

Chapter 16

Digital Libraries: Their Challenges and Issues in the Perspectives of Developing Countries like India

N. Swaminathan
Ecole Mondiale World School, India

ABSTRACT

The advancement of computer and communication technologies has resulted in the development of digital libraries. It is generally true that digital libraries are capable of providing the desired information instantaneously, but it poses some serious problems to the professional libraries and librarians, especially in third world countries like India where finance is a big constraint for implementation of digital libraries in every corner of the country. This chapter aims not only to discuss the general overview of digital libraries, with a brief historical background of digital libraries, but also to discuss the issues related to and future prospects of digital libraries in India. Further, the challenges that the digital libraries are facing in India with regards to quality problem, interoperability, intellectual property rights, privacy and security, human use, preservation problem, services, integration, and the role of librarianship in the digital era, have also been discussed.

INTRODUCTION

In modern day education, Information and Communication Technology (ICT) plays an important role to the core that adds to the value of learning,

research and extension activities. Developments in ICT have not only changed the way information is generated, organized, stored and distributed. The digital libraries were basically information storage and retrieval mechanisms. A digital library is an organized collection of electronic resources. Digital library is a very complex and dynamic

DOI: 10.4018/978-1-61350-335-5.ch016

entity. It has brought remarkable change in the information collection, preservation and dissemination scene of the world. The main aim of digitization is to provide ready access to acquire the required information at the right time to the right user. The collection of digital library are not limited to document substitute they extend to digital artifacts that cannot be represented or distributed in printed formats. "Digital library is not a single unit, but a complex of multi unit provides instant access to all information, for all sections of society, from anywhere in the world. Hence, the digital library must deal with changing technology, information seeking behavior of its user, and user needs etc" (Vijaykumar & Sekar R, 2008, pp.187).

Digital libraries have opened up a very large window of opportunity to spread knowledge across a very wide population. In developed countries digital libraries are used by a wide spectrum of people. In emerging countries like India the potential for the spreading of knowledge through digital libraries is huge. However, issues such as internet access and bandwidth, local language interface and ease of use of digital library have to be addressed in addition to finances for such projects.

SOME DEFINITIONS OF DIGITAL LIBRARY

Digital library is an electronic collection of real or virtual resources, which may also be available elsewhere. These resources must be whole works, with which humans can have a complete cognitive or affective engagement. A digital library may allow either online or offline access to the elements it organizes and houses, and may include multimedia as well as multilingual data.

The concept of digital library has multiple senses that one might cite in various contexts. The concept may refer simply to the notion of collection without reference to organization, intel-

lectual accessibility or service attributes. Hence, it is better understand about digital library by the following definitions.

Don Walters DJ (1998) has defined that "Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, distribute, preserve the integrity of and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities".

Edward A. Fox (1999) has defined "a digital library is a machine readable representation of materials which might be found in a university library together with organizing 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 materials means of collecting, storing, cataloging, finding and disseminating information".

THE 5S FRAMEWORK OF FOX

According to 5S framework of Fox (1999) digital libraries are complex systems that

- **Societies:** Help satisfy information needs of users
- **Scenarios:** Provide information services
- **Spaces:** Locate and present information in usable ways
- **Structures:** Organize information in usable ways and
- **Streams:** Communicate information with users and computers

It is essential to address each of "S" constructs while building the digital libraries so that it can work as guideline and checklist for the same. In

9 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/digital-libraries-their-challenges-issues/60807

Related Content

Digital Skills and Their Relevance to the COVID-19 Innovative Responses in the European Union

Fernando Almeida (2021). *International Journal of Innovation in the Digital Economy* (pp. 45-57).

www.irma-international.org/article/digital-skills-and-their-relevance-to-the-covid-19-innovative-responses-in-the-european-union/279599

Machine Learning-Based COVID-19 Classification Using E-Adopted CT Scans

Ashokkumar Palanivinayagam, V. Vinoth Kumar, T. R. Mahesh, Krishna Kant Singhand Akansha Singh (2022). *International Journal of E-Adoption* (pp. 1-16).

www.irma-international.org/article/machine-learning-based-covid-19-classification-using-e-adopted-ct-scans/310001

Broadcasting Policy in Botswana: The Case of Botswana Television

Seamogano Mosanako (2017). *Impacts of the Media on African Socio-Economic Development* (pp. 217-230).

www.irma-international.org/chapter/broadcasting-policy-in-botswana/172402

Overcoming Barriers to Digital Higher Education in the Global South: Stories of Amina and Maria

Rayees Farooqand Debasis Dash (2024). *Accessibility of Digital Higher Education in the Global South* (pp. 247-264).

www.irma-international.org/chapter/overcoming-barriers-to-digital-higher-education-in-the-global-south/334642

Creating Spatially Compatible Flow Datasets from Three British Censuses

Zhiqiang Fengand Paul Boyle (2013). *International Journal of Technology Diffusion* (pp. 38-56).

www.irma-international.org/article/creating-spatially-compatible-flow-datasets-from-three-british-censuses/97136