
Problem and Prospects of Digital Library in Manipur : A Conceptual Study

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Abstract

This paper deals with concept, scope and needs of digital libraries as understood today. Discusses present scenario of libraries in Manipur and various problems with respect to it. It also highlights technical architecture of digital library.

Keywords : Digital library, Digitization, Networking, Information Technology

0. Introduction

The world has become a global village due to the development of information technology especially computer technology. Computer technology plays a vital role for generating and disseminating information in the network environment. The rise of digital libraries has also brought phenomenal changes in the progress of collection, storage, preservation of rare documents, retrieval and dissemination of information. Computer technologies not only create and develop some modern libraries but also transform many existing libraries on the modern lines. A digital library is a global virtual library. And it can be defined as library with all the information available in the digital form. Data accessible through digital library system in addition to full text information includes non text information. With the advent of digital technology the possibility of horizontal and vertical integration of knowledge and information has increased significantly. As such there is every reason that the role and the status of traditional library will change.

1. Digital Library and Digitization

Perception of the term "digital library" is a bit like perception of the elephant in the poem 'The Six Blind Men and the Elephant' where each of six blind men gives different descriptions of the elephant according to the elephant's body part they touch. The library communities have also used different terms over the years to denote this concept.

The idea of easy and fingertip access of information conceptualized as digital library begins with Vannear Bush's MEMEX MACHINE and has continued to evolve with each advances in information technology. Today people give different definitions of digital library in arrays of terms such as electronic library, virtual library, hybrid library, library without walls, cybrary, spatial library, digitize collection, library of the future etc. While these are not necessarily synonyms of digital library, they do have some aspects in common and the term digital library is one most widely accepted. Digital library may be treated as repositories of massive amount of information content in digital form in different servers on diverse format permitting access over different electronic networks.

According to Edward Fox (Editor of ASIS and communication of ACM) a digital library is an assemblage of digital computers, storage and communication machinery together with the context and software needed to produce emulate and extend those services provided by conventional libraries based on paper and other material means of collecting, cataloguing, finding and disseminating information A full service digital library must accomplish all essential services of traditional libraries and also exploit the well advantages of digital storage, searching and communication.

Digital Library Federation in USA define digital library as “organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities” (Greenstein2000). Paul Kantor specifies that a digital library “is that set of global internet worked libraries” that includes the following criteria

- ✍ A collection of text, images, or data in digitized form
- ✍ A set of systems for indexing and navigating or retrieving in that collection.
- ✍ One or more defined community of users.

Christine Borgman opines that the term digital library has various meanings. However, for her, it clusters around two themes: (1) from research perspective, digital libraries are content collected and organized on behalf of users' communities, (2) from library-practice perspective; digital libraries are institutions or organizations that provide information services in digital forms for the enhancement of information storage and retrieval system.

Similarly, Levy points out that “notably for librarians, digital library refers most directly to institutions that oversee digital collections. For the other professionals like computers and information scientist digital library refers to digital collections without regard to institutional settings (if any) in which they might be managed.

More comprehensively, in digital libraries the information arrives as needed at the users' screen like the attending waiter ever filling the water glass before the glass is empty. However, these defined perceptions are likely to evolve as activities move research development endeavors to full scale practice.

Digitization, now a day, has become one of the key activities in libraries. These two terms Digital library and Digitization goes hand in hand, like the two sides of a coin, the elements that form both concepts can not be separated. Digitization can be defined as the digital conversion of library and other archival materials. Digitization is also a technique for data transmission at a very high speed. It is the conversion of any fixed analog media – books, journals, and photos, paintings into electronic form through scanning, sampling, or even re-keying. Digitization provide solution to traditional library problems such as conservation, preservation, storage space, remote access to information collection, acquisition of original digital works created by other publishers, agencies, access to external digital materials and resources.

2. Why Digital Libraries ?

Libraries have changed with time to time from mere static storehouse to dynamic service centers, serving all professionals and non-professionals utilizing useful need base collection. The emphasis of the users has also shifted from micro document to micro piece of information with the changed of the medium from clay tablets to paper and now to electronic and optical media. The worlds of both communication and production of information are changing at a very fast pace and the convergence of these had huge impact on libraries. All this changes in libraries is due to the impact of information technology and this impact is seen in the form of digital library.

