system. The Internet enables access to a huge amount of electronic data stored in computers of different institutions wherever they are. Internet connection enables one to join a global community of several million users to communicate' live' or send e-mail messages. Besides opening up enormous possibilities through the institutions' websites, it is possible to learn about their activities, expertise, publications, and Library resources. All these developments are changing how we collect information, store, organize and disseminate.

Application of ICT in public libraries:

The main reasons why libraries seek the application of IT solutions are to:

- Obtain increased operational efficiencies
- Relieve professional staff from clerical chores so they are available more for user services.
- Improve the quality of services
- Provide new services not hitherto possible
- Improve the 'management of all types of resources
- Facilitate wider access to information for their clients
- Facilitate wider dissemination of their information products and services
- Enable their participation in resource sharing through library networks: and
- Enable rapid communication with other libraries and professional peers.

The reasons mentioned above are not mutually exclusive. The library may begin with one. Application and reaping benefits-there from may extend to other useful areas.

Housekeeping procedures

In any public library, the following activities, which are classified as house keeping operations, are undertaken using a computer: Housekeeping procedures in a library are those routines or tasks required for the day-to-day management and functioning of the library. They are broad:

i) Acquisition

ii) Cataloguing

iii) Circulation control: and

iv) Serials control

Most of the above operations in the library are inter-related, interdependent and mutually supportive. Using ICT to interface and integrate each function with the other saves staff time.

Acquisition

The computerized acquisition helps in selecting, ordering and procuring library materials. While doing these operations, libraries will use the same bibliographical details of the documents, such as author, title, imprint, collation etc. The detailed output of the acquisition system covers the following:

(1) Generation of order lists in the form of computer files for new books by author or subject or vendor-wise;

(2) Pre-order searching;

(3) Approval process:

(4) Updating of existing orders;

(5) Placing orders to respective booksellers and sending reminders for unsupplied items; (6) posting information regarding the books received to the users who have suggested books for procurement; generating lists of suppliers according to their specialization.

The selection of new books can be made either through traditional mode or through surfing the Internet, where commercially available services like amazon.com ate used. Searching websites of different institutions of interest also can do it. Many of the major booksellers in India are also willing to post books available via e-mail regularly. Contact with such booksellers though e-mail would be advantageous to speed up acquisition. Several files can be maintained in a computer-based acquisition system mainly for keeping records of all documents on order, bookseller directory, client directory etc. The system can print out book orders to the appropriate supplier. The system can also generate reminders periodically on a pre-determined date. When an item ordered is received in the library, the order record with the bibliographic details may become the basis for the catalogue record.

Cataloguing

Cataloguing includes the job of describing, recording and displaying details of the holdings of the library. Computers aid in the production, maintenance and updating of catalogues. The quality of the catalogue depends ultimately on the cataloguer. In other words, initial data input is still the cataloguer's work. Bibliographic details are gathered from relevant sources or the acquisition systems. Usually, there is one main or master fire (database) which gives the holding of the library and a temporary file for cumulating the additional records for bringing out the accession list. Once the catalogue of' holding is available on the computer, the documents can be searched, retrieved or re-arranged in the desired fashion. Thus there are several steps to follow while computerising a manual database of holdings and making the information search and retrospective retrieval more convenient:

Resource sharing and networking:

Resource sharing is an implied agreement amongst participating libraries wherein each participant is willing to spare its resources to other members and, in turn, is privileged to share the resources of its partners as and when the need arises. Resource sharing refers to sharing one central processor by several users and several peripheral devices. It denotes a mode of operation whereby several libraries share common functions. The goals are to provide a positive networking effect: (a) on the library user in terms of access to more materials or services; and (b) on the library budget in terms of providing the level of service at less cost, increased service at low cost, or much more service at less cost than if undertaken individually. These goals should be realized without harm to the missions of participating

libraries, although their methods of operation invariably must be adjusted. Similarly, the goals are realizable only with some user habits changes.

Objectives:

The most important goal of resource sharing is to maximise the availability and use of materials and services at minimal expense, i.e. focus on access rather than possession. It implies extending the resources and services of libraries to wider categories of users. The fundamental premise. Is: no library can possess in one place all documents in the most narrowly defined subject areas due to the exponentially expanding mass of printed materials and the increasing cost of acquiring any of them, leaving alone expenses in personnel, space and processing/maintenance. Thus, the main objectives of resource sharing are:

• cost reduction.

• Elimination of possible duplication of library materials and efforts.

• Maximum accessibility of information without losing the identity of individual libraries.

• Possibility of concentrating on specialised areas in collection and services.

Benefits of Resource Sharing:

As it is being increasingly realized that no library can afford to acquire all published materials in the areas of' their specialization (due to high-cost · of procurement, investment in processing, servicing, space and time), the tendency is towards sharing resources with other libraries. Document delivery through inter-library loans or the supply of photocopies of documents has emerged as a unique selling proposal for resource Sharing. The emergence Of new technology (computers, communication) ensures that useful information will be made available to all users faster, irrespective of where they are; cooperative collection development does result in the effective rationalization of acquisitions in the library. Cooperative cataloguing and classification reduce the financial burden. It has been proved that the cost of processing a book through a shared system will be much less than what is done 'in an individual library. This, of course, leaves out the cost involved in the repeated processing of a particular document in hundreds of libraries. The economics of resource sharing stands out' in the cost of housing and servicing of a document. It is computed that the cost of storing and servicing a document is much higher than the cost of borrowing it through a resource-sharing network. There are also oilier paying factors like cooperative human

resource development and sharing of human resources (expertise) amongst the libraries.·. In the final analysis, it is not the economic benefits /economic compulsions alone that are appealing. Still, it is as much the other benefits connected with the efficient delivery of document information which is the prime objective of a library.

Methods of resource sharing:

Areas of Resource Sharing:

The areas amenable to resource sharing are:

a) Inter-library Loan (ILL): On receiving an enquiry for information or a document from a library, the staff in the other library tries to locate the material and informs of its availability to the requisitioning library. The material is either sent through courier/post or picked - up by the library. In the electronic system, the request is received through electronic mail, and the information is sent through e-mail. However, hard copies (books/photocopies! other forms) are sent through the traditional mode as mentioned above

b) Acquisition: Cooperative acquisition helps libraries rationalize their acquisition based on a predetermined policy vis-a-vis other libraries. Your library may buy books only in the field you have already agreed upon, and other libraries acquire them in their agreed fields. In the field of cooperative acquisition, the new thrust has been in the cooperative subscription of journals which takes two forms:

a) Local arrangement between libraries or

b) Consortia with a formal agreement with the publishers.

These are predominant among the special libraries. In the networked environment, the libraries have access to the latest information (not only on books released but also on whether they should procure the one based on the cooperative policy) and order them fast online.

c) Cataloguing: The most popular form has been where the proofs of a book's printing stage are sent to a central library system like the British Library or the Library of Congress. These libraries, in turn, catalogue and some cases, classify the books, and these data are f published by the publishers on the verso of the title page. In the the-cooperative automated network of libraries, the system offers online cataloguing with full-screen editing and access to a database. The centralized cataloguing saves duplication as, if a library in the system already

catalogues a book, one has to put the location mark and input the local requirement. The data can be downloaded from the central database into the local database.

Catalogue-based services which a cooperative library system can offer are:

1) Database service

2) Document supply, service

3) Collection development

4) Conununication based service viz., referral, e-mail, bulletin board, etc.

d) Personnel: It allows not only sharing of expertise of skilled personnel but also facilitates the trading of personnel and users.

e) Information services: specialized institutions in their libraries or information centres generate information facilities and services. These can be easily shared through electronic mail and networking, provided it is stored in machine-readable form.

f) Translation services: One is commissioning translations cooperatively, and the other is sharing the translated materials. Translations that are already done (like those by INSDOC) may be accumulated to set up translation banks created in the machine-readable form...

g) Development of the special collection; Agreements between libraries to procure documents in assigned areas are one of the important features of resource sharing. As other libraries are building up in penumbra I areas, a library can be confident and comfortable about specializing in the area of its interest. This process becomes smooth and trouble-free as information becomes quickly available through resource-sharing networks.

h) Cooperative storage: In this arrangement, less used materials in the cooperative system are moved to a predetermined location. Whenever there is a need for such materials, they are borrowed by a library and returned after use. This arrangement reduces the duplication of materials and provides more space for new books in the participating libraries.

The Prerequisites for Resource Sharing:

• On the one hand, serious users fear that resource sharing may restrict their scholarly pursuits. They feel that the participant library may not buy good books to lend. There is also the fear that the cost of sharing may exceed the cost of buying the books. However, they

should realize, on the other hand, that resource sharing opens up a wide range of resources for use by numerous users if well-planned devices are adopted:

• Resource sharing is based on the principle of giving and taking and presupposes sustained hard work. There are different activities under resource sharing, like inter-library loans, document delivery services, exchange of publications and participation in online library networks. The participating libraries must develop suitable protocols. Go for standardization of data- exchange format, and convince users about long-term advantages.

Barriers to Resource Sharing:

There are many barriers to resource sharing both in the normal context and in the electronic environment. Some of these are:

a) Fear or unwillingness among the library staff about the new arrangement. They sometimes resist it as they are unwilling to take the extra burden of inter-library loans or other related activities.

b) Restrictions imposed by the authorities: Some authorities insist that library materials should not be shared with other libraries.

c) Lack of facilities to support resource sharing: Libraries many not have copying facilities or electronic document delivery systems.

d) Communication problems: Long distance between participating libraries impedes the smooth functioning of the resource-sharing system. Poor communication and links are perennial problems in developing countries like India in the electronic environment.

e) Lack of funds: Funds for automation, networking, inter-library loan operation etc., stand in the way of resource sharing.

Resource sharing national and international scenario:

The Indian Scenario:

'In India, there appear to be no cases of resource sharing in public libraries. However, resource sharing is in vogue in scientific libraries, though not in the full-fledged form. One significant example is the case of the National Union Catalogue of Scientific Serials in India (NUCSSI), compiled and published by INSDOC, containing serial holdings of 850 .scientific libraries in India. On receipt of an order for a document by any library, the INSDOC first tries to locate the document in its Library, and if it fails, then in major libraries in Delhi. In

the latter case, the INSDOC staff visits the concerned library, locates the required document and gets it on inter-library loan or photocopied. The photocopy of the document is dispatched to the user by mail.

Another example is the Union Database of Current Serials of DDC created by INFLIBNET on nearly 4,000 unique serial titles subscribed to by six university libraries. Any document in this Union database can be requisitioned from the holding university library. Similarly, NASSDOC has compiled a Union Catalogue of Serials in Social Sciences, which is now available in machine-readable form. Two other union catalogues are the Union Catalogue of S&T Serials in Mysore City Libraries under MYLIBNET and the Catalogue of Books held in the Indian Institute of Science. National Aeronautical Laboratory and Raman Research Institute, Bangalore. Union catalogues, of course, presuppose resource sharing.

The International Scenario:

OCLC (On line Computer Library Centre), Ohio 'is a non-profit library network of more than 11.000 libraries in 41 countries. Founded in 1967, the original objective of OCLC (earlier Ohio College Library Centre) was to establish an automated cooperative cataloguing venture. Over the years, it expanded its services to include an inter-library loan system (1979), serial control (1980), and acquisition (1981). The bibliographical data on these four systems are held centrally on OCLC computers. To obtain a document under an Inter-library Loan, a borrower library has to send an online request to the potential libraries until the request is filled. BLDSC (British Library Document Supply Centre), Boston Spa, with the help of 17 backup libraries, provides document supply service based on its most comprehensive collection of journals, reports, theses, conference proceedings and books. BLDS ~ carries out inter-library lending of these documents within the U.K. and with national centres abroad.

Public library networking:

Network (consortiums or cooperatives) is one of the organisational arrangements for achieving the objectives of resource sharing. When two or more libraries and other organisations are engaged in a common pattern of information exchange, through communications, for some functional purpose, it is called a library network. Libraries may be in different jurisdictions but agree to serve one another on the same basis as each serves its constituents. The formal dictionary meaning of network is 'a connected system'. A library network is a system under which libraries are connected, obviously for resource sharing. A technical dictionary definition of the network implies 'computer and communication links

that permit computers to communicate with each other and to share programs, facilities, data and knowledge bases'. A network can be local (one room, one office, one institution), national or even international...One often comes across various terms such as computer network, library and information network and communication network. Communication networks (like 1ELENET, TYMNET, and DIALNET) are data transmission channels carried through the telephone lines/microwave/ satellite, to which the computer network switches to send/receive information /data.

On the other hand, a computer network is a category of a computer system wherein multiple computers are interconnected. A computer network's purpose is to share the resources (like databases, software, and computing resources) of all computers among various users connected to the network. For example, in India, we have computer networks like NICNET, INDONET, ERNET etc.) A library/information network is distinct from a computer network. It is a computer-based (Le. computer network-based) network of' library/information centres. In other words, a library network is a network of databases of various libraries/information centres connected.

Computer networks facilitate sharing of resources. Generally, when we mention a network, it implies a computer network-based library and information network (like DELNET, INFLIBNET, CALIBNET etc.). In short, a library network can be defined as "two or more libraries engaged in a common pattern of information exchange, through communications, for some functions or purposes, 'A network usually consists of a formal arrangement whereby materials, information and services are provided by a variety of libraries 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 constituents. Computers and telecommunications may be among the tools used for .facilitating communication among them" (the US National Commission on Library and Information Sciences, 1975.

Need and Objectives of Public Library Networking:

As can be visualized, the network's development has resulted from 'communication' (computer + communication) in the background. Hence the history of the development of networks can be traced to communication. The development matured in the mid-I960s when remote computer access was adopted. It was immediately followed by the propagation of the standard bibliographic format called Machine Readable Cataloguing (MARC). The system has grown very fast ever since. It is in a very advanced stage wherein a network can provide

inter-library loan support, CD-ROM-based services, retrospective conversion, group purchasing agreements, and electronic document delivery services.

In general, the public library network may have the following objectives:

a) To strengthen bibliographic control and also have computer-based bibliographical databases in areas of interest to the public,

b) To encourage the creation of non-bibliographical databases,

c) To develop and promote technical and organizational structure and capabilities for the exchange of data,

d) To develop a national information infrastructure.

The needs for a public library network are enumerated below:

i) One can verify whether a particular document is available in the network that too in ease,

ii) The network can arrange for the delivery of the needed document more efficiently.

iii) Network can motivate smaller libraries to participate given the larger advantage. And can provide a very powerful stimulus for productive improvement in library services.

iv) Network helps ·in the rationalization of resources and improvement in human resource development.

v) Network promotes socio- economic development of the country

The Advantages of Public Library Networking:

More services for the same cost

Reducing and controlling the cost of the existing services

Minimizing the operational cost of the collection development,

Improving the quality of information services provided to the user community.

Network-Based Services:

The following are the network-based services offered by libraries:

I) Catalogue services; shared cataloguing; union catalogue; online catalogue access of the shared database retro conversion .of bibliographical data,

2) Database services: reference and referral services.

3) Bibliographical database services: retrospective searches; SDI services; CAS.

4) Document supply services: Inter-library loan: Document delivery,

5) Collection development: Cooperative selection and procurement.

6) Communication-based services: Electronic mail/bulletin boards/discussion groups. File transfer.

7) Computer conferencing and interactive video conferencing,

8) Web OPAC.

Review questions:

1. What are the services provided by a public library?

2. Name a few web-based services by public libraries.

3. Explain the impact of ICT in public libraries.

4. What is resource sharing?

5. Define networking.

S. No	**Questions**	**LOCF Mapping**
Small Questions		
1.	What is a community information centre?	K1
2.	What is a Web OPAC?	K1
3.	List two benefits of ICT application in public libraries.	K1
4.	What is the main objective of resource sharing?	K2
5.	Define library networking.	K2

S. No	**Questions**	**LOCF Mapping**
Big Questions		
1.	Explain the concept of the public library as a community information centre. What are the types of services it can offer?	K2, K4
2.	Discuss the emerging trends in web-based public library services. How have these services enhanced user access and satisfaction?	K2, K4
3.	Elaborate on the application of ICT in public libraries, focusing on input/output devices, data communication systems, and housekeeping operations.	K2, K3
4.	Discuss the concept of resource sharing and networking. What are its objectives, benefits, and the barriers to its successful implementation?	K2, K4

5.	Analyze the importance of library networks like DELNET and INFLIBNET in promoting resource sharing among Indian libraries.	K4, K5

References:

Bhattacharjee, R (2002). Public Library Services in India: Systems, Modernization, Networking and Deficiencies. National Round Table in Modernization and Networking of Libraries in India. New Delhi: Developing L~brary Network

Kathleen de la Pena Mc Cook and Peggy Barber. Public Policies influence adult' life-long learning, adult literacy and public libraries, Reference and User Services, Vol. No. 42, 2(x)2.

Leslie Fitch and Jody Warner, (1997). Dividends: The value of public libraries in Canada: Toronto: The Library Action Committee of the Book and Periodical Council, 1997.

Martyn John and Others (Eds.) (1990). Information UK 2002. London: Bowker,

Patrick Villa (Ed.) (1999). Information and Libraries in the United Kingdom-2000. London: The British Council.

Redmond Kathleen Molz and Phyllis Dain. (1999). Civic Space/Cyberspace: The American Public Library in the Information Age. London: Cambridge.

Rath, P.K. Library legislation and the changing role of public libraries in the 21st century. Library Movement in India after Independence: Problems and prospects. Proceedings of the National Seminar, 5-6 April, Directorate of Public Libraries. Govermnent of Tamilnadu, 1999.

RRRLF. Recommendations of the Seminars on public library scenario in the 21st century. RRRLF Newsletter, vol. XVII (3 &4), and XVIll (1),1997.

Unit - III: Academic Libraries: Functions and Services

Content:

This unit covers the role and functions of academic libraries, including school, college, and university libraries. It discusses the role of academic libraries in higher education and their services. The unit covers the management of academic libraries, including staffing norms and standards prescribed by the UGC. It explores the need for continuing education programmes for academic library professionals and the principles of personnel management. A significant portion is dedicated to INFLIBNET, its objectives, functions, and services, as well as e-Shodh Sindhu and N-LIST.

Unit – 3

Academic Libraries: Functions and Services

Objectives:

- To learn about the Role of Academic Libraries in Higher Education.
- To get to know about Academic Library Services.
- To briefly learn about the Role of UGC and Staffing Norms and Standards.

Introduction:

'Academic libraries include school, college, university and research libraries. All these cater to the academic community's needs for supplementing the institution's study and research programmes and help conserve and disseminate knowledge. Although these academic libraries share certain common features and characteristics, they differ enormously in their value and content.' (Sahai). Academic libraries do not exist by themselves; they exist to serve the objectives of the education system of which they form a part.

Nature and Characteristics:

Academic libraries are dynamic instruments of education. They support the institutions they belong to in fulfilling their objectives and advancing their aims. They support the faculty in teaching and research programmes. The primary objective of these libraries is the conservation and preservation of knowledge. The basic components of academic libraries are the Collection of information resources; Services; Users, and Staff.

School libraries:

School libraries are primarily meant to collect and arrange syllabi-based books and some books for general reading and entertainment that may include classics, biographies, adventure and travel books, fiction, etc. Cultivating lifelong reading habits and opening windows of knowledge to students are the main objectives of school libraries. To achieve these main objectives, they must build up their collections with print and non-print information sources and act as media centres. They have to adequately serve the needs of students and teachers with several services like reference, storytelling, debates, film shows, book reading clubs, etc. The 'school libraries still have a greater role where there are no public libraries, as they also have to perform the role of the public library. Their collections may include multimedia documents, often called 'media centres'.

