



PERIYAR UNIVERSITY

SALEM - 636 011, Tamil Nadu, India.

**CENTRE FOR DISTANCE AND ONLINE
EDUCATION
(CDOE)**

**Certificate Course in
Library and Information Science**

**Paper: Fundamentals of Library and Information
Science**

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**Paper: Fundamentals of Library and Information
Science**

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1.1. Introduction to the Library

The term *library* is derived from the Latin word *liber*, meaning “book.” In Greek and other Romance languages, the equivalent term is *bibliotheca*. A library refers to a collection or group of collections of books and other print or non-print materials, systematically organised and maintained for use whether for reading, consultation, study, or research. These resources may exist in physical or digital formats, and a library may take the form of a physical building, a virtual platform, or a combination of both.

Libraries play a pivotal role in education, serving as dynamic spaces for learning, research, and intellectual development. Institutional libraries, in particular, are designed to serve a defined group of users and are managed by qualified librarians and trained staff to ensure that users’ informational and educational needs are effectively met.

A library is, therefore, a knowledge-enriched environment that inspires curiosity, exploration, and intellectual growth. It brings together books and other resources that span diverse subjects addressing the learning needs of individuals from various age groups and backgrounds. The primary function of a library is to provide equitable access to information and resources that support education, research, and personal development. Modern libraries have evolved beyond their traditional role, encompassing not only books but also digital databases, periodicals, newspapers, and multimedia resources. They

serve as vibrant community spaces where individuals can exchange ideas, collaborate on projects, and participate in educational or cultural activities.

Libraries also offer students a quiet and conducive environment for focused learning, as well as access to valuable resources, both print and online that might otherwise be financially out of reach. For researchers and professionals, libraries act as hubs of innovation, supporting scholarly inquiry and the advancement of knowledge.

Furthermore, libraries play a vital role in preserving cultural and historical heritage by maintaining rare manuscripts, archival materials, and other irreplaceable documents. With the advent of digital technology, many libraries have undergone a transformation, extending their reach through digital platforms and making information accessible to a global audience. Ultimately, a library is far more than a mere collection of books, it is a cornerstone of civilisation. It empowers individuals, nurtures intellectual curiosity, and fosters informed, engaged communities.

1.2. Definitions

According to Dr. S. R. Ranganathan, often regarded as the “Father of Library Science in India,” a library is a “public institution or establishment charged with the care of a collection of books and the duty of making them accessible to those who require to use them.” This definition underscores the

library's dual purpose: as a guardian of knowledge and as a service-oriented institution dedicated to making information freely available to all.

As articulated in the IFLA-UNESCO Public Library Manifesto, a library is a local centre of information that provides access to knowledge, ideas, and works of imagination to all members of the community. Supported by the community it serves, a library promotes lifelong learning, cultural enrichment, independent decision-making, civic participation, and social inclusion through its diverse resources and services.

1.3. Types of Libraries

Libraries can be broadly classified into four main types: public, academic, special, and national.

1.3.1. Public Library

A public library is a vital social institution that plays a transformative role in the cultural and educational development of society. It serves as a democratic space, providing every individual, regardless of age, gender, caste, or socioeconomic background, free and equitable access to knowledge and information. Several factors have influenced the growth and importance of public libraries, including:

- The human desire for knowledge and self-improvement
- The promotion of literacy and self-education

- The need for an effective information dissemination centre
- The demand for lifelong learning opportunities
- The role of libraries as community intellectual and cultural hubs
- Their function as recreational and creative spaces
- The rapid advancements in science, technology, and communication

With developments in Information and Communication Technology, public libraries have expanded their role by offering quick and efficient access to information through both physical and digital platforms.

a) Objectives of the Public Library

The following objectives focused on information, literacy, education, and culture form the foundation of public library services:

- To create and strengthen reading habits in children from an early age.
- To support both individual and self-directed learning, as well as formal education at all levels.
- To provide opportunities for personal and creative development.
- To stimulate imagination and creativity, especially among children and young people.
- To promote awareness and appreciation of cultural heritage, the arts, and scientific achievements.

- To provide information services to local enterprises, associations, and interest groups.
- To facilitate the development of information and computer literacy skills.
- To support, participate in, and when necessary, initiate literacy programmes and lifelong learning activities for all age groups.

1.3.2. Academic Library

The role of a library within any academic institution is best understood in light of the institution's philosophy of education. Education, as a continuous process of learning and intellectual development, aims to cultivate an individual's knowledge, skills, and values. Academic libraries, encompassing school, college, and university libraries are integral to this mission. They cater to four major user groups, namely:

- a) Students
- b) Teachers
- c) Research scholars
- d) Administrative, professional, and other institutional staff

Although their objectives, functions, sources of funding, staff qualifications, and organisational structures may differ, all academic libraries share the common goal of supporting teaching, learning, and research. Building comprehensive collections that include books, periodicals, reference materials,

and digital media is a vital aspect of this endeavour. Additionally, they offer a range of services such as reading facilities, circulation, and reference assistance tailored to the needs of their users.

a) Objectives of an Academic Library

The primary objectives of an academic library are to:

- Serve the information and educational needs of the academic community.
- Collect, organise, and preserve diverse reading and reference materials.
- Provide suitable reading and study spaces for users.
- Offer lending, reference, and information services to students, teachers, and researchers.
- Facilitate teaching, research, and lifelong learning through the effective use of resources.

Academic libraries can be broadly categorised into three types: School Libraries, College Libraries and University Libraries

a) School Library

A school library plays a foundational role in shaping young minds, cultivating curiosity, and encouraging the habit of reading.

i) Objectives of a School Library

Some of the objectives of school libraries are:

- To awaken and nurture an interest in reading.
- To foster a lifelong love for books and learning.
- To promote healthy reading habits.
- To enhance communication and creativity through extracurricular activities such as storytelling, group discussions, audio-visual programmes, and workshops.

ii) Functions of a School Library

A well-managed school library should:

- Acquire a wide variety of teaching-learning resources for students and teachers.
- Organise and display books systematically for easy access.
- Provide adequate physical facilities, including suitable furniture and equipment.
- Employ qualified and dedicated library staff.

School library services typically include:

- Lending services

- Reading facilities
- Reference and information assistance
- Guidance and advisory services

The ultimate goal is to cultivate curiosity, creativity, and a lifelong appreciation for reading among children.

b) College Library

A college library is an essential component of higher education, designed to expand students' intellectual horizons and encourage independent learning. Since college education often involves large classes, it is difficult for teachers to provide individual attention to every student. Hence, the library becomes a vital resource for self-directed study and academic enrichment.

i) Objectives of a College Library

The objectives of a college library are to:

- Broaden students' understanding of various academic disciplines.
- Provide resources and guidance for higher education and independent learning.
- Prepare students for future responsibilities in government, education, business, and industry.
- Cultivate informed, responsible, and enlightened citizens.

- Support professional preparation in fields such as law, medicine, engineering, and technology.

ii) Functions of a College Library

The functions the college library are:

- Support the academic needs of students and faculty in reading, study, and research.
- Provide suitable physical facilities such as a functional building, modern furniture, and necessary equipment.
- Maintain updated and multiple copies of curriculum-based and reference books.
- Develop collections that include the latest subject books, periodicals, and their back volumes.
- Acquire multimedia materials and computer-assisted learning tools.
- Subscribe to newspapers and recreational reading materials such as novels, biographies, and travelogues.

iii) College Library Services

The staff of the college library provides a range of services, including:

- Reading, lending, and textbook services.
- Guidance in using manual and digital catalogues.

- Assistance in locating books and reference materials.
- Training users to effectively utilise library resources.
- Reference, information, and referral services.
- Displaying new arrivals and multimedia materials.
- Providing reprographic and document duplication services.

c) University Library

Since India's independence in 1947, universities have witnessed tremendous growth in terms of enrolment, faculty strength, disciplines, and research activities. University libraries have evolved to meet the complex and expanding needs of higher education and research institutions. A university library supports the university in fulfilling its major functions:

- Teaching and learning
- Research and knowledge generation
- Publication and dissemination of research output
- Preservation of knowledge and intellectual heritage
- Extension and outreach programmes

i) Objectives of a University Library

The objectives of a university library are to:

- Provide intellectual and managerial leadership for the advancement of knowledge in fields such as science, technology, medicine, law, and the humanities.
- Support and guide research scholars in applying their findings for societal benefit.
- Preserve knowledge, ideas, and cultural heritage for future generations.

ii) Functions of a University Library

The main functions include:

- Developing comprehensive collections of print and digital materials across diverse disciplines.
- Organising, classifying, and storing information resources for effective access and use.
- Encouraging students, faculty, and researchers to use the library for academic and personal enrichment.

iii) Services of a University Library

With the advancement of information and communication technology, most university libraries have automated their operations and now provide a wide array of services, including:

- Reading and lending services

- Library orientation and bibliographic instruction
- Reference and information services
- Current Awareness Services (CAS) and Selective Dissemination of Information (SDI)
- Bibliographic and documentation services
- Inter-Library Loan (ILL) services
- Reprographic and document delivery services
- Maintenance of newspaper clippings, vertical files, and archival materials
- User education programmes, exhibitions, and displays
- Reservation of documents and access to digital repositories
- Organisation of lectures, demonstrations, seminars, and workshops

1.3.3. Special Library

Special libraries emerged in the 20th century to cater to the specialized information needs of particular user groups. A special library serves a defined community by maintaining subject-focused collections and offering tailored information services. These libraries are usually affiliated with organizations engaged in research, development, or professional practice, and are designed to support the specific objectives of their parent institutions. They acquire

diverse information resources such as handbooks, technical reports, state-of-the-art reviews, bibliographies, current awareness bulletins, periodicals, indexes, abstracts, directories, documentation lists, and accession lists.

a) Definition of a Special Library

According to *Harrod's Librarians' Glossary of Terms*, a special library is “a collection of books and other printed, graphic, or recorded materials dealing with a limited field of knowledge and provided by a learned society, research organization, industrial or commercial enterprise, government department, or educational institution.” It may also function as a specialized branch of a public library catering to specific professional or subject-based interests such as a technical library or a music library serving the detailed information needs within that particular domain.

b) Objectives of a Special Library

A special library forms an integral component of its parent organization, aligning its services with the institution's goals, programmes, and activities. Its primary objectives are:

- To develop both current and retrospective collections in core subject areas relevant to the organization's research projects and initiatives;
- To provide timely and precise information on recent advancements in the concerned field; and

c) Functions and Services of a Special Library

Special libraries perform a range of specialized functions and offer customized services, including:

- Conducting exhaustive literature searches and compiling comprehensive bibliographies;
- Selecting, acquiring, organizing, storing, and retrieving up-to-date information as per user requirements;
- Preparing and providing state-of-the-art reports, critical reviews, monographs, research reports, and reprints;
- Producing indexes, abstracts, and extracts for quick reference;
- Publishing accession lists, bulletins, newsletters, summaries, handbooks, manuals, and bibliographies;
- Facilitating document delivery services, including inter-library loans;
- Offering reference and referral services; and
- Delivering specialized information services such as Current Awareness Service (CAS), Selective Dissemination of Information (SDI), and translation services.

1.3.4. National Library

In most countries, a National Library serves as the central repository and guardian of the nation's intellectual and cultural heritage. Established and funded by the government, it is entrusted with the responsibility of collecting, preserving, and providing access to the country's literary output. One of its key functions is to publish the national bibliography, thereby ensuring a comprehensive record of the nation's publications.

According to *Harrod's Librarians' Glossary* (1987), a National Library is "a library maintained out of government funds to serve the nation as a whole." Its primary purpose is to collect and preserve for posterity all published records – books, periodicals, newspapers, and other printed and multimedia materials – constituting the cultural heritage of the country. Such libraries usually obtain materials through legal deposit legislation, which obliges publishers to deposit copies of all works produced within the country. To ensure compliance, these laws often include specific penalty provisions. Additionally, national libraries strive to acquire works about the country that are published abroad to maintain a complete record of national documentation.

b) Objectives and Functions of a National Library

The central objective of a National Library is to identify, acquire, organize, preserve, and facilitate access to all printed and non-printed materials published within the country, as well as those created by its citizens abroad. It

serves as the principal institution for safeguarding the nation's documentary heritage and ensuring its availability for research, education, and cultural development. The major functions of a National Library are to:

- Provide leadership and guidance to libraries across the nation;
- Serve as a permanent depository for all publications produced within the country;
- Acquire and preserve other forms of documentary materials, including manuscripts, maps, and audiovisual resources;
- Offer bibliographical and information services at the national level;
- Act as a coordinating centre for cooperative activities among libraries; and
- Extend specialized information and reference services to government departments and public agencies.

1.4. Roles of Libraries in Society

Libraries play a vital and multidimensional role in the advancement of society. They serve as dynamic centres of education, information dissemination, community engagement, cultural preservation, and intellectual development. By offering free and equitable access to information resources, libraries bridge social and economic gaps, empowering individuals to learn, explore, and innovate regardless of their background, age, or economic status.

