

## DIGITAL LIBRARIES: FUNCTIONALITY AND USABILITY

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### **ABSTRACT**

Functionality and Usability, testing of digital library information services and products is essential for providing high quality services to users. This paper aims to detail a long-term, evolving effort to develop meaningful evaluations for assessing digital libraries. The evaluation protocols and approaches were designed iteratively over time through assessment efforts with other digital library initiatives and with multiple versions of the FEL. The research described in this paper relies on a combination of functionality and usability, evaluation strategies applied iteratively to assess libraries from the perspective of patron needs. These methodologies can provide detailed evaluations of the extent to which information and services are comprehensible for all users, the extent to which the features and functions necessary to provide library functions operate properly, and the extent to which the digital library meets the needs of a diverse population of users.

## Introduction

A digital library is a library in which collections are stored in digital formats and accessible by computers. The digital content may be stored locally, or accessed remotely via Computer networks. A Digital library is a type of information retrieval system. Recent developments in IT, especially the World, Wide, Web have led to the creation of a number of digital library research projects in the UK USA and elsewhere. A digital Library is a Collection of documents in organized electronic form, available on the Internet or on CD- ROM disks. Depending on the Specific Library, a User may be able to access Magazine articles books Paper, Images, Sound files and Videos on the Internet the use of Digital library is enhanced by a broadband Connection Such as Cable modem or DSL.

“Digital Libraries are a set of electronic resources and associated technical capabilities for creating searching and using information “

- Borg man

This phenomenon is designed to bring a shift in the ways we create access and use Information .the design and development of digital Libraries. Depend on Computer Communication and other technical skills and the dream of successful digital libraries landing to a global digital environment can only be fulfilled when enough practitioners have the skills to design build and manage them. Designed to present a holistic view of the digital library scene, this based on evidence from examples of major digital library research project around the globe.

### Digital Library Initiative (DLI )

The Library is evolving into an electronic portal to a growing collection of digital content. The doors to this virtual library are now open 24 hours a day, seven days a week, and the library’s holdings come to the user when needed. One of the first design issues in the creating of a digital library is to prepare a list of high-level requirements. This list includes what information the Library will contain , how that information will be generated , what audience the information is intended for, and how the data will be accessed.

## Some Indian Digital libraries

- Indian Parliament library
- Indira Gandhi Memorial Library ,University of Hyderabad
- Indian Institute of Technology, New Delhi , kharagpur Mumbai
- Indian Institute of Science, Banglore
- National Institute of Technology, Calicut
- National Institute of Technology, Roukela
- Punjab University , Chandigarh
- Indian Institute of Management , Kozikode

## Goals

With the digital library, an individual Can :

- Gain Access to the holdings of libraries worldwide through automated catalogs.
- Optimise searches , simultaneously search the Internet , Commercial databases and library collections.
- Locate both physical and digitized versions of scholarly articles and books.
- To give efficient access to world wide information directly to the faculty and Research scholar's desktop.
- To enable users easily access digital collections, regardless of location language or formats.
- To provide a resources highly interactive electronic network giving access to Digital library resources in support of student research and teaching faculty.

## Objectives

Provide network access to worldwide scholarly information resources of relevance to the academic community, facilitating improved learning, teaching, research, collaboration and information sharing Provide orientation and training to the academic community in making effective use of electronic information sources tools and services.

Participate in the e-publishing and e-dissemination of Institute'

- To improve P. G. education by allowing students to use digital collections.
- To empower students to convey a richer message through the use of Multimedia and hypermedia technologies.
- To empower other universities to unlock the information resources.
- To advance digital library technology.

### Function of Digital Library

- Access to large amounts of Information to user wherever they are and whenever they need it.
- Access to primary information Sources
- Support multimedia content along with text.
- User friendly Interface
- Hypertext links for navigation
- Client sever architecture
- Advancer search and retrieval
- Integration with other digital Libraries

### Software's used in implementation of Digital libraries

Open source digital library software derives its strength from several enabling technology and metadata based inter operability protocols, which have become available recently. Examples of some of these are as follows

- Green stone digital library software (GSDL)
- E-Prints
- DSpace from MIT
- Site search(OCLC)
- PEARS (OCLC)
- Open source software for online journals and conference publishing
- Fedora – Developed by Cornell University & University of Virginia

## Advantages of Digital Library

The advantages of digital libraries as a means of easily and rapidly accessing books , archives and images of various types are now widely recognized by commercial interests and public bodies.

1. **No Physical boundary:** The user of a digital library need to go to the library physically people from all over the world can gain access to the same information as long as an internet connection is available.
2. **Multiple access:** The same resources can be used simultaneously by a number of institutions and patrons. This may not be the case for copyrighted material. A library may have a license for “lending out” only one copy at a time; this is achieved with a system of digital rights management where a resource can become inaccessible after expiration of the lending period or after the lender chooses to make it inaccessible.
3. **Information retrieval:** The user is able to use any search term (word, phrase, title, name, and subject) to search the entire collection. Digital libraries can provide very user – friendly interfaces, giving clickable access to its resources.
4. **Preservation and Conservation:** Digitization is not a long term Preservation solution for physical collections, but does succeed in providing access copies for materials that would otherwise fall to degradation from repeated use.
5. **Space:** Whereas traditional libraries are limited by storage space , digital Libraries have the potential to store much more information; simply because digital information requires very little physical space to contain them and media storage technologies are more affordable than ever before.

6. Added Value: Certain Characteristics of object, primarily the quality of images May be improved. Digitization can enhance legibility and remove visible flaws Such as stains and discoloration.

He further describes eight activities that need powerful interfaces to support creative work, in other words, he proposes areas that need attention from researchers for make future digital libraries useful for creative work.

These activities are as follows.

- Searching and Browsing Digital Libraries.
- Visualizing Data and Processes
- Consulting with peers.
- Thinking by free Association.
- Composing Artefacts and Performances.
- Exploring Solutions.
- Reviewing and Replaying Session Histories
- Disseminating Results.

## Conclusion

The advent of digital libraries at the turn of the twenty-first century has been mired with several aspects including the development of appropriate technologies, issues related to storage, rights management, and so on. Digital libraries, along with associated technologies and related issues, are still somewhat in infancy with very few fully established digital libraries the world over. The concept of digital libraries itself varies greatly with several known definitions. With digital library technologies maturing, storage capacities increasing and digital access improving, the focus needs to be crystallized on content for digital libraries. However, research on digital libraries so far has focused on the containers and conduits rather than the contents.

## Reference

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Introduction to Digital Libraries

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