College libraries:

Colleges form an integral part of higher education, and libraries in colleges are the primary source for the learning process. With' the shift of emphasis from teaching to learning, libraries must play their role effectively. A landmark in the development of college libraries was the appointment of the Library Committee of the University Grants Commission and the publication of its Report in 1965. Some of the important recommendations of the Committee relate to the financial support of college libraries by UGC (India) and the State Government, including staff strength and qualifications, book selection and collection, measures to promote reading habits, the proposal for a library building, etc. The National Education Commission 1964-66 (known as Kothari Commission) recognised the importance of libraries in colleges. It stated that no new college or department should be started without adequate provision for its library. However, there has been a sea-change in the education system and information environment over the past fifty years. Now the colleges are not confined to graduate teaching. Some colleges offer postgraduate courses in addition to undergraduate courses. These colleges' student population is exploding, and a library is a place for them to learn about different information sources and acquire knowledge beyond the curriculum. This is where they can set their future goals and shape their career. Hence college libraries have a vital role in graduate and postgraduate education programmes.

Functions:

To fulfil the above objectives, a college library has to function effectively by devising suitable programmes. A college library's functioning should support the college's objectives, i.e. study, teaching and occasional research. The college library provides the needed reading material to satisfy the information needs of students and faculty. W.M.Randall and F.L.Goodrich state that to meet the educational objectives of the college, the library performs the following functions:

• Makes available to the students books and allied reading material relevant to the courses offered in the college;

• Makes available the books and documents required by faculty members in preparation for their instructional courses;

• Provides supplementary books and reading material to help study and teaching at the college;

• Provides a comprehensive selection of authoritative books and documents needed by the faculty members to pursue their research programmes;

• Promotes the proper use of the reading material available in the stock; and

• Trains the students in properly using the library and derives full advantage from it, integrating the library with the educational courses.

D.L.Smith and E.O.Baxter enumerated the functions of college libraries as follows:

• To acquire and provide text and standard reference books to the students necessary to prepare for their examinations;

• To train college students in the use of the library material and to encourage them to enrich their knowledge and outlook in a wider perspective through general and wider readings; concepts in different areas of study; and

• To assist the teaching staff in pursuing higher studies and research and support them with relevant literature and information on the subject. Sahai observed that "the difference in the functioning of a college and university library, however, is that while the former emphasizes the acquisition and dissemination of knowledge at the undergraduate and postgraduate levels; the latter also caters, besides the overall needs, to the needs of research work and helps students and scholars to this end."

Thus the functions of a college library can be summarised as follows:

• The primary function of the college library is to assist the parent institution in fulfilling its educational objectives;

• To provide the latest collection of text books, course-related materials and journals on print and electronic media;

• To maintain a good collection of reference books, magazines, newspapers and Internet facilities to provide wider access to information beyond the prescribed syllabi;

• To train the students in the use of library catalogues, reference sources, and net-based information access;

• To provide career guidance to students and make them useful citizens of society;

.• To offer a variety of services such as newspaper clippings, bibliographies, access to databases (abstract and full text) and the Internet;

• To maintain a good ambience and create a reading environment for students and faculty; and

• To preserve documents for future use following current methods of preservation.

Information Resources:

The book collection in college libraries should be adequate, comprehensive and current to meet the educational needs of students and faculty. It should include all recommended or prescribed textbooks, journals, magazines, etc. The collections should include standard reference books, career-oriented competitive examination books, and recreational and general books. Generally, the college libraries maintain separate collections under the Book Bank scheme. Keeping in view the advances in the information environment, multimedia information sources and CD~ROM collections are essential for college libraries. They should also provide net-based access to global information.

Finances:

Finances are essential for the proper growth and development of college libraries. The main sources of income for college libraries are State Government grants, UGC Adhoc grants and internal sources like fines, service charges, etc. Though the Kothari Commission (1964-66) recommended 6.5% to 10% of the education budget for the development of libraries, in reality, only 2% is being spent on college libraries. Hence their growth is not expected to be.

Staff:

"In a large college with an annual book fund of not less than Rs. 20,000, the librarian should be in grade 2 with qualifications appropriate to it. In a small college with an annual book fund of less than Rs. 20,000, the librarian should be in grade 3 with the appropriate qualifications. The other staff in the library should be in grades 3, 4 and 5 or grades 4 and 5, as the case may be, with qualifications appropriate to them.

UGC Pay Revision Committee made recommendations regarding the qualifications of library staff, suitable pay structure and their parity with teaching faculty. It is desirable to keep the college library open for 12 hours for its optimum use by students and faculty. Many colleges open libraries for extended hours, i.e. beyond college working hours, to make the library adequately used by users. To keep the libraries open for long hours and make them operational adequate staff strength is required.

Services:

The college libraries offer the following services to students and faculties:

• User orientation, education and information literacy;

• Reference, reader's advisory services;

• Lending and Inter-Library Loan services;

• Bibliographic service;

• Career guidance;

• Network-based services

University libraries:

A university stands for truth, reason, tolerance and humanism. It helps in society's general progress through the advancement of knowledge. The functions of the university are the creation of new knowledge through research and interpretation with existing knowledge (research); to impart knowledge to students in all fields of the universe of knowledge and giving professional and vocational training (education and training); dissemination of knowledge and reduce the social and cultural gap (publication); to diffuse and foster the real values and attitudes in society through various extension activities (extension). A university is rightly described as a community' where scholars and teachers are the head; students are the body and the library's heart. In India, the importance of the library in university education has often been emphasized by educationists, librarians, scholars and committees. The report of the Radhakrishnan Commission on University Education (1948-1949) stated that:

"The library is the heart of all University's work, directly so, as regards its research work, and indirectly as regards its educational work which derives its life from research work. Scientific research needs a library and laboratories, while the library is both library and laboratory in one for humanistic research. Training in higher branches of learning and research is mainly a question of learning how to use the tools, and if the library tools are not there, how can the student learn to use them?"

The Kothari Commission, in its Report on Education and National Development (1964-66), further emphasized that:

"No university, college or department should be set up without considering its library needs regarding staff, journals, space, etc. Nothing could be more damaging to a growing department than to neglect its library; the library should be an important centre of attraction on the college or university campus."

Thus the university library system is established to strive for the fulfilment of the ideas and objectives of the university. Since the university library functions as 'an integral part of the university, its growth and development are solely dependent on the growth and development of educational and research programmes of the university. Therefore let us have a brief overview of the objectives of university education in India. Though the university system in India has its roots in ancient and medieval centres of learning like gurukuls, parishads and viswavidyalayas, centres of ancient Brahmin, Buddhist and Muslim cultures, the Western model of the university system that is in practice now were initiated in 1857 with the establishment of three universities at Calcutta, Bombay and Madras. There were 18 universities before independence, and now the number has increased to above 300, including deemed universities. The modem university, characterised by a large number of faculty, tremendous enrolment of students and huge resources, has a library attached to it to support its objectives and programmes.

Functions of the University:

The concept of a university the world over has undergone a change in connotation from age to age as a result of a constant endeavour on the part of the higher education system to answer societal demands. Accordingly, the functions that it has to perform also change from time to time. Operatively, the plan involves six comprehensive functions as stated by D.A.Ghanch:

Conservational Function: A university is expected to help conserve the culture and heritage of the country. This is a stupendous task given the country's long pastry, the multi-cultural texture of the fabric of its culture, and the onslaught of the winds of change from within and without.

Transmission Function: A university should be an effective vehicle for disseminating knowledge in society at different levels through diverse modes and media.

Promotional Function: A university should promote the cause of knowledge, its modification, renewal and enrichment. It should also support the creation of new knowledge and contribute to the existing fund of human knowledge.

Developmental Function: A university is charged with developing the country's human resources to the optimum capacity of its potential.

Promotional Function: A university has, among others, a future-related obligation towards the community.

Revolutional Function: A university should be a form for dissent and non-conformity. It should provide a field for trying uncommon, unconventional, innovative ideas.

Wilson and Tauber described the functions of a university as follows:

• Conservation of knowledge and ideas;

• Teaching;

• Research;

• Publication;

• Extension and service; and

• Interpretation.

In short, the university serves three important functions - instructional, research and extension activities. Thus university education has various functions to discharge along with the pursuit of excellence in knowledge.

Functions of University Library:

To achieve the objectives of university education, university libraries should design their activities in such a way that they prove to be significant partners in the conservation of knowledge through teaching and learning, research and interpretation and application of research results for the benefit of society, extension and service programmes. The library exists to help instructional and research programmes of the university.· Hence the basic function of a library in a university is educative and, as Gelfand puts it, a library also functions "as a dynamic instrument of education, to feed the intellect of student, encourage researchers of the faculty and invite all who enter its house to partake fully of its intellectual and cultural contents".

The Kothari Commission on Education (1964-66) laid much emphasis on the university library system and recommended that the library should:

• provide resources necessary for research in the fields of interest to the university;

• .help the university faculty in keeping abreast of developments in their disciplines;

• provide library facilities' for the success of all formal instructional programmes;

• open the doors to the wide world of books that lie beyond the borders of one's specialisation; and

• bring books, students and scholars together under conditions which encourage reading for pleasure, self-discovery, personal growth and sharpening of intellectual curiosity.

Ma1colm S. Adiseshaiah said, "if the purpose of all education is learning, then the library is the fountain of all learning, and there is no replacement. Suppose the purpose of higher education at the higher levels - post-graduation, doctorate and post-doctorate - is to develop new sources of knowledge and new knowledge. In that case, there should be no alternative to the library. The scholar must plough through to attain the end of knowledge acquisition and building."

Paul Buck has stated that quality education in universities is impossible without a quality library; other quality faculty is impossible without a quality library. A library is essential to the maintenance of free access to ideas. He classified the functions of the university library under the heads: resources; retrieval of information; coordination, and staff capability. He summarises them all in the word 'responsiveness' to the university's needs. Nigel Cox analyses the functions of the university library under five headings as follows:

• Control - covering acquisition, accession, processing and shelving;

• Archive - building up collection;

• Service - including professional guidance to the readers;

• Cooperation - linking the local and national network of library resources; and

• Research and development - enhancing the library techniques.

Thus the purpose of university libraries is an expansion of knowledge for truth, enlightenment and standards of excellence, etc. Srivastava and Verma sum up the functions of the library in university as - "it serves the adult scholarship". On the one hand, there is a knowledge explosion and heavy inflow of information; on the other, there is heavy demand for pin-pointed information without wasting time. Manual methods for retrieving and

disseminating information are becoming inadequate, and these are being replaced. Information technology is being applied increasingly to provide access to information. Libraries are not operating in isolation now but are becoming partners of various networks for mutual benefit.

Information Resources:

The quality of education depends on the quality of information. Library information materials support the university's curriculum and related research. The university library has to acquire and organise reading material with the faculty's advice and follow the university's goals and objectives. Acquisition of, and access to information resources, which have multiple' uses, are the chief responsibility of university libraries. The collections should strike a balance between traditional print formats and emerging electronic formats; The collections are usually a combination of textbooks, reference books, manuscripts, monographs, theses, manuals, conference proceedings, scientific and technical reports, periodicals, institutional serial publications, patents, etc. in print, microphone, audio - visual or electronic formats, In addition, the collections include programs or data files, software, etc. The library must have access to appropriate equipment for materials requiring readers, players, projectors, computer systems or other devices.

Finances:

Finance is important for' the effective functioning of the library. The efficient performance of libraries is directly related to adequate funds. The financial constraints result in ineffective library systems. Since libraries are non-revenue generating and non-profit institutions, they must depend on financial grants from central and state governments. The university libraries receive funds from the following sources:

• Grants from UGC;

• Grants from Central and State governments;

• Grants allocated from the university budget;

• Endowments and donations; and

• Internal resources collected through subscription fees, fines, sale of publications, etc.

"Besides the regular grants, the university libraries are benefited from Adhoc grants from UGC, assistance from organisations like Ford Foundation, Rockefeller Foundation, Asia Foundation, Carnegie Mellon University Million Book Project, etc.

Staff:

The next important element in the functional organisation of a university library is the provision of adequate and professionally trained library staff. The library's manpower should be capable of organising the library on sound scientific lines. The UGC prescribes the nomenclature, qualifications and salary structure of professional library staff. The terminology changed from time to time, considering the changing information environment. The professional staff of a university library are accorded status and salary on par with university teaching staff. They are required to possess qualifications also on par with teachers", i.e. postgraduate degree- in a subject and Library and Information Science.

The functioning of library staff is supported by the University Library Committee in formulating library policies, rules and regulations, preparation of the annual budget, allocation of funds, preparation of the annual report, advice in day-to-day administration, etc.

Services:

The nature and efficiency of services of university libraries vary from one to another owing to the nature of curricular programmes, research activities and local needs of users. Traditionally the libraries offer reference, current awareness and lending services ten their users. With the application of information technologies, they can now offer a wide variety of information services. While providing many traditional information services, librarians are developing new skills and accepting the new roles necessary to support technology-based services.

They include:

• Reference service;

• Current Awareness and SDI;

• Lending and inter-library loans;

• Newspaper clippings;

• Reprography;

• User education and information literacy,

• Internet access and assistance in searching the websites; and

• Access to e-journals through e-journals consortia.

The buzzword of the present-day digital environment is 'consortia', intended to share resources through collaboration within the member libraries. This helps academicians in acquiring information quickly at affordable rates. An e-consortium harbours many content creators sharing a common interest through interlinked web pages.

Infrastructure and Maintenance:

The most important part of the university library system is a functional building where the allocation of space for books and other reading materials, staff and readers could conveniently be made. UGC (India) supported the development of university and college library buildings during the 1960s and 1970s. However, the accelerated growth of libraries in their collections and users, the emerging information technologies and their applications to library operations necessitates redesigning and expanding the library buildings suitable to current required merits. For example, university library public access catalogue cabinets have been replaced with the Online Public Access Catalogue (OPAC), which requires a different type of space allocation. Hence the designing of library buildings should be modular, keeping in view factors like the rate of increase in the student population, setting up of new departments, possible new methods and techniques of library operations and expected changes in local needs shortly. The present-day university library system should have more computers, communication links, and proper maintenance.

Computer systems are necessary for library staff for housekeeping operations and users for Internet access and information retrieval. Hence annual maintenance contract is a better option to keep the hardware and software components in working condition. The maintenance work essentially involves collection maintenance. The collection needs adequate storage space, proper shelving and preservation. The libraries have adopted pest control methods for printed documents, but the non-book and electronic documents necessitate handling with care and adopting special preservation techniques. Rare books and manuscripts are being digitised for posterity. Libraries generally control their collections by weeding out worn, mutilated, unused documents.

Academic library services:

What is fundamental to the planning process? It is the need to define and express purpose. The objectives of the parent organisation determine the scope of library service; In many progressive libraries, library services to be provided are indicated in a written statement. Regarding academic institutions like universities and colleges, the objectives of enhancing educational capabilities in coursework and research determine the course of action. The library is thus an instrument that helps to cultivate information skills in teachers and students towards independent learning. The planning process comes in very handy in academic institutions. It is futuristic in design, lays down' targets to be achieved, indicates the steps to be taken, and provides a handy mechanism for self-correcting evaluation. The planning process is, however, inconceivable without careful community profiling, strictly following the actual and realisable needs of the user community. Above all, library service to the academic community is to be viewed dynamically in terms of a) external environments, b) user community, and c) the governing framework. External forces compel the challenge of change. It also has its internal dynamics. Internal and external variables equally determine the extent of change through their interplay.

Management of library services:

Management of library services is all about decision-making and problem-solving. While planning is based on a theoretical framework, decision-making (the basic management component) is based on practice, thus introducing the human element with all its glorious uncertainties. The principles of library service management are best understood in the 'classic management' cycle. Peter Lawrence has identified three stages in his cycle: "Planning (setting objectives and determining the means to achieve these objectives); organising and co-ordinating (deploying resources and integrating activities), and controlling (setting up a feedback mechanism to ensure that the things are going according to plan).

Peter Drucker, in his classic *the practice of management, has conducted a similar exercise by identifying the operations of a manager:*

• setting objectives;

• organising;

• motivating and communicating;

• measuring; and

• developing people.

Here Drucker scores over Peter Lawrence when viewed in the context of library service. At least two categories of Peter Drucker, i.e. 1) 'Motivating and Conununicating' and 2) 'Developing people, have to do directly with the user community (the final arbiters of library service). Management specialists have described the concept as an 'interplay between people', 'psychological contact', 'psychological dimension' and 'developing people-to-people dimension'. The effectiveness of library service depends entirely upon the credibility of the library managers. Howsoever well-organised library services are, their effectiveness is bound to be marred by the perception of users about them. How do we go about transforming the adverse situation? Here, assistance may be sought from the 'human relations school' of management science. The good offices of the so-called 'Hawthorne effect may be utilised to rectify the lacunae. The 'Hawthorne effect is the effect of making people special. That 'the user is the king' (rather the absolute monarch), whose word is the law to be obeyed to the last detail, must be etched on every library's entrance in prominent words. Such perceptions are much more significant in the context of academic institutions. The majority of the user population of academic institutions consists of young people who are volatile, sensitive and ready to make quick formulations about their environment. Any hostile perception shall keep them away from utilising library services. They are also quick to forget and adopt. The· success or failure of library service in their case depends substantially on their perceptions. 'People-to-people' contact is the sine qua non of success in dealing with them.

Theory of library service:

Many tend to believe that the library is all practice and no theory. It is not a very comfortable position and contrary to the developing situation. Knowledge advances through generalisations, abstraction and quantification (subject to measurement and predictability). As the significance of library service becomes increasingly recognised, a certain element of the theoretical framework is inevitably introduced into it. There have been certain attempts in this direction in recent years. The potential is great because the future of library service is closely allied to the developments in the field of information science and the definition of information as a concept. It is possible to identify five key aspects for the provision and use of library service towards the formulation of the theory of library service:

• Inquiries;

• Retrieval;

• The process of becoming informed;

• The demand for library services;

• The allocation of resources.

INQUIRY comes at the beginning. It is a sign of disturbance, a signal of distress and an indication of a cavity in knowledge. Inquiry is the casual effect which prompts meaningful steps to seek knowledge to reduce psychological distress resulting from ignorance. Library service is the halfway house from inquiry to its resolution. There are three types and taxonomies of inquiries:

• Biological, i.e. inquiries about documents;

• Factual or subject inquiries; and

• Directional inquiries, e.g. where is the catalogue?

The inquiry inevitably leads to searches which are of two kinds:

• Information (subject) search, and

• Documents (known item) search.

While subject index (classified part of the catalogue) and open access to books are required for information search, author and title indexes are needed for the document search in a manual catalogue. In actual practice, it is hard to draw a line of demarcation between the two of them: "It is customary to treat information ("subject") searches and document ("known item") searches as entirely separate, different, and independent. However, we suggest that consideration of actual inquiries leads to the conclusion that any user search can and should normally be viewed simultaneously as both information specific and document-specific in various degrees. This distinction tends to be substantially obliterated in a computer-based retrieval system.

Inquiry is inevitably related to the COLLECTION of the library. It has been said that the "library is, in essence, a resource for inquiry". The nature of collection has implications for library services of far-reaching nature. It is, in turn, related to the library's collection development policies. Several factors, like the permutation and combination of selection, duplication and retention policies, that matter in assuring the collection's suitability to be

responsive to actual and potential inquiries. The document's matching with the inquiry's content is the foundation of effective library service. All this assumes that collection development policies must be rational because otherwise, diminishing returns would set in fast. There are several techniques for effective utilisation, like bibliometric, citation and user studies. Only the beginnings have been made in recent years.

RETRIEVAL: The next stage in this five-part typology is RETRIEVAL, the second step in this taxonomy of library service. The starting point is the right assumption that the user does not possess sufficient understanding of the organisation of the retrieval system. While the model assumes the user to be rational, they are not so in actual practice. What should be the response to such a predicament?

The answer is to conduct the 'reference interview' for transforming the inquiry from ordinary and day-to-day language to the language of the retrieval system, which responds to terms so recognised by it. Such a search is predetermined. The retrieval system is no less dynamic. It is in a state of continuous, gradual revision, adding to the woes of its users. What is the ultimate solution? Users' competence in using retrieval systems needs to be substantially enhanced by upgrading their conceptual capabilities. The retrieval systems, on their part, need to be so designed as to be user-friendly.

