



ROLE OF LIBRARY AND INFORMATION SCIENCE PROFESSIONALS IN THE KNOWLEDGE SOCIETY

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ABSTRACT

The role of Library and Information Science (LIS) profession has been changing due to the information overload and its availability in variant forms. The 21st century has brought a lot of changes not only on the library and information services but also on the roles and expectations of the librarians and information professionals. The LIS professionals have new challenges because of unprecedented explosion of information and the application of information communication and mobile technologies in generation, dissemination and access of information. To cope with these problems, the modern library and information professionals need to change from the custodian of documents to the content managers. This paper examines (i) the importance of libraries and information centers; (ii) the transformation of libraries; (iii) temperature of the information world; (iv) the challenges faced by LIS professions (v) the new roles and skills of LIS professionals in this paradigm shift.

Keywords: Digital library, Library 3.0, Role and skills of LIS professionals, Transformation of libraries, Library services.

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1. INTRODUCTION

Information and knowledge has been the driving force in the development of a society. Society has passed through three different phases namely agrarian society, industrial society and post-industrial/information society. Human being understood the power of knowledge, hence, they invented the mechanism of writing to record and document the information and knowledge they acquired. Further, they invented paper and printing technology which proved to be milestone in the human history. Growth in information and knowledge, and birth of several institutions in the society created an institution called library. Initially, a library had the role of preserving the knowledge of the society but gradually it become a service agency and started to serve the society with its resources namely books, periodicals, etc. The role of library and information centers grew manifold as society developed educationally, socially, economically, culturally and politically. Library and information centers have become the backbone of the modern society as it provides the means to the development process of each and every segment of the society.

Over the past few decades with the advancement in the information communication technologies (ICT's) the nature of library and information environment and the mode of services has changed drastically in a dynamic way. The library has shifted from the traditional library to automated library, then hybrid library and then to digital library and virtual library and presently, it is shifted to Library 2.0 and Library 3.0. Whatever be the structure of the library its philosophy is the same but the actions are changing. They normally act as an important centre of cultural heritage, to promote thinking ability, to educate people, to enlighten people, to know the world and helps to buildup human networking.

2. TRANSFORMATION OF LIBRARIES

Information communications Technologies (ICT) have become common entities in all aspects of life. The application of ICT has also caused significant changes in LIS sector especially in delivering information services. Therefore different types of libraries have born in society such as:

2.1. Traditional Library

The collection of the traditional libraries is mostly print media, manuscripts etc and are not well organized. The documents are deteriorating at a rapid rate, the collection of information is not easy to locate and so does not easily reach to user, Again the traditional libraries are confined itself within a physical boundary.

2.2. Automated Library

A library in which the house keeping operations and the access pontes are computerized is called an automated library. Initially, library automation in India started with the retrospective conversion of their library collections by using print catalogs and accession registers. Later, libraries started replacing the print catalog with OPACs, with many libraries maintaining both print and OPAC due to concerns about technology and power failure issues. At that time most of the information resources in the libraries are in print form

2.3. Electronics Library

When automated libraries goes for LAN (Local Area Networking) and CD-ROM networking and started procuring E- journal and other similar kind of publication then it is known as electronic library. The resources of the electronic libraries are in both print and electronic form. The electronic media are used for storage retrieval and delivery of information.

2.4. Digital Library

It is a later stage of electronic library. In digital library high speed optical fiber are used for LAN and the access is over WAN and provide a wide range of internet based services. The majority of the holding of a digital library is in the computer readable form and also acts as a point of access to other online sources [1].

2.5. Hybrid Library

The libraries, which are working both in electronic or digital and print environment, are known as hybrid library. Actually it is a transitional state between print and digital environment. It is estimated that in near future libraries will be of hybrid nature some of the very strong point in favor of this view are centuries old reading habit of paper, convenience of handling and reading a paper document then the digitized one (in case of digitized some equipment are must needed to read the document), incompatible standard of electronic product, different display standard of digital product and its associated problem etc.

2.6. Virtual Library

It is a library without walls. In virtual library the collection do not exist on paper, microform or other tangible form at a physical location but are electronically accessible in digital format through computer networks, especially through internet.

2.7. Library 2.0

Library 2.0 is a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services are delivered to users. The focus is on user-centered change and participation in the creation of content and community.

2.8. Library 3.0

Library 3.0 refers to libraries using technologies such as the semantic web, cloud computing, mobile devices, and re-envisioning our use of established technologies such as federated search, to facilitate user-generated content and collaboration to promote and make library collections accessible. The end result of Library 3.0 is the expansion of the 'borderless library', where collections can be made readily available to library users regardless of their physical location. Library 3.0 is a virtual complement to physical library spaces, and ideally will work seamlessly within established services and collections.

3. TEMPERATURE OF THE INFORMATION WORLD

Even though the information is growing at a rapid rate, the library will stay abreast of the changing ways that information is packaged and delivered and stories are created and shared. The Library will be a recognized, trusted and relevant resource, ensuring that individuals have access to what they need.