Beyond being mere repositories of books, modern libraries are vibrant learning ecosystems that foster knowledge creation, lifelong learning, digital inclusion, and civic participation. They uphold the democratic ideal that access to information is a fundamental human right and serve as catalysts for both individual development and societal progress. In this section, the role of the library in the society are discussed.

a) Promoting Education and Literacy

Libraries are cornerstones of education at all levels formal, non-formal, and lifelong. They provide access to diverse collections, including print and electronic books, journals, educational software, and open-access resources that support students, teachers, and independent learners alike. Libraries also organize literacy and learning programs such as storytelling sessions for children, adult literacy workshops, and continuing education classes. These initiatives not only strengthen foundational reading and writing skills but also cultivate a love for learning and critical thinking among users.

b) Ensuring Free and Equitable Access to Information

Libraries uphold the principle of intellectual freedom by providing unrestricted access to information on a broad spectrum of topics from science, health, and technology to governance, culture, and social issues. By ensuring that everyone can access reliable and unbiased information, libraries empower

citizens to make informed decisions, engage meaningfully in democratic processes, and contribute to societal development. This role is particularly important in an era where misinformation and information inequality pose growing challenges.

c) Bridging the Digital Divide

In today's technology-driven world, libraries play a crucial role in promoting digital inclusion. They provide free public access to computers, the Internet, and digital devices, enabling users to explore online resources, e-government services, and e-learning opportunities. Libraries also conduct digital literacy training to help individuals acquire essential ICT skills ranging from basic computer use to online research and digital safety. By doing so, libraries help reduce disparities in access to technology and ensure that all citizens can participate fully in the information society.

d) Fostering Community Engagement and Social Inclusion

Modern libraries serve as vibrant community hubs that promote social cohesion and civic engagement. They provide safe, inclusive, and welcoming spaces for people of all ages, cultures, and backgrounds to gather, learn, and share experiences. Through various events such as book clubs, exhibitions, cultural programs, workshops, and job fairs libraries nurture dialogue, creativity, and mutual understanding. These activities transform libraries into

living spaces for social interaction and collective growth, strengthening the fabric of local communities.

e) Preserving Culture, Heritage, and History

Libraries act as guardians of a nation's cultural and intellectual heritage. They collect, organize, and preserve materials of historical, cultural, and artistic significance such as manuscripts, local histories, archives, photographs, and oral traditions. Increasingly, libraries are also engaged in digitization projects that safeguard fragile resources for future generations. By preserving the collective memory of society, libraries ensure that knowledge, traditions, and values are transmitted across generations.

f) Facilitating Research, Innovation, and Knowledge Creation

Libraries are indispensable to research and innovation. They provide access to specialized databases, academic journals, institutional repositories, and reference collections that support scholarly inquiry across disciplines. Librarians, as information professionals, assist researchers in locating, evaluating, and managing scholarly resources efficiently. By fostering an environment of knowledge exchange and discovery, libraries play a direct role in promoting academic excellence, scientific advancement, and the broader development of human knowledge.

Thus, it can be concluded that the libraries are more than information centres they are agents of change, inclusion, and enlightenment. They nurture informed citizens, strengthen democratic societies, and preserve the intellectual and cultural foundations upon which future progress is built.

1.5. Library Professional Associations

Library professional associations are cornerstone institutions that strengthen and sustain the field of Library and Information Science (LIS). They serve as collective voices for library professionals, promoting their interests, advancing the discipline, and influencing the evolution of information services in a rapidly changing global environment. These associations serve as representative and regulatory bodies, establishing professional standards, encouraging research and innovation, and promoting a sense of unity among members of the profession.

By providing opportunities for professional development, advocacy, standardisation, and collaboration, library associations ensure that libraries continue to meet the educational, informational, and technological needs of modern society. They also play a strategic role in shaping government policies, enhancing library infrastructure, and promoting the recognition of librarianship as a vital profession that contributes to national and global development.

1.5.1. Roles of Professional Associations

a) Publications

Associations contribute to professional communication and knowledge dissemination through publications such as journals, newsletters, bulletins, and monographs. These publications document current research, policy developments, technological innovations, and best practices in the field of librarianship. They serve as authoritative resources for practitioners, educators, and researchers in the field.

b) Research and Surveys

Library associations conduct national and regional surveys to assess the status of library services, user needs, reading habits, and resource utilisation. The data gathered from these studies helps inform policy decisions, identify service gaps, and plan improvements in library systems. Research findings also serve as valuable references for government agencies and educational institutions involved in information management.

c) Fostering Cooperation and Collaboration

Professional associations promote inter-library cooperation, consortium development, and collaborative resource-sharing initiatives.

They facilitate the establishment of networks among libraries and information centers at local, national, and international levels, enhancing access to knowledge resources and reducing duplication of effort. Such cooperation also strengthens the global LIS community and fosters a shared commitment to equitable access to information.

Thus, the library professional associations are indispensable pillars of the LIS profession. They ensure that library professionals remain competent, ethical, and forward-thinking while promoting the recognition of libraries as vital institutions of learning, innovation, and democracy. Through their multifaceted roles in education, advocacy, standardisation, and collaboration, these associations continue to shape the present and future of the global library movement.

1.6. Library Associations in India

The following are some of the prominent Library Associations in India working for the library & information Science discipline education, research and progression

1.6.1. ILA

The Indian Library Association is a premier association committed to the cause of Library Movement and Development. The Indian Library

Association is the national association which represents those who work in or advocate for Indian libraries.

ILA has provided a wide variety of services and programs to its members and others in the library community since its formation September 13, 1933. ILA's Executive Council and its divisions are advised by others groups and committees. It was Indian Library Association was formally formed at the First All India Library Conference at Calcutta. The objectives of the Association are: promotion of research in library science, co-operation with international organizations with similar objectives, publication of bulletins, periodicals, books etc., which tend to the realization of the objects of the association; establishment of libraries, documentation & information centres and assistance to their establishment and working; and promotion of appropriate library legislation in India.

1.6.2. IASLIC

The Indian Association of Special Libraries and Information Centres (IASLIC) is a non-profit organisation based in India that supports development in the entire field of special librarianship in India. The IASLIC undertakes supports, coordinate research and studies, conducts short term training courses; organises general/special meetings, and hold

seminars and conferences in alternate years on current problems of Libraries and Information services and other allied areas are selected as themes for discussions on these occasions. It also publishes journals, monographs, manuals, newsletters, papers, proceedings and reports.

1.6.3. IATLIS

IATLIS stands for the Indian Association of Teachers of Library and Information Science, a professional organization founded in 1969 to promote and advance library education in India.

Its main objectives include promoting the exchange of ideas, research, and publications in library and information science, as well as providing training for teachers and promoting their welfare. It achieves these goals through activities like national conferences, seminars, and the publication of an electronic journal.

1.7. Qualifications and Qualities of a Librarian

Librarians today are much more than custodians of books; they are dynamic information professionals who facilitate access to knowledge in both physical and digital environments. To perform effectively, they must possess a combination of academic qualifications, technical competencies, and interpersonal skills that enable them to meet the diverse needs of

users in an ever-evolving information landscape. A successful librarian blends a strong educational background with critical thinking, organizational ability, and a passion for learning and service.

a) Educational Qualification

A solid educational foundation is essential for anyone aspiring to enter the library profession. A bachelor's degree is typically the minimum requirement for entry-level positions; however, a Master's degree in Library and Information Science (MLISc or M.Lib.Sc) or its equivalent is generally required for professional and managerial roles in academic, public, and special libraries. These programs provide theoretical and practical knowledge in areas such as cataloguing, classification, information retrieval, digital librarianship, and knowledge management.

Apart from the bachelor's and master's degrees in Library and Information Science, several colleges and universities also offer Certificate and Diploma courses in the field. These short-term programs are designed to provide foundational knowledge and essential practical skills related to library operations. Candidates who complete Certificate or Diploma courses are generally equipped to take up roles as semi-professionals in libraries, assisting with tasks such as cataloguing,

circulation, shelving, basic reference services, and managing routine library activities.

Such programmes are particularly beneficial for individuals seeking entry-level opportunities in libraries or aiming to build a foundation before pursuing higher qualifications in Library and Information Science

b) Experience

Practical experience gained through internships, volunteer work, or part-time employment in libraries is highly valued. Such experience familiarizes aspiring librarians with library operations, user services, and the use of integrated library management systems (ILMS). Exposure to both traditional and digital environments, such as cataloguing databases, using reference tools, and handling electronic resources, enhances professional readiness and confidence.

1.8. Skills of a Librarian

The following skills are essential for librarians to ensure the smooth and efficient functioning of the library

a) Communication and Interpersonal Skills

Effective communication lies at the heart of librarianship. Librarians must be able to clearly convey information, answer queries, and assist

users in navigating both print and electronic resources. Strong verbal and written communication skills are essential not only for interacting with patrons but also for collaborating with colleagues, managing teams, and conducting information literacy sessions. Equally important are interpersonal skills such as empathy, patience, and cultural sensitivity, which enable librarians to build positive relationships with users from diverse backgrounds.

b) Technical and Digital Competence

Modern librarians operate in an increasingly digital ecosystem. Proficiency in library management software, database searching, online cataloguing, metadata creation, and the use of digital repositories is indispensable. Librarians must also be skilled in internet research, social media engagement, and the use of information and communication technologies (ICTs) for service delivery. Knowledge of digital tools such as content management systems, e-resource management platforms, and reference management software helps librarians support hybrid and virtual library environments effectively.

c) Organizational and Administrative Skills

Libraries manage vast collections, resources, and programs that require meticulous organization. Librarians must be detail-oriented and capable of handling multiple responsibilities simultaneously, ranging from acquisitions and cataloguing to event coordination and staff supervision. Strong time management and administrative abilities are essential for maintaining efficiency, ensuring proper documentation, and achieving institutional objectives.

d) Customer Service and People Skills

A librarian's primary mission is to serve the information needs of users. Therefore, a genuine commitment to customer service, combined with patience, courtesy, and attentiveness, is vital. Librarians often interact with students, researchers, professionals, and community members who may have varying levels of information literacy. The ability to assist each individual respectfully and effectively fosters user satisfaction and encourages lifelong engagement with libraries.

e) Analytical and Critical Thinking

Librarians routinely evaluate information sources to determine their credibility, relevance, and accuracy. Strong analytical and critical

thinking skills are required for collection development, research assistance, and information evaluation. These skills enable librarians to curate high-quality resources, solve complex reference queries, and make data-driven decisions that improve library operations and services.

f) Adaptability and Innovation

In the digital age, the landscape of librarianship is constantly changing. Librarians must be flexible, forward-thinking, and open to adopting new technologies and service models. Adaptability allows them to respond effectively to emerging trends such as open access, digital preservation, artificial intelligence in information retrieval, and remote learning. Innovative librarians also design creative programs such as makerspaces, reading clubs, and digital literacy workshops to meet the evolving needs of their communities and academic institutions.

g) Intellectual Curiosity and Love for Learning

A successful librarian embodies a lifelong love for reading, learning, and discovery. This passion extends beyond books to encompass a curiosity about new ideas, research trends, and global developments. Librarians are continuous learners who not only seek knowledge but also inspire others to do the same. Their broad general knowledge and

specialized understanding of library science principles form the foundation for effective user assistance and professional excellence.

1.9. Conclusion

In conclusion, it may be stated that libraries in modern society play a vital role in meeting the diverse information needs of their users. To deliver effective and timely information services, today's librarians must be technologically proficient and adaptable. They are expected to possess a wide range of skills, including the ability to manage print and digital resources, navigate electronic databases, use library automation systems, and support users in accessing online information. Moreover, librarians must also demonstrate strong communication, problem-solving, and information-literacy skills to guide users, organise resources efficiently, and maintain a user-friendly library environment. These competencies collectively enable librarians to function effectively in an increasingly digital and dynamic information landscape. Therefore, the librarianship demands a harmonious blend of education, technical skills, ethical integrity, and human understanding.

The modern librarian must be is a teacher, technologist, researcher, and community facilitator someone who bridges the gap between information and those who seek it. He must be equipped with both

professional qualifications and personal qualities such as empathy, adaptability, and intellectual curiosity. Librarians remain indispensable agents of knowledge creation, preservation, and access in the 21st century.

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Unit 2: Library Functions and Services

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2.1. Introduction

Libraries function as dynamic centers of information, learning, and community engagement. They provide access to a wide range of resources, including books, digital media, and online databases, while serving as inclusive and welcoming spaces for all. Their core responsibilities encompass the collection, organization, preservation, and dissemination of information, alongside lending services and essential support such as reference assistance, community programs, and internet access. Through these services, libraries meet the intellectual, educational, and recreational needs of diverse user groups.