BECOMING INFORMED: It needs to be recognised that there are barriers to becoming informed. The first state in this process is the psychological perception of the signals. The user is handicapped by his limited personal knowledge, limited personal values, abysmal ignorance, and lack of cognitive skills and skills of perception. The user is doubly cursed if the intermediary (the reference librarian) who guides him suffers from similar handicaps. It is possible to overcome the handicaps in both instances by effectively imbibing cognitive skills. Thus the second stage is the cognitive process of becoming informed. It helps to overcome the handicaps in the first state of becoming informed. Acquiring cognitive skills through the learning process is not as simple as it may appear. Values (prejudices and preconceived notions) embedded in the subconscious are not to be got rid of so easily. However, it is possible to overcome the handicaps through the learning process and prior knowledge of the user's mind via the intuitive process. The reference librarian is thus required to be a good student of psychoanalysis to probe into the user recesses of the mind. Such are ingredients of becoming informed.

DEMAND: Demand is the nearest to the highest stage of performing essential library services. The situation becomes concretised when the penultimate step in the taxonomy of library service is reached. The human mind is never further away from confusion. There is confusion in identifying needs, wants and desires. The terminological confusion needs to be clarified at this stage. Types of needs and wants have been identified in library literature as follows:

• Needs that are not recognised as needs for which library services would be useful;

• Needs that are recognised but no action is taken to use a library service in relation to them;

• Want (in the sense of desires) to use a library service, whether or not such use is sensible in practice;

• Unsuccessful attempts to use a library service, as and when a particular book is sought but not found; and

• Satisfied demand, in the sense that the library was used ten a way that was satisfactory to the user.

The actual use of library services is confined to the last two categories. The remaining categories thus fall outside our immediate framework. With rising costs and the induction of information technology, demand has come to have a value and price. The cost of the library and information has added new dimensions .to the situation. In the ultimate analysis, the final test of the effectiveness of library service shall rest on the elasticity of demand. Several factors go into the elasticity of demand by users. The ultimate test is the system's responsiveness through improved availability of documents and actual information. It alone can restore stability to the library service.

ALLOCATION OF RESOURCES: There is a growing concern with the political economy of library services as an external factor; this issue arises mainly from the fact that there is separation in the allocation of resources from their use. The librarians happen to be at the receiving end. The authority to allocate resources falls beyond their pale. It is an important question involving decision-making, but it shall not be expanded upon in the present context. It is clear from the above discussion that an integrated view of library service as a whole must be taken. Conceptual framework, however, in the developing stage, is a subject matter of growing importance for the future of library service. The theory has been able to throw much

light, especially in the study of DEMAND. The result was an incidental by-product. Another enlightenment has come to pass as a result of the recognition of the interdisciplinary nature of library service.

Library services and its users as a system:

When library service is viewed as a paradigm, it is required to perform four functions: 1) information, 2) instruction, 3) guidance, and 4) stimulation. Hitherto reference service has been defined as "the process of establishing contact between reader and book by personal service". This definition has the stamp of authority of no less a person than S.R. Ranganathan. When viewed in the context of the abovementioned paradigm, the Ranganathan definition is concerned primarily with Information and Guidance. It leaves out Instruction .entirely from within its purview. It is possible to interpret the perspective of Ranganathan, which was in line with the world view of his times, as a one-sided perspective of librarians. Reference librarians are assigned an activist role in their scheme of things. The user is considered naturally to be placed at the receiving end. The lacunae with such a scheme are too obvious. It is not possible to view library service and its users as a system.

The paradigm stands on one leg, which is falsity in itself. The system usually consists of balanced parts acting and reacting with each other to achieve controlled results. Balances need to be restored by giving as much weightage to the unexploited component of the paradigm in INSTRUCTION. A scheme reference function needs to be balanced with the instruction function. The introduction of instruction is a significant component of the paradigm, assuring an independent and activist role for the user. Thus, a balancing act must be performed between the reference librarian and user roles. It naturally involves dialogue between the two major 'components of the system. Here is thus the concept of library service: parts interact between themselves and the system to achieve well-defined objectives. Such a perspective brings about positive results by enjoining library service and its users as a conceptual framework.

Taxonomy of library services:

Reference Work:

The definition of reference service by S.R. Ranganathan revolves around establishing effective contact between the reader and the document through the mediation of a reference librarian. His apportionment of reference service into two categories of long-range and short-

range reference service is also well-known. We also tried to elaborate upon four categories of reference service: 1) initiation; 2) directional instruction (general help to the reader); 3) ready-reference service, and 4) long-range reference service. His basic contribution to reference service has been delineating a line of demarcation between ready and long-range reference service. The basic difference between the two types of service is in respect of 1) the time involved, 2) the material used, and 3) the nature of the information sought. At one time, Ranganathan also touched upon the sharp-edged distinction between informational and instructional functions of reference service. He did not pursue the differentiation much further. Academic Library Services The dialectical relationship between traditional reference service and user education was lost upon reference librarian. He did not realise that "they function at cross purposes with each other. Reference (service) is subjective because of its stress on personalised service. Instruction has objective connotations because it encourages the user to study independently. His direct access to sources dispenses with the intermediary after he has educated himself in the library. There is, thus, a fundamental contradiction in reference service and user education".

The enthusiasm with which Ranganathan wrote about reference service is indeed infectious. To him, reference service was the essence of librarianship. Much has been developed since Ranganathan wrote about reference services. The subject is no longer in dumps. There is a growing interest in it because of the recognition of the interrogative approach to the problems of library and information science, attempts at constructing conceptual frameworks and viewing things in the totality of conceptual terms. Some interesting work has been done on the actual reference process in recent years: There is growing interest in computer-based information retrieval systems. Information technology is thus an important contributory factor in having a fresh look .at issues relating to reference service. The reference process concerns the interaction between the users and reference librarian via 'the information interview', interpretation of the inquiry, formulation of the search strategy, existing literature search and the maintenance of the record system.

Bibliographic Services:

The traditional concept of bibliographical services has been transformed years beyond recognition. The maximum impact has been made by information technology upon the nature and character of bibliographical services. The induction of information technology has brought about a qualitative transformation by impacting the structure of library organisation,

thus effecting every character of library services. The balance between what is provided from within the organisation and what is serviced by external agencies has changed. The concept of inter-library loans has become completely redundant. The impact of information has been wide-ranging on the nature and extent of library service. Electronic publishing and document delivery have changed the structure of information services. Similarly, online information, interblending networks, and facsimile transmission have not only helped implement libraries' local resources but also enabled them to replace them entirely. Non-availability of documents locally is no longer a handicap.

Similarly, the non-existence of bibliographical resources is no hurdle. Accessibility is thus no longer a local phenomenon. The whole world has opened up as an accessible resource. The academic libraries in this' country are on the verge of a great revolution with the prospects of UGC-sponsored INFLIBNET (Information and Library Network).

Local, regional and national networks shall be linked directly with international databases. Retrospective and SDI search services in the house are going out of fashion with the easy accessibility of online search services. Online search services have many distinct advantages immediate access, multiple access, constant updating, automatic printing, effective and faster searching, etc. The major handicap arises from the cost factor. Library service has been considered free and a matter of right so far. Would the developing countries be able to bear the burden through the good offices of public funding? The issue, however, does not detract from the utility of online search services.

User Education:

Superficially, user education seems to be an antithesis of all that the library service symbolises. The concept of library service implies dependence. User education as a model stresses independence. It is not so in actual practice. One grows out of the other. Library service and user education are a continuum. Here is a perfect instance of a dialectical relationship in which synthesis is born from the contradiction between the two categories.

To sum up, as symbolised by independent study, user education is, in fact, the indication of all that the traditional library service has stood for. There is a lot of confusion about what user education stands for. The philosophy of user education is best summed up in the following statement:

The major assumptions are that "a) there exists a mind which plays a significant role in learning, b) the' mind is endowed with a structure, called cognitive structure, which is in-born with built-in capabilities and limitations, c) the cognitive structure is primary and precedes experience, and d) the primary function of mind with its cognitive structure is an abstraction". In the above statement, there is repeated emphasis on cognitive processes. It underlines the essence of user education. How do the cognitive processes fulfil the objective? It is as simple that cognitive processes bring about a transformation whereby the learner turns into a self-learner and independent thinker. User education becomes not only a handy instrument for the promotion of learning, but it also teaches independent study to the learner, who at this stage becomes the master of all he surveys. He imbibes the art of problem-solving by himself. Independent study has thus become the highest objective of user education.

Lewis Shoares, the doyen of user education, could foresee all this as early as 1934 when he enunciated the concept of LIBRARY COLLEGE in his library college charter. His classic statement needs to be quoted underlying its contemporary significance: "1) the purpose of the Library-college is to increase the effectiveness of student learning, particularly through (though not limited to) the use of library centres, independent study with a bibliographically expert faculty". No wonder undergraduate institutions like Swarthrnore, Wabash, Hampshire and Earlham colleges have been- in the lead in pioneering user education, especially in the United States. A word of warning needs to be given at this stage. What we have presented is a model of user education. It is best understood through logical stages: 1) Orientation, 2) Bibliographic instruction and 3) profiling.

Orientation:

Orientation remains the most popular method of imparting user education. Its origin is traced to undergraduate colleges, where the need was felt to impart orientation about the organisation and techniques adopted in the college library to the largest number of students in the shortest possible time. While orientation is a continuing process, its greatest impact is intended at the time when students get admitted to new courses. For instance, the University Of Texas Undergraduate Library Of Austin has introduced a formal library orientation programme to about 10,000 first-year students each year. It is done with the help of full-time professional staff employed. The orientation course consists of "preparing printed guides and the materials for distribution in class, orienting English instruction to the library instruction programme through participation in a course for new teaching assistants, conducting an

evaluation of the programme, and course, working closely with the students in reference area". The initial step of a first-year/student to the library consists of a self-guided tour. The variants of the University of Texas orientation programme have been duplicated elsewhere, wherever formal orientation courses have been introduced. The methods of the orientation of users vary from one type of library to the other, depending upon the nature of the user and his information needs (including the nature of subject specialisation).

Teaching methods are bound to vary with the nature of the clientele. There is, however, a common substratum that gets repeated in all kinds of environments. Two broad orientation categories may be identified: 1) Direct methods and 2) Indirect methods. Direct methods consist of the following: a) lecture, b) guided tour, c) individual help, d) practical exercises, and e) tutorial/seminar/ demonstration. Indirect methods consist of the following: a) film, b) video tape, c) tape/slide, d) audio tape/illustration, e) book, printed guide, and f) -self-instructional material. The other categorisation is according to the instruction type, either group instruction, individual instruction, or a combination of both. In India, we still have to take steps to introduce formal user education. Orientation is the first step. Bibliographic instruction and profiling shall follow as the logical step. User education is the most economical and effective method of teaching library services.

Bibliographic Instruction:

While library orientation has been adopted universally, bibliographic instruction has given respectability to user education. The essence of bibliographic instruction is contained in the classic statement about the Monteith College experiment by its originator Patrica B. Knapp: "The ultimate purpose of the Monteith Library Programme is to stimulate and guide students in developing a sophisticated understanding of the library and increasing competence in its use. To achieve this, it proposes providing students with experiences that are functionally related to their course work". What was experimental in the Monteith College experiment was concretised by Thomas Kirk at Earlham College through his course-related bibliographic instruction. The special features of the Earlham College experiment have increased on a worldwide basis. Bibliographic instruction at Earlham College consists of the following features:

1) The three guiding principles of the programme are that it is: a) course-related, b) demonstrated, and c) graduated;

2) The formal course extends over four levels for two years for the undergraduates;

3) Library instruction is provided in the class room; and

4) Teaching faculty and librarians are jointly responsible for curriculum activity.

The structured course for bibliographic instruction at Earlham College consists of two components, one concerning the sources for imparting knowledge and the other relating to the development of skills in students. The six components of the bibliographic instruction course at Earlham College conducted for biological students are:

1) General type of reference books.

2) Periodical indexes and scientific abstracting service.

3) Card catalogue.

4) Principles of knowledge organisation.

5) Search strategy.

6) Subject analysis.

In India, limited experiments with bibliographic instruction have sought to be carried out in agricultural universities. Its utility is too obvious to need any comment. Bibliographic instruction enables students to adopt self-service, thus substantially dispensing with the services of reference personnel of the library. Bibliographic instruction may be the panacea for many in developing countries like India, with millions of undergraduates without reference staff to service them personally.

Profiling:

If bibliographic instruction is a logical extension of orientation, profiling, in turn, is the logical extension of bibliographic instruction. Orientation, bibliographic instruction and profiling are links in the same chain. Similarly, students' and research scholars' Systems of Information (PSI) are the logical extensions of profiling applied to individual users. In the ideal state of user education, each user becomes his librarian through self-guidance and self-instruction. Library service comes to be largely centred on users themselves, with the librarian responsible for behind-the-scene operations. It is also possible to design Group Readers' Profiles, especially concerning course-related bibliographic instruction for undergraduates and postgraduates. In an experiment carried out for course No. SSM705: "Sociology of Family Life and Kinship in India" for M.A. (previous) students of the Centre

for the Study of Social Systems, School of Social Sciences, Jawaharlal Nehru University, results were very positive.

The Group Readers' profile resulted in the University Library responding effectively to the modulated information needs of the students. The profile was designed with the participation of students and teachers, thus underlying the democratic character built-in to any experiments in profiling. What is profiling? It involves the highest level of conceptualisation. The construction of a profile depends on the knowledge of the subject-matter and conceptualisation of the information needs of any individual or group. Profiling is best done when it is a self-profile. The methodology of profile designing is both an art and a science. It consists of the following steps: a) Drawing concept maps, b) Coding profile terms, c) Formulating search expressions, and d) Preparation of profile sheets

It is a long haul from reference service to orientation, bibliographic instruction and profiling. While reference service has been compared to an act of spoon-feeding, profiling is the ideal example of self-guidance and self-service. Library service has travelled long since the days of S.R. Ranganathan with his vision of short-range and long-range reference services. A recent example of profiling is the maintenance of individual profiles of faculty members and research scholars working in Indian universities (and colleges) by the UGC-sponsored Centre for Science Information at the Indian Institute of Science, Bangalore. SDI service is regularly provided to more than 4,000 scientists based on INSPEC, BIOSIS, GEOREF, MATHFILE and CA databases. On paper, things look most impressive. It, however, needs to be evaluated properly.

Continuing Education Program for Academic Libraries:

Definition and Meaning

The term 'Continuing Education' signifies providing opportunities for learning throughout life to help individuals: extend their initial study, update knowledge and skills, and undertake career development or change according to the environment and need. The term 'Continuing Education' can be defined as follows: Dr Mohan Sinha Mehta, an eminent protagonist and pathfinder in the field of continuing education, brought out the idea of continuing education in the following words: "The air we breathe in our universities, the language we speak, the ideals we pursue and the thoughts which -guide us in our work of teaching, learning and research should be related to our background, our way of life, our classics and our code of ethics.

We should readily learn and receive new ·and true knowledge from everybody and everywhere; at the same time, we should not neglect or disregard our treasures." The Web Online Dictionary defines: "Continuing Education is a term often used to suggest that education is a process not completed. Colleges and universities often use this term to describe their extension and adult education activities. The term is sometimes broadened to cover any situation where the person is "moving on," particularly within the more formal, credential-related aspects of education". From the above definitions, it is clear that continuing education consists of all learning activities and efforts by which individuals seek to upgrade their knowledge, attitudes, competencies, and understanding in their special field of work or role to deliver quality performance in the work setting and enrich their careers.

Historical Background:

Historically speaking, it could briefly be said that the concept of continuing education started from the traditional activities of our people. For instance, "people used to go to temples and participate in various religious festivals, and also to participate in cultural festivals like dance, drama, music, painting on the walls, rangoli, etc. The people used to celebrate (still celebrate) seasonal festivals like harvesting festival locally called 'bhogi', 'Pongal', and 'Sankranti' around January; 'Dasara' festival in October - marking the victory of good over evil; 'Deepavali' in November '" - just before the onset of winter, firing crackers, lighting many lamps, burning incense sticks and caster leaves to drive away insects, flies, etc. to have a clean environment". All of these festivals and religious practices made the life of people in India to learn, work, enjoy, have recreation and have an ethical and spiritual pursuit. Thus 'continuous learning at every stage of life was practised in the Indian way of life, and it seems that the process or continuing education is the lifeblood of Indians. In 1972, India undertook a "developing a curriculum, facilitating teacher education" project based on lifelong education.

The project was sponsored by the UNESCO Institute of Education when it initiated a study on the "concept of life-long education" and its implication for school programmes, curricula as well as promotion of research. During 1975 - 76, three conferences on continuing education sponsored by UGC and the Ministry of Education were held at Shimla, Pune, and Hyderabad. The main focus of those conferences was to start the continuing education departments - at universities and colleges. Many delegates from different universities representing a wide cross-section of academics and personnel participated. Since then, many

universities have started separate departments with the assistance of UGC. More than 93 universities in India have established the department of continuing education [Vasanthakumari], and the departments are actively involved in conducting/organising continuing education programmes.

Need:

In general, the need for continuing education exists for all professions worldwide. It is essential for the library and information profession, particularly due to the following reasons:

• Growth of knowledge/information;

• Library as a learning centre;

• Dissemination of new ideas;

• Growth of profession;

• Rendering technology-based services; and

• Job satisfaction among professionals.

Growth of Knowledge/Information

As we have stated earlier, the growth of information is increasing enormously in various formats, viz., e-books, e-journals, CD - ROM databases of full text and abstracts of journals, etc. As a result, it becomes difficult for professionals to keep themselves up-to-date on the developments. For instance, the knowledge obtained by any library and information professional during their student career in any library and information science department may hardly be relevant while applying the obtained knowledge into practice.

Library as a Learning Centre:

Libraries and information centres serve as learning centres .for people irrespective of age, sex, colour, caste, etc. It provides education, information, and recreation, as well as guides research to scholars. Any change in the social context or information form will affect the library and its services to users. Hence library staff must be alert and well-informed about changes in the needs of society. The library should adopt new tools, techniques and devices to meet the alleged under these circumstances. Adapting to these changes needs regular education to keep them up-to-date. This may be possible only through continuing education.

Dissemination of New Ideas:

Several new thoughts and ideas are coming up in every field every day, and, at the same time, it takes sufficient time to reach the professionals concerned due to some communication gaps. For example, plenty of IT-based information services like bibliographic services, electronic document delivery services, database services, etc., in the field of library and information science have come up due to the advent of the Internet and the application of KT; so these developments should be disseminated through continuing education process so that the library and information professionals can be up-to-date to provide quality services to their users effectively:

Growth of Profession:

For the healthy growth of any profession, the rich professional experience should be critically and creatively analysed through logical and mutual discussion in small and large groups involving persons with professional ability, teaching and learning capacity. The research and generation of new ideas in the library and information science field may be possible only through providing a forum for continuous interaction and mutual discussion among people such as working librarians, researchers, teachers and students of library and information science. These fora maybe study circles, discussion groups or research groups.

Providing Technology-Based Services:

Librarians must evaluate the user's need and their psychology to apply new tools and techniques based on their requirements to provide improved' library services, viz. Internet-based services, SDI services, electronic document delivery services,c clipping services, etc. Introducing these computerised information services in academic libraries saves the enormous wastage of time the users in collecting information. This can be done only through continuing education.

Job Satisfaction among Professionals:

Through continuing education, library and information professionals acquire adequate knowledge, which leads them to develop greater confidence and enthusiasm in the profession. It helps them with job satisfaction, promotion and future progress. It also avoids the inferiority complex that professionals generally develop while meeting genius people in seminars, conferences, symposia, group discussions etc.

Personnel management:

Personnel management is intended to bring a measure of logic and method to assigning human resources to the job in hand to achieve the maximum output. It also ensures the workforce's commitment to fulfilling the organisation's aims and objectives and developing the individual skills and capabilities it needs. Effective and efficient personnel use and job satisfaction are crucial to the individuals involved and the service users. An efficiently organised service operated by well-trained and highly motivated staff should guarantee good results even if the working environment or conditions are not ideal.