Due to information explosion during the last few decades many techniques and technologies have emerged for handling the information more readily, speedily and effectively. Many computer specialists also succeeded in integrating text, graphics, audio, animations, and video converted into a digital media. People feel enthused to read from computer screens. Varieties of software are now available which are capable of manipulating and rendering information. At the same time price of personal computers are

getting cheaper and cheaper to a very affordable cost. Besides allowing remote access, bringing the diverse material together from scattered locations, solving space problems, raising the profile of institution, enhancing preservation, increasing in retrieval and dissemination of information in digital libraries system, people in the library professionals shows increased concern in building digital library. Dwindling budgets of library and high information demand are also another factor.

3. Need and Importance of Digital Library

We are in the midst of information explosion and information technology revolution leading to the emergence of electronics information era. Rapid advances in information processing, storage and communication technologies have revolutionized the role of libraries worldwide in disseminating information services to their users. Libraries therefore, are reconsolidating their services and information products, incorporating new technologies of upgrading information resources, changing information objects, models of communication and information delivery in order to add value to their services and to satisfy the changing information needs of user community. In fact, impact of information technology on libraries and its users is an important factor for transformation of traditional organizational structure into new institutional entities. Information seekers are also no longer satisfied with the printed materials alone. As a result the users demand for information delivery in digital form, considered more dynamic in electronics multimedia documents, at their desktop are increasing day by day. Thus, there is a need to develop digital library and to adopt electronic media for its collection development so that it can fulfill the requirement of users. Libraries and other library professionals should make efforts for setting digital libraries and conversion of resources into a digitized format.

Some important features of Digital library can be summarized as:

- ✍ to introduce new service and material
- ✍ to provide remote access to information resources that are expensive and rare and easy searching that are impractical manually;
- ✍ to facilitate in the management of digital content
- ✍ to minimize in handling of rare and unique collection of traditional library
- ✍ to improve access to the latest information at a very high speed
- ✍ to support search and retrieval
- ✍ to provide users friendly interface
- ✍ to support formal and informal learning
- ✍ to reduce errors that would have occurred in the manual systems significantly because of bar code
- ✍ cost effectiveness and affordable and
- ✍ to raise library profile
- ✍ Digital libraries as global multilingual expository of data must attract people from all walks of life regardless of geographical locations.

4. Technical Architecture

Technical architecture is another factor that need enhancement for digital information service system. Therefore, libraries need to upgrade current technical architecture to accommodate digital materials. The architecture includes the following components :

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- ✍ Local Network with high speed and fast connection to internet
 - ✍ Full text search engines to index and provide access to resources
 - ✍ Variety of servers (FTP and Web server)
 - ✍ Electronic documents management functions that will support digital resources
 - ✍ A variety system functions to coordinate manage the entry and retrieve data
 - ✍ Local Library system with adequate PCs having LAN
 - ✍ Well trained and manpower
 - ✍ Relational databases that support a variety of digital formats

5. Present Status of Library in Manipur in the present technological environment

In library information system, information technology has had a clear and persuasive impact in almost every area of the library. The most significant development in information technology over the last few years or so is digital technology. Digital technology is revolutionizing the traditional concepts of preservation and access in library and archive communities. The applications of digital system and computing system in the libraries have been a subject of interest to present day professional librarians. More recently the libraries have sought to implement increasingly complex solution that involved distributed networking and access to remote information resources. During the eighties, the whole focus of the librarians shifted towards library automation but in the nineties it has shifted towards digitization. The phrase library automation has been generally accepted within the profession to encompass early automation activities, yet it does not do justice to the current state of affairs as libraries have move well beyond the automation of internal procedures.

In Manipur, however, applications of technologies in libraries are lagging far behind. There are 2 university libraries, 74 affiliated colleges, 9 public libraries, 1 state central library at Imphal and others at different districts of Manipur and many high and higher secondary schools libraries. But most of the libraries function in the traditional way with conventional printed shelf collection except some libraries like Manipur University library, Central Agricultural Library, RIMS Library, DOEACC Library etc. These libraries have initiated automation. Manipur University Library started automation since 1989 in the areas such as cataloguing, serial control, information retrieval and circulation recently. This library provides internet facility, OPAC and has become one of the important nodes in the academic libraries system.