2.2. The Functions of a Library

Libraries have long been vital institutions that promote knowledge, learning, and cultural enrichment. Their role extends far beyond the storage of books. Modern libraries actively contribute to the intellectual, social, and educational development of individuals and communities. As society evolves, libraries continue to adapt, incorporating technological advancements and responding to changing societal expectations. Some of the important functions of the library are discussed in this section.

a) Providing Access to Information

The primary function of a library is to ensure equitable access to information. Libraries house diverse materials, including books, journals,

newspapers, e-books, digital content, and multimedia resources, made available through both physical collections and digital platforms. By offering unrestricted access regardless of users' socioeconomic backgrounds, libraries empower individuals to engage in learning, research, and personal development.

b) Supporting Education and Research

Libraries play an indispensable role in supporting education at all levels, from early schooling to advanced research. Academic libraries, in particular, cater to the needs of students and faculty by providing access to textbooks, scholarly journals, research papers, and subject-specific resources. These materials enable learners and researchers to complete academic work, conduct studies, and stay informed about developments in their respective fields.

c) Promoting Literacy and Reading

One of the core functions of libraries is to promote literacy and foster a culture of reading. By offering a wide variety of reading materials books, magazines, newspapers, and more libraries help users build reading skills and broaden their knowledge. For young readers, libraries are especially important, supporting literacy development through initiatives such as storytelling sessions, book clubs, and reading promotion programs.

d) Fostering Community Engagement and Social Interaction

Libraries serve as vibrant community hubs, providing spaces for social interaction, cultural exchange, and collaborative activities. Beyond lending books, they bring together individuals from diverse backgrounds through events, workshops, and group activities. By organizing author talks, exhibitions, cultural programs, and community discussions, libraries create meaningful opportunities for people to connect, exchange ideas, and learn from one another.

e) Preserving Cultural and Historical Heritage

Libraries serve as guardians of cultural and historical knowledge, preserving rare books, manuscripts, documents, and archival materials for future generations. This responsibility is particularly significant in national and specialized libraries, which focus on collecting and safeguarding materials of historical and cultural value. Through their well-maintained archives and special collections, libraries ensure that a community's intellectual and cultural heritage remains protected, accessible, and available for research and learning.

f) Encouraging Innovation and Creativity

Modern libraries increasingly embrace their role as centers of innovation and creativity by offering spaces and resources that support experiential learning. Many libraries now feature makerspaces community-oriented

creative environments equipped with tools such as 3D printers, digital media equipment, and crafting materials. These spaces empower individuals to explore emerging technologies, experiment with diverse media, and engage in hands-on creative projects, thereby nurturing innovation and problem-solving skills.

2.3. Library Services

Library services encompass a wide range of activities designed to support information access, learning, and community engagement. These services include providing access to physical and digital resources such as books, journals, e-books, and online databases, as well as offering public spaces for study, collaboration, and community events. Broadly, library services can be categorized into user-oriented services such as circulation, reference assistance, information literacy instruction, and reader advisory and resource management functions, including cataloguing, classification, shelving, and digital asset management. In addition to these core services, many libraries provide specialized offerings such as children's programs, digital literacy workshops, and access to online portals and electronic resources.

2.3.1. Indexing and Abstracting Services

Indexing and abstracting services play a crucial role in organizing, describing, and facilitating access to research literature and scholarly publications. Indexing services compile systematic lists of documents, such as

journal articles, books, proceedings, and reports, along with essential bibliographic details. Abstracting services go a step further by providing not only bibliographic information but also concise summaries of the content, enabling users to quickly determine the relevance of a document.

a) Differences between Indexing and Abstracting services

Feature	Indexing Services	Abstracting Services
Content	Bibliographical details only	Bibliographical details and abstracts (summaries)
Primary function	To guide users to documents	To provide a summary and guide users to documents
User benefit	Allows quick location of relevant documents	Allows users to assess the relevance of a document without reading it first

b) Uses and Benefits of Indexing and Abstracting Services

Information Retrieval: Indexing and abstracting services play a vital role in enabling quick and efficient access to information within libraries and online databases. They help users locate relevant materials with ease.

Supporting Literature Reviews: These services assist researchers, librarians, and students in identifying pertinent scholarly articles, books, and other academic resources essential for conducting comprehensive literature reviews.

Time Efficiency: By presenting information in a structured, concise, and easily searchable format, indexing and abstracting services significantly reduce the time and effort required to find relevant documents.

Integration with Databases: Many online databases such as Google Scholar, Scopus, and Web of Science rely on indexing and abstracting principles to organize, categorize, and retrieve their content effectively.

2.3.2. Translation Services

Translation services in library science play a crucial role in overcoming language barriers and ensuring equitable access to information for researchers, students, and the general public. These services may include providing translated materials within the library's collection, offering access to online translation tools, and connecting users with professional translators or translation agencies for complex or specialized translation needs. Through these efforts, libraries promote cultural understanding, knowledge exchange, and international collaboration.

a) How Libraries Provide Translation Services?

Multilingual Collections: Libraries maintain and organize diverse collections that include translated books, journals, articles, and other materials to support users' multilingual information needs.

Access to Databases: Many libraries subscribe to databases that contain translated works or offer multilingual search features, enabling users to access research materials in various languages.

Translation Tools: Libraries provide access to online dictionaries, glossaries, language-learning platforms, and machine-translation software to support quick or preliminary translation requirements.

In-House Translation: Larger libraries or those with high demand for translation services may employ professional translators or maintain a network of freelance translators with subject-specific expertise.

b) Types of Translation Services

Cover-to-Cover (Anticipatory) Translation: Complete translation of entire documents, often applied to important journals or materials expected to have high user demand.

Selective Translation: Translation of only the most essential or relevant parts of a document, allowing users to access critical information without requiring a full translation.

Oral Translation: Providing spoken translation or interpretation of a document's content for users needing immediate understanding or clarification.

2.3.3. Referral Service

A referral service in library science involves directing users to external sources when the library itself cannot provide the required information. As an extension of reference services, it does not supply the document or information directly; instead, it guides users to an appropriate outside agency, expert, or institution capable of meeting their needs. Common examples include referring users to a specialized library, a government department, a social service agency, or a subject expert.

A referral service is a user-support service that connects individuals with external organizations, experts, or information sources beyond the library's own collection or expertise. These are employed when the requested information is not available in the library, lies outside the library's subject specialization, or requires expert assistance that the library cannot provide.

Instead of delivering the information directly, the service supplies details such as names, contact information, addresses, or instructions that guide users to the appropriate external source viz.:

- Other libraries or specialized resource centers
- Government departments or social service agencies
- Subject matter experts or professionals
- Online databases, directories, and authoritative websites

a) Types of Referral Services

Simple Referral: The librarian provides basic information such as the name, address, or contact details of an external agency or expert.

Complex Referral: The librarian plays a more active role, which may involve contacting the agency on behalf of the user, arranging an appointment, or facilitating communication.

Historical Context: Referral services emerged in public libraries to assist users in locating information about community services such as health care, legal aid, and social welfare. Over time, as information needs became more diverse and complex, these services expanded to include a broad range of topics and external resources.

2.3.4. Reprographic Service

Reprographic services in libraries involve the reproduction of documents through photocopying, printing, scanning, and related technologies. These services enable users to obtain copies of materials for research, academic work,

or personal use. They play a vital role in resource sharing, preservation, and ensuring convenient access to information, while also supporting compliance with copyright regulations.

Reprographic services facilitate the creation of physical or digital copies of books, journals, manuscripts, maps, and other library materials. These services help libraries share materials with other institutions and allow users to access resources that may not be available locally. By providing copies, libraries minimize handling of fragile, rare, or valuable original documents, thereby reducing wear and tear and supporting long-term preservation.

Reprographic services enable users to quickly obtain copies of specific sections, articles, or pages without needing to borrow or photocopy entire volumes, saving both time and effort. Libraries maintain reprographic licenses and follow copyright guidelines to ensure that copying practices adhere to legal restrictions, particularly regarding copyrighted or proprietary materials.

a) Common Types of Reprographic Services

Photocopying: The most widely used service, available through self-service photocopiers or through staff-operated machines.

Printing: Users can print documents from library computers, network printers, or their personal devices.

Scanning: Libraries provide scanners that allow users to create high-quality digital copies of documents for research, archiving, or personal use.

Additional Services: Depending on the library, supplementary services may include spiral binding, microfilming, digitization assistance, or large-format printing.

2.3.5. Documentation Service

A library's documentation service is a specialized function dedicated to identifying, organizing, storing, and disseminating micro-documents such as journal articles, research reports, conference papers, and technical documents to meet the needs of a targeted user group, often researchers or subject specialists. This service extends beyond traditional library functions by providing both current and retrospective information, conducting specialized literature searches, preparing indexes and abstracts, and facilitating document delivery. Through these activities, documentation services ensure that users receive precise, timely, and relevant information tailored to their research or professional needs.

a) Functions of Documentation Services

Literature Scanning and Selection: Documentation centers continuously review new publications, journals, and reports to identify materials that are relevant and valuable to their user community.

Database Creation: Specialized databases containing bibliographic, technical, or subject-specific information are developed and maintained for internal reference and external user access.

Literature Searches: Both current and retrospective literature searches are conducted to assist users in gathering comprehensive and relevant information on specific topics.

Document Delivery: Documentation services supply users with requested documents often as photocopies or digital copies even when the original material resides in another institution.

Dissemination of Information: New publications, research findings, and other significant information are proactively shared with users through alert services, bulletins, newsletters, or digital communication.

2.4. Conclusion

The value of a library is determined not only by the richness of its information resources but also by the quality and relevance of the services it provides. Effective information services enhance the library's reputation, making it a centre of attraction for users who rely on its offerings for academic, professional, and personal growth. When services are timely, user-friendly, and well-organised, library users are more satisfied and more likely to engage with the available resources.

The role of the librarian is central to delivering these services. A modern librarian must be knowledgeable, service-oriented, and technologically competent. By utilising library automation tools, digital platforms, and emerging technologies, librarians can better understand user needs, streamline service delivery, and ensure that information is accessible in both physical and digital formats. In this way, librarians play a crucial role in enhancing user satisfaction and strengthening the library's position as an indispensable information hub.

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Unit 3: Five Laws of Library Science

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3.1. Introduction

The *Five Laws of Library Science* is a foundational theory proposed by Dr. S. R. Ranganathan in 1931, outlining the core principles that guide the functioning and philosophy of library systems. These laws, often described as norms, precepts, and guiding principles, are widely accepted by librarians across the world as the bedrock of modern librarianship.

Dr. Ranganathan conceived the Five Laws in 1924, and the formal statements were finalized in 1928. They were later published in his seminal work, *Five Laws of Library Science*, in 1931. The laws are as follows:

1. Books are for use
2. Every reader his/her book
3. Every book its reader
4. Save the time of the reader
5. The library is a growing organism

These laws are considered the “fundamental laws” of Library and Information Science. They are universally applicable to any aspect of library operations, services, and practices. Before their formulation, the discipline of library science lacked a clear philosophical foundation. Ranganathan’s laws provided a strong theoretical base, ensuring a sustainable future for the discipline, the profession of librarianship, and the effective use of libraries.

They introduced a scientific, user-centred approach to library services. Although proposed long before the digital era, the Five Laws remain remarkably relevant today, continuing to guide the evolution of libraries in both physical and digital environments.

3.2. First Law: Books Are for Use

A book is more than just paper and print; it is a guide, a friend, and a philosopher. Authors write to communicate their thoughts, and the ultimate purpose of a book is to be read and used. The first law of library science, "*Books are for use*," emphasizes that libraries exist to provide access to their collections, not merely to store them. Historically, books were often kept under restricted or closed access to prevent theft, but this practice limited their use and accessibility. Ranganathan stressed that while preservation and storage are important, they should serve the larger goal of promoting the use of materials.

Dr. Ranganathan noted that library practices often prioritized storage over access, books were chained or locked away, library spaces were poorly designed, and operational policies did not always facilitate reading or borrowing. By highlighting use as the primary objective, the first law refocused attention on access-related issues such as location, loan policies, operating hours, staffing, and even aspects like furniture, lighting, and temperature control.

3.2.1. Implications of the First Law

Open Access: Allowing readers to freely browse and select books encourages exploration and increases usage. Even if a reader does not find a specific book, open access enables the discovery of other relevant titles.

Location: Libraries should be conveniently located centrally within an institution or city to maximise accessibility for users.

Library Hours: Libraries should remain open for extended hours, scheduled according to the convenience of patrons.

Library Building and Furniture: A functional, comfortable, and aesthetically pleasing library environment with adequate lighting, furniture, and seating enhances user experience.

Book Selection Policy: Collections should reflect readers' needs and interests. Books should be engaging and well-chosen to stimulate readership.

Library Techniques: Proper cataloguing and classification are essential to help users locate and use resources efficiently.

Library Staff: Attentive, knowledgeable, and friendly staff are crucial. Staff should treat users as valued customers, guiding them to resources, assisting shy or inexperienced readers, and fostering greater engagement with the collection.

3.3. Second Law: Every Reader His/Her Book

The second law of library science, “*Every Reader His/Her Book*,” emphasizes that libraries exist to serve all members of society, ensuring that every individual has access to the materials they need. This law embodies the principle of *democratization of knowledge*, asserting that books are for everyone, regardless of age, race, gender, or economic status. It underscores the equal right of every reader to access the information or literature of their interest.

Dr. Ranganathan highlighted that libraries have responsibilities not only toward the community but also toward individual readers. This principle mandates that libraries should cater to the diverse needs of all users while recognizing the unique tastes and preferences of each individual. Librarians must provide services without judgment, acquiring resources that meet a broad range of interests. The law applies universally, extending beyond physical books to all forms of media, including digital and online resources.

