

Chapter 1

Digital Libraries: A Sustainable Approach

Tariq Ashraf
University of Delhi, India

Puja Anand Gulati
University of Delhi, India

ABSTRACT

The chapter discusses the concept of digital libraries and their structures. It delves into their role in the virtual learning environment and examines the issue related to preservation and building of sustainable digital libraries. It argues that a sustainable digitization program, needs to be fully integrated into traditional collection development strategies. The assessment of what libraries have achieved so far in this direction can be discerned upon a close examination of key factors common to sustainable collection development, be it of analog, digitized, or born-digital materials. Key factors for achieving financial sustainability are described.

INTRODUCTION

A loosely-defined concept “Digital Libraries” consists of amorphous borders and crossroads and has attracted visionaries and entrepreneurs, lawyers, scientists, technicians, librarians and serves as an umbrella for a great many of diverse activities.

Denoted by terms having slightly different connotations, electronic library, virtual library, library without walls, it has a number of different interpretations given by different communities having a concern with it.

The closest definition matching the approaches taken by the research community is the one given by Lesk (1997) in the first textbook on the topic. It defines a digital library as an organized collection of digital information. The digital representation is made possible due to computers and the structuring and gathering has always been done by librarians.

Arms (2000) in a newer text on digital libraries, also from a research community and technology applications perspective, provides what he calls an informal definition: “a digital library is a *managed collection* of information, with associated *services*, where the information is *stored in digital formats* and *accessible over a network*.”

DOI: 10.4018/978-1-61520-767-1.ch001

After considerable deliberation, Digital Library Federation agreed on a *working definition of digital library*, “Digital libraries are organizations that provide the *resources*, including the *specialized staff*, to *select, structure, offer intellectual access to, interpret, 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.”

Borgman (2000) provides a more complex definition of digital libraries, considered as a bridge between the research community definition and practical community definitions: Digital libraries are a set of electronic resources and associated technical capabilities for creating, searching, and using information they are an extension and enhancement of information storage and retrieval *systems* that manipulate digital data in any medium. The content of digital libraries includes *data*, [and] *metadata*. Digital libraries are constructed, collected, and organized, by (and for) a community of users and their functional capabilities support the information needs and uses of that community.

In the light of above definitions and different perspectives, the content may be said to fall into following categories: systems, networks, and technology; collection and resources in various media; representation, organization, and operability; storage and searching; functionality, access and use; institutions and services; and user communities and related applications.

The recent spurt in the growth of digital libraries has essentially come from two forces: recognition of the social and technical trends and availability of substantial funding to address the problems. Issue of the future of libraries as social, cultural and community institutions, along with related questions about the character and treatment of “intellectual property” in our society, form perhaps *the* most central of the core questions within the discipline of digital libraries.

The emergence of digital libraries with the overcoming of physical barriers in accessing

information, has dramatically accelerated scholarly research. The barriers of space and time in the search for knowledge are being eliminated. “Today, students, researchers, information professionals, and the general public can directly access many of the world’s rarest artifacts—from high-quality images of each page of the Gutenberg Bible to a digital likeness of the Mona Lisa—right at the desktop or other Web-enabled device, at any time and from any location. Audio recordings of historic speeches or exotic birdcalls, video clippings from televised news programs, geospatial data, and more are being delivered directly to the desks of students and researchers” (Pasquinelli, 2002).

Accordingly, we see a great deal of funding for digitisation across the higher education, cultural memory, and government and commercial sectors in systems and services like digital asset management, digital collection creation and management, and institutional repositories using largely tools of digital libraries. The approach is developmental, operational, and eminently practical, with relatively little or no research involved. As a result, thousands of digital libraries have emerged worldwide, with more becoming operational every day. The efforts are diverse and disparate depending upon approach. Many types of collections and media are included and processed in many different ways. Many are located in libraries, creating a hybrid library (combination of a traditional and digital library); others are not bound to brick and mortar libraries at all.

ORIGIN

DL, both as a concept and practice has an incredibly rich, and yet, poorly chronicled history. The concept goes back to mid- twentieth century and has not simply emerged all of a sudden from nowhere.

The technological component of digital libraries reaches back several decades, to the 1960s, consisting of on-line research and commercial

16 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-sustainable-approach/42734

Related Content

Users' Acceptance of Online Literature Databases in a Thai University: A Test of UTAUT2

Wornchanok Chaiyasoonthornand Watanyoo Suksa-ngiam (2020). *Digital Libraries and Institutional Repositories: Breakthroughs in Research and Practice* (pp. 185-201).

www.irma-international.org/chapter/users-acceptance-of-online-literature-databases-in-a-thai-university/250669

Availability of Necessary Electronic Infrastructure to Support Open Access Initiative to Literature in Academic Libraries in Delta State, Nigeria

Joseph Chukwusa (2014). *International Journal of Digital Library Systems* (pp. 1-9).

www.irma-international.org/article/availability-of-necessary-electronic-infrastructure-to-support-open-access-initiative-to-literature-in-academic-libraries-in-delta-state-nigeria/105107

Perceptions and Attitude of Students in Relation to Vandalism in University Libraries in South-South Zone of Nigeria

Owajeme Justice Ofuaand Ogochukwu Thaddaeus Emiri (2011). *International Journal of Digital Library Systems* (pp. 23-28).

www.irma-international.org/article/perceptions-attitude-students-relation-vandalism/59885

The Past, Present, and Future of Embedded Metadata for the Long-Term Maintenance of and Access to Digital Image Files

Greg Reserand Johanna Bauman (2012). *International Journal of Digital Library Systems* (pp. 53-64).

www.irma-international.org/article/past-present-future-embedded-metadata/68817

Preservation of Cultural and Scientific Heritage by Means of Digital Libraries

Stylianos Korresand Eva Kokotsaki (2011). *E-Publishing and Digital Libraries: Legal and Organizational Issues* (pp. 462-481).

www.irma-international.org/chapter/preservation-cultural-scientific-heritage-means/47488