

ROLE OF LIS PROFESSIONALS IN ESTABLISHING AND PROMOTION OF DIGITAL LIBRARIES IN INDIA

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Abstract:

This paper highlights on the Role of LIS Professionals and promotion of Digital Libraries in India. Digital Libraries were viewed as a system providing community of users with coherent access to a large repository of Information and Knowledge. The paper deals with Digital Libraries, Library Professionals, Its Training and Education, Building Digital Resources, Digitization, Digital Preservation and the Role of Digital Libraries in Future ahead.

Keywords: Digital Library, Metadata, Digitization, Digital Preservation,
LIS Professionals,

Introduction:

Digital libraries are integral part of learning environment. It is a crucial component of universal information infrastructure adopting current information and communication technology. The trend is picking up fast. On the other hand libraries in India are slow in their march towards digital library environment. The idea of easy, finger-tip access to information-what we conceptualize as digital libraries today-began with Vannear Bush's Memex machine (Bush, 1945) and have continued to evolve with each advance in information technology. With the arrival of computers, the concept centered on large bibliographic databases, the now familiar online retrieval and public access systems that are part of any

contemporary library. When computers were connected into large networks forming the Internet, the concept evolved again, and research turned to creating libraries of digital information that could be accessed by anyone from anywhere in the world. A digital library is a library consisting of digital material and services. Digital Material are items that can be stored, processed and transferred via digital (binary) devices and networks .Digital services are services that are delivered digital over computer networks. It maintains all, or a substantial part ,of its collection in computer –accessible form as alternative supplement ,or complement to the conventional printed and microform materials that currently dominate library collections. Digital library also known as research library, electronic library, virtual library.

Concept of Digital Library:

“Digital libraries are organization that provides the resources, including specialized staff, to select, structure, offer intellectual access, to interpret, distribute, preserve the integrity of and ensure the persistence over time of collections of digital work so that they are readily and economically available for use by a defined community.”

What is a Digital Library? :

What is a digital library? There is much confusion surrounding this phrase, The Terms such as ‘electronic library, digital library, virtual library, web library or on line library have been used synonymously to represent the same concept. Through the terms used synonymously to represent the same concept, the terms are used differently by different authors in the literature, the central theme of the terminology remains focused on digital contents of the documents, the library community has used several different phrases over the years to denote this concept-electronic library, virtual library, library without walls-and it never was quite clear what each of these different phrases meant. "Digital library" is simply the most current and most widely accepted term and is now used almost exclusively at conferences, online, and in the literature. For librarians, this definition of a digital library, and these characteristics, are the most logical because it expands and extends the traditional library, preserves the valuable work that they do, while integrating new technologies, new processes, and new media.

Why Digital Libraries?

Digital library has excellent features which make them special from traditional library. It has accurate searching system. It has no physical boundaries. It can be accessed from anywhere, anytime over the Internet. Digital library do not need physical space to build collection. It enables seamless access to digital resources distributed across the globe. The fundamental reason for building digital libraries is that they provide better delivery of information.

Role for LIS Professionals in Establishing and Promotion of Digital Libraries:

The main goal in developing Digital library is to provide users with opportunities for accessing and using information in highly flexible and user oriented ways. Digital information system management refers to the overall competencies (knowledge, know-how, skills and attitudes) necessary to create, store, analyze, organize, retrieve and disseminate digital information (text, images, sounds) in digital libraries or any type of information. To describe the roles of the digital librarian, the following concepts are introduced to understand further.

Library Professionals:

These considerations make clear that the library staff of the future must comprise a different mix of skills from those whose professional identities were cast in the age of acquisitions, when libraries gauged their value by the number of volumes on their shelves. The collections they oversaw and professional practices and processes they devised, if not static, were changing in ways that could be managed prudently without significant disruption. Today's the Library staff is the must include people who see themselves as active contenders in a race for relevance, regard, and resources. The Library staff must be most capable of working effectively in the partnership with faculty members to enhance the strength of teaching and research.

1. Planning of it Infrastructure :

In the Digital library projects cost intensive and as such require extensive funds for the acquisition of essential the hardware, software, Netware, and human ware. They have to plan innovative strategies with a view to sensitize the parent management for budget planning and allocation. Not all libraries are able to succeed in such endeavors and such planning funds for establishing digital library infrastructure are still a barrier. The country, therefore, needs a national programme on digital libraries for transforming traditional libraries into digital library environment.

2. Challenges and issues:

Developing digital libraries pose, 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.

3. Training and Education:

In the LIS Profession the digital library developing environment requires adequate knowledge and understanding about elements such as clients, servers, networks ex. LAN, WAN, the internet technologies and digital technologies. It also requires adequate knowledge and understanding of bibliographic and metadata standards and formats. The Traditional library professionals lack understanding of concepts and such as limitations are coming in the way of planning and implementation of digital library projects. There are various agencies in the country which are engaged in IT Profession training and education.

4. Technical architecture:

The first issue is that digital libraries will need to enhance and upgrade current technical architecture to accommodate digital materials. The architecture will include following components.

- a) High speed local networks and High Bandwidth Internet connections.
- b) Related databases that support variety of digital formats.
- b) Full text search engines to index and provide access to resources.
- c) Need different servers, like web server, FTP server etc.
- d) Electronic document management functions that will help in the overall management of digital resources.

5. Building Digital Resources:

One of the major issues in universal access to knowledge will be the building of digital resources which largely depends on the nature of content and quality of digital resources. Digital library resources include e-Books, e-Journals Full text, CD-Rom databases etc. Both librarians and library users have recognized the merits of preservation, access and managing good qualities of information. There are three important quality methods of building digital library resources as identified by what they are.

a) Digitization: i.e. converting print document and other media in existing collection into digital form.

B) Acquisition of digital resources created by publishers and Research scholars e.g. E-Journals, e-Books, e-Databases etc.

c) Access to External resources not held in house by providing pointers to websites, Institutional Repositories, or Publisher, servers.

6. Digitization:

The fundamental method of building digital collection is digitization. Digitization refers to the conversion of an item be it printed text of a book / journal article, manuscript, image or sound, film or video recording from one format into digital format. Hence data conversion to digital format is very important and challenging job for traditional libraries. Information is available in the form of books, reference books. Theses and dissertations etc. These textual information need to be digitized with the use of various electrical operators like digital scanner, so that it could be form a part of digital library collection. This is really challenging job, which requires lot of expertise and technical knowledge in the area of computer technology. It requires page to page conversion and digitization of the information into digital format, which is a time consuming process.

7. Digital Preservation:

Digital Preservation is the ability to keep digital resources and files available for time periods that can transcend technological advances without concern for alteration or loss of

readability. Digital Preservation refers to the series of managed activities necessary to ensure continued access to digital collections for as long as necessary. Digital preservation refers to all the actions required to maintain access to digital collection beyond the limits of media failure or technological change. Long terms preservation continued access to digital collection, or least to the information contained in them. The digital preservation challenge aims to awareness among researchers of the issue of digital preservation. Hence to access digital libraries must preserve digital collection for future use.

7. Copyright:

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 of, simply caretaker of information. They do not own copyright of resources that they hold. It is unlikely that libraries will ever be able to freely digitize and provide access to the copy righted resources in the collections.

8. Metadata:

Metadata is another issue of central to the development of digital libraries. Metadata is the data the describes the content and attributes of any particular item in a digital library. It is a concept familiar to librarians because it is one of the primary things that librarians do they create cataloguing records that describe documents. Metadata is important in digital libraries because it is the key to resource discovery and use of any document. While they are still in their infancy, a number of schemes have emerged, the most The lack of common metadata standards-ideally, defined for use in some specified context-is yet another a barrier to information access and use in a digital library, or in a coordinated digital library scheme.

9. RESOURCE DEVELOPMENT:

The main purpose of digital library to concern in resource development is about the rising costs of e-journals and e-databases and on the other hand about the shrinking purchasing power of the libraries to afford such high rising costs. These are hardly any efforts in evolving cooperation between libraries for developing comprehensive collections and development. Put together libraries in India are spending over Rs.150 crore per year on

subscription journal in science and Technology. They are still not able to offer comprehensive information in this area. The digital libraries need to follow a multi-pronged strategy to ensure comprehensive access.

The Role of A Librarian Transforms Into That A Digital Librarian:

What will be the role of a librarian in the future? It seems to fit in with the notion that the library will disappear as an institution. The Internet will become a significant force in the information world. If work becomes decentralized and teleporting becomes the norm, we are going to have Virtual libraries with a fast increase in the range and variety of digital information resources. The "electronic cottage" worker becomes the norm, working on a contractual basis for different kinds of organizations, connected to corporate databases and information files online (Wilson, 1995). The digital librarian's role will be increasingly towards offering consultancy to the users in their efforts in providing digital reference services & electronic information services, navigating, searching and retrieval of digitized information through Web documents that span the Universal Digital Library or the Global Digital Library.

The Role of Digital Libraries in Future:

Digital Libraries of the future will be able to operate over a large variety of information objects. These objects will be composed of served multi-type and multimedia components aggregated in an unlimited number of formats. E.g. mix text, tables of scientific data, and images obtained by processing earth observation data or they can integrate 3d images, annotation and videos. These new information's objects will offer innovative and more powerful means to scientists and researcher for sharing and discussing the results of the research work. To support these information objects the digital library may need considerable resources e.g. the creation and handling of new documents may require access to many different large heterogeneous information objects, Future Digital Libraries are required to offer a much richer set of services to their users.

Concluding Remark:

In the Digital library technology driven knowledge economy, librarians and his team has a very important role to play as they have to satisfy the critical multidimensional

information needs of their users. They have to use those technological tools in which the user is comfortable in order to sustain customer driven market. The digital librarian can be manager of a digital library, digital information centre or a librarian of the electronic library, which may be a division or section of a traditional library. It has to be clear that this is a fairly modest role, which offers excellent perspectives for the librarian. The librarian's role in digital library will be increasingly towards offering consultancy to the users in their efforts in providing digital reference services & electronic information services, navigating, searching and retrieval of digitized information through Web documents that span the Universal Digital Library. Hence the role of digital libraries is very crucial to access the universal knowledge.

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