3.3.1. Implications of the Second Law

The State government: The state has a certain obligation to its citizens and one of these is to provide equal opportunity to read. Ranganathan has discussed obligations of the state under three head. (i) Finance--providing finance by giving grants and by levying library cess (ii) Legislation--enacting library legislation, and (iii) Coordination--of activities to ensure "Books for All"

The Library Authority: The second law has something to say to library authorities in respect to the selection of books and staff. A library has limited finance. It is therefore desirable to know the requirements of the readers before selecting the books. Similarly, library authority should select staff for their library with professional competence and missionary zeal.

The Library Staff: Library staff should be cooperative and service-minded. Library staff should form a bridge between readers and books; only then will every reader have his/her book. When a reader enters a library, the library staff should approach him with a helping hand. The Second Law strongly advocates a user education program in libraries.

The Reader: The Second Law expects the readers also to discharge some responsibilities. Readers should be disciplined and follow rules and regulations. Readers should refrain from cutting pages from books, keeping books beyond the due date, etc. All such acts amount to keeping other readers away from their books.

3.4. Third Law: Every Book Its Reader

The third law of library science, "*Every Book Its Reader*," emphasizes the intrinsic value of each item in a library. While the second law focuses on the reader, the third law directs attention to the book itself, asserting that every book in the collection should find its appropriate reader. This principle

highlights the importance of maximizing the use of all library materials, even those of niche interest.

Dr. Ranganathan argued that libraries should adopt measures to ensure that every item reaches its intended audience. Methods such as open access, strategic shelf arrangement, proper cataloging, and reference services can significantly increase the probability of a book finding its reader. The law underscores that even books with limited readership have significance, as they meet the specific needs and interests of certain individuals.

3.4.1. Implications of the third law

Open Access: Allowing readers to browse the shelves freely is one of the most effective ways to ensure that books are noticed and used. Often, while searching for one book, a reader may discover several others, increasing overall usage.

Book Selection: Libraries must consider the interests and needs of their patrons when developing collections. A well-balanced acquisition policy ensures that books have a higher likelihood of being read.

Shelf Arrangement: Organizing books according to subject and interrelatedness enhances visibility and accessibility. Thoughtful arrangement increases the chances that each book will reach its relevant audience.

Easy Accessibility: Books should be placed within comfortable reach. Research shows that books positioned at an accessible height and location are more frequently used. Shelves should ideally not exceed 6.5 feet in height.

Cataloguing: Accurate and comprehensive cataloguing is essential. Series entries, cross-references, and analytical cataloguing improve discoverability, helping readers locate books they might otherwise miss.

Reference Services: Reference librarians play a crucial role in connecting readers with books. They act as advocates for library materials, guiding patrons toward resources they may not know exist.

Publicity: Promoting library collections enhances book readership. Libraries can highlight new arrivals through displays near entrances, newsletters, social media updates, or other communication channels.

Extension Services: By transforming into cultural and social hubs, libraries attract visitors who can then be introduced to relevant materials. Exhibitions, performances, festivals, and other community events create opportunities to connect books with readers.

The third law emphasises that every book, no matter how specialized, has value and a potential reader. Libraries must adopt proactive measures from collection development and cataloguing to promotion and outreach to ensure that all books are effectively utilised and appreciated.

3.5. Fourth Law: Save the Time of the Reader

The fourth law of library science, "*Save the Time of the Reader*," recognizes that library users are often busy individuals whose time is valuable. A library's efficiency is measured not only by the quality of its collections but also by its ability to provide timely access to resources. Dr. S. R. Ranganathan emphasized that reader satisfaction is achieved when the desired service is delivered in the minimum possible time.

This law highlights the importance of efficient library management and service design. Ranganathan recommended adopting business methods to streamline operations, centralizing collections for convenience, and employing staff with both strong reference skills and technical competencies in cataloging, cross-referencing, ordering, accessioning, and circulation. The essence of this law is that all patrons should be able to locate and access the materials they need quickly and efficiently.

3.5.1. Implications of fourth law

Open Access: Closed-access systems often waste readers' time due to multiple steps in requesting and retrieving books. Open access allows users to browse shelves directly, find materials independently, and reduce delays in locating books.

Library Location: The library should be centrally located to maximize convenience and minimize travel time for users. Institutional libraries should be at the center of the campus, while public libraries should be easily accessible within the city.

Shelf Arrangement, Classification, and Cataloguing: Books must be arranged according to a proper classification scheme, and regular shelf maintenance is essential. Library catalogues should offer multiple access points, including analytical and cross-reference entries, enabling users to locate resources efficiently.

Stack-Room Guides: Clearly designed stack-room guides, displayed at the entrance, help readers navigate the library layout and locate materials quickly, saving valuable time.

Issue and Return Procedures: Efficient circulation processes, including streamlined book issuance and return systems, reduce waiting times for users and enhance service satisfaction.

Reference Services: Reference staff play a critical role in connecting readers with the right resources. Both in-person and long-range reference services facilitate quick access to relevant information, minimizing time spent searching.

Documentation Services: Comprehensive literature searches, selective dissemination of information (SDI), and other documentation services help users find information efficiently, avoiding wasted time in research.

Library Staff: Courteous, knowledgeable, and proactive staff are essential for saving the reader's time. By guiding users and assisting them in accessing resources quickly, library personnel ensure that the Fourth Law is effectively implemented.

The Fourth Law underscores that a library's true efficiency is reflected in how quickly and conveniently it can meet the needs of its users. Proper planning, management, and a service-oriented approach are key to saving the time of every reader

3.6. Fifth Law: The Library is a Growing Organism

The fifth law of library science, "*The Library is a Growing Organism*," emphasizes that a library, as a social institution, is dynamic and continually evolving. Like a living organism, a library grows over time in terms of its collections, readers, staff, and services.

Dr. S. R. Ranganathan highlighted that this law focuses on internal growth rather than external changes alone. Libraries must plan for expansion in staff, physical collections, and patron services. This includes enlarging buildings, reading areas, shelving capacity, and catalog space to accommodate

future needs. The law underscores that libraries should never remain static; their collections, services, methods, and physical infrastructure must evolve to meet changing requirements.

3.6.1. Implications of the Fifth law

Balanced Growth: Library collections should expand across all subject areas to address the diverse needs and interests of all users.

Weeding and Preservation: Obsolete, outdated, or unused materials should be removed to make room for new acquisitions, while valuable and rare resources should be carefully preserved.

Choice of Classification Scheme: Libraries should adopt classification systems capable of accommodating current and future growth in knowledge.

Choice of Cataloging Code: Cataloging codes must be flexible and comprehensive, allowing proper treatment of existing materials as well as new acquisitions.

Modernization: Libraries should consider computerization and automation of housekeeping tasks such as acquisition, cataloging, circulation, and inventory management to improve efficiency and accommodate growth.

Staffing: As the library grows, existing staff may become insufficient. Libraries should assess staffing needs periodically and recruit additional professionals to maintain quality service.

Library Building - Provision for Expansion: Library buildings should be designed with future growth in mind, including horizontal and vertical expansion, adequate space for collections, reading areas, and administrative functions.

The fifth law establishes that libraries are living entities that must grow, adapt, and evolve continually. By planning for balanced collection development, modernization, adequate staffing, and secure, expandable facilities, libraries can remain relevant, efficient, and capable of meeting the needs of all users over time.

3.7. Open and Closed Access Systems in Libraries

Access to resources can be broadly categorized into open access and closed access systems. These systems determine how users interact with library materials and directly influence the usability, efficiency, and visibility of resources. The concept of open and closed access also extends to digital publishing, with slightly different implications.

3.7.1. Open Access System

In a physical library, open access refers to a system where users can freely browse and select books, journals, and other materials from the shelves without requiring staff assistance. In digital publishing, open access means that research outputs are freely available online, without subscription or payment barriers.

a) Advantages of Open Access system

- The library users can directly access shelves, examine books, and choose resources independently. This encourages exploration and serendipitous discovery of new materials.
- Encourages convenience and autonomy for users.
- Promotes discovery of materials, including those users might not actively search for.
- Increases visibility and accessibility of resources, especially for research outputs in digital form.

b) Challenges of Open Access system

- Requires ample physical space in libraries to accommodate open shelving and wide aisles.
- Needs careful management to prevent misplacement or damage of resources.

3.7.2. Closed Access System

Closed access is a system where library materials are stored in restricted areas, and users must request items from library staff. In digital publishing, closed access corresponds to content behind paywalls, requiring subscriptions or payments to access.

a) Advantages

- Items are stored in secure areas. Users submit requests to staff, who retrieve the requested materials. This system minimizes unauthorized handling and ensures better preservation.
- Journals, e-books, and research papers require institutional or individual subscriptions. Access is limited, controlling the distribution and usage of copyrighted content.
- Offers efficient use of space, as materials can be stored compactly.
- Enhances preservation and security, reducing wear and theft of resources.
- Cost-effective for institutions that cannot provide open access for all items.

b) Challenges of Closed access System:

- Less convenient for users and slows down the retrieval process.
- Limits browsing and discovery opportunities, which may reduce engagement with resources.

- Access barriers can restrict the reach of research and educational materials in digital environments.

3.7.3. Modern Libraries: Blended Approach

Most contemporary libraries adopt a hybrid model, combining open and closed access systems to balance convenience, accessibility, preservation, and security:

- Frequently used and popular materials are placed in open stacks for easy access.
- Rare, fragile, or high-value items are maintained in closed stacks to ensure protection.
- In digital publishing, libraries may provide open access repositories for widely shared research, while subscribing to closed-access databases for specialized or copyrighted content.

This blended approach allows libraries to maximize user satisfaction, optimize space, and safeguard resources while ensuring both discovery and preservation

3.8. Library Extension Services

Library Extension Services refer to activities and programs designed to take library resources and services beyond the physical confines of the library

building. The primary goal is to reach underserved communities, promote literacy, increase the use of resources, and encourage non-readers to engage with reading and learning. These services make information accessible to everyone, regardless of location, awareness, or physical ability.

3.8.1. Need and Importance of Library Extension Services

The some of the need and importance of Library Extension services are listed in this section:

Increase User Base: Attract new users, including non-readers and underserved populations.

Promote Literacy and Culture: Encourage reading habits, lifelong learning, and cultural awareness.

Maximize Resource Use: Ensure that library materials are effectively utilized.

Community Engagement: Transform the library into a social, educational, and intellectual hub.

3.8.2. Methods of Library Extension Services

Library extension services aim to bring library resources to users through a variety of techniques, including mobile delivery, community programs, digital outreach, and specialized literacy initiatives. Key methods include:

a) Outreach and Delivery Programs

Bookmobiles & Mobile Libraries: Bringing books and services directly to remote areas, schools, or neighborhoods.

Homebound Services: Delivering library materials to patrons unable to visit due to age, illness, or disability.

Digital Delivery: Providing e-books, e-journals, and other online resources accessible from anywhere.

Book Donations and Deposits: Supplying books to hospitals, prisons, community centers, and other institutions.

b) Community Engagement and Events

Public Lectures and Talks: Organizing sessions with experts, local figures, or authors.

Exhibitions and Displays: Showcasing new acquisitions, local history, art, or thematic collections.

Cultural Programs: Hosting music concerts, drama, puppet shows, or film screenings.

Reading Circles and Book Clubs: Promoting discussion and shared reading experiences.

Festivals and Fairs: Participating in or hosting events that engage the broader community.

Book Weeks and Book Days: Celebrating reading through special events and promotions.

c) Literacy and Information Programs

Reading to Illiterates: Targeted programs for individuals unable to read.

Manuscript or Local Language Translation: Making local heritage and literature accessible.

Orientation and Library Tours: Introducing new users to library services and resources.

Quiz Programs: Engaging the community through intellectual challenges and competitions.

d) Publicity and Publications

Media Engagement: Promoting library services via press releases, radio, television, or interviews.

Library Publications: Distributing brochures, newsletters, bibliographies, and guides.

Visual Media: Producing documentaries, videos, or promotional content to reach a wider audience.

Library extension services transform libraries from mere repositories of books into active community centers. By extending resources, fostering literacy, and engaging communities through creative programs, libraries ensure relevance, accessibility, and broader social impact.

3.9. Library Building

A library building is a purpose-built structure designed to provide access to a wide range of collections both physical and digital and a variety of services. Over time, library architecture has evolved from being primarily book-centric to being user-centered, accommodating diverse learning and research needs. Modern libraries incorporate quiet study zones, collaborative spaces, computer access, and flexible layouts to support activities ranging from public literacy programs to advanced university research.

The design and scale of library buildings vary greatly depending on the type and needs of the community they serve. Libraries can range from a small single-room village or school library to vast national or university libraries spanning acres. Some libraries serve basic literacy needs, while others cater to highly specialized academic or professional users. Daily usage may vary from a handful of visitors to hundreds or thousands of knowledge seekers. Due to this diversity, planning library services and designing spaces requires careful

consideration of specific user requirements, rather than applying rigid, universal guidelines.

a) Functions and Features of the library building

Collection Space: Properly designed areas to house books, journals, multimedia, and digital resources.

Learning and Study Areas: Quiet reading nooks, group study rooms, collaborative zones, and computer labs.

Technology Access: Public workstations, internet access, and dedicated hubs for digital resources.