Personnel management, or the management of people at work, stands independently and is one of the major areas of activity within an organisation: Its importance is identified in terms of the efficient use of the work force, achieving and fulfilment of the people within a structural system. . Personnel management in libraries is based on some basic characteristics that the person looking after the personnel section or may be the head of the library should follow. Fairness, consistency and flexibility, ability to grasp new ideas, open-mindedness, ambition, skill to communicate, leadership, and programmatic approach to set priorities are some of the basics that the person dealing with the Personnel Section of the libraries should pay much attention to. Personnel Section in some institutions is also termed as the Administration Section or Establishment Section, which is responsible for salary scales and payment, conditions of service, recruitments appointments, .promotions, resignations, dismissals, staff assessment, training and workshops, welfare, disciplinary matters and everything relating to staff employment. The success and proficiency of service depend on the morale of its personnel.

Staff recruitment:

In the ultimate process, the personnel department of an academic library works out various formulae to have a very clear idea of the contribution of library service of each staff and how each category of staff fits in with the others. Similarly, each employee must also know what is expected from him. Therefore, each job that an individual is expected to perform must be closely analysed. In addition, .it is necessary to know the qualities the employees will need to perform this work satisfactorily. Thus, staffing requirements involve job analysis, job description, and personnel specification.

Job Description:

The job description is a fundamental feature of personnel management when an employee is given a copy of his major functions, duties and responsibilities with his employment contract. He sometimes uses it as a complete statement of every possible duty he may be called upon to carry out. Job descriptions can be used for several purposes; for planning the overall establishments; for reviewing the organisational structure, including transfer of holders of posts from one position to another position; for job evaluation; for giving employees a list of their responsibilities; for sending out to applicants who reply to vacancies advertised, and for staff appraisal. The methods and contents of the job description vary in accordance with the purpose for which it is intended. Normally, the job description constitutes the following aspects:

• Name of the position;

• Pay scale; allowances and other facilities;

• Qualification and experience;

• Duties and responsibilities;

• Immediate authority to whom the incumbent is answerable;

• Promotional avenues;

• Methods of evaluating performance; and

• Retirement benefits.

Job Specification:

This is applied to the description of the physical and mental abilities of the job. The specific skills required, the capacity to handle the job, the judgement required in decision making and the experience required to carry it out. Sometimes, a particular job might need some special characteristics. For example-the, the qualification for the post of an Assistant Librarian in the Computer Section of a library needs a good command of computer technology and its application in the management of libraries and information centres.

Personnel Specification:

For specified jobs having special requirements, suitable personnel is required to handle them. Posts in libraries are usually classified into three categories - professional, semi-professional,

and non-professional. The basic standards required for entry to each .of these three categories of staff will vary between different types of libraries and even between libraries of the same type. In the case of the head of the libraries of national importance, more emphasis is given to administrative and technical capabilities than merely possessing higher professional qualifications and experience. In a special library, the top posts are reserved for someone with an appropriate degree in the subject field and adequate library and information science qualifications.

INFLIBNET:

INFLIBNET stands for "Information and Library Network". The Library Network is a major medium of resource sharing. A library network is a network of two or more interconnected libraries. These libraries exchange electronic information among themselves and are interconnected. The Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC).

INFLIBNET is connected to information centres in the country through a nationwide high-speed data network using state-of-the-art technology for the modernization of university libraries and the best use of information in India.

INFLIBNET is a major link to promote scholarly communication between researchers and academics in India. It is a major national program started by the University Grants Commission in 1991, with its head office on the campus of Gujarat University, Ahmedabad. It started as a project under IUCAAT, and in 1996 it became an independent inter-university centre.

Purpose and Function:

The objectives and functions of INFLIBNET are as follows:

1. Establish and promote communication facilities to create better capacity for the transfer and receipt of information so that support for scholarship, teaching, research, and education can be provided with the cooperation and participation of concerned agencies.

2. To establish a computer communication network so that libraries of universities, universities, colleges, UGC information centres, institutions of national importance, and R&D institutions and information centres can be connected and avoid duplication.

3. To promote computerization operations and services in libraries and information centres of the country according to the same standard.

4. To create uniform standards and guidelines in technology, method, process, computer hardware and software, and services in all libraries towards exchanging, exchanging, and sharing information for optimum utilization of resources and facilities and actualising them. Promote in.

5. To improve efficiency in information and service management to various libraries and information centres in the country. Develop a national network for interlinking.

6. To provide reliable access to the library archive of libraries for making on-line a consortium of research essays/dissertations, books, monographs, and non-book material manuscripts), audio-visual, computer data, multimedia, etc.

7. To provide bibliographic information with source, abstract, etc., established through databases created in the country by NISSAT's Regional Information Centres, University Grants Commission Information Centres, City Network, and others for reliable access and for national and international, respectively. Establishment of gateways to access national and international databases online in network and information centres.

8. Methods of developing techniques for digitally recording valuable information in various Indian languages.

9. Information on the use of resources Union Catalogue, through Inter Best Library Loan, catalogues such as production and collection development to avoid duplication of possible acquisitions.

10. Essays available in the entire country research to provide information about serials, research sources to enable the availability of content anywhere /, how many books, managerial even at a distance and non-book users and it is available for internet and documents, by availing the facility of Union List.

11. Creating databases for projects, institutions, etc., to provide online information services.

12. To promote cooperation among libraries, documentation and information centres in the country so that strong resource centres can use resources to help the weaker ones.

13. Training and development of human resources in computerized library operations and networks to establish, manage, and sustain INFLIBNET.

E- short Sindhu:

e-Shodh Sindhu was formed with the merger of three consortia, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium, in December 2015. e-Shodh Sindhu continues to provide current as well as archival access to more than 10,000+ core and peer-reviewed journals (including journals available through NLIST) and several bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act.

Aims and Objectives:

The main objective of the e-Shodh Sindu: Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources, including full-text, bibliographic, factual and legal databases, to academic institutions at a lower rate of subscription.

The major aims and objectives of the e-Shodh Sindhu are as follows:

: Develop a formidable collection of e-journals, e-journal archives and e-books on perpetual access basis;

: Monitor and promote usage of e-resources in member universities, colleges and technical institutions in India through awareness and training programmes;

: Negotiate rates of subscription for all e-resources required by all higher education institutions (HEIs) and offer them to all for subscription;

: Extend all services of eShodh Sindhu to the core as well as other institutions on a subscription payment basis;

: Provide access to subscription-based scholarly information (e-books and e-journals) to the core as well as associate members;

: Provide access to scholarly content available in open access through subject portals and subject gateways;

: Bridge the digital divide and move towards an information-rich society;

: Take-up additional activities and services that require a collaborative platform and are not being performed by existing Consortia;

: Moving towards developing a National Electronic Library with electronic journals and electronic books as its major building blocks.

N-LIST:

"National Library and Information Services Infrastructure for Scholarly Content", jointly executed by UGC-INFONET Digital library Consortium INFLIBNET Centre and INDEST-AICTE Consortium, IIT Delhi, launched in 2010, aims at providing access to selected e-resources to students and teachers of affiliated colleges at affordable cost provides for 1) cross subscription to e-resources subscribed by the two Consortia, i.e. subscription to INDEST-AICTE resources for universities and UGCINFONET resources for technical institutions; and 2) access to selected e-resources to colleges. The N-LIST project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through server(s) installed at the INFLIBNET Centre. The authorized 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. N-List services are considered a vital part of academic college services in the 21st century. It has tremendously changed how information is sought towards electronic resources and services. It is today important to learn and know the use of N-List Services among the faculties and students.

Review questions:

1. What is the role of academic libraries in higher education?

2. Explain the functions of the university library.

3. What is eShodhSindhu? What are the functions?

4. Define NList.

S. No	**Questions**	**LOCF Mapping**
Small Questions		
1.	What are the main types of academic libraries?	K1
2.	What is the primary function of a university library?	K1
3.	What does INFLIBNET stand for?	K1
4.	What is the purpose of the N-LIST programme?	K2
5.	List two services provided by academic libraries.	K1

S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the role of academic libraries in higher education. How do they support teaching, learning, and research?	K2, K4
2.	Explain the functions of university libraries. What are the key services they offer to their user community?	K2, K4
3.	Elaborate on the role of UGC in the development of academic libraries in India, focusing on staffing norms and standards.	K2, K4
4.	Discuss the need and importance of continuing education programmes for academic library professionals.	K2, K4
5.	Describe the objectives, functions, and services of INFLIBNET. How does it contribute to academic library development in India?	K2, K4

References:

AIU (2004). Handbook on Library and Information Science. New Delhi: Association of Indian Universities.

Dhiman, O.P. (1987). Foundations of Education. Delhi: Atma Ram & Sons.

Guha, B. (1985). Continuing Education of Library and Information Science. Library Science. 15(3).

IFLA. (1991). Continuing Professional Education: An IFLA Guide Book. London: Saur.

Unit - IV: Special Library: Functions and Services

Content:

This unit explores the nature, functions, and services of special libraries. It defines special libraries and distinguishes them from other types of libraries. The unit discusses the management of special libraries, including their collection development, processing, and services. It covers the role of various national organizations in promoting special library services, including CSIR, ICAR, ICMR, DRDO, ICSSR, and NISCAIR. The unit also explains specific services like reference and referral, alert services (CAS, SDI), and web-based services in the context of special libraries.

Unit – 4

Special Library: Functions and Services

Objectives:

- To learn about various types of Special Libraries and their Management
- To learn about CSIR, ICAR, ICMR, DRDO, ICSSR etc.
- To gain knowledge of reference and referral, alert, and web-based services.

Introduction:

While special libraries have existed since the beginning of this century, information centres emerged in the fifties and have now developed into a major group of information centres. They have overlapping functional characteristics. There are also considerable variations in the level of services offered by them. In this Unit, we shall study the origin, growth and development of these two major information institutions, such as Special Libraries and Information Centres - the functions they perform, the products they generate and the services they offer.

Definitions:

Though the concept of a Special Library is of a recent origin, a good number of experts have defined the Special Library. M.L.M. Harrod, in his "Librarian's Glossary of Terms", defined that a "Special Library is a collection of books and other printed, graphic or recorded material dealing with a limited field of knowledge and provided by a learned society, research organisation, industrial or commercial undertaking, government department or ~even an educational institution. It may also be a special branch of a public library serving certain

interests or occupational groups, such as a technical library or a special subject library, meeting the needs of all enquiries on that given subject, such as a music library". Broad field defined that "a special library is neither academic, commercial, national nor public. Still, it intends to serve the needs of a portion of a community requiring detailed information on a limited subject field". The reputed library scientist D.J. Foskett defines a special library as "one serving a group, having an extra library existence, whose members direct at least some of their activities towards a common purpose. This excludes academic libraries as their users pursue their ends and are in no sense united by a Common Purpose". "The group served, according to Foskett, may be a government department, a professional association, an industrial firm, a research association or an institute or any similar organisation. Special

libraries serve organisations with a clearly defined group policy, and members of the group have indicated their acceptance of this policy by the fact of their joining, which implies their recognition of common interest". Dr S.R. Ranganathan, a renowned Library Scientist, prefers to call it a specialist Library to supply detailed information regarding some scientific, technical and otherwise subject fields.

Special libraries:

While other types of libraries serve multiple objectives such as education, research, recreation, and cultural and social activities, a special library's major and perhaps only objective is providing information supporting its parent organisation's objectives. Special libraries exist in a wide variety of organisations, most of them being units of larger organisations. Their purposes are usually other than the provision of education or conventional library services, invariably meeting the information requirements of the organisations to which they are attached. Special libraries are formed in research and development establishments, government departments, directorates, industrial and business undertakings, learned societies and professional associations, trade and business associations, hospitals and health services, social and welfare organisations, museums, the national gallery of arts, etc. However, special libraries are also established to serve a particular group of users or specialists working on a subject or a group of subjects or a particular type of document, etc.

Brief historical overview:

Special libraries first began to appear in the United States (US) in the early decades of the 20th century. They were a new form of library, quite different from other types of libraries in their functions, purpose, and methods of collecting and organising material. In the later decades, organisations increased in number, size and complexity as business and industry grew rapidly. Many government organisations also sprang up to meet various government activities, and libraries began to grow in all these organisations. World Wars 'I and II accelerated industrial development backed by scientific and technological research. Research and development became increasingly institutionalised. This trend naturally led to the growth of special library collections and new services. The growth of special libraries in Europe and many developing countries also modelled on the US special library movement patterns: As nations continued to industrialise and increase their research efforts, special libraries were

established in research organisations and other agencies. The growth and development of special libraries in India also have been on Western countries' model.

Functions of special libraries:

A special Library is a power house for the generation, storage and use of information: It performs the following functions:

• collects, maintains, stores and retrieves information and data keeping in view the evolving needs of its parent organization;

• analyses synthesizes, and evaluates information and data;

• provides critical reviews, monographs, reports and collections;

• provides critical compilations;

• provides state-of-the-art reports;

• provides replies to queries;

• provides reprints, bibliographies and references;

• performs literature searches and translation services;

• provides abstracts, indexes and extracts;

• prepares accession lists, bulletins, news-letters; summaries, hand-books or manuals;

• disseminates current information and SDI and thus stimulates research.

Besides these, it has some more functions to perform:

• establishes simple order record;

• reviews the library's collections to build-up weak areas;

• establishes a monitoring system for the evaluation of performances.

Features of special libraries:

A special library's activities are derived from two basic types of information services. The reason for their existence, as stated earlier, is to provide such information services. The first service responds to users' requests for information covering references and literature searches. The second is an information service in anticipation of need and includes indexing

and abstracting services designed to keep the users updated on new and current information. Decisions about the library's collection development, processing and organisation of documents, staff appointment, etc., are made on the type and extent of services to be provided.

Collection Development:

Their Functions Special library collections are working to support their information services, emphasising current information and retrospective material determined based on the organisations' projects and programmes. Besides the traditional material such as books, journals, and technical and research reports, other typical and significant materials include patents, specifications in scientific and industrial fields, business records, trade information, news clippings, etc. A particular feature of a collection in a special library is *that it is never static but dynamic and changing as new activities and programmes develop in the parent organisation. The library also gets affected by changes in the parent organisation, and the scope and nature of the library collections and services also change suitably. Therefore, the staff of the special library must be constantly alert to possible new areas and the changing interests of the organisation so that the library collection and services can respond to changing demands of information. Generally speaking, the special library collections have three major components; the first is published information, the second is internally generated information and the third is information available from sources outside the organisation. In most of the special libraries, periodicals provide the most updated information. Therefore, periodical collections are perhaps the richest library resources and the maximum funds are provided for subscription periodicals. Specialised reports form the second category of published information. Information is collected from other sources of information through newspaper clippings, pamphlets, statistical compilations, sales literature, trade catalogues, financial statements, government documents, etc. The second major component of the collection is information generated within the organisation, such as research reports, technical memoranda, laboratory note books, working papers, correspondence, house organs, newsletters, sales literature and company and competitive advertising etc. Using resources outside the organisation is the third component of the special library collection. Usually, the special library has to depend on external resources for information and materials outside its scope of activities. Special libraries often use public, academic and research libraries through formal inter-library loan procedures.

Processing and Organisation:

Special libraries employ a wide variety of methods in organising their collections. The physical storage of its collection is determined based on use. Catalogues, indexes, and abstracts are prepared based on ease of use, the scope of the activities of the parent organisation and coverage. Classification, cataloguing and indexing systems also are simple in their design but are chosen to meet their requirements effectively.

Services:

a) Reference Services:

Reference and research services range from answering simple reference questions to undertaking' complex research and literature services. Users are usually assisted in the pursuit of their literature search. Still, information expertise is often made available in locating requested information and transmitting it in the most useful form. Expertise is built into the special libraries' staff to handle complicated and complex information problems. Some special libraries offer in-house translation services or obtain them from outside sources. In most special libraries, a close working relationship exists between the library staff and users to derive the maximum benefit from the library unit.

b) Current Awareness and Routing Services:

Special libraries have developed a wide range of services to inform their users of new and current developments. Routing of current issues of periodicals is one of the most common functions of special libraries. The library periodically surveys its clientele and which periodicals they wish to see regularly, then circulates ahem to readers as issues arrive. Current acquisition bulletins, indexes to current periodicals and title alerts are some of the different awareness services provided by special libraries.

c) Anticipatory Service:

Besides these services, annotated lists, abstract bulletins, news summaries, digests or other types of anticipatory services are also provided by special libraries. In recent decades many special libraries have provided computer-based selective dissemination of information (SDI) services. In India, SDI services are also provided but not necessarily through computers.

d) Retrieval Services:

Abstracting, indexing and preparation of digests are paramount in special libraries. Special project and retrospective files are built up in special libraries to meet their requirements on projects or requirements for a new product or process development.

e) Publication of Bulletins:

The information about the new arrivals in the library is published in acquisition lists or bulletins and supplied to all potential users: At times, annotations are added to these entries. For some subjects, this service is available commercially:

f) Personnel and Staff:

In general, special libraries are managed by a small staff. One of the continuing debates in the field is whether a special librarian should be primarily a subject specialist, a library professional, or both. But most of the controversies on this issue are getting resolved as persons with different subject expertise are taking increasingly special librarianship and documentation. Thus, the new breed of specialists is competent and has the expertise required to handle various activities of a special library.

Types of libraries:

Academic Libraries:

Learning and education took precedence over everything else; educational institutions started appearing first, and libraries later. Schools, colleges and universities were set up for systematic learning at all levels of education, followed by institutions of higher education and research. The emerging scenario necessitated the creation of academic libraries at schools, colleges, universities, and professional and research institutions. The academic libraries assumed the responsibility to provide access to the sources of information from which teaching and learning could develop.

Public Libraries:

The large-scale production of books, fast-changing living conditions, widespread education and learning, and increased literacy levels have had cumulative impacts on society. As a result, we saw the rise of a reading public. The combined forces of neo-political thoughts and democratic aspirations of people in social, literary and cultural fields led to the creation of awareness in the public of the need to have free reading facilities. With the demand for

libraries as a place for reading and borrowing books, a public library movement had started, pursued mainly by an intellectual community. A public library system with central and branch libraries was designed and developed through legislation financed by governments. Public libraries, thus created, were distinct from other types of libraries, having a clear responsibility and authority to serve the public needs generally supported by public funds.

Special Libraries:

Several industrial enterprises were established by rapid industrial developments catalysed by advances in scientific and technological research in the post-industrial era. This created the demand for specialised literature on mass-scale industrial production of goods and services. Consequently, business and commercial activities increased. Thus, emerged the need for special libraries. Special libraries were intended to serve a particular institution with a specific role and were mainly "one subject" libraries. For example, they could serve a hospital, a law practice, or an industrial company. They also varied in size, depending on the institution they served. But many of these libraries were run by "solos", that is, librarians working alone or with only clerical assistance.

Government Libraries:

Beginning in the twentieth century, the responsibility of governments increased in several areas of national growth and development for the welfare of the people. This again created the need for library support for various types of information to deal with the work of different ministries and departments of government. Naturally, government ministries and departments organised libraries to meet their functional requirements, which are distinctly different from other types of libraries.

National Libraries:

All these new developments led to the need for the publication of a variety of documents reflecting the intellectual, scientific, literary and cultural activities of a country. These noteworthy features were the causes for the creation of national libraries, particularly in western countries, symbolising their culture and literary heritage to be preserved for posterity.

Other Types of Libraries:

A very notable feature of the development of libraries, beginning from the middle of the twentieth century, has been the active growth of scientific and technological literature. Most

of the new knowledge arising from research efforts was published through learned periodicals. This shifted the needs of active research workers and others associated with them to look for more and more articles and research papers appearing in periodicals and other documents different from books. New types of institutions, branching off from libraries, were created. These were known by different names based on their activities and services, such as documentation, document delivery, information, information analysis, knowledge, and so on. Commercial information services, like information brokers and other information business institutions, also started coming up.

Types of library models:

Physical Library:

A physical library (aka traditional library) is viewed as a learning place that houses collections of books, periodicals, newspapers and other printed publications and is used for education, learning and awareness. Physical libraries exist in various sizes ranging from single-room to multi-rooms, multi-floors, or multi-floors and multi-building libraries. The bulk of the libraries in the library landscape in India constitutes small physical libraries located largely in villages, towns and small cities.

