Developing Digital Libraries: Issues And Challenges

Lohit Talukdar
Librarian Kamrup College, Chamata.

ABSTRACT
The library has lot of documents. So library gives a lot of services in the user community. Internet services, newspaper clipping services, digitalized document services, digital references services, inter library loan etc are important element of digital library. On the other hand, increasing growth of digital environments as digital library and e-business, digital information is becoming more important in market process. Digital information means delivery information products as e-journal, e-book, e-magazines, digital image, online article database, digital audio video etc. Internet is also being used as very important tool to access free information sources and services. Free online information sources and services can be assessed on internet without paying any subscription change to the publishers and users do not need to have any membership in the organization. With the help of internet, librarians provide access to various types of online digital information to their users, which are freely available on web including institutional Digital Libraries, University Digital Libraries, e-journals, e-book, National Digital Libraries, e-Project etc. Selective list of web resources on Digital Library will be helpful all disciplines and teachers, research scholars, students, digital library users and other activities. Librarian should maintain an index on online e-journal, e-books and other information sources, which are freely available on the internet in the library to save money and time of their student user in searching the information. So digital library basically stores information mainly in electronic format to disseminate broader user communities.

KEYWORD: Digital libraries/Electronic Libraries/Virtual Libraries

Introduction
The libraries have been the backbone of the institutions since the initiation of education in the modern world. But with the development of information and communication technology, like other fields, library is also going under tremendous change as result Digital libraries create in the country. The IT has almost converted the whole world into a global village. The revolution in the IT sector is influencing the information industry and it revolutionized the concept of libraries where it has used extensively to record, store and disseminate the information in the digital form.

A digital library is nothing but a large database of recognized collection of multimedia, data that are globally available directly or indirectly across a network. Information sources and services accessed via the internet are ingredients of a digital library. Today, the network connects some
information sources that are a mixture of publicity available information and private information shared by collaborators. They include reference volumes, books journals, newspapers, national phone directories, video clips, etc. The information sources, when connected electronically through a network, represent important components of an emerging, universally accessible digital library.

Definition

A library is more than a pile of books. A library adds value to information resources by organizing them and making them available. Additionally a library serves distinct sets of stakeholders- communicates of frequent, casual and potential users.

The term digital libraries has a variety of potential meaning, ranging from a digitized collection of material that one might find in a traditional library to the collection of all digital information along with the services that make that information useful to all possible users. It is simply data can be stored. processed by the computer system. It is nothing but a large database for the people who are working on hypertext environment. It is a system of organized collection of multimedia, data that are globally available directly or indirectly across a network.

According to LESK (1997) Digital libraries are organized collection of digital information. They combine the structure and gathering of information, which libraries and archives have always done, with the digital representation that computers have made possible.

According to Arms a digital library is a managed collection of information with associated services where the information is stored in digital format and accessible over a network. Those libraries which systematic access to information resources, the ideas represented by those resources, and set of human stakeholders also extend to digital libraries. Marchionini and Fox argues that digital libraries are the extensions and augmentations of physical libraries.

There are many definitions of Digital library. “Terms such as “electronic library’ and ‘virtual library’ are often used synonymously.

Component of Digital Library

-The Digital Library is not a single entity

-The digital library requires technology to link with the resources of the many

-The linkages between the many digital libraries and information services are transparent to the users.

-Universal access to digital libraries and information services is a goal

-Digital library collections are not limited to document surrogate
Characteristics

- Resources are available in computer readable form.
- Access to the entire collection is globally available directly or indirectly across network.

On the other hand, three important features which characteristics digital libraries

1. **Documents**: digital library’s collection contains fixed, permanent documents.
2. **Technology**: Digital libraries are based on technology; and
3. **Work**: Digital Libraries are to be used by individuals working alone.

Need for a Digital Libraries

- Easy to understand.
- Shifting of the environment.
- Multiple function of same information.
- Information explosion.
- Searching problems in traditional libraries.
- Distance learning
- To provide access to online publication.
- Low cost.

Internet Services

Internet is also being used a very important tool to access free information sources and services. Free online information sources and services can be assessed on internet without paying any subscription change to the publishers and users do not need to have any membership in the organization. Users can access and download required information available on these sources in their computers. With the help the internet, librarians provide access to the various types of online digital information to the users. Which are freely available on web including Institutional Digital Libraries, University Digital Libraries, e-journals, e-books, e-bibliographies, national digital libraries, e-projects etc.

Digital Libraries in Indian Perspectives:

The evolution and foundation of Digital Libraries in India can be seen with the Establishment and development of computerization and library automation activities. Computerization has its beginnings in India when punch cards were used during the late 1950s and early 1960s. Computerization activities were started in India 1955s with the installation of the first computer.
system HEC-2M at the Indian Statistical Institute, Calcutta. A second computer Ural, also installed at ISI in 1958 followed this. In 1960s computers arrived in India. Mini computers were started 1970s onwards.