Staff and Administrative Areas: Efficient workspaces for librarians, technical processing, acquisitions, and management.

Community Spaces: Rooms for meetings, workshops, cultural events, and library programs that engage the public.

User Experience: Libraries should be welcoming, flexible, and inspiring to encourage use and exploration.

Functionality: Spaces must maximize access to resources, facilitate easy navigation, and ensure user comfort.

Adaptability: Buildings should be designed to accommodate future technological advancements and evolving user needs, ensuring longevity and relevance.

Well-designed library buildings strike a balance between aesthetics and functionality, creating environments that foster learning, collaboration, and community engagement. By addressing the needs of specific user groups while remaining adaptable for future growth, libraries can effectively serve as dynamic centers of knowledge and culture

3.10. Library Furniture and Fittings

Furniture and fittings are crucial elements of library design, ensuring functionality, comfort, accessibility, and efficient use of space. They accommodate diverse user activities such as reading, studying, collaboration, and browsing. Library furniture can be categorized into movable and fixed/installed fittings.

Bookshelves/Stacks: Standard or mobile shelving for books, journals, and multimedia.

Display Racks: For new arrivals, newspapers, periodicals, and featured collections.

Specialty Storage: Filing cabinets for maps, pamphlets, or archival materials; dictionary and reference stands.

Individual Study Desks and Chairs: Designed for focused study.

Communal Tables: Large tables with integrated power outlets to support group study and collaborative projects.

Soft Seating: Sofas, armchairs, beanbags, and window seats for comfortable reading or informal learning.

Circulation and Reception Desks: Central points for issuing, returning, and assisting users.

Study Carrels: Individual study booths that provide privacy and concentration.

Speciality Furniture: Magazine stands, exhibition cases, and movable book carts (bookmobiles) for dynamic access to materials.

Lighting: Proper lighting is essential for both ambiance and task-specific needs, reducing eye strain and enhancing user experience.

Display Units: Built-in display cases, notice boards, and exhibition areas to highlight books, periodicals, and community information.

Infrastructure and Accessibility: Integrated power outlets in tables, accessible pathways for differently-abled users, ergonomic arrangements, and security features to safeguard collections.

Well-designed furniture and fittings ensure that the library is not only a repository of resources but also a functional, comfortable, and inviting

environment. They help libraries accommodate a wide range of users and activities while maintaining accessibility, efficiency, and aesthetic appeal.

3.11. Conclusion

The Five Laws of Library Science continue to hold significant relevance in the functioning of modern libraries. Formulated by Dr. S. R. Ranganathan, these principles serve as a timeless foundation for ensuring the effective use of library resources and services. Each law emphasizes the importance of accessibility, user-centric service, and the optimal management of information. Today, with the rapid growth of digital resources and evolving user expectations, these laws remain highly applicable. They guide library professionals in designing services that are efficient, inclusive, and responsive to the diverse needs of users. At the same time, they empower library users by promoting easy access to knowledge, encouraging active engagement with information, and supporting lifelong learning. Thus, Ranganathan's Five Laws are not only valuable to library staff in planning and managing library operations but also immensely beneficial to users, enabling them to make the best possible use of library collections and services.

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Unit 4: Library Management

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4.1. Introduction

Management refers to a series of functions involved in organizing, directing, and administering various activities and people within an organization. When we examine the functioning of organizations across the world, we observe that some achieve remarkable success, others strive persistently to improve, while a few fail to reach their goals. Several factors contribute to these varying levels of success. Managers apply universally accepted principles of management, planning, organizing, integrating, and coordinating organizational activities and resources to accomplish desired objectives.

4.2. Definitions of Management

According to Frederick W. Taylor, “Management is the art of knowing what you want to do in the best and cheapest way.” Taylor emphasizes the task rather than the worker, suggesting that both men and machines serve as instruments for achieving organizational goals in the most efficient and economical manner. This perspective is relevant to all types of libraries, particularly in contexts where the aim is to deliver high-quality library services at the lowest possible cost.

John Mee defines management in terms of achieving optimum results. He states, “Management is the art of securing maximum results with minimum efforts so as to ensure maximum prosperity and happiness for both employer

and employee, and to give the public the best possible service.” This definition aligns well with the mission of libraries, whose primary objective is to provide the best possible services to users with the highest level of satisfaction.

G. Edward Evans offers another perspective, stating that “Management means to control and direct the operation of an organization or a sub-division of a larger unit.” He notes that *supervision* refers specifically to the control and direction of smaller units on a day-to-day, hands-on basis. Regardless of the terminology, Evans suggests that management involves two essential components: (1) accomplishing clearly defined activities, and (2) coordinating the people who perform these activities. Striking an effective balance between tasks and people becomes the core responsibility of the manager.

4.3. Library Management

Management is indispensable for all types of organizations, and libraries are no exception. The introduction of management techniques in libraries began in the mid-1950s. Prior to this period, libraries operated with limited financial resources and offered only basic services. Today, libraries exist in diverse forms and vary widely in size, goals, organizational structures, financial capabilities, staffing patterns, and other characteristics. From a management perspective, they differ in leadership style, staff morale, openness to innovation, and operational environments. With the advancement of information and

communication technologies, libraries now have access to a wide range of tools to enhance their services and operations.

Effective management leads to improved efficiency, quality, cost-effectiveness, and user satisfaction. Library managers have long sought to adopt established management principles from other sectors to strengthen the functioning of their institutions. Though libraries are non-profit organizations, their primary objective is to provide reliable, effective, and efficient services to their users. The importance of management in libraries has increased over the years as these institutions have expanded in terms of size, collections, budgets, and workforce. Large academic and public libraries, in particular, require strong managerial skills at the level of the Chief Librarian. The growing complexity of library services and the diversity of information formats in special libraries have also emphasized the need for scientific management approaches.

However, managerial competence is not limited to leaders of large libraries. Every library, whether big or small, requires professionals equipped with appropriate management skills. The expectations placed on librarians' managerial abilities have increased significantly in recent years. In modern libraries, most librarians function as managers in various capacities and must therefore understand the principles and practices of effective management. Today's librarians face greater challenges than ever before, driven by

heightened competition and rapidly evolving technologies. Consequently, the application of sound management techniques is essential across all types and sizes of libraries worldwide.

4.4. Different sections of the library

Libraries are typically organized into various sections to streamline operations and provide specialized services to users. The number and type of sections in a library often depend on the library's size, purpose, and user community. For example, a school library may have only a few basic sections, focusing on circulation and reference, whereas a university library is likely to have multiple specialized sections to support diverse academic programs, research activities, and a large user base.

In the case of a special library such as those in corporations, research institutions, or government agencies the organization may include even more specialized sections to cater to the specific informational and professional needs of its users. These sections are designed not only to manage collections efficiently but also to provide focused services, such as access to serials, digital resources, or technical documentation.

By dividing a library into sections, librarians can systematically manage collections, streamline services, improve accessibility, and ensure that users can locate and utilize resources effectively. In the following discussion, we will

explore the various sections typically found in libraries and the specific roles and functions of each.

4.4.1. Acquisition Section

The Acquisition Section is the department responsible for developing and managing the library's collection. It selects, orders, purchases, and receives new materials such as books, journals, e-resources, and databases based on user needs, budgetary provisions, and the library's collection development policy. This section functions as a vital link between user requests and the physical or digital availability of resources. Its responsibilities include material selection, vendor coordination, budget monitoring, ordering, invoicing, and the initial processing of items before they are sent for cataloguing.

a) Functions of the Acquisition Section

Selection and Budgeting: Receives recommendations from faculty, students, and other stakeholders; checks for duplication; prepares selection lists; and effectively manages the budget allocated for new acquisitions.

Procurement: Places orders with approved vendors, obtains and compares quotations, prepares comparative statements, processes invoices, and ensures timely payment to suppliers.

Receiving and Accessioning: Upon arrival, materials are verified, accessioned with a unique identification number, stamped with library ownership marks,

and given preliminary processing such as spine labels or barcodes before being forwarded for cataloguing.

Liaison and Coordination: Works closely with users, library committees, and suppliers to ensure that the collection aligns with academic programmes and community needs.

Automation and Record Management: Utilizes Integrated Library Management Systems (ILMS) to track orders, monitor expenditure, maintain vendor records, and generate various administrative and statistical reports.

4.4.2. Circulation Section

The Circulation Section is the central service point of a library, responsible for managing the lending and return of materials. It acts as the primary interface between users and the library's collections by handling checkouts, renewals, returns, fines, and user account management. This section ensures that materials are efficiently tracked, maintained, and made available to the community. It also oversees user registration, processes issue/return transactions, manages course reserves, and deals with overdue items – often supported by automated systems such as the OPAC or an Integrated Library Management System (ILMS).

a) Functions

Issuing and Returning: Facilitates the checkout and return of library materials for all users.

User Management: Registers new members, updates user accounts, maintains borrowing privileges, and issues library clearance certificates.

Renewals: Allows borrowers to extend loan periods in person or through online systems.

Fines and Fees: Handles payments related to overdue, lost, or damaged materials in accordance with library policies.

Course Reserves: Manages high-demand materials required for specific academic courses, ensuring timely access for students.

Inventory Tracking: Maintains accurate records of borrowed materials, due dates, and item status.

b) Services Provided

Circulation Desk: The main service point for all lending-related transactions and user interactions.

Self-Check Stations: Automated machines that allow users to issue books independently.

OPAC (Online Public Access Catalogue): Enables users to search the library's holdings, check availability, and manage their accounts.

SMS and Email Alerts: Sends reminders for due dates, overdues, and reservation notifications.

4.4.3. Technical Processing Section

The Technical Processing Section is a vital behind-the-scenes department that prepares newly acquired materials for public use. It manages all technical tasks from cataloguing and classification to physical processing ensuring that library items are systematically organised, easily discoverable, and accessible through the library's OPAC.

a) Functions

Cataloguing: Creates detailed bibliographic records using standards such as AACR2, RDA, and MARC formats, including essential elements like author, title, subjects, and descriptive metadata.

Classification: Assigns appropriate call numbers using schemes such as Dewey Decimal Classification (DDC) or Library of Congress Classification (LCC) to arrange materials by subject and facilitate browsing.

Physical Processing: Prepares items for circulation by stamping ownership marks, attaching barcodes, spine labels, date slips, and adding protective covers or jackets to enhance durability.

Inventory and Control: Maintains accession registers, assigns unique accession numbers, and ensures accurate tracking of each item in the collection.

Automation: Updates and maintains records within the Integrated Library System (ILS), ensuring smooth functioning of the OPAC for user access.

New Arrivals: Prepares lists or displays of newly processed books and materials to inform and attract users.

4.4.4. Serials Section

The Serials Section is a specialized department within a library responsible for managing all types of continuing publications such as journals, magazines, newspapers, and annual reports. These materials, collectively known as serials, are issued in successive parts and are identified by consistent titles but varying issue numbers and dates. The section oversees their acquisition, organization, access, and long-term preservation, serving as an essential hub for current and continuously updated information.

a) Materials Managed

Periodicals: Includes scholarly journals, popular magazines, and newspapers.

Continuing Resources: Covers annual reports, conference proceedings, newsletters, bulletins, and other regularly updated publications.

Formats: Maintains serials in multiple formats such as print, and increasingly, electronic or online versions.

b) Functions

Acquisition and Processing: Handles ordering, receiving, accessioning, cataloguing, and renewal of serial subscriptions.

Organization: Manages the systematic arrangement, shelving, and display of current issues; oversees binding of back volumes; and handles specialized formats such as microforms.

Access and User Services: Provides assistance at serials or periodicals desks, manages online subscriptions and authentication, and ensures users have seamless access to both current and archival issues.

4.4.5. Reference Section

The Reference Section is a specialized area of the library that houses non-circulating materials such as encyclopedias, dictionaries, atlases, and yearbooks. These resources are intended for quick, in-library consultation and are designed to provide immediate, authoritative answers to specific questions. The section supports research, academic study, and information-seeking activities and is often staffed by librarians who offer expert guidance in locating and using reference sources effectively.

a) Characteristics

Non-circulating Collection: Reference materials are restricted to in-library use to ensure constant availability.

Quick Information Access: Provides concise, factual data, definitions, statistics, and summaries rather than extensive, narrative reading.

Diverse Resource Types: Includes dictionaries, encyclopedias, atlases, bibliographies, directories, yearbooks, handbooks, statistical sources, and other ready-reference tools.

Purpose: Supports academic research, offers quick and reliable answers, and assists users – especially students preparing for competitive examinations.

Organization: Materials often carry call numbers beginning with “R” or “REF”, indicating their placement in the reference collection.

b) Documents in the Reference Section

Dictionaries and Thesauruses: Provide meanings, spellings, pronunciations, synonyms, and antonyms.

Encyclopedias: Offer broad and authoritative overviews of a wide range of subjects.

Atlases and Gazetteers: Contain maps, geographic data, and place-name information.

Yearbooks and Almanacs: Present current and historical facts, statistics, and annual updates.

Biographical Sources: Feature information on notable individuals from various fields.

Handbooks and Manuals: Provide subject-specific guidance, procedures, and quick-reference information.

Competitive Examination Books: Supply study guides and practice materials for various competitive exams.

