Chapter 14
Open Access to Knowledge and Challenges in Digital Libraries

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ABSTRACT

This chapter highlights the concept of open access to knowledge and its benefits and the challenges of digital libraries through the information technologies in e-print repositories for use in academics and research institutions to enhance and promote open access to knowledge in the digital libraries. The chapter points out the roles and responsibilities of information managers, primarily within academic and research institutions, assisting users for open access to e-resources for the benefit of their own organizations and the global scientific community. Open access to information and knowledge is a key contributor in facilitating universal access to knowledge. Similarly, the chapter provides an overview of continuous evolutions of open access to knowledge and the challenges of digital libraries as a result of internet revolution in Nigeria.

INTRODUCTION

Digital libraries have started gaining ground in the present century, therefore making the demand of electronic information increasing every day. Its mission is to link the past and the present, and help shape the future by preserving the knowledge of human culture, as well as integrating emerging Information Technologies. This mission is unlikely to change in the nearest future.

Recently, there is no backdrop that the developments in ICT have brought significant changes in library and information services. Hence, digital libraries are bringing a paradigm shift in the creation, distribution, management, retrieval, and use of knowledge which facilitates the consumption, creation and sharing of such knowledge through open access in this competitive global world. Despite, libraries are redesigning services and to satisfy the changing information needs of the user community. Library and Information professionals face challenges that will lead to improved systems. In the same vein, it discusses more about the advantages and disadvantages of digital libraries, access tools of electronic
resources, the aspect of knowledge, types of e-resources in both academics and research institutions in
developing country like Nigeria. Digital libraries are where citizens can get electronic access to library
without-walls where information is accessible anywhere and anytime.

Furthermore, digital library has the informational material stored in computer system in a form that
allows it to be manipulated and delivered in ways that the conventional version of the material cannot
be stored which occupies more space and mainly it is manual one. Libraries and information providers
or say information facilitators describe digital library as library without walls or wall free electronic
workstation to access universal knowledge irrespective of the distant locations. Furthermore, digital
Library is a user-friendly interface, which can provide information that was already scanned previously
from the volumes inside the library itself and/or data obtained from outside sources. When we search
through computer network system for our information related requirements and needs for our use we in
fact search every bit of information all over the world. Internet is the best example of digital library and
information system (Kothari, 2016)

In digital library, information is digitized, collected, operated by electronic computers, transmitted by
the computer network, and freely shared. In this way, required information can be easily and efficiently
retrieved and disseminated.

LITERATURE REVIEW

Open Access Initiative

The Budapest Open Access Initiative (BOAI) in 2001 brought a new era in scholarly communication
promising free access to scholarly information (Cullen and Chawner, 2011). Open access in this context
means free access to research output permitting any user to make lawful access to, and use of, research
content and data with appropriate acknowledgement.

However, open access to content comes with some economic challenges. The Budapest Open Ac-
cess Initiative realized that “achieving open access will require new cost recovery models and financing
mechanisms, but the significantly lower overall cost of dissemination is a reason to be confident that the
goal is attainable and not merely preferable or utopian” (Budapest Open Access, 2002).

Definition of Digital Libraries

Digital libraries may be defined as electronic information collections containing large and diverse
repositories of digital objects, which can be accessed by a large number of geographically distributed
users (Budapest Open Access, 2002). They are also refer to be remote access from any point in the work
at library content and services, combining bibliographic news, electronic texts, image banks, and all
kinds of information by means of a computer network. Similarly, digital libraries are a set of electronic
resources and associated technical capabilities for creating, searching, and using information. Digital
libraries may be defined as electronic information collections containing large and diverse repositories
of digital objects, which can be accessed by a large number of geographically distributed users.

Association of Research Libraries (ARL) in definitions and purposes of a digital library has defined
da digital library as having these qualities: