

ROLE OF DIGITAL LIBRARIES AND INFORMATION CENTRES IN EDUCATION AND RESEARCH DEVELOPMENT ACTIVITIES

Jagadeesha S

Librarian

Selection Grade, Government First Grade College, Belthangady, D.K District, Karnataka state, India.

E-mail Id: jagadeshasanoorl@gmail.com

Abstract : The Digital library is crucial in advancing information utilization. It offers solutions to key obstacles faced by traditional libraries, such as storage limitations. This document delves into the concept of digital libraries, their role in preserving manuscripts, and the necessary equipment and software for this purpose. The aim is to transform all libraries into digital libraries to ensure access to digital information across all fields. It addresses the importance, challenges, and issues in establishing digital libraries, including copyright and Intellectual Property Rights. Additionally, it examines a successful digital library project in India and the future prospects of digital libraries in the Indian context. The paper also explores the impact of Digital Libraries on education and research, emphasizing their role in providing users with coherent access to a vast repository of information and knowledge and highlighting the advantages of Digital Libraries.

Keywords: Digital library, Learning and research, Digital environment, Digital Repository

1.0 Introduction

Digital Libraries play a crucial role in the learning environment, serving as a vital component of the universal information infrastructure that embraces current information and communication technology. They are networked collections of digital text, documents, images, sound, data, software, and more, serving as the foundation of today's Internet and the future's universally accessible digital repositories of all human knowledge. A Digital Library is a repository where materials are stored in digital format and accessed by computers, functioning as a type of information retrieval system. It aims to collect and disseminate digital objects/items to meet the users' needs based on their specific requirements. Digital libraries provide mechanisms for delivering specific resources to users, including obtaining a resource not already available in the library and delivering it to users in a suitable manner. These collections of online resources can assist in accessing, organizing, and sharing information for research and learning goals, encompassing books, journals, databases, multimedia, and more. To effectively and efficiently utilize digital libraries, consider implementing the following tips and strategies.

2.0 Review of Literature

The purpose of a literature review is to familiarize the researcher with existing work on the topic being studied, in order to contribute new knowledge to the field. It also involves examining the various theories that have been utilized in previous research. The focus of the literature review is on the traditional concept of the library, which is commonly used for the preservation of recorded knowledge and the advancement of culture and society. The traditional library was the primary method of preserving records and materials, although it sometimes lacked transparency and presented challenges. However, modern research has introduced the concept of the 'Digital library,' which addresses the shortcomings of the traditional library by providing researchers with online databases, internet access, and digital technology. This shift to digital libraries has made research more transparent and accessible. Researchers have been able to gather information from articles, journals, and books published over time, as well as explore the role of librarians in the electronic information environment and the new dimensions of librarianship. Edward, J. D. (2001) The evolving formats and models of digital reference services, such as e-mail and web forms, aska services, online chat reference, video conferencing, digital robots, and collaborative digital reference, are all related to the research topic of digital library devices. Intekhab Alam (2011). Higher education and digital divide in India. International research, in this article discussion about the initiatives made by the government of India towards building ICT infrastructure and access to scholarly information in institutions of higher learning. Higher education is crucial for the nation, as undergraduate students are the future generation. Paicznyuk, R. W. Digital libraries (2008) Traditional libraries are limited by storage space, but digital libraries have the potential to store much more information, simply because digital

information requires very little space. An important advantage of digital conversion is increased accessibility to users, making it relevant to similar research topics. Schneider g. p. and Evans. (2004), new perspectives on the internet 5th edition Massachusetts: Thomson with critical thinking, problem-solving approach, users will learn the basics to more advanced features of the internet. This approach helps learners understand why they are learning and better retain skills beyond the classroom.

3.0 Need of Digital Repository

Digital libraries offer unique features that set them apart from traditional libraries. They boast a precise search system and are not confined by physical boundaries, allowing users to access them from any location at any time via the Internet. Unlike traditional libraries, digital libraries do not require physical space to house their collections. They provide seamless access to digital resources from around the world, with a primary focus on enhancing information delivery and incorporating multimedia content such as audio and video materials. By catering to diverse learning preferences and information consumption habits, different types of digital libraries serve specific purposes, catering to various user groups and promoting the democratization of information access. A Digital Library brings the information to the user's desk, laptop or mobile either at work at home of anywhere, where the Internet is available. It makes easier to use of digital resources hence increases the usage of Digital repository. Hence users need never visit to the library. The Digital Library is wherever there is a computer and Internet connection. So user can access universal knowledge through digital libraries.