Electronic Library:

A library which comprises collections of „born-digital" electronic resources is called an electronic library. As books evolved into the electronic world, libraries have emerged as digital libraries and virtual libraries. The word „electronic" connotes „electronic media" - such as a computer disk, CD, DVD, or magnetic tape. We use electronic media to store information in digital format. Collections/resources that are „born-digital" are called electronic collections/resources. Born-digital resources are items created originally in digital form and not in print form. We distinguish between the electronic, digital and virtual libraries in terms of the mode used to store collections in the electronic media and how technical services function. In an electronic library collection, resources are only „born-digital" electronic resources. Hence, the term "electronic library" does not encompass resources such as digital versions of print resources.

Digital Library:

Collections that are the creation of digital versions of physical materials through the digitisation process are called digital collections. In a digital library, collection development

is not primarily concerned with book selection but rather with the selection of both (i) physical items to digitise and (ii) selection of „born-digital" materials in any number of electronic formats. The term digital library is more inclusive; it covers mixed collections – collections of digitised materials with physical counterparts plus electronic collections that are „born-digital" – as well as digital services such as digitisation and electronic reference service. Institutional repositories on the internet are digitised collections of institutions and are illustrated as examples of digital libraries. The major difference between physical and electronic/digital libraries is that the "space" in which digital collections are stored is virtual, not physical, as in a physical library.

Hybrid Library:

These days, most libraries are hybrid-type since the resources they hold in their collections are in print and electronic and digital formats. A hybrid library also creates a single user interface to access electronic resources and all other resources in various formats.

Functions of different types of libraries:

The most important basic objective of any library is to offer the best possible service to its users to enable them to make the fullest use of its books and other documents. Based on this basic objective, the common functions of a library are:

- Build a collection of books and other documents in line with the needs of theusers;
- Process and organise the collection systematically in the stack room, ensuring their easy location and replacement by subject approach; and
- Provide assistance and services such as lending and reference services to put thecollection to the best use.

Keeping the above functions as primary, let us discuss the specific functions special to different library types.

Academic Libraries Academic libraries serve students in schools, colleges, universities and other academic institutions.

School Libraries:

The ideal functions of school libraries are briefly stated here. The formative years of children at the primary and pupils at secondary levels are also the foundation years of learning to teach

them good reading habits and conduct as invaluable assets. Whatever habit is cultivated at these stages will stay with them throughout their lives.

College Libraries:

Colleges perform one of the most important functions of the education process. College students do not get much individual attention as they get in schools. Self-learning and self-study have become almost compulsory. This implies that they have to depend very heavily on library facilities. Most of the colleges in India offer library facilities for the benefit of students, teachers, the administrative and management staff and others who have permission to use these facilities.

University Libraries:

University libraries worldwide have not only been able to develop rich and extensive collections but have also established specialised services. Research for doctoral and post-doctoral degrees is normal in universities. Universities produce publications which appear in learned periodicals, research reports, etc. The libraries extend facilities to support such specialised research activities in universities. Most university libraries are automated and offer a variety of computer-based services.

Public Libraries:

Public libraries are distinctly different from other libraries, as mentioned earlier. Apart from lending and reference services common to all other types of libraries, public libraries include several extension services, such as community meeting rooms, services to children, lectures on topics of current interest to the general public and cultural programmes. Many public library activities are guided by UNESCO‟s definition of a public library. According to UNESCO, public libraries are the “local gateway to knowledge, provide a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups.”

Special Libraries:

A variety of specialised services with considerable speed are typical functions of special libraries. A special service is a personalised service offered to select groups such as research and marketing staff in industrial and business enterprises.

Government Libraries:

As indicated earlier, government libraries collect all government publications of their respective ministries and departments. They organise special services at short notice in supplying appropriate material to senior-level officers and provide short and condensed reports.

Role of CSIR:

Indian National Scientific Documentation Centre (INSDOC), a constituent laboratory of CSIR, was established in 1952 as a national centre for supplying information in all fields of science and technology to any user in India or abroad. It was established with the support of UNESCO and had the following objectives:

• "To receive and retain all the scientific periodicals that may be useful to the country.

• To answer specific queries of users from the information available in the country and elsewhere.

• To inform scientists, technologists and engineers of articles that may be valuable to them by issuing a monthly bulletin of abstracts.

• To supply photocopies of scientific articles required by scientists.

• To supply translations of scientific material available in various foreign languages to individual scientists.

• To act as a repository for published and unpublished reports of the nation's scientific work.

• To be a channel through which the nation's scientific work is made known and available to the rest of the world."

Over the past five decades, the centre's activities have been reoriented and updated to meet the information requirements of the user community. The availability of modern technologies, especially computer and telecommunication technology, has also enabled the centre to make the required information available to the users promptly and efficiently. INSDOC has, since September 2002, been merged with the National Institute of Science Communication (NISCOM), another CSIR Laboratory and is presently named the National Institute of Science Communication and Information Resources (NISCAIR).

The main objective of the NISCAIR, formed by the merger of INSDOC and NISCOM, is to disseminate scientific and technical information through various information products and services made available by the institution. The NISCAlR Citizen Charter incorporates citizens' entitlement to public services, wide publicity of standards of performance, quality of services, access to information, simplified procedures of complaints, time-bound redressal of grievances and provision for independent scrutiny of performance.

Activities of NISCAIR:

1) To meet the objectives mentioned above, the following services/activities are organised by the Institute:

1) Publication of 17 primary and two secondary scientific/research journals

2) Publication of CSIR News and CSIR Samachar

3) Raw Material Herbarium and Museum

4) Popular Science Magazines

5) Popular Science Books

6) Information Services

7) Developing and Maintaining Specialised Databases

8) Electronic Publishing

9) Human Resource Development

10) Information Resources

11) Sales and Marketing

12) Consultancy Services

Let us now know about details of some important activities of NISCAIR

Journals Published by NISCAIR:

NISCAI~ is bringing out 17 primary journals in various subject fields related to science and technology. These are:

1) Journal of Scientific and Industrial Research (monthly)

2) Indian Journal of Chemistry A (monthly)

) Indian Journal of Chemistry B (monthly)

4) Indian Journal of Experimental Biology (monthly)

5) Indian Journal of Pure & Applied Physics (monthly)

6) Indian Journal of Biochemistry & Biophysics (bi-monthly)

7) Indian Journal of Engineering & Material Sciences (bi-monthly)

8) Indian Journal of Chemical Technology (bi-monthly)

9) Indian Journal of Radio & Space Physics (bi-monthly)

10) Journal of Intellectual Property Rights (bi-monthly)

11) Indian Journal of Marine Sciences (quarterly)

12) Indian Journal of Fibre & Textile Research (quarterly)

13) National Product Radiance (bi-monthly)

14) Indian Journal of Biotechnology (quarterly)

15) Indian Journal of Traditional Knowledge (quarterly)

16) Annals of Library and Information Studies (quarterly)

17) Bhartiya Vaigyanik evam Audyogik Anusandhan Patrika (Hindi) (half-yearly)

Besides the primary journals, NISCAIR also publishes two abstracting journals, they are:

1) Medicinal and Aromatic Plants Abstracts (bi-monthly)

2) Indian Science Abstracts (fortnightly)

CSIR News and CSIR Samachar:

CAIR publishes CSIR News (in English) fortnightly and CSIR Samachar (in Hindi) monthly, effectively linking various CSIR Laboratories. Information is also provided to users on various R & D programmes and activities of CSIR, R & D organisations, university departments and industry.

The wealth of India (WOI):

WOI is an encyclopaedia of Indian natural raw materials. The continuous activity of NISCAIR is to publish the supplements of WOI, publish books on the natural raw material resources of the country and provide enquiry services to information seekers on natural raw material resources. Bharat ki Sampada, the Hindi version of Wealth of India, is also available.

Raw Material Herbarium and Muse:

Raw Material Herbarium and Museum provides consultancy services on identifying plants and crude drugs of plant origin. Photo Library Service is also provided to users where photographs/illustrations are reproduced from over 3000 photographs/illustrations.

Popular Science Publications:

SCAIR publishes popular science magazines in three languages covering the latest scientific developments for all users, especially for users requiring popular scientific information. These are Science Reporter (English) and Vigyan Pragati (Hindi), published monthly, and Science Ki Duniya (Urdu), a quarterly publication. NISCAIR publishes many popular science books in various areas, including fundamental science, contemporary science, and science entertainment.

Information Services:

NISCAIR offers several information services, some of which have continued since the inception of the INSDOC.

• Medicinal and Aromatic Plants Information Services (MAPIS) based on the Wealth of India and MAPA databases.

• Content Abstract and Photocopy Service is a highly personalised service. This. Service provides content information from journals regularly.

• Literature Search Service is offered by providing access to over 6000 international databases.

• NISCAIR is the National Centre for ISSN International Centre for assigning

ISSN number to serials published in India.

• NISCAIR provides S&T translation services from major foreign languages such as Japanese, German, French, Spanish, Chinese and Russian into English.

• Bibliometrics Services: NISCAIR renders bibliometrics services on specialised subjects for studying the growth, development and spread of any area of research.

Electronic Publishing:

NISCAIR publishes digitised versions of major publications, including Indian Science Abstracts, Medicinal and Aromatic Plants Abstracts, the Wealth of India, and the Raw Materials Series.

Human Resource Development:

Development of human resources in library, documentation and information science has been a major activity of erstwhile INSDOC since 1964. Over the years, the changing dimensions in the areas of information science, technology and computer applications to library activities have been included in the various courses offered by NISCAIR. Besides Associate ship in Information Science, the two-year full-time academic course in information science, NISCAIR offers several short-term training courses in computer application to library and information activities, attachment training programmes and even on-site training on request. NISCAIR also offers short-term training programmes in science communication and herbarium techniques.

National Science Library (NSL):

NSL was established in 1964. It aims to acquire all important S&T publications published in the country and strengthen its resource base for foreign periodicals by acquiring the journals on CD-ROM or other electronic forms. NSL has a rich collection of over 1, 90,000 books, including reference books, reports and standards. The library has one of the finest collections in information science and technology, reference material/secondary sources, conference/seminar/symposia proceedings in S&T, foreign language dictionaries and medicinal and aromatic plants. It also subscribes to almost all worthwhile Indian S&T periodical publications and receives over 5,100 Indian and foreign periodicals. Nearly 3500 periodicals are in electronic form, including 1,133 full-text journals. Membership of NSL is open to individuals and institutions and offers various services, including Reader's Services, Technical Query Services, Copying Services and Inter-Library Loan Services.

Consultancy Services:

NISCAIR offers consultancy services in several areas:

• Modernisation, reorganisation and automation of library and information organisations, including turnkey projects.

• Design and development of specialised databases for various organisations.

• Editing, designing, production and printing publications.

Role of UNISIST:

The launching of UNISIST (United Nations Information System in Science and Technology), also known as the World Scientific Information System programme in 1973, marked a new phase in UNESCO‟s work in the library, documentation and information field. UNISIST, emphasising scientific and technological information, is a conceptual framework, not an operating system. It envisages the development of an international network of information services. The broad objectives are the improvement of tools of system inter- connection, strengthening institutional components of the information transfer chain, development of manpower for information work, the 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 the formulation of information policy by member countries, the development of information infrastructure, especially in developing countries, the establishment of special information systems, facilities for training of information manpower and above all, the 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 existing 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, with the 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 databases 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 the UNISIST Newsletter, which is informative 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 valuable to the library and information science literature. From the beginning, India, a member of UNESCO, has taken an active part in its programmes and 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. It 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. Overall, India‟s association with UNESCO regarding the library and information field has been rewarding.

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 most 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 the Member States, and assist with developing 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 the Member States are also developed. INIS's strength is based on this international co-operation. Representation in the system is at the 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 the Member States. This mechanism allows INIS to achieve the widest coverage of national nuclear-related literature, overcome cultural and language barriers, and give every INIS Member the right to access all other INIS members' nuclear information.

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). A user-friendly version of the INIS Online Database is also available. It offers direct online 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 the Member States. 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 the Member States are 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 requester's country. Orders for reports published before 1997 are addressed to the INIS and NKM Sections. By clicking on the Document Delivery Service, the user can obtain information on services, costs, types of delivery, etc. All reports published after 1997 are also available electronically in Acrobat PDF format. Some reports published before 1997 can also be delivered electronically, depending on the size of the report or analytic requested.

INIS Multilingual Thesaurus: INIS specialists from the 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 due to 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 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, particularly to developing countries and new INIS Members. It also helps to establish national INIS Centres in developing countries.

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. More than 240 national, international and intergovernmental centres 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, and government publications. 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 data input and dissemination standards (XML, HTML, ISO2709), subject categorisation schema, and AGROVOC Thesaurus. WEBAGRIS also allows links 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 several 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 exporting data to the central AGRIS database and publishing on the CD-

ROMs. It can be used as a local application or in a common networked environment to collect information (through exporting, harvesting data, etc.). WEBAGRIS improves the accessibility of information generally through the use of multi-database searching and harvesting. The WEBAGRIS system is based on 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 web server process invokes the program. 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 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 centres. 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 multilingual, structured and controlled vocabulary covers 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 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. AGORA aims to improve the quality and effectiveness of agricultural research, education and training in low-income countries and improve food security. Researchers, policy-makers, educators, students, technical workers and extension specialists can access high-quality, relevant and timely agricultural information via the Internet. Access to AGORA is password controlled. In participating countries, AGORA benefits not-for-profit national academic, research or government institutions in agriculture and related biological, environmental and social sciences.

National Information System for Science and Technology (NISSAT):

National Information System in Science and Technology (NISSAT) was established 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 must be coordinated and organised into an integrated system to avoid haphazard growth and duplication of activities and conform with national and international standards.

NISSAT programme envisaged promotion and support to develop a compatible set of information systems on science and technology and interlink 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 introducing modern information handling tools and techniques and developing 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 handling tools, techniques, etc.

2) NISSAT Information Centres:

a) Sectorial 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 the 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 services, translation and other services. NISSAT played a very important role in the 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 various 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. These spread to all parts of the country, starting with CALIBNET in Calcutta and DELNET in Delhi.

Referral service:

Libraries have provided reference services for a long. Compared to that, referral service is a new phenomenon. The National Referral Centre for Science and Technology in the Library of Congress was formally established with the support of the National Science Foundation in September 1961. It became operational in March 1963 (Mcfarland, O"Hara). "The National Referral Centre was designed as an „a clearing house to provide comprehensive, co-ordinated access to the nation"s resources of scientific and technical information" (Mcfarland 264). It was entrusted with four major areas of responsibility:„ (1) the identification of all significant information resources in the fields of science and technology; (2) the acquisition, cataloguing and correlation of substantive and procedural data defining the nature, scope and capabilities of these resources; (3) the provision of advice and guidance about these resources to any organisation or individual requiring access to them by responding to requests for referral assistance and by publishing directories and guides in selected subject fields; and (4) the exploration, through actual operating experience, of the roles and relationships that exist or should exist among the many elements of the scientific and technical information complex"(Mcfarland 264).

The term „information resource" used in the first area of responsibility comprises „any organization, facility, or individual willing and able to give authoritative responses to scientific and technical inquiries out of an existing – but perhaps little known, or known but not discovered a store of knowledge or expertise" (Mcfarland 264). The National Referral Centre served as a model for establishing referral centres worldwide by spelling out the requisites essential for establishing a referral centre, the type of services it should provide, the publications it should bring out, etc. With time, the concept gained momentum, and libraries started providing referral services. Some institutes also became referral centres in specialised areas. For example, National Dairy Research Institute (NDRI) is a referral centre for dairy research in India.

Similarly National Neuroscience Information Centre of the National Institute of Mental Health and Neurosciences (NIMHANS) is a recognised referral centre in mental health and neurosciences. It is to be noted that some hospitals are also termed referral centres. These types of hospitals are beyond the scope of our study.

Definition:

Referral centre – An organisation which directs researchers to information and appropriate sources but does not supply documents.

Referral service – A reference service in which an information seeker is directed to an agency or expert outside the library where the information may be obtained.

From the two definitions above, it becomes clear that a referral service may be an extension of a reference service in which no document is given. The information seeker is directed to an agency or an expert who will likely supply the information. From the definition, it is also implied that the information is not available in the library.

Scope:

Any limit does not bind this service. The scope is omnifarious. The service may be provided on any topic, to any user, literate or illiterate, male or female, young or old, at any place – a remote village or a busy town, at any time, based on the available sources or in the memory.

Need for Referral Service:

Let us take the case of a scholar researching the Naxal Movement. The scholar knew that Naxals were publishing a periodical, Deshbrati, which the government banned. As a result, the scholar was not getting the periodical from any library. One librarian informed me that the copies might be available at the Police Headquarters in Kolkata. The scholar went there. After verifying their credentials, the police allowed the scholar to consult all the issues. This is how the research scholar was helped through referral services. Another librarian was moving from library to library to find out the picture of a particular medicinal plant grown in India. The top boss of her institute needed the picture for a research paper. One day she chanced upon her teacher and informed him about her problem. Immediately the teacher told her that she would get the picture in Kirtikar and Basu‟s Illustrated Indian Medicinal Plants and the book was available in the IARI library. In no time, the job of the librarian was done. These two examples make it clear that there is a need for referral services.

Tools for Referral Service:

Unfortunately, the referral service is not important in our LIS courses. As a result, if the required document or information is unavailable within the library, most librarians usually say that the required document or information is not available in the library. They do not

advise the user to go to some experts, libraries, or agencies to get the document or information. The reason is - in most cases, they do not know where to direct the inquirer. Now we shall discuss the tools that will help you render referral service. Some of the tools required for the purpose are available either in print or digital form. Other tools you will have to create.

First, we shall deal with those tools which are already available. Afterwards, we shall discuss the tools you will have to create, and if the situation permits, you can print them as well. Certain tools give you information about the holdings of various libraries. These tools are called union catalogues. There are union catalogues of books, periodicals and other bibliographic materials. A union catalogue records the holdings of various libraries. Usually, it is arranged alphabetically according to the author, document titles, etc. Under each document, the names of libraries having the document are usually given in abbreviated form. The union catalogue of periodicals, apart from the title, sponsor, place of publication, date of starting and ceasing (if the periodical has ceased publication), volume numbering, etc., are recorded, including all irregularities.

Alert services:

Modem libraries have come a long way from being mere repositories of books and other publications, limiting themselves to the circulation of documents. The type of documents held by a library has also drastically changed: libraries now have a lot of documents in electronic form - eBooks, e-texts, e-journals, etc. Information proliferation or knowledge explosion adds to the librarian's problems. Therefore, to reach a large number of customers, maximise the usage of documents among their customers, satisfy the users‟ needs as much as possible and bring the publications held by a library closer to its customers, several innovative services are being offered now. Such services may be broadly categorised into Alerting Services, Bibliographic and Literature Search Services, Full-text Services, Document Delivery Services, Reference and Referral Services, etc. Information and Referral Services (IRS) is a generic umbrella service. It is a broad term denoting many similar services. Alerting Services, Bibliographic Services, Reference and Referral Services (that is, accepting document delivery) may be grouped under IRS. They are aimed at turning potential users into actual users of a library. Or in converting existing dormant users into active users. IRS may be a Community Information and Referral Service in a public library. In academic and special libraries, IRS may take the form of Current Awareness Service, Selective Dissemination of

Information, Electronic Clipping Service, etc. CAS, SDI, ECS - all these services have one thing in common: Current and recent information is the focus. As they are alerting in nature, they are together called Alerting Services.

An Alerting Service alerts an individual about some contemporary and current literature or information of relevance to him. Currency and relevancy are important issues. Alerting Services notify, inform, announce, signal, create awareness of, or forewarn the user about nascent, current information as it is generated and released for public consumption. Such information items need not necessarily be available readily in the library but accessible or otherwise procurable. At times, alerting services also concern themselves with future events, book releases, publications in progress, etc. Alerting services are offered to most customers throughout their membership as a continuous service. Alerting services are discussed in this Unit. When a person starts a research project, an exhaustive and comprehensive literature search is necessary. The results would help him become up-to-date in the area where he can do further work. This activity involves using several bibliographic and other online, CD-ROM, or onsite databases.

