



Digital Libraries - A Community of Resources

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ABSTRACT

The term digital library may have different things to different people. It has extraordinary range of applications to different fields. The digital libraries are specialised organizations that provide the resources, including the 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 works so that they are readily available for use by a defined community or set of communities. Digital libraries will also include all the processes and services that are the backbone and nervous system of libraries. However, such traditional processes, though forming the basic digital library work, will have to be revised and enhanced to accommodate the differences between new digital media and traditional fixed media. One of the important issues in the creation of a digital library is the building up of a digital collection. Obviously, for any digital library to be viable, it must eventually have a digital collection with the critical mass to make it truly useful. There are essentially three methods of building up a digital collection. In the present times, the web provides the hyper media based systems that allow rapid access to a wide variety of networked information resources. Man people consider World Wide Web as a digital library. Creating effective digital libraries poses a serious challenge. The integration of digital media into traditional collection will not be straight forward because of the unique nature of digital information it is less fixed, easily copied and remotely accessible by multiple users simultaneously. In India, the science and technology libraries are better situated than other libraries, particularly, with respect to application of information and communications technology, because these systems in India fare comparatively better with regard to budget.

Key words: Digital library, Traditional library, digital media.

Introduction

A digital library is a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The content may be stored locally, or accessed remotely. The first published use of the term may have been in a 1988 report to the Corporation for National Research Initiatives. The term was first popularized by the NSF/DARPA/NASA Digital Libraries Initiative in 1994. Bush, 1945 created a vision based on experience "Digital library." The Digital Library Federation defines digital libraries as: Organizations that provide the resources, including the 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 works so that they are readily available for use by a defined community or set of communities. (Shiri 2003)

The definition of a digital library can be given as a set of characteristics as follows:

The digital library is:

- A collection of services
- A collection of information objects
- A supporting users with information objects
- Organization and presentation of those objects
- Available directly or indirectly
- Electronic/digital availability

The term digital library has a variety of meanings ranging from a digital collection of material that one might find in a traditional library to the collection of all digital information along with the services make that information useful to all possible users. Digital libraries have evolved as a result of fast technological development in order to cater to the needs of individuals with varying interests in various fields. Although the term digital library has gained popularity in recent years, such libraries they have evolved along the technological ladder for the past 30 years. There is lot of interest in digital libraries today. This is reflected in the fact that an advanced Altar Vista search conducted in early July 1996 on "digital library" or "digital libraries" retrieved about 20000 entries. In spite of the plethora of literature it is not clear what we mean by the term "digital library".

The term is rarely defined, or even characterized. It has been applied to an extraordinary range of applications from digital collaboratories to collection of **114 types** of Information Systems electronic journals, software agents that support inquiry based education, collection of e-mail and similar objects, electronic version of a public library, personal library collection and the entire internet among others. It is not easy to see what these have in common except for their digitalization. A digital library contains digital representation of the object found in it. Even as the digital library era was being ushered into Indian libraries and information centres, the DESIDOC Bulletin of Information Technology came out with a special issue on digital libraries in 1997. The issue carried six papers on digital library concepts and technologies and interestingly all six papers were contributed by authors from outside India (Rajashekar 1997).

Advantages of a Digital Library

The advantages of digital libraries include

- Nearly unlimited storage space at a much lower cost
- Re-allocate funds from some staff, collection maintenance, and additional books.
- No physical boundary
- Round the clock availability

- Multiple accesses
- Enhanced information retrieval.
- Preservation for some print material
- Added value
- Universal accessibility

Limitations

- Lack of screening or validation
- Lack of preservation of a fixed copy -for the record and for duplicating scientific

Research

- Lack of preservation of "best in class"
- Difficulty in knowing and locating everything that is available, and differentiating valuable from useless information.
- Job loss for traditional publishers and librarians
- Costs are spread and many become hidden

Digital Library Initiatives in India

- Searchable databases on the web from Central Library of Indian Institute of Technology, Kharagur (IIT-Kgp) (<http://144.16.192.18> or <http://libweb.iitkgp.ernet.in>)
- Digitization at IIT-Kgp Library initiated at the beginning of 1990s. IIT-Kgp is one of the six premier institutions of quality education in engineering and technology, the Indian Institute of Technology -IITs.
- Electronic current awareness bulleting „Info watch' beginning in July 1996 by the
- University Grants Commission (UGC). (<http://144.16.72.150/ncsi/iw.html>)
- LIS-FORUM, a discussion forum sponsored by NCSI, Bangalore.
- (<http://144.16.72.150/ncsi/services/lis-archive.html>)
- Development of OPACs in many libraries such as Centre on Rural Documentation CORD of National Institute of Rural Development (NIRD), Hyderabad(<http://www.nird.org/clic/index.html> and <http://www.nird.org/clic/L.html>.)
- Index of HitesranjanSanyal Memorial Collection (HSMC) at the Centre for Studies in Social Sciences (CSSS), Calcutta. (<http://www.iisg.nl/asia/cssc.htm> And<http://www.socialsciencecal.org>)
- Health Education Library for People (HELP), in Mumbai. HELP is a privately managed site providing health related information and managing an online catalogue of over 15,000 documents (<http://www.healthlibrary.com>)

In the early years of digital library development in India, there have been problems related to high infrastructural costs, lack of experience and expertise in creating digital libraries. However, over the years, ICT infrastructural costs are decreasing and expertise and experience have been gained in handling digital library software especially in using open-source software such as DSpace and GSDL. In this scenario, the contents of digital libraries have assumed significance, especially the source of this content. There are not many studies in this area and one study that deals with identifying sources of content for developing countries with special reference to India is by Jeevan (2004). The paper answers

questions such as why digitize, what to digitize, how to digitize and also elaborates on the various kinds.