4.0 Methodology

The review of literature was restricted to articles that were included in Library and Information Science Abstracts (LISA), Library, Information Science and Technology Abstracts (LISTA), and Emerald Insight databases. The search was conducted across these databases until 2018. Various search methods were employed using the terms 'digital libraries', 'digital library', and 'India'. The findings from these searches were assessed to pinpoint pertinent articles. The bibliographies of the pertinent articles were also examined, including those authored by librarians and information professionals. This is called the methodology of the article.

5.0 Digital Library Architecture

- a. **Advanced Search and Browsing** Sophisticated search systems are utilized to locate information, such as Boolean logic, Truncation search, and Federated searching systems. Hyperlinks within a source provide clear advantages by connecting to other sources.
- b. **Sharing Information** Digital libraries and archives store unique digital information sources, making them available to users through a network. This is a significant improvement over the costly physical duplication of resources.
- c. **Information Updates** Updating documents is simple in digital format, unlike print resources which require the entire document to be reprinted. Digital libraries maintain online versions of encyclopedias, directories, handbooks, and other reference sources, ensuring users have access to updated and current information.
- d. **Comparing and Integrating Information** Digital libraries offer a wealth of information, but it's important to critically analyze, evaluate, and synthesize the information, connecting it to your own knowledge and experience. This approach fosters a deeper understanding of the topic and helps avoid plagiarism. The Digital Library is accessible 24/7, 365 days a year, contingent on internet connectivity.
- e. **New Forms of Information Become Possible** The digital format is the most effective way to record and distribute information. Storing census data in a database allows for computer analysis. Satellite data can be presented in various formats. Resources created specifically for the digital world differ from those designed for paper or other media, even if the formats are similar. Spoken words have a different impact from written words, and online textual materials differ subtly from both spoken and printed words. Authors use words differently when writing for different media, and users find new ways to utilize the information. Digital resources lack the qualities of resources mechanically converted to digital format, just as a feature film never looks quite right when shown on television. Today's digital libraries showcase the benefits described above, and the hope is that they will evolve from static repositories to immutable objects that provide a wide range of services for collaboration and idea exchange. The technology of digital libraries is closely related to the technology used in electronic mail.

- f. Keep learning and improving Digital libraries are dynamic and constantly evolving, so it's important to keep learning and improving your skills and strategies. You can monitor your progress and identify strengths and weaknesses through feedback, reflection, and assessment. Additionally, you can utilize online courses, tutorials, guides, or mentors to learn new tips and techniques. By continuously learning and improving, you can enhance your research and learning outcomes and reap the benefits of digital libraries.

6.0 Functions of Digital Repository

1. The Digital Library provides extensive access to a wide range of information resources.
2. It facilitates access to multimedia content.
3. Accessible through networks.
4. Features a user-friendly interface.
5. Utilizes unique referencing for digital objects.
6. Allows for linking to both local and external objects.
7. Supports advanced search and retrieval functions.
8. Ensures long-term availability of information.
9. Also supports traditional library tasks such as collection development, organization, access, and preservation of information.
10. Supports editing, publishing, annotation, and integration of information.
11. Integrates personal, group, enterprise, and public digital libraries.

7.0 Importance of the Digital Library for Education Development of the Students

The significance of digital libraries for students is vast and encompasses a range of benefits that cater to the changing needs of modern education. Here are some key points that underscore the importance of digital libraries for students:

