# ROLE OF LIBRARIAN IN DIGITAL LIBRARY <br> R T D RAMESH GANDHI RAGAVENDRA 

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#### Abstract

The basic foundation of librarian's work lies in pursuit of his duties in accordance with the known expectations of society in general and needs of digital library users in particularly in a large multidisciplinary Library and Information Science discipline. Due to the emergence of digital World in the Web environment in response to the growing digital collection, distributing learning and multi and extra disciplinary research environment and the changing behavior of digital users. The paper mainly presents a brief an overview of librarian's role in the digital Era / library.


Keywords: Digital Library/ Role of Librarians

## 1. Introduction

Advances in computer storage and telecommunication methods, online access to databases, electronic journals, electronic knowledge banks, direct document delivery, teletext, teleconferences, bulletin boards, etc., have been the revolutionary developments in the last three decades that have brought a great change in storing and handling of information. The digital or electronic resources are dynamic in nature to share information globally and there has been an increased. Libraries are today termed as digital libraries and Hybrid libraries.

The librarian's to endeavor to predict grasp analyze and materialize such expectations and needs. Librarianship is caught in the midst sea of dynamic changes with respect to collection, preservation, control and dissemination of recorded, knowledge appear to be at risk in a world where uncertainty impact specially electronic media and internet, contingency and the transforming nature of information technology impact especially electronic media and Internet are increasingly dominant. As a result, the library managers are encountered with twin challenges of managing print collections and simultaneously developing digital resources and network based information services.

## 2. Digital Library

The concept of digital library is outcomes of the popular use of information technology. The actual definition of 'Digital Library' may be: "remote access from any point in the work at library content and services, combining bibliographic news, electronic texts, image banks and all kinds of information by means of a computer network". The digital library can be called a 'well free' electronic workstation to access universal knowledge irrespective of distant location of information. Digital library is a user-friendly interface and provides an institute means of presenting information, scanning the volumes insides the library itself and data getting from sources using at office and home. So, searching into digital library is really searching into networking information system. This network opens up information to library professional and others users all over the world from all sectors of the community. With the expansion of infiltration of information, automations, network and digits to every field of the human society, the modernization of knowledge and information are becoming the world trends. Hence, the concept of digital library incarnates. The digital library as it is called is an informative transregional or even transmittal space for effectively keeping, disseminating information by means of the modern information technologies such communication on the network data bank techniques. With the nature of digitization in collecting, operating by electronic computer transmission by the network, freely sharing and getting information and sharing resource and commenting situation.

We are amidst an information explosion and information technology, revolution leading to the emergence of information technology and knowledge era. Rapid advances in information processing, storage and communication technologies have revolutionized the role of worldwide libraries in disseminating information services to their users. As a result libraries are facing new challenges, new competitors, new facing new challenges, new competitors, new demands, new expectations and variety of information services from users tailored to their wants and needs. Libraries are incorporating new technologies, upgrading information resources, training people, changing information objects, modes of communications and information delivery in order to add value to their services and to satisfy the changing information needs of user community. Information seekers are no longer satisfied with old printed materials. The user's demands for information delivery in digital from to their desktops are increasing in recent times, in the present environment, where there is a wealth of information resources being published and transmitted through electronic media. Libraries must take protective measures to develop digital collections to cater for digital information needs of their users.

## 3. Functions of Digital Library

It is due to information explosion almost in every fields of knowledge Libraries are facing manpower and monetary constraints. It is difficult to acquire every publisher document under the same roof and thus evolved the concept of resources sharing and networking, which is reflected in the creation of collection development of a digital
library. Since records can be digitized, the member libraries are coming together to covered entire collections into electronic form and lunching in to network.

The technology for electronic transfer of information is developing rapidly, electronic publishing, electronic storage, processing and delivery of information including text and images are all feasible and operational. At present, only in science and technology ( $\mathrm{S} \& \mathrm{~T}$ ), the number of periodicals available is more than 50.000. Many of them are now available in electronic version.