The digital library stores digital objects representing different types of information. Older collections are digitized through a conversion process where documents in paper format are converted to electronic format, i.e. analogue to digital conversion. Converting texts in different languages requires careful consideration of character sets. Unicode provides a standard scheme for world's languages. (Mahesh and Rekha, 2008,)

Function of Digital Library:

- Access to large amounts of information to users wherever they are and whenever they need it. Access to primary information sources.
- Support multimedia content along with text
- Network accessibility on Intranet and Internet
- User-friendly interface

Digital collection:

One of the important issues in the creation of a digital library is the building up of a digital collection. Obviously, for any digital library to be viable, it must eventually have a digital collection with the critical mass to make it truly useful. There are essentially three methods of building up a digital collection.

- i) Digitization - converting paper and other media in existing collection to digital form.
- ii) Acquisition of original digital works created by publishers, institutions and other scholars like electronic books, electronic journals and data set.
- iii) Access to external materials not held in house by providing pointers to websites, other library collections or publishers' services.

The Role of information professionals also increases as the number of digital libraries grows, the role of the traditional librarian needs to be re-examined in the light of this new environment. Sreenivasulu (2000) authored one of the earliest papers looking at this aspect with particular reference to the emergence of the 'digital librarian'. The paper describes an array of roles for the digital librarian and discusses the competencies, skills and professional education and training needed by the digital librarians.

As information sources are increasingly available in digital form, it is natural that any digital library would have different kinds of digital formats and sources. The various constituents that contribute to the making of a digital library at the central library, IIT Delhi, include, in addition to the network infrastructure, a variety of digital collections. (Arora 2004). These include e-journals, in-house born digital collections such as thesis, scanned books, CD-ROM databases, the library OPAC, and courseware.

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In India, the science and technology libraries are better situated than other libraries, particularly, with respect to application of information and communications technology, because these systems in India fare comparatively better with regard to budget. A survey of 25 institutions of the Indian Council of Social Science Research (ICSSR) reveals that digitization and networking is taking place in social science libraries in India but in a rather slow manner (Jain 2003). Even as the digital library era was being ushered into Indian libraries and information centres, the DESIDOC Bulletin of Information Technology came out with a special issue on digital libraries in 1997. The issue carried six papers on digital library concepts and technologies and interestingly all six papers were contributed by authors from outside India (Rajashekar 1997).

Krishnamurthy (2005b) discusses digital library services in the Indian Statistical Institute (ISI), Bangalore. According to the author, to create true digital libraries, not just digital collections, will require librarians to work closely together to create open, distributed, publicly accessible resources, as well as to establish a collaborative structure to coordinate and guide implementation. Interestingly, the digital library at ISI seems to be digital collections of consortia-based e-resources, OPAC and CD-ROM databases.

Conclusion

Digital library development in India has not been focused. Even among these libraries, focus has been on developing digital libraries without focus on issues such as education and training, copyright, management, promotion and marketing. There is a need to amend copyright legislation to suit the electronic environment. Few institutions have taken initiatives to hold workshops on digital libraries and digital technologies. Other important areas on which Indian studies have been few or totally missing are digital rights management, digital library security, content management, business and pricing model and policy studies.

At present, a pricing model does not exist in India. With several digital library initiatives reported, it will be useful to have a survey of the digital libraries in India to understand the present status of the digital library initiatives. This assumes importance because the few studies on Indian digital library initiatives are primarily based on information available on websites or from other published sources. A survey would help not only in understanding the present situation but will help in drawing up an action plan for focused digital library development in India. Further, use and user studies of digital libraries in India are lacking. This area is also of paramount importance for assessing the existing digital libraries and creating highly user-centric digital libraries in India.

References:

- [1]. Jain, P.K. 2003. Indian Council of Social Science Research (ICSSR) maintained research institutes libraries in India: Towards digitization and networking. *The International Information & Library Review* 35(2-4): 217- 232.
- [2]. Jeevan, V.K.J. 2004. Digital library development: identifying sources of content for developing countries with special reference to India. *The International Information & Library Review* 36(3): 185-187.
- [3]. Krishnamurthy, M. 2005a. Digital library of mathematics using DSpace: A practical experience. *SRELS Journal of Information Management* 42(3): 245-256.
- [4]. Krishnamurthy, M. 2005b. Digital library services at the Indian Statistical Institute. *The Electronic Library* 23(2): 200-203.
- [5]. Mahesh G and Rekha Mittal 2008 *Digital Libraries in India: A Review* Libri, 2008, vol. 58, pp. 15-24
- [6]. Mayank Trivedi *Digital Libraries: Functionality, Usability, and Accessibility* Trivedi, Mayank, "Digital Libraries: Functionality, Usability, and Accessibility" (2010). *Library Philosophy and Practice* (e-journal). Paper 381. <http://digitalcommons.unl.edu/libphilprac/381>

- [7]. Prasad, A.R.D., & Urs, S. (Eds.) (2001). Workshop on digital libraries: Managing convergence, continuity and change. 12th -16th March 2001. Mysore: University of Mysore.
- [8]. Rajashekar, T.B. 1997. Digital libraries. *DESIDOC Bulletin of Information Technology* 17(6): 3-
- [9]. Shiri, A. (2003). Digital library research: Current developments and trends. *Library Review* 52 (5): 198 – 202.