



GRT JOURNAL OF EDUCATION, SCIENCE AND TECHNOLOGY

Published by GRT College of Education


ISSN: 2584-301X

Digital library services and its applications in the information age in India

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Article History:	Abstract	
Received on: 13 Jan 2024 Revised on: 18 Mar 2024 Accepted on: 20 Apr 2024	The new technologies have helped the early visualization of digital libraries become a reality. Digital libraries are becoming a vital part of the digital learning age. Their vital role is increasingly becoming a measure of the library's part in the revolution and development of society and the nation at large. A digital library that deals with data that is born digital as well as those that have been digitized from their analog form. The aim of this paper is to discuss the services and implications of digital libraries in the information age. It represents basic concepts, the historical environment, components, characteristics, processes, advantages, and disadvantages of processes in the digital environment.	
Keywords: Digital Library, library services, ICT		

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Journal Home Page: www.grtjest.com

 <https://doi.org/10.26452/grtjest.v2i1.32>



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INTRODUCTION

The present age is the age of ICT. To adapt to the new trends in the information technology environment, every field, and department is supposed to accept new emerging technology.

Digital libraries have emerged in the case of libraries. The concept of a digital library depends on the storage, processing, and dissemination of information to users through electronic systems. Digital information may include a combination of structured or unstructured text or numeric data, scanned images, photos, videos, audio, graphics, recordings, etc.

Digital Library: Meaning and Concept

Digital libraries summarize different aspects; hence, they cannot be explained in a simple definition. Many authors, researchers, and organizations tried to define digital libraries that reflected their basic nature and characteristics. Some of the definitions given by the authors are given below. According to

Gladney H.M., "a digital library service is an assemblage of digital computing, storage, and communications machinery together with the software needed to reproduce, emulate, and extend services provided by conventional libraries based on paper and other material means of collecting, storing, cataloging, finding, and disseminating information.

Edward A. Fox defined the term "digital library as a machine-readable representation of materials that might be found in a university library, together with organizing Digital libraries summarize different aspects; hence, they cannot be explained in a simple definition. Many authors, researchers, and organizations tried to define digital libraries that reflected their basic nature and characteristics. Some of the definitions given by the authors are given below. According to Gladney H.M., "a digital library service is an assemblage of digital computing, storage, and communications machinery together with the software needed to reproduce, emulate, and extend services provided by conventional libraries based on paper and other material means of collecting, storing, cataloging, finding, and disseminating information intended to help users find specific information. A digital library service is an assemblage of digital computing, storage, and communicating machinery together with the software needed to reprise, emulate, and extend the services provided by conventional libraries based on paper and other material means of collecting, storing, cataloging, finding, and disseminating information.

Characteristics of Digital Library

The collection of digital libraries must be in digitized form. Therefore, reading material has to be converted to digital. The digital objects must be organized in an easy-to-

access way for users. A digital library has the following characteristics:

- A digital library may contain several information resources ranging from text to images, audio, video, etc.
- In a digital library, resources can be used and viewed by several users with reference to their individual information needs.
- Digital libraries are able to prevent the dissemination of irrelevant information.
- Digital libraries largely reduce the need for the physical space required for building and maintenance.
- Digital libraries break up time, space, and language barriers.
- Digital libraries provide advanced searching and retrieval technology.
- Users may build their own personal collection.

Advantages of Digital Libraries

1. OPAC Access: Through the internet, OPAC provides access to bibliographic records of books, e-journals, research articles, academic and research library holdings, and newsletters.
2. Quick Information Retrieval: Users can obtain needed information quickly from anywhere in the world.
3. Reduction of Duplication: Digital libraries reduce the repetition and duplication of new information.
4. Efficient Access to Various Services: They offer quick access to Selective Dissemination of Information (SDI), Current Awareness Services (CAS), abstracting and indexing of periodicals, retrospective conversion,

bibliographical information searches, Boolean searches, and union catalogs.

5. **Advanced Technology Utilization:** Digital libraries use the latest information technologies to store large amounts of digitized information.
6. **Resource Sharing:** They facilitate resource sharing and inter-library loans between libraries.
7. **Quick User Services:** They provide quick services for users searching for needed information.
8. **Cost and Time Savings:** Digital libraries save funds, time, and manpower.

Disadvantages of Digital Libraries

1. **Password Management:** Users need to memorize different passwords for different products.
2. **Limited Coverage and Archives:** The scope of coverage and available archives are often limited.
3. **High Maintenance Costs:** There are often no cost savings, as maintaining these products and the cost of hardware, software, and leasing communication circuits is generally very high.
4. **Access Restrictions:** There are vendor-specific restrictions on how archived e-files can be used.
5. **Future Use Prediction:** Predicting the future use of documents, whether printed or digital, is challenging.
6. **Copyright and Intellectual Property Issues:** Digital libraries often encounter problems related to copyright and intellectual property.
7. **Data Integrity:** Electronic information is more easily manipulated and

reproduced, making it harder to verify the author's identity or changes made to the original data.

8. **Changing Learning Habits:** The shift in learning and teaching habits poses a problem, as browsing digital content can be more challenging compared to printed materials, and remote access can be less comfortable compared to spot access, potentially leading to the loss of new information on the internet.