4.4.6. Maintenance Section

The Maintenance Section plays a vital role in ensuring that the library's collections, facilities, and physical environment remain functional, organized, and accessible to users. It oversees day-to-day tasks such as shelving and reshelving materials, maintaining orderly stacks, repairing and preserving damaged items, conducting inventory, and managing security. Working closely with the Circulation and Technical Processing Sections, it helps maintain smooth operations and a user-friendly library environment.

a) Responsibilities of the Maintenance Section

Collection Management: Shelves and reshelves returned materials, keeps shelves neat and properly arranged, displays new arrivals, and ensures books and other resources are placed in their correct locations for easy retrieval.

Preservation and Conservation: Handles routine cleaning and dusting, repairs damaged books, binds worn-out materials, and protects the collection from environmental threats such as sunlight, pests, dust, and moisture.

Stock Control: Conducts regular stocktaking (inventory) to verify the availability of materials and manages weeding activities to remove outdated, damaged, or irrelevant items, keeping the collection current and manageable.

Stack Room Management: Maintains a clean, orderly, and well-organized stack area with proper signage, shelf guides, and directional markers to help users navigate the collection efficiently.

Security Management: Ensures the protection of library materials from loss, theft, or damage by monitoring usage, implementing security measures, and coordinating with staff.

Infrastructure Maintenance: Oversees the upkeep of library furniture, shelving, equipment, electrical fixtures, and digital systems to provide a safe and comfortable environment for users.

4.5. Book Charging Systems

Book charging systems are used in libraries to manage the circulation of materials, including issuing and returning books. These systems have evolved from traditional manual methods to highly efficient automated processes. Traditional systems such as the Browne System, Newark System, and Register

System relied heavily on cards, pockets, and manual record-keeping. Over time, libraries have transitioned to automated systems that use barcodes and library management software (OPAC/ILS) for accurate and streamlined tracking. Among the manual systems, the Browne Charging System has been particularly popular in India.

4.5.1. Traditional Manual (Card-Based) Charging Systems

a) Browne Charging System

Each borrower is issued a pocket-style borrower ticket. When a book is issued, the book card is removed from the book pocket and placed inside the borrower's pocket. This serves as the transaction record. The Book cards, book pockets, borrower pocket tickets, and date slips are used in this system. It is a simple two-card system where the book information is stored within the borrower's ticket.

b) Newark Charging System

In this system, similar to the Browne System, the borrower's card, containing the name and borrower number, is placed inside the book pocket during issue. Due dates are stamped on both the book's date slip and the borrower's card. The Borrower registration files, signed borrower cards, book cards, date slips, and transaction cards are used in this system. It offers more comprehensive record-keeping and increased efficiency, often using transaction cards to speed up service.

c) Register System

It is a simple method where all circulation transactions are manually entered into a ledger or daybook. It is used in small libraries or institutions with limited collections and low circulation activity.

4.5.2. Modern Automated Systems

This system uses barcodes on books and library membership cards linked to an Integrated Library Management System (ILMS) such as SOUL, Virtua, or Koha. The staff scan the barcodes on the book and the borrower's card, and the system instantly updates the issue or return record. This method is significantly faster, highly accurate, and minimizes human error.

4.6. Stock Verification in Libraries

Stock verification is a crucial process in libraries that involves physically counting and checking all items such as books, journals, and other materials against the library's digital or manual records. The purpose is to identify missing, lost, damaged, or misplaced items, ensure collection accuracy, facilitate replacements, and determine items for weeding or preservation. This process is typically conducted annually and often scheduled during library vacations to minimize disruption of services. Modern technology, including barcode and RFID scanners, has made stock verification more efficient and accurate.

4.6.1. Objectives of Stock Verification

The important objectives of the stock verification are discussed in this section:

Identify Losses: Detect missing, long-overdue, or misplaced items to manage replacements effectively.

Improve Accuracy: Resolve discrepancies between physical holdings and catalog records.

Collection Management: Identify materials that require binding, repair, or weeding to maintain a relevant and usable collection.

Enhance Security: Review and strengthen measures to prevent future losses or misplacements.

Staff Familiarity: Increase staff awareness and familiarity with the library's holdings.

4.6.2. Methods of Library Stock Verification

Library stock verification methods range from traditional manual checks to modern, technology-driven approaches. All aim to reconcile physical holdings with records, identify missing or damaged items, and maintain the accuracy and integrity of the collection.

a) Traditional Manual Methods

Accession Register Method: Carrying the accession register to the shelves and ticking off each item as it is found. Simple but time-consuming.

Shelf-List Method: Using shelf-list cards (records of items organized by shelf location) to verify physical holdings. Missing items are often indicated by upside-down or blank cards.

Manual Counting/Shelf Reading: Physically inspecting shelves and comparing items with records. While straightforward, it is prone to human error.

b) Semi-Automated Methods

Barcode Scanning: Using handheld scanners or mobile apps to read barcodes and quickly reconcile items with digital records.

Library Management Software (LMS): Integrating scanned data with systems like Koha or SOUL to flag discrepancies, such as missing, misplaced, or damaged items.

c) Automated and Advanced Methods

RFID (Radio-Frequency Identification): Attaching RFID tags to library materials enables rapid, accurate scanning using handheld or trolley devices, streamlining stock verification and reducing manual labor.

Digital Auditing with AI/ANN: Utilizing Artificial Neural Networks for digit recognition from images such as handwritten accession numbers via apps or

software, reducing dependency on expensive hardware and improving efficiency.

4.7. Library Budget

Budgeting is a systematic planning process in which an organization's expenditures and revenues over a specific period usually one year are projected, monitored, and controlled. A budget is both a planning document and a financial statement that outlines the anticipated revenue and its proposed utilization for various expenditures. It serves as a mechanism for monitoring, control, and accountability, ensuring that funds are allocated efficiently and spent appropriately.

According to Newton (1981), a budget is a quantitative expression of a plan of action. It serves multiple purposes for a library or information center manager:

- Acts as a roadmap, guiding management actions toward achieving institutional goals.
- Functions as a tracking tool, measuring progress, highlighting deviations from the plan, and identifying corrective actions needed to align operations with objectives.
- Facilitates orderly and progressive planning, coordination, and implementation.

- Serves as an instrument of financial control and a tool for evaluating results.

In practice, a budget is a systematically prepared statement of estimated revenue and expenditure for a given period, usually one year. Its primary objectives are to produce a realistic financial plan, limit expenditures to available resources, and ensure that spending is planned wisely and efficiently.

4.7.1. Advantages of Budgeting in Libraries

- Clarifies organizational goals and priorities.
- Assigns responsibility and accountability to specific staff or units.
- Reveals weaknesses or gaps in the organizational structure.
- Forces the quantification of targets and expected achievements.
- Promotes optimal utilization of available resources.
- Enables timely actions and interventions based on deviations from the plan.
- Provides a basis for evaluating performance and implementing corrective measures.

Thus, the budgeting in a library is both a planning and control tool that ensures the effective allocation of resources, supports informed decision-making, and enhances the overall efficiency of library operations.

4.7.2. Types of Library Budgeting

Library management employs various budgeting methods to ensure effective financial planning, accountability, and efficient resource utilization. These methods help libraries align expenditures with goals, optimize services, and maintain transparency.

a) Common Library Budgeting Methods

Line-Item Budgeting: The most traditional and widely used method, it lists specific categories such as salaries, books, and supplies along with allocated amounts. It allows precise control over expenses but does not reflect service outcomes or effectiveness.

Formula Budgeting: Allocates funds based on predetermined formulas, such as per student, per user, per collection size, or per square foot. This method ensures objective and systematic allocation of resources.

Program Budgeting: Organizes costs around specific programs or services (e.g., children's literacy programs, digital services), enabling managers to see how funds support particular activities.

Performance Budgeting: Links funding to measurable performance goals and outcomes, showing how financial inputs translate into tangible results.

Zero-Based Budgeting (ZBB): Requires justification for every expense from scratch each year, encouraging prioritization, efficiency, and elimination of unnecessary spending.

Incremental Budgeting: Uses the previous year's budget as a base and adjusts it by adding or subtracting amounts for changes. While simple, it may perpetuate inefficiencies.

Planning-Programming-Budgeting System (PPBS): Integrates long-term planning with budgeting, analyzing costs and benefits of various programs to ensure strategic resource allocation.

Lump Sum Budgeting: Provides a single overall allocation for the library, offering flexibility in spending but less control over individual categories.

4.8. Library Annual Report

A library's annual report is a comprehensive summary of activities, achievements, and statistics over the past year. It demonstrates accountability, informs planning, and communicates value to stakeholders such as administration, funders, and the community. Unlike budgets, which focus on expenditure, annual reports emphasize accomplishments and impact.

4.8.1. Components of a Library Annual Report

Statistical Data: Includes circulation numbers, Internet and digital resource usage, new acquisitions, program attendance, and user demographics.

Descriptive Narrative: Summarizes new services, outreach programs, collection development, facility improvements, and special events.

Financial Overview: Highlights overall fund utilization without replacing detailed financial statements.

Goals and Impact: Reviews progress toward previous goals and outlines priorities for the coming year.

4.9. Human Resource Management (HRM) in Libraries

Human Resource Management in libraries involves strategically managing personnel from recruitment and training to performance appraisal and retention to ensure effective service delivery. HRM ensures that skilled professionals align with library goals, adapt to technological advancements, and foster a positive, productive environment.

4.9.1. Functions of HRM

Staffing and Recruitment: Identifying staffing needs, attracting qualified candidates, hiring, and placing individuals in appropriate roles, including librarians, technicians, support staff, and volunteers.

Training and Development: Providing orientation, ongoing in-service training, and skill enhancement programs, particularly in emerging technologies.

Performance Management: Appraising staff performance, recognizing achievements, addressing deficiencies, and encouraging professional growth.

Compensation and Benefits: Administering salaries, benefits, and ensuring equitable and fair practices.

Work Environment: Creating a safe, motivating, and positive workplace to enhance staff satisfaction and retention.

Policy and Compliance: Developing and communicating personnel policies while ensuring adherence to organizational and legal standards.

4.9.2. Importance and Challenges of HRM

Critical for Success: Skilled, motivated staff are the backbone of efficient library services, ensuring optimal use of resources to meet user needs.

Adapting to Change: HRM helps libraries address skill gaps, implement technological advancements, and respond to evolving information demands.

Strategic Alignment: Ensures that HR decisions support library goals, focusing on high-quality service and user satisfaction.

4.9.3. Core HRM Strategies

Strategic Planning: Anticipating future staffing needs and preparing plans to meet them effectively.

Performance Appraisal: Conducting regular evaluations to promote staff growth and improve service delivery.

Employee Development: Investing in continuous professional development to enhance staff competencies and library outcomes.

4.10. Conclusion

In this unit, you have explored the fundamental concepts and practices of library management, providing an understanding of how libraries are organized, administered, and operated to meet the diverse needs of users. You have understood the different sections of a library, highlighting how each section ranging from circulation and reference to technical processing and special collections contributes to efficient service delivery and effective collection management.

The unit also covered library stock verification, emphasizing its importance in maintaining accurate records, identifying missing or damaged items, and ensuring the integrity of the collection. Various methods of stock verification, from traditional manual approaches to modern automated

techniques using barcodes and RFID technology, were discussed to illustrate practical applications.

Additionally, you studied library budgeting, including types of budgets and financial planning, demonstrating how careful allocation and monitoring of resources enable libraries to achieve operational goals while maintaining accountability and efficiency. Finally, the unit addressed human resource management in libraries, exploring strategies for recruitment, training, performance management, and staff development, which are crucial for building a skilled, motivated, and adaptable workforce capable of meeting the evolving demands of the information environment.

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Unit 5: Information Sources

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5.1. Introduction

An information source refers to any origin from which information is obtained. This includes not only documentary sources such as books, journals, newspapers, reports, databases, and websites, but also non-documentary sources like subject experts, researchers, interviewees, and even personal observations. These sources form the foundation of knowledge building, supporting learning, research, and decision-making. In this unit, you will understand the different types of information sources, the need and importance of information sources. You also know the various information systems and programs in India.

5.2. Need and Importance of Information Sources

Information sources play a crucial role in providing reliable and authentic information needed for decision-making, problem-solving, research, and everyday activities. They help validate facts, strengthen arguments, and support informed actions across personal, professional, and academic domains. Their importance lies in ensuring accuracy, reducing uncertainty, fostering learning, encouraging innovation, and deepening our understanding of the world. In essence, they are indispensable for personal development, professional efficiency, and societal progress. The information sources are very much needed for various purposes. Some of them are:

a) Need for Information Sources

Daily Life: To make quick decisions, manage routine activities, seek entertainment, and stay updated with current events.

Education and Research: To learn new concepts, answer questions, gather evidence, construct arguments, and understand complex subjects.

Business and Entrepreneurship: To conduct market analysis, identify opportunities, assess risks, and gain competitive advantages.

Problem-Solving: To clearly understand issues and develop effective solutions.

Governance and Organizations: To plan activities, serve users efficiently, frame policies, and support research and development efforts.

b) Importance of Information Sources:

Credibility and Reliability: They help verify whether information is accurate, unbiased, and trustworthy, thereby preventing misinformation.