Due to the literature search, the user may want to read full texts of some of the articles noted in the literature search from journals or the conference proceedings, reports etc. In such cases, the librarian provides Document Delivery. Many readers may come up frequently with information requests that cannot be met through sources within the library. In such cases, the librarian tries to meet the query by referring the reader to external sources -- be it an expert, research institution, library, or consultant. Such service is called referral service alternatively resources. The users may want to get answers to specific queries that can be satisfied through the information contained in library publications. Such an answering service is popularly called Reference Service; this service is a continuous activity throughout the lifetime of the library for all users. All the services mentioned above come under the broad topic: Library and Information Services - the subject matter of Units 8-11. Let us now discuss some Alerting Services.

Web-based services:

The starting point in the development of the Internet-based library service is the development of the library‟s website. The web has opened up enormous possibilities for developing and delivering services to library users. A well-designed site can go a long way in facilitating library users to access library resources and services at their convenient time and place. The

World Wide Web is now so widely used that most libraries try to use it to improve communications. Librarians now use the web to channel information to remote and on-site users. Earlier, the library websites used were static, providing only factual information about the library with some links to external resources. They have evolved over the years as more dynamic, interactive and service-oriented web portals. The foremost task in developing a website for the library is to understand the user needs and design it around them. Service-oriented sites were first initiated with the conversion of the library OPACS into web OPACs. This is further extended with the online provision of databases and full-text digitised content, both licensed and in-house developed. The present-day library websites we come across are very dynamic and interactive, with features like virtual referencing, online chats etc. For designing a library website, one must take into consideration the following aspects:

Information provided must be current and updated at regular intervals.

The interface must be user-friendly with the proper navigational facilities.

If access to licensed material is to be provided, then proper security and authentication must be ensured.

The design must be pleasant, and too much information cluttering must be avoided.

Website links must be regularly checked to ensure that they are properly working.

Important announcements, resources and services must be highlighted so they do not escape the users' attention.

There is no hard and fast rule regarding what must be incorporated into a library website. However, some of the elements are listed below which can be considered while designing the website:

Detailed information about the library regarding its collection, services, rules and policies etc.

Web OPACs to be made part of the website incorporating details about the library holdings as well as user details

Contact details

Floor plans and virtual tours of the library

Links to all the online resources and services must be provided on the main page.

Interactivity can be provided through e-mail, feedback forms and an online chat facility.

The site can be dynamic by incorporating news updates, information about special events, a list of new arrivals in the library, announcements, etc.

FAQs must be incorporated.

Web forms can provide online services like inter-library loans, book and journal requisition, reservations, etc.

Links to other relevant websites are to be provided.

A well-designed website can go a long way to boost the library's image. The design must be pleasant to attract and retain the user‟s attention. However, too many graphics must be avoided, which may slow the main page's opening. The site must be user-oriented, and the elements provided in the site must serve the user‟s needs.

Review questions:

1. Name a few types of special libraries.

2. What is the role of CSIR?

3. Define referral service.

4. Define a reference centre.

I

S. No	**Questions**	**LOCF Mapping**
Small Questions		
1.	Define a special library.	K1
2.	Name three types of special libraries.	K1
3.	What is the primary objective of a special library?	K1
4.	What is the difference between reference and referral service?	K2
5.	What is an alert service?	K1

S. No	**Questions**	**LOCF Mapping**
Big Questions		
1.	Discuss the characteristics and functions of special libraries. How do they differ from public and academic libraries?	K2, K4
2.	Explain the management of a special library, including its collection development, processing, and services.	K2, K4
3.	Elaborate on the role of CSIR, ICAR, and ICMR in supporting special library services in India.	K2, K4

4.	Discuss the concept of referral service. What are the tools and resources required to provide effective referral services in a special library?	K2, K3
5.	Analyze the importance of alert services (CAS, SDI) and web-based services in special libraries for meeting the current information needs of users.	K4, K5

Reference:

Bates, Mary Ellen. (1994). Electronic Clipping Services: A New Life for SDIs. Online. July 1994, 43-51.

Clurle, David (1998). Filtered News Services: Solutions in Search of Your Problem. Online. April 15-24.

Cohen, Steven M. (2003) Advanced Internet Strategies to Meet Librarian and Patron Needs. 2003. ALA.

Guha, B. (1983). Documentation and. Information: Calcutta: World Press. Chapter 1.

Hamilton, Feona. (19~5). Current Awareness: Current Techniques. USA: Ashgate Publishing Company.

Kemp, A. (1979). Current Awareness Services. London: Clive Bingley.

Luhn, H. Peter (1961). Selective Dissemination of New Scientific.Information with the Aid of Electronic Processing Equipment. American Documentation. 12(4), 133-138.

Ojala, Marydee (1991). Staying Alive Online with Online Clipping Services. Online. 15(3), 80-82.

Unit - V: Resource Planning and Development

Content:

This unit focuses on the planning and development of various resources required for effective library and information centre management. It covers the concept of information/intellectual resources, including documentary and non-documentary sources. The unit discusses physical resources, including infrastructure and equipment, and the principles of their management. It covers human resource planning, including its process, objectives, and techniques. The unit also discusses financial resources, sources of funding for different types of libraries, and principles of financial management. Finally, it covers the planning of technical information units and mission-oriented networks and consortia in India, including INDEST, FORSA, UGC-INFONET, CSIR Consortium, IIM Consortium, and HELINET.

Unit – 5

Resource Planning and Development

Objectives:

- To learn about information / intellectual resources.
- To get to know about physical resources.
- To gain knowledge on Human Resources and Manpower planning
- To briefly learn about financial resources.

Introduction:

Of all the resources available to any developmental process, human resources are the most vital and valuable ones that enable the utilisation of all the other resources effectively. It is a comparatively recent perception of management specialists to view human resources management as requiring greater attention than looking at it merely as control and deployment functions of personnel. In recent decades, the facets of Human Resource Management have been studied in depth, and new and innovative methods and techniques to optimise human capital in all organisations are being developed to ensure success in any productive activity. This unit attempts to study human beings' vital and valuable role in organisations with a brief historical perspective to grasp its importance.

We shall discuss, in-depth, the necessity and reasons for human resource planning (HRP), which is an essential pre-requisite for managing human resources in an organisation. Defining human resource planning and its scope draws attention to the different elements that

constitute the several activities of HRP. These management elements are explained along with the techniques and tools required to implement the process. This Unit also discusses the developments of HRD and examines them in the context of library and information centre management with particular reference to the Indian situation.

The modem approach introduces a new work culture to achieve desired goals and results by motivating the staff and enabling them to acquire the necessary new and innovative skills, recognising the best performances and appropriately rewarding such performances. The strategies to introduce methodologies and techniques to develop human resources to reach their optimum level of efficiency and effectiveness are the areas of management science that have received considerable attention since the eighties. The current scenario of HRP in

libraries/information centres in India are briefly sketched, with suggestions for applying these concepts of planning human resources to improve library and information services quality.

Information resources:

Information resources are of two kinds, namely, Documentary and Non-Documentary Sources.

Documentary Sources:

A document embodies thought. It is a record of work on paper or other material for easy physical handling, transportation across space, and preservation through time. It may be said that the thought content of a document represents the information it contains. A document may be a macro-document like a book, monograph, thesis, dissertation, report, etc., or a micro-document like an article in a periodical. Documents have also been grouped as Conventional, Non-Conventional, Neo-Conventional, Meta documents, etc. These documents are available in various physical forms, such as books, periodicals, and audio-visuals. Details of each type are given in the succeeding sections and sub-sections.

Non-Documentary Sources:

On the other hand, non-documentary sources include:

• Institutional Sources

• Human Sources

• Colleagues

• Peers

• Information Gatekeepers

• Guides, Advisors, Consultants

• Vendors, Contractors, Collaborators, etc.

Classification of documents:

Documents of various types have been classified based on their physical characteristics, familiarity and usage into four classes by Dr S.R Ranganathan. On the other hand, C.W. Hanson and Denis Grogan have categorised these documents based on information characteristics.

By Physical Characteristics:

Conventional documents are usually recorded on paper in a natural language by writing, typing, printing or some near-printing process. These are the most popular documents in use. These include books, periodicals, maps, atlases, etc. Neo-conventional documents ar e a new class of micro-documents, such as standards, specifications, patents, data, etc. Non-conventional documents are a record in nonconventional size, shape or material. Audios, visuals, audio-visuals, microforms, etc., are included in this category. Meta-documents are a record of phenomena made directly, unmediated, by the human mind. They are an instrument-record of natural and social phenomena made possible by instrument technology, photography, radar, etc. Ranganathan‟s classification groups documents in the chronological order of their development and does not consider a document's information characteristics. He does not distinguish between an ordinary periodical and an indexing periodical. Also, a book and a periodical belong to the same category.

By information Characteristics:

The classification schemes advocated by Hanson and Grogan are mainly based on the information characteristics of documents. Hanson divides documents into two categories - primary and secondary. Grogan goes further and categorises them as primary, secondary and tertiary.

Primary documents represent new knowledge or a new interpretation of ancient knowledge. They are the first published records of original research and development. Often a primary document may be the only source of information in existence. According to Hanson, books, journals, reports, patents, theses, trade literature, and standards are the primary documents. Grogan adds to the conference proceedings and official publications list but excludes books.

Secondary documents do not carry new and original information but guide users to primary documents. They are compiled from primary documents. They organise the primary literature in a convenient form. These documents are of three types: (a) Those that index selected portions of primary literature and help users in finding what has been published on a given subject, such as indexes, bibliographies, abstracts, etc., (b) Those which survey selected portions of the primary literature to help users find the state-of-the-art knowledge on a given subject, such as reviews, treatises, etc. (c) Those documents which themselves contain the desired information collected and selected from primary documents. This information, such as biographies, facts, formulae, histories, procedures, theories, etc., is derived from primary

documents and is arranged systematically in some convenient order in such secondary documents. Dictionaries, encyclopaedias, handbooks, manuals, etc., are documents of this type.

Tertiary Documents: Tertiary documents list secondary documents. Their function is to help researchers in retrieving secondary sources. Directories, Yearbooks, Bibliographies, Lists of Research-in-Progress projects, Guides to Literature, Guides to Organizations, Guides to Libraries, and Textbooks are included in this category of documents.

Physical resources:

A school can function only when adequate material equipment is there. Now we proceed to discuss the tangible or physical equipment as resources of a school, viz., the school plant, furniture and subsidiary equipment. The duties of a School Head consist of looking after the following physical

A. Main school building with its various sections and departments

B. Garden and lawns

C. Playgrounds

D. Hostel building

E. Staff quarters

F. Outhouses and miscellany

A. The main school building can be divided into two major sections: (])Academic and (2)Administrative.

Academic I:

i) Assembly hall

ii) Library

iii) Museum

iv) 'the Medical Section, which should include:

1. The Doctor‟s Room 2. The Dispensary 3. The Sick Room or bedroom for the patients.

v) Students' Common Room Section, which should include

(i) Common room for the pupils (separate for boys & girls), (ii) lunch room (for boys and girls)

vi) Toilets separate for boys and girls.

vii) Activities section, which should include:

I. Games room, 2. Game stores. 3. Scout and guide room, 4. NCC, NSS room, 5. Photography clubroom etc.

viii) Crafts section including 1. Craft workshop, 2. Craft store.

ix) Art section including 1. Drawing and painting workshop, 2. Drawing and painting gallery.

x) Science section including 1. One Lecture Theatre, 2. One laboratory each for difference science subjects, 3. One museum, 4. One store each for subjects, i.e. physics, chemistry, biology etc.

xi) Music and dance section including 1. one demonstration room, 2. one musical apparatus room.

xii) Home science section including 1. one lecture room, 2. one home science workshop, 3. one home science kitchen, 4. one store.

xiii) Technological section including 1. one lecture room, 2. one workshop, 3. Computer labs, 4. educational technology equipment store.

xiv) Language labs having an adequate number of apparatus, Linguaphone, audio-visual aids and cassettes etc.

xv) Subject rooms like geography room, mathematics room, geology room, and social sciences room.

xvi) Classrooms one for each of the sections of the various classes in the school.

Administrative Section:

Further includes:

A. Principal's Room 2. Visitors' Room 3. Office, 4. Record Room, 5. Staff Room,

6. Committee room, 7. Guidance and Counselling room, 8. Accountant office,

9. Head clerk office, 10. Examination section.

B. Gardens, lawns and farms will include flower pads, creepers, decorative plants and trees, water storage and manure pits, a store etc.

C. The playground will have separately demarcated grounds for hockey, football, cricket, volleyball, kabaddi etc.

D. The hostel Building should have the appropriate number of Rooms, a Common room, Guest room, a Medical room, an outdoor and indoor games facility, and proper furniture, security and lighting arrangements.

E. The staff quarters will include the headmaster's residential quarters, the staff members, and the lower establishment (clerks, assistants, peons and other non-teaching staff).

F. the Miscellaneous section of the campus may include (i) Water storage, (ii) Swimming pool, (iii) Gas plant, (iv) Open air theatre, (v) Gymnasium, (vi) Fire extinguishers, (vii) Agricultural poultry, (viii) Cycle-shed and (ix) Cafeteria or School tuck-shop (x) stationary shop.

Management of physical resources:

Need and advantages:

Resources are essential to get our work done. Everything that we see and touch is a resource that perhaps we could use. Management of resources by the school head requires considerable skills. Resources have to be looked after properly. The school delegates this responsibility to monitor the concerned's performance and ensure the provision of storage and appropriate management. There are many benefits you will derive from more effective management of resources. By managing the school resources more effectively, the head will achieve easier access, curriculum objectives and higher goals of good administration. To accomplish greater satisfaction among the pupils and staff, the school head must plan, anticipate, consult, supervise and act promptly to ensure that a1l the required physical resources are identified, developed and fully used responsibly.

Principles of management of physical resources:

Some of the principles which we need to apply in the management of physical resources are as follows:

1. All possible resources should be identified and used appropriately.

2. There should be the maximum use of all available resources.

3. Local resources should be sought and manufactured whenever possible.

4. 'I'he use of resources should be careful ~maintained and controlled.

Essential Characteristics:

Physical Resource Management in a school campus should have the following seven prominent Characteristics:

a) Adequacy

A school must adequately possess all the facilities necessary for curricular and co-curricular activities. For this purpose, the following four points need special attention: i) Site and surroundings, ii) Area, iii) Plan, iv) Design of construction

b) Safety

A school plant must be able to protect and secure the life and things of the people inside. It must have proper ventilation and light.

c) Coordination

All the sections of the school campus must function separately but be connected mutually to help and not interfere with each other's functions.

d) Efficiency and Unity

The whole campus must be planned so that the management is efficient and convenient.

e) Beauty

The campus must be beautifully designed and decorated to present a cheerful atmosphere.

f) Adaptability

It must be planned flexibly to leave scope for modifications and growth following the need.

g) Economy

The school plant should be economical in original cost, upkeep and operations.

The procedure of management of physical resources:

The new concept for the management of physical resources is need-based and not grant-based, i.e. the plan is prepared in accordance &it‟s the actual needs of the school. The institution's physical resource management plan seeks improvement in all directions, and it must include school improvement projects in the form of action research. The procedure of physical resource management improvement comprises the following steps:

Making a Survey of Resources:

The head of the school should survey the existing physical resources and the resources that can be made available with the help of the support staff.

, The resources are of these categories:

i) Physical resources of the school building, e.g., equipment in the library, laboratory etc.

ii) Resources easily available in the community, e.g., public libraries, museums, hospitals, banks, government departments and important private establishments, including factories. The Head should make the best use of community resources for the benefit of students. Students must visit places of educational interest in the locality.

Making an Analysis of the Present Position of Resources:

The head should analyze the present situation to review whether

i) The school building is spacious enough to cope with the present needs

ii) The equipment and furniture are adequate.

iii) The laboratory and library facilities are proper.

iv) The institutional program needs reshuffling and changes, and additional adjuncts like a hostel, staff quarters, school buses, more playfields etc.

The head should call regular staff meetings to identify the areas of improvement in physical resources needed for better management.

Preparing Improvement Program Projects:

In preparation for improvement programs, discussion with the staff should he followed by enlisting the physical resources with details about each Program. The program may be classified into -

i) Short-term program

ii) Long-term programs

Each improvement program needs to be defined in terms of financial implications, if any, and from the point of view of the problem's urgency and availability of resources.

Projects must have some broad and specific objectives depending upon the utility and urgency of the resources. Some of the physical resource improvement projects arcs suggested below:

a) Projects concerning building - construction of additional rooms, compound wall, quarters for the academic, administrative and supportive staff and white washing, repairs and electrification of the building.

b) Projects concerning campus - Beautifying the entire campus, installing water pumps, and providing sewage, drainage and sanitary conveniences.

c) Projects concerning instructional material- Enriching the school library with the supply of textbooks, reference books, magazines, and journals and equipping the labs with charts, models and portraits of scientists.

d) Projects concerning equipment - Provision of audiovisual equipment, art and craft equipment, sports and musical instruments, science laboratory equipment, etc.

e) Projects concerning hygiene and sanitation - Supply personal hygiene materials, soap, towels, mirrors, etc.

f) Projects concerning students' welfare - Provision of scholarships, mid-day meals, necessary assistance to pupils belonging to poor and deprived sections, organization of sports and co-curricular activities, workshops, seminars, excursions and picnics, etc. I

The execution of the projects mentioned above must be in cooperation with man and material resources. A schedule for the improvements of the project must be prepared. After the project, the end product or the result must be assessed quantitatively and qualitatively.

Human resources:

Human beings constitute an organisation's most important and valuable resource, based on the belief that employee commitment to work in an organisation is a fundamental prerequisite to organisational success. Such commitments can be ensured only if actions towards

personnel are undertaken with the highest degree of integrity and respect. This presupposes a continuing healthy relationship between employees and employers. Consequently, human resources management emphasizes strategic thinking towards employees, personnel planning, extensive personnel and organisational development.

Historical perspective:

Historically, before the advent of the Industrial Revolution, attention given to human resources in organisational management was generally attributed to the organisation of workers' guilds constituting masons, carpenters, leather workers and other crafts persons to protect their interests. The field was further developed with the arrival of the Industrial Revolution in the later half of the 18th century, which laid the basis for a new and complex industrial society. A new kind of relationship between the employees and the boss, who was not necessarily the owner, as had been the case in the past, became a power broker in the new factory system. With these changes came a widening gap between workers and owners, which was not conducive to higher productivity. The drastic changes in technology, the growth of organisations, the rise of labour unions and professional associations, government concern and intervention in working-class welfare, etc., resulted in the development of organisation personnel departments. No specific date is assigned to the appearance of the first personnel department in organisations. Still, around the 1920s, more and more organisations seemed to take note of and do something about the conflict between employees and management. Early personnel administrators were known as welfare secretaries. Their jobs were to bridge the gap between management and operating workers. All these developments necessitated in-depth studies into human resources, their behaviour and their full utilisation in organisations at the turn of this century. Beginning with Taylor's attempts to improve human resources productivity through time study, research efforts moved through the period of Frank and Lillian Gilberth's techniques for recording motion patterns, leading to work simplification on the assembly lines of the 1930s.

All these made work measurement possible by introducing the concepts of rating the speed with which employees work and the need for fatigue allowances, culminating with establishing work-study functions in large organisations. These are the beginnings or the initial genuine attempts to increase the effectiveness of manpower, largely confined to shop floor workers in factories. However, the establishment of organisation and methods of techniques in the 1960s for manpower utilisation moved the study into offices and other

management fields. During the 1960s, the importance of planning and integrating personnel strategies within a coherent framework was emphasised, highlighting the need to earn employee commitment to deliberate management action. However, many practitioners found the somewhat idealistic tone difficult to apply to the prevailing environment of the period. In the 1970s, work to improve planning applications and a strategic framework for personnel management found expression in manpower planning. These theoretical frameworks demonstrated the gradual emergence of a cultural focus on managing people at work. The need felt by organisations' personnel to overcome the tensions and contradictions within their jobs was felt. During the 1980s, further research was carried out to find new methods of managing human resources effectively. Firstly, organisations needed to identify a need for a people-oriented approach. Secondly, the theoretical framework had to be seen in practical operational contexts. The need for a people-centred approach arose after 1973 when organisations came to terms with two devastating economic experiences. The first was the oil price shock of 1973, which stunned many organisations into recognising that they were vulnerable to outside events to an extent that had not previously been imagined. Now they had to be managed in a way that recognised uncertainty as inevitable and emphasised flexibility to meet the unforeseen.