As far as college libraries are concerned collections of information resources which support the faculty and students are not up to the mark because of lack planned systematic approach to the development of resources. Many of college libraries built up their collection of printed materials as activities and services are yet to be automated. Only one college library i.e. Modern College library has started Data entry using CDS/ISIS. Books are still the only important channel for dissemination of information. The librarian and other supporting professional staff are not well qualified and trained with the new modern technology. As far as infrastructures are concern a large majority of libraries have not yet automated their activities as they are handicapped to switch over to computerization and modernization because of lack of infrastructural facilities like computer hardware, software, and human-ware. And most of the libraries are not provided internet facility. Regarding school and higher secondary school libraries, majority of school libraries are not able to provide even the facilities of a traditional library.

From the above discussion it is evident that the libraries in Manipur, except some, automation of the operations and services progressing very slowly. Automation as well as conversion of digital library will not be possible within 5 year though plan for automation exist. In Manipur it is not an easy task to develop digital library system as automation in the library is totally absent. Keeping in views of the above reasons,

authority should take initiative for promoting library automation by implementing new IT in the libraries of Manipur so that users from different communities can get the universe of knowledge available in the digital format.

6. Problems

Problems faced while entering into a digital libraries systems in Manipur can be summarized as:

1. Libraries exist only in the traditional form and there is no electronic library /digital resource;
2. Most of the libraries function with inadequate number professional staff required for smooth functioning and there is a general unwillingness to develop digital library system;
3. Even if the librarian and some professionals are qualified they certainly lag behind because of lack of awareness about value of information, cooperation and coordination in the resource building and sharing of information and poor communication skill;
4. Libraries lack standardization of methods due to unwillingness to adapt to new requirements;
5. Presently large majority of library have no computer and no internet facility and other infrastructural facilities required to exploit the opportunities provided by electronic media. Therefore, the best use of electronic publication on-line and network access are not possible;
6. Total absence of hardware, software and trained human power is another reason;
7. A highly irregular and unpredictable power supply ; and
8. Lack of financial support due to the acute financial problem the state is facing.

In fact, the main problems faced seem to be lack of financial resources and lack of computer education without which automation in the libraries are not possible.

7. Prospect

The dawn of information revolution is considered to be one of the marvelous achievements of the 20th century. The rapid growth and development of IT has resulted in the development of digital library, tools and skill relating to encoding information objects in digital format. The application of digital technologies within the library comes along with the development of computer technology. Keeping the above points in view it is necessary to consider some perspective of digital library.

Digital library not only creates and develops modern libraries but also transforms many existing libraries. Digital Library introduced the concept of hypertext, facilitates networking in order to communicate and exchange digital information from source location to destination. It also facilitates preservation, storage, and communication of diverse multimedia objects but also provides intensive access from multiple locations and enrich teaching and learning environment which is not possible with the traditional library. Due to information explosion and existence of information society, everybody is aware of the newly developed technologies. This new developments are reflected in LIS education and in those libraries with existing infrastructure, services and network. In fact, there is a complete change in activities, role of library, librarians and other professionals (staff). Most of the librarians in Manipur have now entered in the technological era of communication dominated by film and electronic media. The libraries are expected to be an automated information system having pervasive impact in almost every areas of library- be it the online catalogue, online database, online searching, document delivery, inter library loan, circulation etc. Clearly, the impact of automated system in libraries has been pervasive and significant.

8. Conclusion

The changing world of today becomes more challenging for tomorrow. Despite carrying the lingering excellence of its own, digital libraries challenges on a variety of fronts in terms of their role, and function. Keeping in view the above points, modern libraries have to be in progress in the manner which will take care of all the issues mentioned above. So, we can conclude that recent development in technological capabilities, dramatic increase of digital storage, explosive growth of internet, World Wide Web, sophisticated search engines, fast processing power, reducing cost of computer, high bandwidth networks and increasing numbers of electronic publications make it possible to the establishment of digital libraries in an integrated Online Library System.

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