## 4. Role of Digital Library in Modern Era

### 4.1 Challenges and issues

Developing digital libraries poses serious challenges. Because of the unique nature of digital information, it is less fixed, easily copies, and remotely accessible by multiple users simultaneously. Some of the important issues facing in the development of digital libraries are:

### 4.2 Technical architecture

The first issues are that libraries will need to enhance and upgrade current technical architectures to accommodate digital materials. The architecture will include components such as:

- High-speed local networks and fast connections to the Internet
- Relational databases that support a variety of digital formats.
- Full text search engines to index and provide access to resources.
- Servers of different variety, such as web servers, FTP servers, etc.

■ Electronic document management functions that will help in the overall management of digital resources.
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\begin{array}{|l|l|l|}\hline \text { No. } & \text { Function } & \text { Description } \\
\hline 1 & \begin{array}{l}\text { Access to the local resources } \\
\text { that are part of the library's } \\
\text { collection-e.g. books, } \\
\text { periodicals, media, and } \\
\text { electronic resources. }\end{array} & \begin{array}{l}\text { Includes the shelving and display of hard } \\
\text { copy and other library materials as well } \\
\text { as accessing (via library work station) an }\end{array}
$$ <br>

automated catalogue (OPAC) containing\end{array}\right\}\)| bibliographic records locally created |
| :--- |
| electronic resources and files created by |
| external providers and stored locally. |
| Author can search all files, titles, subject |
| and other indexed descriptor. |

82

| No. | Function | Description |
| :--- | :--- | :--- |
| 2 | Access, via gateway to remote <br> resources e.g. books, <br> periodicals, media, electronic <br> resources with the ability to <br> obtain copies in print or <br> electronic format | Encompasses accessing from library <br> workstations those resources not residing <br> at the local library. Users can search for <br> information by author, title, subject and <br> other descriptors, which lead them to <br> bibliographic records, abstracts, the full <br> texts of documents and other textual, <br> graphic and multimedia files. Materials <br> are obtainable through on line <br> interlibrary loan request or via electronic <br> transmission with provision for copyright <br> compliance and the secure transmission <br> of changing information |
| 3 | Electronic access to local and <br> remote resources from off-site <br> locations such as home, <br> offices and schools. | Includes direct access to local library <br> system via telephones dial-up or through <br> the Internet. |
| 4 | Access to human assistance in <br> locating information | The function is provided by on-site <br> trained librarians and information <br> scientists-who serve as the human <br> interface to all information services either <br> in persons or remotely electronic-mail (E-- <br> mail), video conferencing or online <br> tutorials. |

### 4.3 Building Digital Resources

One of the major issues in creating digital libraries will be the building of digital resources which is largely depends on the nature of content and quality of digital resources. Te digital library resources include electronic journals, books, full-text, CD-ROM databases etc. Both librarian and library users have recognized the advantages of preservation, access and managing good qualities of information. There are three important qualities methods of building digital library resources as identified by Water. They are:

- Digitization, i.e. converting paper and other media in existing collection into digital form
- Acquisition of original digital works created by publishers and scholars, e.g. electronic book, journals and databases.
- Access to external materials not held in house by providing pointers to websites, other library collections or publishers; servers.


### 4.4 Digitization/Data Conversion

The primary method of building digital collection is digitization. Digitization refers to the conversion of an item-be it printed text of a book or journal article, manuscript, image or sound, film or video recording-from one format into digital format. Hence, data conversion to electronic format is an important and challenging task for conventional libraries. Data is available in the form of textbook or reference materials, dissertation, thesis, brochures, etc. These textual data need to be digitized with the use of various electrical operators like digital scanners, so that it could forma part of digital library collection. This is really a complex task, which requires lot of expertise and knowledge in the area of information technology. It requires page-to-page conversion and digitization of the information into electronic format, which is a time consuming process.