The second experience was recognising the discerning customers looking for quality.

The Japanese saw the customers' yearning for quality before others, so their products swept away old European and North American products and methods. This led to the twin pillars of modem organizations:

• Creativity and flexibility to meet the unforeseen;

• Customer service and the need for quality

These ideas were accentuated by the seminal writing of Peters and Waterman in 1982 in their book `Search for Excellence.' New words appeared in personnel literature: quality, service, customer, objectives, trust, leadership, and integrity. These were new jargon, summed by the term `excellence'. These objectives, however, could not be implemented without the support and participation of the workforce. The achievement of such excellence would be the new approach to managing people at work - human resource management. Management Specialists call the 1980s a decade of computers and human resources development. It is generally believed and expected that new technologies and human resources management will dominate study and research in management sciences in the 1990s and after.

Human resource planning:

Human Resource Planning (HRP) may be defined as a strategy for acquiring, utilising, improving and preserving an enterprise's human resources. The objective is to provide the right personnel for the right work and optimum utilization of the existing human resources. HRP exists as a part of the planning process of business. This is the management activity aimed at coordinating requirements for and the availability of different types of employers. The major activities of HRP include forecasting (future requirements), inventorying (present strength), anticipating (comparison of present and future requirements) and planning (necessary programme to meet future requirements).

Objectives:

The objectives of HRP are mainly to:

a) Ensure optimum utilization of human resources currently employed;

b) Assess or forecast future requirements;

c) Cope up with the changing scenario;

d) Attaching with business plans of an organization;

e) Anticipate redundancies;

f) Provide the basis for human resource development (HRD); and

g) Assist in productivity bargaining.

Benefits of HRP:

Proper HRP results in several benefits. Some of them are:

a) Create a reservoir of talent.

b) Preparation for future HR needs.

c) systematically promote employees.

d) Provide the basis for HRD.

e) Help in career and succession planning

Need for HRP at Macro Level:

Major reasons for the emphasis on HRP at the macro level include:

Employment-Unemployment Situation: Though the number of educated unemployed is on the rise in general, there is an acute shortage of various skills. This emphasizes the need for more effective recruitment and retention of people.

Technological Changes: The myriad changes in production technologies, marketing methods and management techniques have been extensive and rapid. Their effect has been profound on job contents and job contexts. These changes cause problems relating to redundancies, retraining and redeployment. All these suggest the need to plan manpower needs intensively and systematically.

Organizational Changes: In the turbulent environment marked by cyclical fluctuations and discontinuities, the nature and pace of changes in organizational environment, activities and structures affect human resources requirements and require strategic considerations.

Demographic Changes: The changing profile of the workforce in terms of age, sex, literacy, technical inputs and social background have implications for HRP.

Skill Shortages: Unemployment does not mean that the labour market is a buyer‟s market. Organizations have generally become more complex and require a wide range of scarce specialist skills. Problems arise when such employees leave.

Governmental Influences: Government control and changes in legislation concerning affirmative action for disadvantaged groups, working conditions and hours of work, restrictions on women and child employment, casual and contract labour, etc., have stimulated organizations to become involved in systematic HRP.

Legislative Controls: The days of executive fiat and „hire and fire policies are gone. Now legislation makes it difficult to quickly and cheaply reduce an organisation's size. It is easy to increase but difficult to shed the fat in terms of the numbers employed because of recent changes in labour law relating to lay-offs and labourers. Those responsible for managing manpower must look far ahead and thus attempt to foresee human resources problems.

Impact of Pressure Groups: Pressure groups such as unions, politicians and persons displaced from land by the location n of giant enterprises have been raising contradictory

pressures on enterprise management such as internal recruitment and promotions, preference for employees‟ children, displaced performers, sons of the soil etc.

Systems Concept: The spread of systems thinking and the advent of the macro computer as part of the ongoing revolution in information ongoing which emphasizes planning and newer ways of handling voluminous personnel records.

Lead Time: The long lead time is necessary for the selection process and for the training and deployment of the employee to handle new knowledge and skills successfully.

Levels of HRP:

HRP is carried out at the following levels:

a) National Level: The Central Government plans for human resources at the national level. It forecasts the demand for and supply of human resources as a whole. For example, the Government of India specifies the objectives of HRP in successive five-year plans.

b) Sectorial Levels: Central and State Governments formulate HRPs for different sectors. For example, the industrial sector, agricultural sector etc.

c) Industry Level: HRPs for specific industries are prepared by the particular industries.

d) Unit Level: HRP for a particular department/sector of the industry is prepared at this level. It again includes the following levels.

i) Plant level;

ii) Department level; and

iii) Divisional level.

Process of HRP:

The process of HRP is entirely based on corporate plans and objectives. HRP is a continuous process of review, control and assessment.

The major stages of HRP are as follows:

a) Analysing Operational Plans

It consists of the following sub-stages:

i) Objectives and strategic plans of the company are analysed.

ii) Plans concerning technology, finance, and production are analysed, and HRP is prepared to keep these in mind.

iii) plans, goals, and objectives of the company are also considered.

b) Human Resource Demand Forecasting

HR demand forecasting mainly involves three sub-functions:

i) Demand Forecast: Process of estimating future quantity and quality of human resources required.

ii) Manpower Gaps: Depending upon the requirement existing surplus human resources having desired skills are matched; if not found, a shortage is shown.

iii) Supply Forecast: An organisation's supply forecast of human resources is based on the existing HR inventory and the demand forecast.

Techniques of HR demand forecast:

Techniques of HR demand forecast are discussed below.

a) Managerial Judgment: In this, experienced managers estimate the human resource requirements for their respective departments based on their knowledge of expected future workload and employee efficiency.

b) Work-study Method: Time and motion study is used to analyze and measure the work done.

c) Ratio-Trend Analysis: This method calculates ratios (e.g. total output/no. of workers, direct workers/indirect workers) based on past data. Future ratios are based on past trends.

d) Mathematical Models: It expresses the relationship between the independent variables (e.g. investment, production, sales, etc.) and dependent variables (e.g. no. of employees required).

Factors affecting HR demand and forecasting:

Human Resource Demand Forecasting depends on several factors, some of which are below.

a) Employment trends;

b) Replacement needs;

c) Productivity;

d) Absenteeism; and

e) Expansion and growth.

Problems in the HRP process:

The main problems in the process of HRP are as follows:

a) Inaccuracy: HRP is entirely dependent on HR forecasting and supply, which cannot be a cent per cent accurate process.

b) Employee resistance: Employees and their unions feel that by HRP, their workload increases, so they resist the process.

c) Uncertainties: Labor absenteeism, labour turnover, seasonal employment, technological changes and market fluctuations are the uncertainties which the HRP process might have to face.

d) Inefficient information system: In Indian industries, HRIS is not much strong.

In the absence of reliable data, it is not possible to develop effective HRP.

e) Time and expense: HRP is a time-consuming and expensive exercise, so industries avoid it.

Guidelines for making the HRP process effective:

A few guidelines to improve the effectiveness of the HRP process are discussed below.

a) Tailormade: HRP should be balanced with corporate objectives.

b) Appropriate time: The period of the HRP process should be appropriate to the needs and circumstances of an organization.

c) Adequate organization: HRP process should be adequately/properly organized.

d) Top management support: Before starting the HRP process, the support and commitment of top management should be ensured.

e) Participation: HRP will be successful if all in an organization participate.

f) Information system: An adequate database should be developed to facilitate

HRP.

g) Balanced focus: The quantity and quality should be stressed in a balanced manner.

Finance resources:

Approaches to Public Library Financing:

Public library financing primarily' deals with the allotment and management of the library fund r to secure maximum socio-cultural and educational gains for the community. Therefore, the provision of finance for public libraries ought to be made to appreciate their unique characteristics. This paved the way for the following approaches:

i) Libraries are expenditure-inclined: As libraries are not revenue-earning entities, the Provision for finance should be made differently from that for other institutions. However, this concept is changing in the present-day context. Emphasis is increasing on the generation of resources to sustain their existence and activities, though public libraries may be an exception.

ii) Libraries are growing organisations: According to the First Law of Library Science, as enunciated by S. R Ranganathan, the demand for books, staff, etc., will constantly increase, thereby implying the need for an enhanced flow of money.

iii) Financial demands of libraries are recurring. Since public libraries are required to tender services of recurring nature, providing a permanent source of income is a prerequisite for rendering library service.

Financial management:

Financial management is not just managing cash or providing funds. It studies the principles and practices involved in the financial operations of institutions, industries or states. „Finance function" is providing funds needed for the enterprise, i.e., procurement of funds and their effective utilisation. It deals with the problems and procedures of acquiring, distributing and effectively utilising funds, balancing revenues and expenditures and accounting for the entire transactions for better control and evaluation. In other words, important phases or components of financial management are:

– Financial planning

– Forecasting of receipts and disbursements

– Realisation of funds and revenues

– Allocation of funds

– Utilisation of funds

– Financial Accounting

– Financial control

– Financial auditing

The task of finding money, investing funds, managing property and getting the sanction for the budget and all other related matters of finance are the responsibility of the central executive authority of the public library system or the parent organisation to which a particular type of library belongs. However, the library has a major responsibility in estimating its financial requirements, preparing a budget for its functions, activities and programmes, managing the funds appropriated and spending within the specified period, maintaining accounts, and preparing a report.

Principles of Financial Management:

For effective financial management, knowledge/ understanding of some basic guiding principles of financial management is necessary and useful. The principles of financial management are:

i) Effective control

ii) Simplicity

iii) Regularity and farsightedness

iv) Economy

v) Flexibility

i) Effective Control: Financial management can work efficiently only when controlled properly. The method of financial control should be simple and easy. Control is also necessary for the economic use and channelization of resources so that there is little wastage and limited financial resources can be put to maximum use.

ii) Simplicity: Procedures for financial management should be simple and easy to operate. Simplicity results in efficiency and economy.

iii) Regularity and Farsightedness: Financial management programmes should have a typical timetable to acquaint everybody with what s/he is expected to do at a particular time. For example, in the preparation of the budget for a library, inputs should come from the heads of sections, who would, in turn, expect cooperation from their staff. The budget preparation would be time-bound and submitted to the authorities on time so the budgetary sanctions could be obtained in time to operate it. Similarly, since payment towards subscriptions to current journals should be sent to the publishers during a particular time of the year, the required fund should be readily available by that time. Sticking to a timetable facilitates advanced thinking and preparation. Present needs and future requirements should also be considered when making finance provisions.

iv) Economy: Any activity should affect the economy, more so in financial matters. All precautions should be taken to avoid unnecessary expenditure and wasteful use of scarce finances.

v) Flexibility: Financial management should keep in mind the virtues of flexibility/ elasticity to adjust itself according to circumstances. Only then can it be successful in times of emergency and crisis. But this does not mean that one should take undue advantage of its flexible nature. There are provisions and practices in utilising or diverting funds appropriated for a certain item of expenditure to purchase other items like books or equipment. But this flexibility should be within the framework of financial rules and procedures. This adjustment is usually made at the fag end of the financial year when centralised funds are available in other items (or heads).

While the above principles are useful in operating and managing libraries' finances, the executive authorities have established statutory financial rules and procedures. Therefore, libraries also have no option but to follow such financial rules. Other related fields and issues of financial management, library and information professionals must be kept in mind. They include cost accounting and economics (particularly welfare economics), various tools and techniques of financial management, economics and cost accounting like funds flow analysis, ratio analysis, break-even analysis, operating and financial leverages, financial forecasting, capital budgeting, economic theory, theory of production, costing, etc. as they have adequate scope for application in library and information centre management.

As said before, the economic management of library services is the weakest area of library management. Little is done to prepare a model and bring about economic management of

library services within a financial management system. Libraries are generally not independent entities; hence, libraries' financial management and accounting systems are usually part of larger (parent) organisations. Financial responsibilities usually rest with the head of the library (librarian) and accounts division of the organisation.

Financial Management in Service-oriented and Not-for-Profit Organisations:

Libraries and Information centres are paternalistic, service-oriented and not-for-profit (NFP) organisations. Financial management in such organisations is more complex and challenging than in profit-oriented organisations. In service-oriented and NFP organisations, money management involves systematic planning, funds, prudent spending, and meticulous accounting. There are certain difficulties in the financial management of service-oriented and NFP organisations. Some important characteristics of such institutions, together with difficulties, are discussed below. The problem becomes more acute if the budgets of such institutions are not planned as part of the planning of the parent body and if they worry more about accounting than planning. Among the important characteristics of service-oriented and NFP organisations, the labour-intensive as against machine and technology-intensive nature of profitmaking organisations, lack of inventory (as they will have no inventory of services), the dominance of professionals, difficulty in inspecting and measuring the quality of service in advance of delivery (i.e., before rendering the service), etc. are important.

Lack of profit measure is quite typical to service-oriented and NFP organisations. Profit-oriented organisations measure their output by the revenue earned based on prices charged for goods and services sold. For individual profit centres, revenue is measured by transfer prices. Service-oriented and NFP organisations should use either device similar economic output measures wherever possible or rely on non-monetary measures. By and large, output measurement is a practical problem and a challenge in service and NFP institutions. There is no single generally accepted criterion for measuring the success of such organisations. Multiple objectives, lack of relation between costs and benefits and difficulties in measuring performance and comparing the performance of different units of the same organisation are some peculiarities of service-oriented and NFP organisations. Due to distinct functions, the organisational units cannot be compared to service-oriented and NFP organisations. In the absence of economic output measures, certain non-monetary measures could be employed by service and NFP organisations. These non-monetary output measures can be classified as

subjective or objective, discrete or scalar, and quantitative or qualitative. Some important non-monetary output measures are:

i) Results in measures

ii) Process measures

iii) Social indicators

iv) Inputs as proxy output measures

Libraries and information centres have not given adequate attention to devising output measurements. In addition, service organisations appear to have no direct relationship between costs and benefits. Market forces play a less significant role in service-oriented and NFP organisations. Due to the lack of shareholders, ownership and power appear to differ. Consequently, service-oriented and NFP organisations tend to be political organisations. Historically, cost accounting and other control techniques were developed for manufacturing (i.e., profit-oriented) companies; hence, they are less applicable to service-oriented and NFP organisations. Inadequate management controls have become a tradition in institutions that are usually relatively small and operate in a single location.

Sources of funding:

The economic and financial pressures are mounting on libraries due to (i) the increased cost of information materials; (ii) ever-growing and diverse demands; (iii) the adoption of new technology; (iv) the need for new space and infrastructure to cope with the new environment; (v) increases in wages and salaries; (vi) interlibrary loan and resources sharing; (vii) new programmes and projects to justify the existence of library. Library finance includes both the funds appropriated to a library and its expenditure. Libraries depend heavily on a continuous supply of funds for organising their activities, programmes and services. In dealing with this, ensuring a continuous supply of funds not merely every year but over some time, i.e., three or five years, are very important.

Finance plays a very significant role in the organisation and management of any institution, especially in the case of libraries which have to acquire and build their collection continuously throughout the year and even longer. With the increasing costs of books and journal subscriptions, it would be impossible to plan a collection development programme consistent with users' needs without an ensured supply of funds. While appropriations are

made for acquiring books and journals, funding bodies often overlook or underestimate the necessity of funds for processing the acquired materials and making them available for use by competent persons. Further, the regular flow of funds ensures the rhythm and tempo of the user services. These services have to run continuingly. Unless adequate funds are provided for all these activities, libraries will either operate sub-optimally or remain ineffective.

The financial support given to libraries is of two types: i) recurring and ii) nonrecurring. The recurring grants are generally for purchasing books and periodicals, maintaining regular services, and anticipated contingent expenditures. The non-recurring grants are given for specific purposes like building library buildings, purchasing furniture and equipment and sometimes for special collections. The third type of Adhoc grant is given on special occasions on recommendations for specific purchases. Different libraries receive funds from different sources, though some sources, such as government grants, are common. The greatest percentage of operating funds increasingly comes from public funds raised through taxes. A reasonable estimation of required funds has to be done well in advance as funds are required continuously.

Various sources of funds for libraries can be broadly grouped as follows:

i) The main source of finance for any library is regular grants from the parent body or National/ State Government (some percentage of budget and public funds raised through taxes)

ii) Local library cess and support from municipal and other provincial authorities.

iii) Adhoc grants from other departments/institutions (public fund), private national agencies, endowments and charitable institutions and certain foreign or international support.

iv) Fines and various sources: Some libraries impose fines on late return of books and for loss or misuse of library cards and books. Income from this source is very meagre. It cannot be considered a source of income because the good aims not to raise revenue but to compel the user to return the borrowed book in time and not to damage or lose it during their possession. Moreover, in some situations, libraries may be unable to re-appropriate the amount collected as fines or overdue charges for other purposes. In addition, the effectiveness of imposing fines is questionable as it may create ill feelings among users and discourage the use of the library. Hence, the policy of levying fines is debatable, and possible revenue is offset by the

potentially bad effects on public relations. Various sources may include money from selling old library materials like waste paper, used/withdrawn books, equipment, furniture, etc.

v) Self-generated fund (Fee-based services): Libraries usually render their services non-profit. Charging for library services is a fairly recent phenomenon. Fees, subscriptions, sale of services and miscellaneous revenues earned by the library are ad hoc, non-recurring and often meant for specific purposes with restrictions on reallocation and use. Normally, such (limited) funds are added to the general fund of the parent organisation for allocation through normal budgeting procedures.

It is generally objectionable to charge for library services when the mission is to provide free library services to all. Otherwise, public libraries, in particular, lose their sanctity. It is debatable whether libraries can charge for their services, as charging for traditional services may deter the use of libraries. If public libraries charge for all services and membership, like a private library, one may even demand that it has to generate the entire budget required to run the library. Hence, it is necessary to continue providing all traditional library services free. Any fund generation from fee-based services is restricted to new services, and the fund generated should be considered an additional fund. Hence, enrolment or membership fees, caution deposits, book lending fees, and usage fees are to be considered with extra care, depending on the library type and mission. However, in most circumstances, nominal overdue charges (library fine), recovery charges for not returned books, and charges for duplicate cards are well accepted. Sale of withdrawn books, used equipment and furniture, old newspapers, etc., are realised for the library fund. Similarly, charges for photocopy service and computer printouts, Internet charges, etc., are grey areas where libraries can price appropriately to raise revenue.

The real impact of fee-based services should be in the areas of new services. Increased use of a particular service and changed user needs provide clues for new services. Introducing new services involves set-up costs, but services far outweigh the risk. New services generate revenue and provide intangible benefits like enhanced public relations and boosted library image. Hence the primary motive of fee-based new services should not be generating profit or funds but gaining these intangible benefits. Some fee-based services could be access to research experience and services, online searching of international databases, document delivery, local and external inter-library loan delivery, internet and other resources charges. Fee-based new services must be carefully and strategically planned, avoiding duplicating

local services or competing with other local information systems and promoting with appropriate marketing methods. Pricing these services is tricky as professional research time, local interlibrary loan and document copying, verification of citation information, translation and other documentation services, copyright charges, taxes and tariffs, staff time, etc., are involved. In addition to extensive marketing and pricing structure, care should be taken not to violate lease agreements, licenses and copyright restrictions, service tax, etc.

vi) Gifts and donations (Mobilising library finance): In these days of pressing need for money to run library services, all possible funding sources need to be explored and if necessary, lobbying for funding taking library clientele into confidence is not wrong. Apart from grants from Government, donations and gifts, various fund-generating sources must be tapped, and fundraising activities and campaigns must be launched. One example is organising book exhibitions and other sales by the "Friends of the library group" on the premises. Gifts and donations are excellent sources of supplementing funds for special projects. Citizens are often willing to donate to cover part or all the costs of a new or remodelled library building. However, some care should be taken in handling gifts and donations. Firstly, the library must have exclusive control over all funds collected, donated or appropriated as library funds. There should not be unusual riders on such funds, i.e., gifts and donations should be transferred unconditionally to the treasurer of the parent organisation or local authority or a public depository like a bank or the financial secretary of the committee or Board. Secondly, no gift, donation or grant from charitable institutions be used to justify reducing or replacing the community"s commitment to public funding. Otherwise, the library runs the risk of disenfranchising, and benefactors-donors may cease according to grants to the library if they see that their efforts are resulting in reduced public funding for the library instead of improving the resources. Gifts and donations need not be in cash. Any donation of building or other investments is much better as they provide funds more regularly in the form of rent on space/ accommodation and interest on investments.