3.1. Library Services

It may be mentioned that in the twentieth century the library services were responsive because they were rendered at the request of the library users. However, by the beginning of the twenty first century the library services have become more positive and proactive because these are now offered not only on the users' request but also at the initiative of the library personnel. The impact of ICT is seen in providing efficient and effective services, helping to control the rapid growth of information, facilitating cooperation, etc. Information and communication technology has not only changed but also speeded up the services in the following areas:

- i. Format of documents: The books, periodicals, etc. and they are now available in non print format also. The technology has been transforming printed books and journals into digital format and storing them for posterity.
- ii. Operational activities: ICT has its impact on housekeeping activities such as circulation control, acquisition, cataloguing, serials control, etc. Automation of these activities has made them more efficient and effective. The routine activity of issue and return of documents has become faster than earlier situation.
- iii. Library OPAC: The Online Public Access Catalogue (OPAC) of the library can provide improved access to information retrieval system. It can be placed on the library website and users can have access to the library databases from any part of the world.
- iv. Management processes: Information technology has been helping libraries in managing the library stock, financial management, and so on.
- v. User orientation: User orientation activities have been changing for the benefit of the users with the application of ICT. The interaction between the user and librarian/information personnel has speeded up and making library resources and services more accessible.
- vi. Access to Information Resources: ICT has impacted to broaden the access points of the users to the library / information resources to their advantage. It has made possible online, easy, and continuous access with multiple user access facility to the entire range of collection including the electronic resources.

- vii. Online Databases: With the growing demand of computer- savvy users, ICT has helped to make available more and more e-databases in bibliographic as well as full text sources. The web enabled databases are easily accessible from the user desktops and other gadgets.
- viii. Current Awareness Services: Libraries can generate current awareness services by using internet data in combination with existing information resources. These can be delivered in a form compatible to user requirements.
- ix. Library Networks: Many library and other networks have been made possible by ICT and its applications in libraries. These include INFLIBNET, DELNET, ERNET, NICNET, UGC-INFONET, INDEST, and so on. They have helped in widening the mechanism of library cooperation, resource sharing, and library consortia.

As a result of technology, the face and nature of reference and other library services has been changing better. The time for virtual reference is there to stay in the twenty-first century indicating the possibility of paradigm shift. It may, therefore, be stated that information technology will continue to improve the effectiveness of academic library services in the times to come [2].

3.2. Changing User Needs

Users information needs have indeed changed and are still changing as a result of the emergence and expansion of the electronic form in which information content is being made available for users' access and use. The basic feature of the prevailing needs is how user requires the information content of electronic information sources to be more available for access and use in their specific setting. And this is determined by the prevailing capabilities of users in relation to the ideal requirements of electronic information sources for their proper exploitation. One of the most important implications of this situation relates to the direction of the possible strategies to be considered in addressing the prevailing information needs of users in electronic environments [3].

3.3. Strengthening Collaboration with Other Libraries and Other Sections

Collaboration is not new to libraries. They collaborate with others to complete specific tasks or to carry out specific activities. However, it is not often that the collaboration becomes a central tool for fulfilling the library's overall objectives. What is new is that the collaboration must be professionalized and formalized in order to develop new partnerships. Partnerships must contribute to the innovation of libraries and what they have to offer, and they must be used strategically to fulfill the libraries overall objectives. Libraries must prepare a strategy, establish clear objectives and develop their organizations in order for the partnerships to improve resources, appreciation and motivation. Collaborating with other libraries at the national and international level provides the opportunity to:

- Establish consortium for the purchase and subscription of electronic resources
- Get in contact with user groups
- Develop and test the products
- Visualize themselves in a different context
- Gain access to a comprehensive, national network
- Development of electronic services

3.4. Job Skills and Responsibilities of LIS Professionals

The type of jobs of library and information professionals is changing from traditional jobs to emerging jobs.

3.5. Common Features of Traditional Jobs

- Readers' advisory, reference skills; research assistance at all levels; face to face and virtual services
- Ability in the technical organization of the collection
- Print and electronic collections development and management
- Providing learning opportunities and creating promotional activities
- Instruction in classrooms; literacy and information literacy instructional design
- Assessing current conditions; creating or contributing to budgets, best practices, and strategic planning
- Liaising with user groups such as public, students, research scholars and faculty members
- Language skill and communication ability

3.6. Common Features of Emerging Jobs

- Familiarity with integrated library systems
- Cataloguing and metadata; electronic collections management, including born digital
- Ability to lead and complete digitization, data migration/conversion, repository and database tasks
- Creation or sourcing of digital tools applications, databases etc.
- Support for distance and virtual patrons
- Evaluation and improvement of current systems and workflow; tracking and reporting data
- Anticipating future or emerging needs and changes
- Troubleshooting for hardware and software across all levels of patrons; instruction; digital access
- Providing data and technical services, such online research support
- Ability to work collaboratively and as a principal liaison
- Budgeting; participating in strategic or best practices
- Encouraging or enabling resource discovery
- Implementing or assisting with emerging technology

3.7. Challenges Faced by LIS Professionals

Due to the changes in the working environment of libraries and information centres the LIS professionals are facing many challenges not only in the internal activities of the libraries but the changing demands and expectations of the users. The user's expectations always seem to exceed library's capacity in terms of documents, infrastructure facilities, finance, staff etc.