### 4.5 Digital Preservation

Digital preservation raises challenges of different nature, which are added to the problems of preserving traditional format materials. Digital preservation means the planning, resource allocation and application of preservation methods and technologies necessary to ensure accessibility, usability, durability and intellectual integrity of information contained there in. In the preservation of digital materials, the real issue is technological obsolescence.

Digital materials can be accessible only through combinations of hardware and software. The hardware and software become obsolete in cycles very soon. Ensuring ongoing access therefore, requires currency with technology changes and moving digital objects form obsolete to current file formats, storage media, operating system and so on.

Migration is the primary strategy employed by most organizations that plan to preserve digital resources. Planning for migration is difficult because there is limited experience with the types of migrations needed to maintain and access to complex digital objects over a period of time. It is also difficult for one to predict when migration will be necessary, how much reformatting will be needed, and how much migration will cost. There is no reliable or comprehensive data on costs associated with migrations, either for specific technologies and formats or for particular collections and little research underway on methodologies that would reduce the costs and burdens of migration.

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### 4.6 Copyright/Intellectual Property Rights

Copyright has been called the "Single most vexing barrier to digital library development ". Digital objects are accessed by multiple users and can be easily copied. The problem for libraries is that, unlike private businesses or publishers that own their information, libraries are for the most part, simply caretakers of information. They do not own copyright of material that they hold. It is unlikely that libraries will ever be able to freely digitize and provide access to the copy righted materials in their collections. Instead they will have to develop mechanisms for managing copyright, i.e., mechanisms that allow them to provide information without violating copyright

## 5. Role of librarian

Information and communication technologies have changed the complete scenario in libraries. Now a days, library has become the center point of resource based learning and the role of librarian is changing radically with shift of education paradigms. The impact of moving from text-based learning to resource-based learning will involve heavier use of library materials and a demand for more and varied media resources. Including print and non-print. Today information has become a major economic commodity. The Librarian is responsible for locating, acquiring, disseminating and tracking information resources of many types. It might include databases searching, interlibrary loans, monitoring Internet newsgroups, or and information literacy. Librarians and libraries play a very important role in the education of people for effective and efficient information use by teaching them information skills at all levels of education to enables to be informed citizens of the country.

Librarians have to identified and select good age appropriate and age specific literature. They have to look more too online sources, Digital sources and other electronic sources to meet the information needs. Acquisition and selection criteria take on entirely new meaning when considering access to online services. Librarians are key personnel in the implementation of resource-based programs. They can design and information literacy curriculum, which matches readers' capabilities, because they have expertise and knowledge to teach these skills. They are leaders in new information technologies as well as extended resources across many disciplines. Their experience with
information finding tools gives them a context for the application of new tools such as the World Wide Web. Today, Librarians are really in the most favorable position to be the leaders in developing an information literate community.

Thus, LIS professionals have to play significant role to promote information literacy in society. There exists a gap between librarians and the users' information needs. LIS professionals need to play an important role in the education process by making people aware of a need and motivating the use of information, a new knowledge.

### 5.1 As an Information Therapist

Librarians as expert consultant aware of information sources, the library user expects the librarian to have adequate knowledge of the materials he proffers. The stronger the demand for library materials, the bigger the expectation as to professional knowledge is concerned. Moreover, it is necessary to recognize that professional will be constantly under test in collecting and proffering materials that will satisfy all reasonable demands, including those of present non-users. With the constant eye on the latest availability of information sources and its user perspectives, the Librarian as information therapist should act as a doctor treating the users with information.

### 5.2 As an Educator

Creating awareness of information literacy has been the prime role of librarian in the society to mould into information rich society. Librarian's skills in the areas of technology, educational design and teaching techniques are crucial in their new reeducational role. Teaching skills are key in today's environment where Librarians are taking an active role in forming partnerships with faculty in achieving key information literacy outcomes and therefore the librarians are recognized as teachers. The philosophy of users education propounded for Education for life and life long learning are the most crucial role the libraries are to play now as an educator.