Academic Libraries:

a) University Libraries:

University libraries receive regular funds from the respective universities and special grants from the University Grants Commission (UGC) and the State Governments. The UGC grants are mainly planned grants, whereas the State Government grants are mainly non-plan grants. However, government grants are not given to libraries directly. Still, the government grants

the university, and then the university allows the library the necessary share. The University Grants Commission grants are of three types: recurring, non-recurring, and ad hoc. Few university libraries charge fees from their student members for the use of the library. A charge or fee for library use is not made without protest from users. These days there is a growing feeling that the university should provide library services free of charge, just as it provides lecture rooms, laboratories, and other facilities. The pros and cons of fee-based library services are discussed in previous pages.

b) College Libraries:

A question often asked is, "how much does it cost to run a good library each year?" The amount will vary from college to college, depending on the nature of the curriculum, the quantity and quality of services expected, and the quality of the present collection. The total student strength in a college is another criterion when allotting funds for college libraries. The problems of financing a library of an established college differ from those of a new college. The needs of the former are confined to acquiring materials to remedy weaknesses and to keep the collection up-to-date.

In contrast, the latter must build up a complete basic collection. There are three main sources of funds for college libraries. The principal source is the allocation of the current operating funds of the college; whether the college is public (government) or privately controlled matters less in this connection than the amount of additional money the library may need during any budgetary year.

Sometimes a part of the „Amalgamated Fund Collection" is given to the college library to purchase reading materials. Occasionally some portion of the contingency grant of the college is made available to the library by the Principal. The second source of income for college libraries is grants, individual gifts, and endowments. But this is not so very popular in India. Many college libraries throughout the country receive grants from the University Grants Commission. Other sources of income for college libraries are subscription/membership fees charged by the students and annual recurring and non-recurring grants from the State Governments or the go institutions governing bodies

c) School Libraries:

Promoting good library service in schools depends very much on finance. In the case of primary schools, lower fee rates for library services can be fixed as fewer expensive books

will be needed for students of lower classes. The entire library fee collected from students must be spent exclusively on books and equipment. Currently, there are no fixed norms for the provision of finances to school libraries in India. The library fund of the school should preferably comprise s collected from pupils, equal contributions from the management, matching contribution from government or local bodies, other gifts or special grants that may at The State Government or any education authority administering the school should meet the initial expenditure on setting up the school library, including the cost of new library buildings and initial expenditure on fittings and books covering the basic stock needed as a nucleus for library activities.

Public Libraries:

Libraries in general and public libraries, in particular, are expenditure-inclined (or intensive) and ever-growing organisations with no (or least) revenue-earning capacity but with recurring nature of service and hence recurring demand for ever-increasing funds. Hence a permanent assured source of income with an enhanced flow of money is required. UNESCO Public Library Manifesto (1994) prescribed that the local or national government should wholly fund public libraries. Historically public libraries had the fortune of generating funds from government sources and patronage of the aristocracy. Learned scholars, trusts and NGOs have always been the main funds for public libraries. However, during the 20th century, particularly after independence, the development of public libraries is regarded as a State subject in India. Hence financial resources through the levying of cess as per library legislation of the State or/ and a grant from the State Government have become the main source for public libraries.

In addition, many public libraries are continued to be run by voluntary organisations with or without some subscription fee. With the changed circumstances and the environment, particularly service orientation and diverse functions expected from public libraries, there is a greater need to adopt innovative and new approaches to explore and generate financial resources from different and new sources. The new circumstances are such that aid/assistance may not uniformly come forth as expected during financial crises, and requirements may vary yearly. Hence it may not be safe to rely exclusively on traditional sources of revenue. Public libraries need to tap all possible sources like cultural associations, private foundations, commercial firms, philanthropists, trade unions, and publishers‟ associations either directly from such institutions or working in co-operation with fundraising associations and

organisations like „Friends of the Library Group"s NGOs, important personalities of the locality and others. A strategic plan with a well-articulated library mission to match the donor"s needs or the community's requirements has to be developed for the purpose.

In addition, RRRLF and other Government departments and agencies are well-known sources of funds for public libraries in India. Sometimes sources from abroad and its specialised agencies, regional organisations, bilateral aids, and national and international organisations like the UN may also provide funds in cash or kind. Public libraries should not fall behind in generating funds from fee-based services, particularly charging for non-traditional new services like demography, product, trend and travel reports, computer prints, reference service, extension classes, training programmes, internet-based information services on health, travel, education (scholarship), organising exhibitions, etc. Having relegated the responsibility of running public libraries to the local community, the Government should not escape the responsibility of providing adequate financial assistance. Interestingly, the norm in the USA is that Local Government, State Government and Federal Government respectively contribute 60%, 25% and 15% of the budget to public libraries. Unfortunately, in India, there is no national policy on library and information services and no Union library legislation, and contributions of both Central and State Governments to public library funds have been too low. Transferring „library" from State List to local bodies by constitutional amendments (73rd and 74th, 1992) has not improved the financial support to public libraries. The National Commission on LIS proposed in the 8th Five-Year Plan is not a reality. However, public libraries can seek some financial support from five-year plans, RRRLF, grants from the Department of Culture (which runs certain libraries) and grants from the National Archive of India (for the preservation of rare books). As early as 1958, K.P. Sinha Committee recommended the creation of the Block Library Fund and Municipal Library Fund through cess, and both Central and State governments should contribute equal amounts with provision to gradually increase state contribution to three times the cess amount.

On the other hand, more recently, in 1985, Prof D.P. Chattopadhyaya Committee on National Policy of Library and Information Services recommended 6-10% of the education budget for libraries and the central government to provide funds under plan expenditure. In addition, it is also recommended that public libraries, particularly in rural areas, should draw resources from other official agencies like National Adult Education Programme, Agricultural Extension Programme, Distance Education Programme, etc., working at that level. It is also suggested that industrial organisations should also provide finance for libraries.

Unfortunately, compared to the target of 6-10% of the education budget, States spent far less than 1% of the education budget on libraries. Similarly, compared to the suggested standard of more than Re. 1 per capita (1988-89), most states spend much less than that even after 20 years (despite a substantial reduction in buying power of the Rupee over 20 years). As mentioned earlier, contributions of both central and state governments to library funds have been too low.

The main sources of public library revenue are subscriptions, library cess, grants from the government and endowments. Considering library subscriptions as a source of funds is widely disputed. An equally forceful opposite view is that subscription defeats the whole concept of free public library service advocated by Ranganathan. The Advisory Committee for Libraries, Government of India (1957) report also supported the inadvisability of considering subscriptions as a source of revenue. The Advisory Committee describes such subscription libraries as „stagnating pools". Yet, after half a century, a bold and new review of the situation is required in the light of privatisation, private-public partnership and „pay and use" philosophies of the time. So far, Nineteen states have public library legislation and run public libraries under the statutory system, which is not uniform. Tamil Nadu, Andhra Pradesh, Karnataka, Kerala and Goa have provisions for raising library cess as a surcharge on certain taxes. These states have what is termed a „pure form" of statutory system where the Local Library Authority (LLA) created by the Act receives cess, grants from the government, special grants for special purposes, gifts, contributions and income from endowments, fees, fines, etc. and has the responsibility to run libraries and provide library services.

For example, Tamil Nadu and Andhra Pradesh Library Acts have provided for a cess in the form of a surcharge on land and property tax at the rate of six per cent. The Karnataka Act has provided for a library cess in the form of a surcharge at the rate of three per cent (later increased to six per cent) not only on land and house tax but also on octroi duty, vehicle tax and professional tax. In addition to the library cess, Karnataka public libraries receive a grant from the government equivalent to three per cent (later six per cent) of the total land revenue collection. Other states have a „mixed form" of statutory system, where no library cess is proposed, but the respective governments have provided grants-in-aid for public libraries. In addition to substantial grant-in-aid, these libraries, called by different names like „Subscription Libraries", „Recognised Libraries", „Grantin-aid Libraries" and „Affiliated Libraries", are allowed to charge subscriptions. Voluntary organisations run them with gifts and donations. The rest of the states have no legislation (not bound by law/ statuary system to

provide public library services) but make direct government efforts and grant-in-aid to voluntary organisations running public libraries.

Experience shows that library cess alone cannot meet the continuously growing needs of public libraries. Besides, the taxable capacities of various local areas of LLA differ significantly, thereby making standard and uniform public library service throughout the country a difficult task. Like education, public health and other welfare economy measures, public library service, declared free to citizens, should be supported by regular budget grants from the government. Unfortunately, this is not the position in many countries, including India. As a result, finances for public libraries have become inadequate. Only library legislation at the national level can change things for the better. It would be proper for the government to provide for initial expenditure, while recurring demands of the libraries should be met from the proceeds of library cess, etc.

Moreover, the local authorities should be encouraged to collect more funds by giving them matching government grants. Endowments, charitable trusts and private benefactions could be another source of public library revenue. This is a common feature in countries like the USA, whereas in India, it is rare. The financial demands of libraries are recurring in nature, whereas funds from endowments are not so. Hence, endowments and benefactions, though welcome, should not be taken as a permanent or continuing and adequate source of income. Endowments can best be used for erecting library buildings, acquiring furniture and fittings, etc. Other sources of public library revenue are fees, fines, and gifts in cash or kind. The income from these sources is generally very meagre and cannot be considered a significant source of revenue.

Information centres:

Although readily available, knowledge and information must be made properly to users, including decision-makers, entrepreneurs, scientists, engineers and technologists. We all know that for the socioeconomic development of any nation, it is essential to promote scientific and technological research and disseminate information at a faster pace to reach its target for maximum utilisation. The developing countries have also recognised the need for a well-developed information infrastructure for scientific and technical information at the national level. This awareness on the part of the national planners and policymakers has led to plans for setting up national, regional and local information services in various disciplines. To provide information services to all categories of users, the information infrastructure has

to be strengthened with the help of various institutional resources that also include information centres, as already covered in Unit 1 of this Block. Information centres, thus, are principal institutions which store formal and informal information sources that provide need-based information to the users.

Consortia in India:

As we have stated earlier, consortium. It is ubiquitous because of digital information published worldwide through the Internet. It refers to cooperation, coordination and collaboration among the libraries to share information resources. The real drive for cooperation in India was seen during the 1980s due to information and communication technology developments. 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

• ~IM CONSORTIA

• HELINET

Let us now briefly discuss the above in the following sections:

INDEST:

INDEST stands for Indian National Digital Library in Science 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 consortium's headquarters is located at the Indian Institute of Technology, Delhi.

FORSA:

In the early 1980s, librarians working in institutes where astronomy and astrophysics were 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 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 the Forum, the first meeting of the Forum for Resource Sharing in Astronomy/Astrophysics (FORSA) was held on July 29, 1981, at Raman Research Institute, Bangalore. Emphasis was placed on obtaining detailed information related to Astronomy and Astrophysics literature for speedier information dissemination.

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 has initiated a programme called The UGC-Infonet-Journals Consortium to provide online access to electronic journals and databases in all disciplines to the universities in India. The programme aims at increasing the accessibility of electronic resources to universities. It will go a long way in mitigating the severe shortage of university libraries that have faced many years of periodicals. The E-Journals programme is a cornerstone of the UGC-INFONET effort, which addresses the universities' teaching, learning, research, connectivity and governance requirements. The effort was announced by the Hon'ble Prime Minister of India, Shri Atal Bihari Vajpayee, and the network was activated by the Hon'ble Minister for Human Resources Development, Dr Murli Manohar Joshi, at the inauguration of the Golden Jubilee Celebrations of the UGC on December 28, 2002, in New Delhi. The E-Journals programme demonstrates how communication networks and computers can be used to stretch available funds to further these aims. INFLIBNET Centre is an autonomous Inter-University Centre of the University Grants Commission, located at Ahmedabad(See Unit 13 of this course for a detailed discussion of INFLIBNET).

It is the coordinating and monitoring agency in the UGC - Infonet Project. It makes links between UGC, ERNET and universities. INFLIBNET is also responsible for training

university library professionals to use this network to provide various services to users. ERNET India, an autonomous scientific society under the Ministry of Communications and Information Technology, has been providing Internet access to Education and Research community in the country for over ten years. ERNET is a nationwide terrestrial and satellite network located at leading education and research institutions in major cities. ERNET India, in partnership with the University Grants Commission in setting up the UGC-Infonet programme, proposed to use information and communication technology (ICT) and the Internet to transform the learning environment from a mono-dimensional one to a multi-dimensional one. As a result, UGC, INFLIBNET and ERNET have come together to .meet the challenges that may face the education community concerning real-time information.

UGC-Infonet will be a boon to the higher education systems in several ways.

It will:

• become a vehicle for distance learning to facilitate the spread of quality education throughout the country.

• be a tool to distribute educational material and journals to the remotest areas.

• be a resource for researchers and scholars tapping the most up-to-date information.

• form a medium for collaboration among teachers and students, not only within the country but also worldwide.

• be an Intranet for University Automation.

• encompass entire University Systems for the most efficient utilization of precious network resources.

• establish a channel for the Globalisation of Education and facilitate the universities' marketing of their services and developments.

CSIR E-Journals Consortium:

The Council of Scientific and Industrial Research (CSIR), which has thirty-eight constituent laboratories, subscribes to over 4,000 scholarly and research journals at the cost of about Rs. 25 crores annually. The collection of print editions creates an annual depository of 5,00,000 plus printed articles spread across the labs in a stand-alone manner. To enhance the accessibility, use and increase the resource base of world S&T literature, the fifth meeting of

the Heads of CSIR Laboratories & Information Centres held at RRL in Trivandrum in February 2001 had recommended that a Consortium for access to E-journals be set up. Consequently, the Director General of CSIR set up a Study Group to collect and compile information on the journals presently subscribed to by the CSIR laboratories, including CSIR Headquarters and also to study the feasibility and economic viability of CSIR laboratories subscribing to identified journals online 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 workforce 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.l0 and Rs.150 lakhs per annum on information resource building.

• Many publishers are now 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 research journals. Publishers of the journals offer concessional rates for their e-format journals subject to maintaining the status quo of a print subscription.

Based on the recommendations made by the study group, the CSIR accepted the recommendations and decided to set up a consortium, 'CSIR E – Journals Consortium' for electronic access to journals.

IIM Consortium:

The Indian Institutes of Management are the premier national business management education institutions set up by the Government of India. They are independent societies governed by an independent Board of Governors. The major objective of the institutions is to

train young graduates to become professional managers. The IIMs are available at six places - Ahmedabad, Bangalore, Calcutta, Indore, Kozhikode, and Lucknow.

The concept of the IIM Library Consortium was floated a few years back. Since 2000, the Librarians of all the HMs 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 HMs, and it was found that:

• ABIIInform (Abstracts), ABllInform (Full-Text - Business Periodicals On-disk

- BPO) is being subscribed to by lIMA, lIMB, and IIMC, respectively;

• Business Source Elite (BSE), the Full-Text journal service of EBSCO, is being subscribed to by lIMA, IIMI, and IIMK; and

• Econlit (Silver Platter) is received at IIMA and IIMK, and Econlit (Ovid) at HMI.

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. They shall ensure quality improvement and revenue savings for 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, the Consortia programme shall also cover other digital databases and journals.

• the proposal of IIM Library Consortium seeks the authorisation and guidance of the Heads of all the HMs, to proceed further.

Based on the above, four HMs placed orders for databases such as BSE and Econlit, and the other 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 the IIM Library Consortium. They encouraged the librarians to participate for mutual benefit actively.

HELINET:

The Rajiv Gandhi University of Health Sciences (RGUHS) launched the HELINET (Health Sciences Library & 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 money on getting only about 150 journals each; even among these 150, many were duplicates. This spurred the need to reduce costs while making the core medical journals more affordable and accessible.

Review questions:

1. Write a short note on the information.

2. Explain physical resources, including

3. What do you know about Human Resources management?

4. Briefly explain the consortia in India.

S. No	Questions	LOCF Mapping
Small Questions		
1.	What are the two main types of information resources?	K1
2.	List three non-documentary sources of information.	K1
3.	What is the main objective of human resource planning?	K1
4.	Name two major library consortia in India.	K1
5.	What is the purpose of a consortium?	K2

S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the concept of information/intellectual resources. Classify documentary sources of information with suitable examples.	K2, K4
2.	Explain the principles of managing physical resources in a library or information centre.	K2, K3
3.	Elaborate on the process and objectives of human resource planning in libraries. What are the major techniques for HR demand forecasting?	K2, K4
4.	Discuss the various sources of funding for academic, public, and special libraries in India.	K2, K4
5.	Analyze the role of consortia in resource sharing and development. Describe the objectives and functions of major library consortia in India.	K4, K5

COURSE OUTCOMES:

At the end of the course the student will be able to:

CO1	Recall and explain the role, functions, and organizational structure of public, academic, and special libraries.	**K1, K2**
CO2	Analyze the services provided by different types of libraries, including the application of ICT and web-based services.	**K4**
CO3	Evaluate the role of national and international organizations (UNESCO, IFLA, RRRLF, UGC, INFLIBNET, CSIR, etc.) in the development of library systems.	**K4, K5**
CO4	Apply the principles of resource planning and development, including the management of information, physical, human, and financial resources.	**K3, K4**
CO5	Analyze the concept and importance of library consortia and resource sharing networks in India.	**K4**

K1-Remember; K2-- Understand; K3-Apply; K4-Analyze; K5-- Evaluate

References:

Ball, David (2004). What's the 'Big Deal', and why is it a Bad Deal for Universities?" Interlending & Document Supply. 32(2), 117.

Biswas, Band Dasgupta, S. (2001) Opportunities for Libraries in Managing and Resource Sharing through Consortia: A New Challenge for Indian Librarians.

Chand, Prakash and Mahesh, G. (2003). CSIR E-Journals Consortium. In: Proceedings of the Annual Conference of the Society for Information Science. Roorkee: Indian Institute of Technology.

Evans, Edwards (2002). Management Issues of Consortia. Part Two. Library Management. 23(617), 275.

Hiremath, Uma (2001). Electronic Consortia: Resource Sharing in the Digital Age. Collection Building. 20(2), 80-87.

BIBLIOGRAPHY

1. Management Information System (2018), *Kenneth. C. Laudon, Jane. P. Laudon.*

2. The Oxford Handbook of Management Information Systems Critical Perspectives and New Directions (2011), *Robert D. Galliers, Wendy Currie.*

3. Management Information Systems (2008), *Effy Oz.*

4. Business Driven Information Systems (2015), Paige Baltzan, Amy Phillips

5. Health Care Information Systems A Practical Approach for Health Care Management (2017), Karen A. Wager, Frances W. Lee, John P. Glaser

6. Introduction to Information Systems for Health Information Technology (2018), Nanette B. Sayles

7. Management Information Systems (2014), Ken J. Sousa, Effy Oz

8. Management Information Systems Managing the Digital Firm (2019) Kenneth Laudon, Jane Laudon

9. Managing and Using Information Systems A Strategic Approach (2019), Keri E. Pearlson, Carol S. Saunders, Dennis F. Galletta

10. MIS Printed Access Card (2017), Hossein Bidgoli

11. Fundamentals of Information Systems (2017), Ralph Stair, George Reynolds

12. Processes, Systems, and Information An Introduction to MIS (2018), Earl McKinney Jr., David Kroenke

13. Management Information Systems For The I, Haag/ Cummings

14. Management Information System (2019), IntroBooks

15. Management Information Systems and Workflow Automation (2017), Michael Fairley

16. Information Systems and Management (2019), Daniel Brody

17. Management Information System (2021), Vikraman NarayanaMoorthi

18. Essentials of MIS (2016), Kenneth Laudon, Jane Laudon

19. Management Information Systems (2020), Jaytilak Biswas

20. Management Information Systems, R. Kelly Rainer