Reduction of Uncertainty: Information sources provide data that helps individuals make decisions with greater confidence.

Supports Informed Decision-Making: Reliable information leads to better choices in personal, academic, and professional settings.

Knowledge Building: They form the foundation for developing understanding and expertise, transforming raw data into meaningful knowledge.

Validation of Research: Information sources supply evidence needed to support claims and strengthen research arguments.

Promotion of Information Literacy: Using various sources enhances the ability to locate, evaluate, and utilize information effectively.

Facilitates Learning: From introductory materials like encyclopedias to advanced resources such as scholarly journals, information sources support every stage of the learning process.

5.3. Types of Information Sources

During a user-requirements analysis, it is essential to identify the various sources from which information can be gathered. Selecting appropriate sources ensures that the information collected is complete, accurate, and relevant. Information sources are typically organized based on their content, type, medium, or physical form to meet the diverse needs of users. Broadly, information sources are classified into the following two categories: Documentary Sources and Non-Documentary Sources

5.3.1. Documentary Sources

Documentary sources include all recorded forms of information, regardless of their content, medium, or format. These may be published or unpublished and available in print or electronic form. Examples include books, periodicals, magazines, reference works, and many other recorded materials.

In general terms, documentary sources may be described as records created by individuals or groups in the course of their routine activities. Although they may appear straightforward, using materials such as letters, diaries, and other personal records requires a structured and methodical approach to extract meaningful insights about society.

Documentary information sources such as books, journals, articles, dictionaries, newspapers, dissertations, guidebooks, and directories are traditionally classified into three major categories based on their content and the level of organization: Primary Sources, Secondary Sources and Tertiary Sources.

a) Primary Sources

The term *primary* refers to the earliest or original form of information. UNESCO (1968) describes a primary publication as “*an original scientific paper describing new research, techniques, or apparatus.*” The term does not imply superiority; rather, it denotes information created firsthand by original contributors. This distinguishes primary sources from secondary sources, which interpret, analyze, or synthesize information derived from primary materials.

Primary sources contain original information presented for the first time. They may include new data, fresh interpretations of known facts, new

observations, experimental results, or firsthand accounts. These sources publish or record information that has not been previously disseminated. Examples include research articles, monographs, research reports, patents, dissertations, reprints, and other forms of original scholarly work. Because primary sources document original contributions, they often appear in scattered locations and various formats, making them comparatively difficult to identify and retrieve. However, they are essential for generating new knowledge and supporting advanced research.

Some of the primary sources of information are discussed in this section:

i) Periodicals

A periodical is a publication issued under a distinctive title at regular or stated intervals, with no predetermined conclusion to its publication. Each issue typically contains articles, editorials, features, columns, stories, or other written contributions by multiple authors. Periodicals are particularly valuable because they provide up-to-date information on a wide range of subjects.

UNESCO defines a periodical as *“a publication that constitutes one issue in a continuous series under the same title, published at regular or irregular intervals over an indefinite period, with individual issues numbered consecutively or dated.”*

One of the most significant characteristics of periodicals is their ability to deliver the most current information to readers. In libraries, new issues are

displayed prominently upon arrival and are later replaced by subsequent issues. Periodicals are often referred to as serials or journals. Alongside these, magazines form another common type of periodical. Although magazines are similar to journals in that each issue begins with page one, they differ in purpose and audience. Magazines are not academic or professional publications and are generally not peer-reviewed.

Examples: Annals of Library and Information Studies (ALIS), DESIDOC Journal of Library & Information Technology (DJLIT), Indian Journal of Information, Library & Society, etc.

ii) Newspapers

A newspaper is not merely a source of daily information; it is a comprehensive repository of current events, facts, opinions, and features. It is a scheduled publication, usually issued daily or weekly, containing news reports, informative articles, editorials, advertisements, and various other features. Newspapers are typically printed on low-cost paper known as newsprint. They serve as an excellent medium for staying updated on recent developments and play a crucial role in shaping public opinion and societal perspectives.

Examples: The Hindu, The Times of India, Indian Express, Kannadaprabha, Daily Thanthi , etc.

iii) Technical Reports

A technical report is a formal document created to present detailed technical information in a clear, structured, and accessible format. It is generally written by researchers or experts to describe the progress, methodology, and results of a scientific or technical project. These reports are tailored for specific audiences who require precise, up-to-date information, often before it appears in scholarly journals. Technical reports are especially valuable in fields such as engineering, computer science, and other scientific disciplines where the timely dissemination of new findings is essential. They are often organized into sections that enable different readers to access information at varying depths. *Examples: NASA Technical Reports, DRDO Technical Reports, IIT Research Project Reports, etc.*

iv) Theses and Dissertations

A thesis or dissertation is a scholarly document submitted in fulfilment of an academic degree, presenting the author's research and findings. Its primary purpose is to communicate original research and contribute new knowledge or perspectives to a particular field. Academic and special libraries collect these documents because they often contain unique data, innovative methodologies, or new interpretations. Today, most universities require submission in both print and electronic formats.

A thesis or dissertation may involve generating new data, devising new methods, reanalysing existing datasets from fresh perspectives, or developing new theoretical frameworks. It demonstrates the student's competence in conceptualizing, conducting, and reporting a research project.

Examples: Ph.D. theses, M.Phil. dissertations, Master's degree project reports, etc.

v) Conference Papers

A conference is a professional gathering where experts, researchers, and practitioners in a specific field present and discuss their work. Conference papers, posters, and presentations often represent cutting-edge research and emerging trends. Conference proceedings or reports document the papers presented during the event and serve as a valuable source of current research. Because conferences attract specialists, the research shared is often more recent than that published in journals.

Examples: Proceedings of the International Conference on Digital Libraries, IEEE Conference Papers, Library Science National Seminar Proceedings, etc.

vi) Patents

A patent is a government-issued right that grants an inventor exclusive control over their invention for a specified period. This right prevents others from making, using, or selling the invention without permission. Patents are essential for protecting intellectual property and encouraging innovation.

An invention eligible for a patent typically offers a novel method, product, or technical solution to a problem. Patents are a unique and valuable source of scientific and technical information because they often contain highly detailed descriptions of new technologies and processes. Although patent infringement is not a criminal offense, patent holders can enforce their rights through civil legal action.

Examples: Indian Patent Office Publications, US Patent and Trademark Office (USPTO) Patents, World Intellectual Property Organization (WIPO) Patents, etc.

b) Secondary Sources

Secondary sources analyze, interpret, evaluate, or summarize information originally presented in primary sources. Even when they offer factual descriptions or accounts of events, they are considered secondary unless they are based on direct observation or firsthand experience. Secondary sources often rely on a combination of primary materials, other secondary works, and established disciplinary methods to draw conclusions. They serve as key tools for understanding, contextualizing, and critiquing primary information.

Secondary sources provide “second-hand” information that has been digested, rephrased, interpreted, or synthesized. They frequently combine insights drawn from multiple primary and secondary materials. Typically created well after the original events or research, these sources help place

primary information within broader historical, theoretical, or analytical frameworks. Some of the secondary sources of information are:

i) Books

A book is a written or printed literary work that is individually published and exists as a physically independent unit, typically consisting of pages bound along one edge and enclosed within protective covers. According to UNESCO, a book is defined as *“a bound non-periodical publication having 49 or more pages, exclusive of cover pages, published in a country and made available to the public.”*

Example: Singh, S. (1994). Indian Library and Information Science Literature, 1990–1991. New Delhi: Concept Publishing Company. ISBN: 817022523X

ii) Reference Books

The *Merriam-Webster Dictionary* defines reference books as *“books such as dictionaries, encyclopedias, or atlases intended primarily for consultation rather than for continuous reading.”* These works are often designed for quick retrieval of specific information rather than cover-to-cover study. According to the *Business Dictionary*, reference books include *“atlas, dictionary, directory, encyclopedia, handbook, thesaurus, or any other work created to help users find specific information rather than read sequentially.”* In libraries, reference books are typically restricted to on-site use because of their high demand and significance in providing authoritative, ready-reference information.

Examples: Feather, J., & Sturges, P. (Eds.). (2003). International dictionary of library science. Fitzroy Dearborn Publishers, Young, H., & Calvert, P. (Eds.). (2013). ALA glossary of library and information science (4th ed.). American Library Association

iii) Indexing and Abstracting Periodicals

Indexing and abstracting periodicals are essential secondary sources that systematically scan literature published in primary sources, select relevant items, and organize them in a structured and accessible manner for researchers. These periodicals are issued at regular intervals, weekly, fortnightly, monthly, or quarterly to keep scholars informed about the latest developments in their fields. These publications compile bibliographic references to newly published works, either with or without abstracts. A publication with abstracts is known as an abstracting periodical. A publication without abstracts is known as an indexing periodical.

By consolidating recently published literature from a wide range of primary sources, these periodicals make it easier for researchers to stay updated and conduct retrospective searches.

Examples: Library and Information Science Abstracts (LISA), Library, Information Science & Technology Abstracts (LISTA)

iv) Bibliographies

A bibliography is “a complete or selective list of works compiled according to a common principle, such as authorship, subject, place of publication, or printer”. In simpler terms, it is a systematic list of documents that share a common characteristic, such as topic, language, time period, or author. Bibliographies may be comprehensive or selective, depending on the scope and purpose. The entries are arranged in a logical order such as alphabetical, chronological, or classified and typically provide full bibliographic details of each document. This type of bibliography, known as an enumerative or systematic bibliography, aims to record or list relevant documents in an organized and accessible manner.

Examples: Annual Bibliography of African Library & Information Science, National Bibliography of Indian Literature / National Bibliography of India

c) Tertiary Sources

Tertiary sources are derived from both primary and secondary sources and serve primarily as tools for locating and identifying relevant information. Rather than providing subject content themselves, tertiary sources guide users to the primary or secondary materials where detailed information can be found. These sources typically compile, organize, and index information in a way that helps researchers select the most suitable documents for their needs.

They are usually not attributed to a single author and often consist of compilations, directories, indexes, and other finding aids.

i) Almanacs

Almanacs originated as simple calendars containing astronomical information and essential dates, such as religious festivals and seasonal changes. They have existed since the earliest periods of recorded writing. Modern almanacs, however, are far more comprehensive. They present statistical and descriptive data covering a wide range of subjects, such as geography, government, population, agriculture, economics, business, health and medicine, science and technology, transportation, sports, and major awards or honours.

Examples: The World Almanac and Book of Facts, The New York Times Almanac

ii) Handbooks

A handbook is a detailed and comprehensive reference work on a particular subject, designed primarily for practitioners and structured for quick and easy consultation. Handbooks often combine features of both dictionaries and encyclopedias, offering concise explanations, definitions, and factual information.

Handbooks are widely used across fields such as science, technology, engineering, manufacturing, healthcare, and industry because they present

reliable, authoritative, and easily accessible information needed for practical application and problem-solving.

Examples: Handbook of Library and Information Science, Handbook of Digital Information Management

iii) Manuals

A manual is a document that provides detailed instructions for operating a machine, performing a task, learning a subject, or carrying out a specific procedure. It is essentially a concise reference guide that explains processes, mechanisms, job instructions, or operational methods in a clear and systematic manner. Prepared with meticulous care, a manual outlines step-by-step procedures and technical details, making it a practical *how-to-do-it* resource. Its primary purpose is to guide users in understanding how something works or how a particular job should be performed accurately and efficiently.

Examples: Manual of Laboratory Experiments in Physics, Manual of Pharmacology Experiments

iv) Directories

A directory is a compilation of names, addresses, and related information about individuals, organizations, or institutions. In libraries, directories function as important ready-reference tools that provide quick

access to factual details about various entities.

Entries in directories are generally arranged alphabetically or classified by categories.

- Directories of individuals typically include information such as name, address, designation, qualifications, experience, and contact details.
- Directories of organizations or institutions include the name and address of the organization, its objectives, activities, functions, and the contact details of key officials, including phone numbers and email addresses.

Examples: Directory of Research Laboratories in India, University Grants Commission (UGC) Directory of Universities

5.3.2. Non-Documentary Sources

Non-documentary sources of information refer to those channels through which information is obtained without the use of written or printed documents. These sources are broadly classified into *formal* and *informal* categories. Formal sources include information provided by research organizations, professional societies, industries, government departments, universities, consultants, and similar institutions. Informal sources involve human interactions, such as conversations with colleagues, experts, resource persons, consultants, as well as information disseminated through mass media.

The major categories of non-documentary sources include:

- Institutions or Organizations
- Human Resources
- Mass Media (other than print media)
- The Internet

a) Organizations as Sources of Information:

Various institutions play a significant role in generating and disseminating information. These include academic institutions, government ministries and departments, research and development organizations, professional societies, publishing houses, and both national and international agencies.

b) Human Resources:

Human sources comprise experts, consultants, resource persons, extension workers, and, in many cases, ordinary individuals who possess useful knowledge or experience. Their insights often provide current, practical, and situation-specific information.

c) Mass Media:

Mass media refers to any mode of communication capable of reaching a large and diverse audience simultaneously. Examples include the Internet, television, and radio. Although magazines and newspapers are part of print

media, they are also considered important components of the broader mass media landscape.

d) The Internet:

The Internet has emerged as one of the most significant non-documentary sources of information. As an interactive digital medium, it differs from traditional media such as print or television. The World Wide Web a vast collection of interconnected websites, provides access to information on almost every conceivable subject, making it an invaluable resource for users across disciplines.