Thus the period between 1955-65 can be called introductory phase. The second phase 1965-72 can be consolidated phase. In fourth generation system were imported in to country 1976-81. Onwards in the late 1990s, the computer industry both hardware and software attained maturity. This was the result of new computer policy of 1994 onwards.

Like this onwards few library software is largely confined to some premier institutions and their libraries. Many of the library automation efforts using in-house expertise were around the existing PCs and software packages including dBase and fro Pro. In some cases, high level programming languages like COBOL, BASIC, C, C++ and Pascal were used. Only simple and important function such as acquisitions, circulation and cataloguing only were automated. Firms like LibSys undertook creation of bibliographic records of the library holdings. Both MARC and CCF formats are used now to develop bibliography databases.

After the introduction CDS/ISIS software packages of UNESCO in Indian libraries in the 1980s. NISSAT organized a number of training programme on application of CDS/ISIS to library activities in 1990s. DESIDOC which has developed another three software packages. Another software DELNET also introduced subsequently. Later on INFLIBNET has developed new packed software for University Libraries (SOUL)

These institutional efforts inspired the software developing firms in private sector with the result that later many commercial software packages has been developed and marked.

The librarians can list out the following information sources and services in the internet services library.

**Digital Libraries for Academic Institutions**

[www.aaai.org/library/library.html](http://www.aaai.org/library/library.html) (includes the full set of electronic)


[www.digitalasia.library.wise.edu/](http://www.digitalasia.library.wise.edu/) (update your bookmarks)

[www.neumann-haz.hu/index_en.html](http://www.neumann-haz.hu/index_en.html) (Digital Library and Multimedia Center)

[www.w3.org/2002/01/](http://www.w3.org/2002/01/) (RDF formalized list of W3C digital library)

**Digital Library Journals**

The digital library journals are
www.acm.org (Digital Libraries Journal)
www.bodely.ox.ac.uk/ilej/(18th and 19th century journals)
www.cimic.rutgers.edu/ieee_dltf.html(Digital Library Collection)
www.dlib.org(Monthly publication about research and innovation libraries)
www.ieee.org/products/ieemdl/(IEEE journals, magazines)
www.library.ucsf.edu/collres/journals (print journal, library catalogue)
www.library.yale.edu(1000 full text journal)
www.libraryjournal.com(Library Journal’s online edition)

Digital Library in Universities
www.aca-dla.org/(Digital collection)
www.sunsite.brekeley.edu/collections/(Digital collections of Berkely)
www.dlib.org/projects.html(A multimedia digital library of folk literature)
www.alexandria.ucsb.edu.other-site(Digital Maps & Geographic)

Digital Libraries for Children
www.cs.umd.edu/hcil/kiddiglib/(Digital Libraries for Children)
www.vh.org/pediatric/(Children virtual libraries)
www.pediatriceducation.org/(A pediatric Digital Library and Learning)

Digital Library Projects
Some digital Libraries projects are
www.alexandria.ucsb.edu/(digital library project)
www.berg.org/admin/foreign.html(Digital Libraries projects)

Digital Libraries for Theses and Dissertation
www.ndltd.org/(Networked Digital Library of These and Dissertation)
www.scholar.lib.vt.edu/theses/(Digital archive of these and dissertation)
www.tennessee.cc.vt.edu(Digital Library of Theses and Dissertation)
Digital Library for Workshop and Conferences.

www.csdl.tamu.edu/(Delivering Technology for Digital Libraries)

www.dli2.nsf.gov/dlione/(Digital library conference information)

www.ukoln.ac.uk/(Proceeding of the international conference)

Digital e-book Collection

www.cdl.library.cornell.edu/(571 books that were scanned from originals)

www.elecpubs.sae.org/(e-collection of digital library)

www.mcgil.ca/dcp/(McGill Library Digital Collection)

www.questia.com/(The World’s Largest Online Library of Books)

Digital Bibliographic Library

www.ibiblio.org/(Collection index)

www.portal.acm.org/portal.cfm(collection over 75000 entries)

Music Digital Library

www.naxosmusiclibrary.com/(Naxos Music Library)

www.digital.library.ucla.edu/apam/(digital Library Sheet Music Project)

Conclusion

There are many digital Libraries available in the world. I hope that above list of web resources on Digital Libraries will be helpful for all disciplines and teachers, research scholars, students digital library users and others activities. This selective list will be helpful for librarians and all information workers community also. Librarian should maintain an index of online e-journals, e-books and other information sources, which are freely available on the Internet in the library to save money and time of their student user in searching the information.

Reference


Bostick, S. L. (2001), The history and development of American library consortia in the United States : an

