

## Chapter 16

# Development and Management of Digital Libraries in the Regime of IPR Paradigm

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### **ABSTRACT**

*This article reports the concept of digital library (DL) with its definitions, concept, generic architecture, ethics and librarianship related to DL. DLs are created by Library professionals, publishers, Government initiatives, societies and other higher educational institutions. There are different types of files and file formats are created and stored on DL. For uploading the files, the copyright / IPR issues are involved. As one cannot upload directly someone's file without the permission of that person. In information communication technology (ICT) environment, the Internet and web enables everyone to have access to the e-contents available from anywhere at any time. Due to this, DL creators cannot take it granted to upload them and make them available online. The IPR issues in digital environment plays a key role for identifying and taking permissions from the respective authors / publishers / content creators to upload the digital content. DL and IPR issues are discussed with the digital rights issues.*

### **INTRODUCTION**

Digital Library (DL) has become one of the most frequently used terms in the Library and Information Science (LIS) as libraries have started implementing ICT applications. Digital libraries (DLs) are selected contents with network accessibility, which is also termed as “electronic library” and “virtual library”. It is currently referred as systems that are very heterogeneous in scope and provide different functions, as they store contents in different file formats from different publishers, users and researchers. They are called as digital objects and metadata repositories, reference-linking systems, archives, and content administration systems to complex systems that integrate advanced digital library services (DELOS, 2006). It has changed the concept of the library from the print and paper media and the success depends upon the computers, communication skills, and knowledge of library professionals.

DOI: 10.4018/978-1-7998-2463-3.ch016

## **DIGITAL LIBRARY CONCEPT**

Digital Libraries are managed collections of digital objects, created or acquired according to the principles of collection development, stored and distributed with the associated value-added services necessary to allow users to retrieve the resources. The collections in a DL are accessible with user friendly attributes, as they also store metadata for searching and retrieving the relevant documents. It is also a series of activities that brings together collections, services and people in support of the full life cycle of creation, dissemination, use and presentation of data, information and knowledge.

Digital Library (DL) is a “Collection of digital object (text, video and audio) along with method for access and retrieval, (as far as users are concerned) and also for selection, organization, and maintenance (Sun, & Yuanb, 2012). Therefore, a DL is an informal collection of information, stored in digital formats and accessible over a network, together with associated services.

DL is defined by the Digital Library Federation (DLF - 1998) as an organization that “provides the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence overtime of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.”

## **GENERIC DIGITAL LIBRARY ARCHITECTURE**

Figure 1 shows a generic DL infrastructure that contains a user interface and middleware.

The classic tree-tier architecture: The data engine handles catalog information along with the resources. Additionally, there is a special interface for librarians to manage the content and catalog descriptions. To enable interoperability between library systems a communication interface is defined as well.

## **LITERATURE REVIEW**

The review of literature is an essential component of any investigation, which gives necessary input to the investigator to frame the research study on the chosen topic. As far as the field of “Digital library and the Intellectual Property Rights Issues”, a large number of studies have been conducted and it is continuous to grow. A number of research reports, articles, books and conference volumes on the subject have been published. It is extremely difficult to review the entire body of research. Therefore, some of the contributions in the aspects of DL and IPR issues are reviewed.

Tom Evens and Laurence Hautekeete (2011) elaborated four major issues hampering the sustainability of digital preservation within cultural heritage institutions: digitization, metadata indexes, IPRs management and business models. Using a case-study approach, the digitization of audiovisual collections within the performing arts institutions in Flanders (Belgium) have been scrutinized, providing an overview of the state-of-the-art preservation and access. The analysis showed that digital preservation policies with IPRS issues in most organizations are underdeveloped and that archives suffer from deterioration and technological obsolescence (Evens, & Hautekeete, 2011).

Rupak Chakravarthy (2010) discussed the traditional knowledge as a valuable asset for any country. He said that IP law confers enforceable rights upon the person responsible for the intellectual output, so that the creator or owner of IP can exercise a measure of control over its future use. It plays an important

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