### 5.3 As Content Manger

The librarian can play a dynamic role in easy accessing of computer-held digital information including abstracts. Indexes, full-text databases, sounds and video recording in digital formats. In the context of content manager (CM) Librarians are required to:

- Organize digital information;
- Disseminate digital information from the computer-held digital content;
- Provide digital reference services and electronic information services;
- Handle the tasks of massive digitization, digital storage process, and digital preservation;
- Provide universal access and retrieval of digital content;
- Catalogue and classify digital documents;
- Maintain the intranet, managing new inputs, users access control, etc.

The competency of a librarian in content management is represented by different sets of skills, attitudes and values to explore the skills of internet technology in retrieving and accessing reburied digital documents in time; archiving, publishing and digital preservation. Further to develop digital and online information systems and establish network technology.

### 5.4 As a positive Attitude Librarian.

- A librarian should devote him/herself to maintaining a standard of unrestricted, impartial and active service in the provision of library materials, and should not discriminate between or against library users on account of nationality, race, creed, sex and age etc. and respect the confidentiality of each library users.
- Honor the Freedom of libraries in collecting, preserving, and proffering library materials
- A librarian should apply himself / herself to necessary professional training, both as an individual and as a member of a group. In order to satisfy the requirements attendant upon the status of a professional person, a librarian should study and acquire knowledge regarding library users, library materials, and techniques for organizing and proffering library materials, and relating such materials to library users in appropriate ways.
- Actively participate in the formulation of policy in the operation and service program of his library and librarian should cooperate with other librarians in efforts to develop group professional competencies.
- Librarian should make due efforts, in association with others, to stimulate the development of the cultural environment in society and the community which they serve, by cooperating with local residents and with members of appropriate groups and organizations.


### 5.5 As a Leader

Perhaps one of the biggest challenges in the library profession is lack of leadership among head of librarians to work in team sprit, who tend to hold on to traditional practice of librarianship. As there is shift in professional identity and requires the library managers to play active role as leaders for effective change management in achieving results. According to kouze and pozner (2002) summarize them as five essential practices such as:

- Challenge the process
- Inspire a shared vision
- Enable others to act
- Model the way
- Encourage the heart


### 5.6 As an Innovator in Service Excellence

Each of the librarians supports a specific subject area by managing and digital collections, by providing teaching support and web based material development. Reducing the librarian's desk service requirement from current 9-12 hours per week will allow them to do better what has become one of the crucial activities in today's academic library. Liaison and outreach and getting more involved with information literacy programs to make themselves, and ultimately the library service relevant to the academic community is essentially required.

Crowley (2001) states: " The threat of being seen as peripheral, invisible, and not inconsequential should encourage academic librarians to design and sustain service programs that appeal to those who have the power to alert or sustain value definitions in their particular academic contexts. Moreover, it should be a strong incentive to initiate or continue both short and long range efforts to ensure that the librarian, in any academic environment, is seen as central, visible and consequential". Further Crowley articulates that" Moving the academic librarian from the reference desks to brick and electronic classrooms, combined with a context relevant alliance with researchers grounded in shared credentials and interests, may well be the answer to the academic version of the question, if your customers know as much as you do, why do they need you?

## 6. Conclusion

The digital revolution has altered the way the societies functions at the global, local and personal level. In this revolution, we have seen radical changes in information field, especially in relation to collection, storing, processing and transmitting of information. Effective leadership practices, change management, communication, and continuing dialogue with Librarians are the key in order to fully realize the role of Librarian as educator. The final outcomes of becoming aware of and recognize opportunities for liaison still need to be realized. While some Librarians are naturally more suitable for and comfortable with this role, others need active encouragement, positive experiences and a supportive environment to realize their full potential.

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