- **Access to Current Information:** Allows students to stay updated with the latest research and advancements in their area of interest, encouraging continuous learning.
- **Flexible Access:** Provides the flexibility to access resources at any time and from any place, enabling students to study or conduct research at their own convenience.
- **Preservation of Resources and Knowledge:** Plays a vital role in safeguarding cultural heritage and intellectual property by digitizing rare or delicate materials, ensuring their availability for future generations.
- **Ease of Access:** Offers convenient accessibility, allowing users to reach resources remotely using personal devices, saving time and effort compared to traditional library visits.
- **Enhanced Real-Time Interaction:** Facilitates real-time interaction among users through online forums, chat rooms, and interactive tools, enhancing collaborative learning experiences.
- **Automated Library Management:** Utilizes automated systems for efficient organization, storage, and retrieval of digital resources, freeing up staff for more valuable tasks such as user support and collection development.
- **Swift Information Retrieval:** Provides rapid access to information through robust search tools, saving students time and effort in their research or study pursuits.
- **24/7 Availability:** Removes concerns about library operating hours, offering continuous access to digital resources for students to study, research, or access information at any time.

Promotes Collaboration: Encourages collaboration among students by enabling them to share resources, exchange ideas, and collaborate on projects, fostering a sense of community.

8.0 Further Research:

Digital libraries have the potential to deliver extensive library services to students, whether they are local or remote. The core concept involves aggregating educational materials from various subjects and authors within a digital courseware library. This digital library acts as a cornerstone for designing specific courses.

9.0 Conclusion

The Digital Library provides access to information from anywhere, whether it's at work, at home, or on the go with a laptop or mobile device, as long as there is an Internet connection. This underscores the significance of e-libraries for students, as they play a crucial role in supporting academic excellence and the decision-making process for school admissions. With their accessibility, wide range of resources, enhanced research capabilities, collaborative learning opportunities, and cost and space efficiency, e-libraries have revolutionized the way students access and utilize information. Whether you're studying for an exam or working on a research project, e-libraries provide the convenience and tools necessary for success. Take advantage of these digital resources and witness your academic accomplishments reach new heights.

10.0 Reference

- I. Arora, J. (2001) Building digital repository DESIDOC Bulletin of Information Technology, Vol. 21, No. 6 November, pp 3-24.
- II. Das, A.K (2008) Open Access to Knowledge and Information Scholarly Literature and digital repository Initiatives: The South Asian Scenario, United Nations Educational Scientific and Cultural Organization (UNESCO) pp105-106
- III. Gadre, A .Rath,P.N (2010) Librarianship Today, Pune, Diamond Publication. pp 10-24.
- IV. Jamkar,S.2009 Digital repository In National Seminar on Library and Information services in changing Era 22-23 January 2009 edited by Patil,S K, Deshpande, N J et al Pune ,University of Pune .pp89-98.
- V. Khatri, M.B (2008) Digital Repositories: Role of Libraries In International Conference on Knowledge for All: Role of Libraries and Information Centers,12-15 November 2008,edited by Kognauramath et, al. Mumbai, Sita Publications. Vol.1. pp 22-27.
- VI. Narayana,P Biradar ,B.S et al, (2008) Enhancing the Impact of Indian Scholarly Communication Through Digital LibrariesIn International Conference on Knowledge for All: Role of Libraries and Information Centers, 12-15 November 2008, edited by Kognauramath et, al. Mumbai, Sita Publications. Vol.1. pp 28-39.
- VII. Silva, L.V.A Laender, H.F. Goncalves, M.A. (2005) A Usability Evaluation Study of a Digital Library Self Archiving Service. in Proceedings of the 5th ACM/IEEE-CS joint conference on Digital libraries, Session: Users and interaction track: understanding user needs and perceptions, Denver, CO, USA, New York, NY, USA: ACM Press, pp. 176-177.
- VIII. Thong, J.Y.L. Hong, W. Tam, K.Y. (2004) What leads to acceptance of digital libraries?, in Communications Of The Acm, 47(11), pp. 78 – 83.
- IX. Anuradha, K.T. 2007. Design and development of institutional repositories: A case study. The International Information & Library Review 37(3): 169–178.
- X. Arora, J. 2001. Indian National Digital Library of Engineering Science and Technology: A proposal for strategic co-operation for consortia-based access to electronic resources. The International Information & Library Review 33(2–3): 149–165.
- XII. Arora, J. 2003. Indian National Digital Library of Engineering Science and Technology: A proposal for strategic co-operation for consortia-based access to electronic resources. The International Information Library Review 35(1): 1-17.