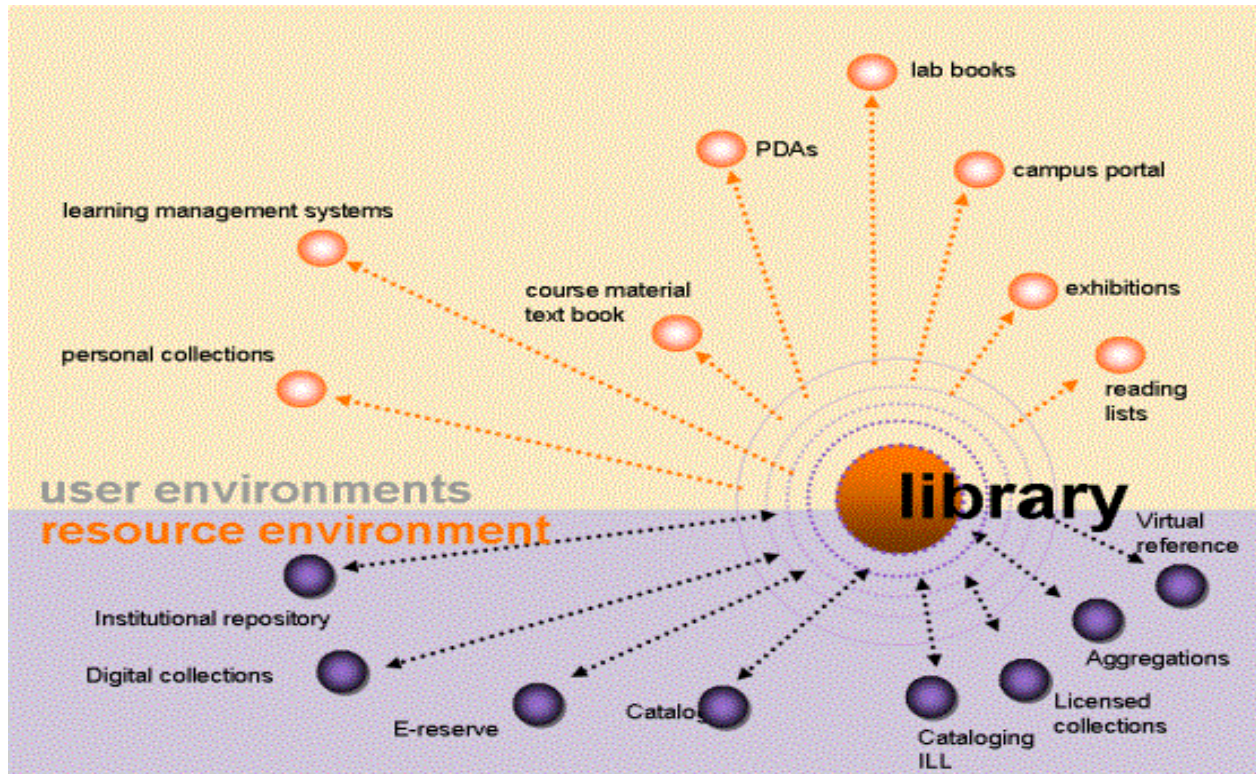
Digital Library Services and Application in the Information Age

Every library provided different types of services to users. In this age of information, ICT changes the concept of traditional library work as well as service. Nowadays, many reference books, like dictionaries, handbooks, encyclopedias, directories, abstracting and indexing services, etc., are published in electronic form. Digital libraries have been focused mainly on providing access to current digital information resources. The new trends in ICT and in Web technologies have brought significant changes in the concepts of traditional reference services and a number of web-based 'expert services'.

Web-based Services

Libraries provide Web-based real-time reference services using specific software, such as BBS, interactive communication tools, and call center management software.

- Accessing and procuring e-reference sources
- Library catalog and union catalog bibliographic databases
- Electronic document delivery services
- Subject gate ways in specific disciplines Remote information services



- CD-ROM databases
- Providing links to websites
- Document delivery services
- Bulletin board service
- Discussion groups and forums

Personalized Services

The development of digital libraries has focused on access to and dissemination of digital information, but they have ignored the aspects of personalized service. On a priority basis, personalized services in a digital library environment would help users find information resources available in a digitally disorganized world.

Co-operative digital Library Services

Due to the high cost of digital reference sources, a lack of trained staff and suitable infrastructure in libraries has influenced different organizations to choose a

cooperative model of digital reference services. For example, the Library of Congress, USA, has launched collaborative digital reference services with a mission to provide users anywhere, anytime, in every corner of the world through an interactive digital network of libraries. In June 2003, the Library of Congress and OCLC developed a cooperative 'Question Point' for the advanced generation of CDTs, which integrates local as well as global electronic reference networks.

Digital Archives

Digital technologies increasingly provide integrated information resources. Images, audio, video, and text numeric data have heretofore resided in print or other analog media for storage and retrieval. Multimedia and hyperlinked objects on the WWW show some of the new types of information and new paths of knowing in the digital that bring them together. Digital archives are very useful

to save the place and save a lot of time for the users in searching for information.

Conclusion

A digital library is imagined as a comprehensive library of the digital resources and services that are available for education in all areas of interest and disciplines. It is considered to be an association of library services and collections that function together to create a digital learning community. The digital library should have a variety of models for accessing the materials; some content will be free of charge, while other materials will be available on a payment basis. A digital library will also facilitate the sharing of educational resources within an institution. The digital library provides the opportunity for students at different institutions to work on joint projects or experiments, perhaps sharing and adding to the same data set and its analysis.

Ethical Approval

No ethical approval was necessary for this study.

Author Contribution

All authors made substantial contributions to the conception, design, acquisition, analysis, or interpretation of data for the work. They were involved in drafting the manuscript or revising it critically for important intellectual content. All authors gave final approval of the version to be published and agreed to be accountable for all aspects of the work, ensuring its accuracy and integrity.

Funding Support: The Author declares that there is no funding.

Conflict of Interest: The Author declares that there is no conflict of interest.

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