Libraries and information centers are best places to manage human capital. The role of libraries is to manage information and knowledge and turn the vision of a digital library into reality. To achieve this, LIS professionals:

- Should be imaginative and take risks
- Be independent and flexible
- Read constantly and experiment endlessly
- Be Learning and be self-teaching
- Have an understanding of potentials of ICTs
- Have an understanding of Human Factors
- Observe the professional developments, try to adopt and share with colleagues
- Have the functional roles for resource discovery, resource provision and resource delivery.

In present day environment, professionals owe much greater responsibility to be effective information professional. Closer look at the existing skills of the professionals reveals that for facing the challenges of today and tomorrow, they not only need to acquire wider range of skills but also need to keep themselves up-to-date. Now

information specialists have to work as e-information resources in which various professional groups are expected to map a strategy that leads to produce, manage, maintain and service the information, Hence information professionals has to work as:

- Librarian- In addition to being library managers, they also act as collection developers, technical processors and so on, taking care of information quality.
- Information Manger- To meet information need of the user, they should know how to manage and deliver appropriate information services.
- Library advisor/ Instructor- Ensure that users/staff know how to access relevant sources of information (literacy).
- Knowledge mediator - Extend information source beyond catalogue and to provide insight in to the body of knowledge
- Information architect- Organize the patterns of data and structure the content (Mapping of Information/knowledge). Also provide access to document and its content by connecting information and people together (use of internet, computer & communication technology)
- Hybrid librarian- To explore and provide integration of resources and services
- Knowledge preserver -To take forward policies and strategies to ensure digital preservation and to protect the heritage of Human Knowledge
- System administrator/ Network Manger- for delivery of information to their users in an appropriate manner develop and design appropriate systems.

3.8. Knowledge, Competencies and Skills Required for LIS Professionals

The basic goal of LIS profession has always been to provide access to information to those who need it. Library and information professionals involved in information gathering, storage, retrieval and dissemination on one hand and on the other hand the computer specialists who supports the library and information profession in this endeavor. For the successful delivery of information in this modern society it is essential that LIS professionals are well trained and possess requisite knowledge and skills [4].

3.8.1. Knowledge Required

Library and information professionals need to understand

- Knowledge resources (books, journals and electronic and internet resources)
- Technological facilities and resources (computer, online catalogue, networks etc.)
- Financial resources (Budget), Human resources (skills of manpower training)

3.8.2. Skills Required

- Management skills – Managing projects & partnership, publicity & promotion etc.,
- Technical skills – large technologies, OCT markup language, metadata, Multimedia, Digital technology, digital media Processing, user interface design, programming, Internet/web technology, project management etc.,
- Subject skills – Information environments, users environment, etc., Digital Information System, Online optical information
- Additional skills- Internal networks , personal networks, and external networks

3.8.3. Competencies that Required

- Acceptance of change
- Knowledge of user interaction with resources
- Provide quality services
- Be adoptive, flexible and resistant
- Be resourceful
- Possess excellent communication skill, constantly update personal knowledge base
- Create awareness among the users, make them accept the changes
- Be an information management strategist.

3.8.4. Technical Knowledge Required

- Computer skills (hardware, system software, application software)
- General purpose programming
- Database management system
- Webpage development and content management
- Information retrieval software
- Web discovery tools
- Reference management tools
- Library software (for automation and digital repository)
- International standards (NISO standards, MARC, Metadata standards etc.)
- National and international networks, major consortiums etc.
- Digital technology, archival and preservation of e-resources
- Capacity to use free and open source software

4. CONCLUSION

There is no doubt that technology has played a significant role in the post modern society. Developments in ICTs and digital technologies have provided wider opportunities to the library professionals to overcome professional barrier, to extend better information access, delivery and to promote professionals image and visibility. Librarians nowadays are implementing a lot of technologies to provide quality services to users. In India, library professionals are facing many challenges in carrying the digital skills on one hand and dealing with technological revolution on the other. Future days, though slow in Indian context, are very brighter and challenging days for LIS professionals. Responsibility of librarians, LIS schools and professionals associations will be challenging to meet the future needs of the society. We must have to prepare to meet these challenges.

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REFERENCES

- [1] M. A. Ansari, "Digital libraries: Needs, technology and benefit," *ILA Bulletin*, vol. 38, pp. 22-26, 2003.
- [2] S. Sewa, *Academic library services: An over view. In G.Devarajan et.al (Eds.), Blended libraries and information centres: A blue print for the development of information profession in India*. Thiruvananthapuram: Southern Book Star, 2015.
- [3] K. Gashaw, "The changing information needs of users in electronic information environments," *Electronic Library*, vol. 20, pp. 14 – 21, 2002.

- [4] G. Biswas, *Changing role of librarian in the digital era and need for professional skills, efficiently and competence*. In Patil, S.K et.al (Eds.), *Library and information services in the changing era*. Pune: Department of Library and Information Science, University of Pune, 2009.

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