5.4. Electronic Sources

Traditionally, most information was accessed through printed materials. However, with the widespread availability of the Internet, many print resources are now accessible in electronic form. Whether information appears in print or digital format, it is essential to evaluate its reliability, accuracy, and authority. Electronic materials in libraries offer several advantages over print media, such as:

- Easy and frequent updating of information
- Access to real-time or up-to-the-minute content
- Keyword-searchable text
- Remote access beyond the library premises

- Simultaneous use by multiple users
- Convenient printing, downloading, and manipulation of information

An electronic resource (e-resource) is any material that requires computer access to retrieve and use its content. This includes both online and offline resources, such as web-based materials, databases, and CD-ROMs. The term “e-resource” covers all digital products made available through a library’s computer network. These resources include bibliographic databases, electronic reference books, full-text search engines, and digital data collections. They consist of both *born-digital* materials created originally in electronic form, such as e-journals and online databases and digitized versions of print resources.

Examples of e-resources include electronic magazines, encyclopedias, newspapers, journals, and the articles they publish. These can be accessed using Internet-enabled devices such as computers, tablets, and smartphones. The advent of the Internet has dramatically transformed the functioning of libraries, enabling them to acquire, organize, display, and circulate electronic forms of books, journals, newspapers, theses, and dissertations.

a) Advantages of E-Resources

E-resources offer numerous benefits, including:

- Remote access via the Internet, eliminating the need for users to visit the library physically especially beneficial for users in distant or underserved areas
- Simultaneous access by multiple users to the same article or journal
- Availability anytime and anywhere, enhancing user convenience
- Ability to search vast collections through a single search interface
- Availability of usage statistics, helping library staff evaluate resource utilization
- Inclusion of multimedia elements such as audio, video, and animations, which are absent in print formats
- Space-saving advantages for libraries, reducing the need for physical storage

b) Disadvantages of E-Resources

Despite their benefits, e-resources have certain limitations:

- Users must have an Internet-enabled device and a stable connection to access electronic materials
- If a library cancels a subscription, continued access to back issues of e-journals is not always guaranteed, unlike printed collections

- Similarly, discontinuation of e-book subscriptions may result in complete loss of access, whereas printed books remain permanently owned
- Reading on digital screens can cause eye strain and discomfort for some users

5.5. Reference Sources

Reference sources provide concise information, such as factual data, statistics, background knowledge, or guidance to additional sources of information. They are standard works used to locate specific types of information quickly. While the term *reference book* is commonly used, reference sources may take various forms, including books, serials, online databases, and internet resources.

Unlike textbooks or narrative works, reference books are consulted rather than read continuously. For instance, one typically uses a dictionary to look up the meaning of a word rather than reading it from cover to cover. Common reference sources include dictionaries, encyclopedias, handbooks, yearbooks, almanacs, directories, and biographical and geographical works. Familiarity with dictionaries and encyclopedias is essential, as these are often used for class assignments or personal research.

Librarians provide reference services based on the materials in their collections, often referred to as *Ready Reference* services. In most libraries, reference books are non-circulating and housed in a separate collection to

ensure that users can access them easily and conveniently. Reference sources are specifically designed to deliver information quickly, clearly, and in a user-friendly format.

The main types of reference sources include:

- Dictionaries
- Encyclopedias
- Yearbooks
- Almanacs
- Handbooks

a) Dictionary

The word *dictionary* originates from the Medieval Latin term *dictionary*, meaning a collection of words or phrases, which in turn derives from the Latin *dictio*, meaning “word.” The earliest dictionaries were produced by the ancient Greeks and Romans, though they primarily listed rare, difficult, or specialized words.

A dictionary is a reference book that contains the words of a language arranged alphabetically, along with their meanings, pronunciations, usage, and other relevant information. Dictionaries remain one of the most widely used reference sources for both academic and personal purposes.

b) Encyclopaedia

An encyclopaedia is a book or a set of books that provides information on a wide range of knowledge or on specific subject areas, with articles typically arranged alphabetically. It includes information about people, places, events, concepts, and objects.

- **General Encyclopaedias** cover topics across all fields of knowledge, offering broad overviews of multiple disciplines.
- **Specialized Encyclopaedias**, also known as *subject encyclopaedias*, focus on a particular area such as arts, science and technology, or social sciences, providing detailed and technical information for users seeking in-depth knowledge.

c) Yearbook

As the name suggests, a yearbook is a reference book that is updated and published annually. Its primary purpose is to document and summarize events and developments of the preceding year, either within a particular country or globally.

Yearbooks can be categorized based on scope and content:

- **International Yearbooks** – covering global events and developments
- **National Yearbooks** – focusing on developments within a specific country

- **Subject Yearbooks** – dedicated to a particular field or discipline

d) Almanac

An almanac is an annual reference book containing a wide range of information. Historically, almanacs provided calendars with astronomical data, including eclipses, planetary movements, and the rising and setting of the sun, moon, and stars.

Modern almanacs present comprehensive statistical and descriptive data on a global scale. Typical topics include geography, government, demographics, agriculture, economics, business, health and medicine, science and technology, transportation, sports, and awards or prizes.

e) Handbook

The term *handbook* originates from the German word *Handbuch*, meaning a small book containing useful facts. A handbook is so named because it is “handy” easy to use and convenient to carry. By definition, a handbook is a concise reference work that provides specific information or instructions about a topic or subject. Subject handbooks provide brief factual information in a clear, easily consultable format. They are widely used by practitioners, specialists, and professionals in industries, laboratories, and other technical or applied fields, offering quick and practical guidance.

5.6. Information Systems and Programs

Information is a vital resource for the cultural, socio-economic, scientific, and technological development of a nation. It plays a crucial role in education, training, research, and the advancement of knowledge. Recognizing the significance of information in promoting education and research, the Government of India has consistently invested in the establishment of libraries and documentation centres alongside the growth of academic and research institutions since independence.

In the academic sector, efforts have been made to establish libraries at the school, college, and university levels. The government has also strengthened the public library system to meet the information needs of the general public. In the research and development (R&D) sector, libraries and information centres have been established across various fields, including science and technology, social sciences, and the humanities.

This section deals with some of the major National Information Systems and Programmes launched by Government of India in the country in the fields of S&T, Social Sciences and Humanities. The Information Systems are a type of communication systems, which select, organise, store and disseminate public knowledge to the users as per the objectives laid down by the Information Programmes. An Information System is composed of all the components that collect, manipulate and disseminate data or information. It usually includes

hardware, software, people, communication systems such as telephone lines and data itself. Activities involved include inputting of data, processing of data into information, storage of data and information and production of services and products.

5.6.1. Biotechnology Information System (BTIS)

To promote R&D efforts in different areas of biotechnology viz. agricultural, animal, environmental, medical and plant biotechnology in India, Ministry of Science and Technology, set up a Department of Biotechnology (DBT) in 1986 at New Delhi. The department through its several programmes, accelerated the pace of development of biotechnology in the country. Since its establishment, DBT has made significant contributions in the growth and application of biotechnology in the broad areas of agriculture, health care, animal sciences, environment and industry through its various R&D projects and programmes.

The research in biotechnology generates huge amount of biological data and analysis of such large data requires computer intensive techniques to solve complex biological problems such as genome sequencing, protein modelling and protein analysis, structural genomics, etc. This requirement led to the development of a new multidisciplinary area called Bioinformatics. Recognising the importance of Bioinformatics in biotechnology research, India was the first country in the world to establish a Biotechnology Information

System (BITS) network to create an infrastructure to harness, biotechnology through the application of Bioinformatics.

5.6.2. Environmental Information System (ENVIS)

Recognising the importance of environmental information for sustainable development and formulation of environmental management policies, the Government of India set up ENVIS in 1982 under the Ministry of Environment and Forests (MOEF), erstwhile Department of Environment, as a decentralised system with a network of distributed subject-specific centres to collect, collate, store, retrieve and disseminate relevant and timely environmental information to help in decision making in environmental planning and management.

ENVIS started with ten ENVIS centres located in different parts of the country, with a Focal Point at the headquarters of the the Ministry of Environment and Forests, New Delhi, to coordinate the activities of the ENVIS network. ENVIS centres were located mostly in R&D institutions dealing with different subject areas of environment, such as pollution control, toxic chemicals, environmentally sound and appropriate technology, media and environment, coastal and offshore ecology, renewable energy and environment, ecotoxicology, biodegradation of wastes, environment impact assessment, environmental management and occupational health. ENVIS, since

its inception, has been providing timely and relevant environmental information to all concerned.

In expanding the ENVIS network to cover a wider range of disciplines as per the requirements of environmental information, the cooperation and active participation of state governments and Union Territories were felt necessary. Keeping this in view, the network was expanded gradually with the involvement of more environmentally related areas and state government departments to make it more comprehensive.

5.6.3. National Informatics Centre (NIC)

NIC was set up in 1975 by the Government of India, for developing computerised Management Information Systems (MIS) for Ministries and Departments of Central and State governments to facilitate planning and decision-making process in the country. The Centre commissioned nation-wide online network system called NICNET in 1977 to enable efficient exchange of information between the Central and State Government Departments and between the States and their Districts.

NICNET is one of the largest VSAT based network connecting the national capital, the state capitals and district headquarters to one another. Presently, NIC, under the Department of Information Technology, Ministry of Communication and Information Technology, New Delhi, is recognised as a

premier information technology organisation providing network backbone and e-governance support to the Government of India at all levels.

5.6.4. INFLIBNET: Information and Library Network

INFLIBNET Centre is an autonomous Inter University Centre (IUC) of University Grant Commission (UGC) of India with its headquarters in Gujarat university campus, Ahmedabad. INFLIBNET is a major National Programme initiated by UGC in 1991. Initially started as a project under IUCAA (Inter University Centre for Astronomy and Astrophysics), INFLIBNET became an independent Inter University Centre in 1996. INFLIBNET Centre is involved in modernising university libraries, connecting them as well as information centres, through nation-wide high-speed data network for optimum utilisation of information.

It serves as an information centre for the transfer and access of information, supporting scholarship, learning and academic pursuits¹⁾ in universities, colleges and R&D institutions in the country.

5.6.5. National Institute of Science Communication and Information Resources (NISCAIR)

NISCAIR aimed to disseminate S&T information, build capacity in science communication, preserve traditional knowledge, and foster research through publications (journals, magazines), digital libraries, translation

services, and training, bridging the gap between science and society, with a focus on India's R&D, industry, and public. Its core functions included publishing, providing information products/services (like translations, bibliometrics, digital repositories), and developing human resources in information management and communication.

a) Objectives

- **Knowledge Dissemination:** To collect, publish, and widely share S&T information with researchers, industry, policymakers, and the general public.
- **Resource Development:** To create comprehensive S&T information resources and modernizing libraries and information management.
- **Capacity Building:** To offer specialized training in science communication, library science, IPR, and information management.
- **Indigenous Knowledge:** To document and protect India's traditional knowledge systems.
- **International Collaboration:** To foster global partnerships for knowledge exchange.
- **Science for Society:** To serve as a bridge, making science accessible and relevant to societal needs.

b) Functions

- **Publications:** Producing research journals, popular science magazines (like *Science Reporter*), and S&T books.
- **Information Services:** Offering document supply, translation (foreign languages to English), bibliometric analysis, and ISSN assignment for Indian serials.
- **Digital Initiatives:** Maintaining digital libraries and repositories for students and researchers.
- **Training & Education:** Developing programs in science communication, information science, and IPR.
- **Facilitation:** Providing timely access to accurate S&T information to support economic, social, and industrial development

5.6.6. Indian Council of Social Science Research (ICSSR)

Indian Council of Social Science Research (ICSSR) was established by Ministry of Human Resource Development (erstwhile Ministry of Education), Government of India, in 1969 to promote social science research in the country. ICSSR, an autonomous body, sponsors social science research programmes and projects in the country; administers grant to institutions and individuals; awards fellowship; sponsor and arrange technical training in research methodology and provide guidance for research; develop and support library

and documentation centres for providing information services in social sciences; organises and support seminars, workshops and study groups and undertakes publication work in social sciences.

The council reviews the progress of research and advises the Government of India on all matters pertaining to social science research in the country. The Council has its Headquarters in New Delhi and 27 Research Centres and 6 Regional Centres spread all over the country.

5.7. Conclusion

In this unit, you have explored the diverse range of information sources, encompassing primary, secondary, and tertiary sources. You have gained an understanding of the distinctive characteristics of each type, as well as their relevance and significance in facilitating effective information retrieval and knowledge creation.

The unit also emphasized the critical role of electronic information sources, highlighting how digital platforms, databases, and online repositories have transformed access to information in the modern era. Additionally, you have examined various reference sources, which serve as essential tools for quick consultation, fact verification, and supporting research work. Beyond individual sources, this unit also introduced key national and institutional information systems and programmes, illustrating how organized initiatives

contribute to the systematic collection, storage, dissemination, and utilization of information for research, academic, and professional purposes.

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