



A Study of Digital Library Initiatives in India: An Overview

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Abstract

For centuries we have used printed material made available to us by the systematic efforts of authors, researchers, publishers, booksellers and librarians. The expansion of electronic resources and the enormous growth of information technology has become a challenge for library professionals. The library professional believes that the information contained in electronic resources plays an important role in providing timely update information and deliveries to users. The aspect of electronic information has become very popular in recent years.

This paper addresses the concept of digital library, the pros and cons of the digital library, digitization and preservation of documents. This document also emphasizes various initiatives undertaken towards the digital library in India.

Keywords

Concept of Digital Library, Digital Library Initiatives in India, National Digital Library of Electronic Thesis & Dissertation, Digital Library of Online Courseware

Introduction

Knowledge and information were preserved in print medium following the development of printing technology, but they can now be saved electronically. The idea behind a library is to collect, store, and make information or knowledge available to researchers and readers in both print and digital formats, such as books, magazines, and other materials. Libraries and information hubs in the modern era are always facing new problems. However, they also have certain opportunities concurrently. Library science has seen significant transformation in the Information

Technology era. With the development of high-speed networks and processing/storage devices, technology has brought about revolutionary changes in the electronic world.

With the arrival of the twenty-first century, a growing number of individuals will generate, organise, store, retrieve, and distribute information in digital form, making the digital medium their channel of choice. New ideas such as knowledge management and digital libraries have emerged as a result of the Internet's expansion, adding a new dimension to information technology. By embracing the newest information and communication technologies, digital libraries have assumed a pivotal role in the global IT infrastructure, fostering an organisational framework that facilitates resource sharing and communication among national and international scholars.

Concept of Digital Library

Since there are many things on the internet that people are calling "digital libraries," which are not, in the opinion of librarians, what causes confusion is that the library community has used a variety of terms over the years to refer to this concept: electronic library, virtual library, library without walls. For example-

- Collections of software or computer algorithms are digital libraries to computer scientists and software engineers.
- For commercial document providers or database vendors, their digital libraries, electronic document delivery services, and databases.
- Document management systems that oversee major organisations' electronic business document collection function as a digital library.
- A digital library is the collection of everything that a publisher may purchase the rights to and then charge users for accessing; for at least one very major software firm, it's an online equivalent of a catalogue.

What is Digital Library

A digital library is one that is computer-accessible and has collections kept in electronic media formats.

Computer networks can be used to access the electronically stored material remotely or locally. An information retrieval system's reflection can be found in an electronic library.

Digital Library Initiatives in India

Though they didn't start until the mid-1990s, digital libraries were popular in industrialised nations during the 1970s. Initiatives to establish digital libraries were sparked by internet use. There have been significant efforts made to build digital libraries by the Indian government at the federal level as well as by state governments.

Digital Library of Books

On September 8, 2003, Dr. A.P. J. Abdul Kalam inaugurated the Digital Library of India (<http://www.dli.ernet.in/>) with the goal of conserving knowledge and cultural heritage. The driving reasons behind this project are the US-NSF Universal Digital Library Project and the Million Books initiative, which is supported by Carnegie Mellon University in the USA. The initiative is being coordinated by the Indian government's Ministry of Communications and Information Technology and IISc in Bangalore. Its 21 scanning centres, including three regional mega scanning centres, preserve and digitise significant library, scientific, and creative works, making them publicly accessible for research and education.

VigyanPrasar Digital Library

An independent agency under the Department of Science and Technology, Government of India, is VigyanPrasar (<http://www.vigyanprasar.gov.in/digilib/>). It was established in 1989 to facilitate the transmission of science and technology. VigyanPrasar disseminates scientific knowledge through an open access digital library that includes full-text digital copies of all notable scientific publications that VigyanPrasar publishes. Volume I, Issue 1 of the open access periodical DREAM 2047 and a popular science magazine are both archived on the VigyanPrasar Science Portal.

NCERT Online Text Books :

The GoI established the National Council of Educational Research and Training (NCERT) in 1961 as an independent organisation (<http://www.ncert.nic.in/textbooks/testing/Index.html>). School textbooks are freely available online for everyone thanks to a nationwide portal that the NCERT launched based on the nationwide Curriculum Framework 2005.

Digital Library of Manuscripts

Kalasampada: (<http://www.ignca.nic.in/dlrich.html>)

The Ministry of Communication and Information Technology and the Indira Gandhi National Centre for the Arts (IGNCA) partnered to launch Kalasampada, a digital library on indigenous cultural heritage (DL-RICH, or Digital Library: Resources of Indian Cultural Heritage), with the goal of developing cultural heritage resources. DL-RICH offers digital access to a wide range of textual, graphical, audio-visual, and multimedia resources as well as rare paintings, manuscripts, rare books, rare pictures, sculptures, handicrafts, monuments, artefacts, and festivals. The Sanskrit text collection "GaudiyaGranthaMandira," which contains more than 400 chapters from various oriental literature, is likewise organised by it.

National Mission for Manuscripts

National Manuscripts Mission (<http://www.namami.org/index.html>):

With the establishment of the National Mission for Manuscripts in February 2003 by the Department of Culture

and the Ministry of Tourism and Culture, Government of India, a vast collection of manuscripts in various forms, including textures, themes, and scripts, calligraphies, aesthetics, languages, illuminations, and illustrations, were to be located, documented, preserved, and made available.

Muktabodha:

With the intention of conserving scriptural texts related to the Tantric and Agamic traditions, as well as India's oral tradition of Vedic chanting and the ritualistic knowledge and philosophical insights that accompany it, the Muktabodha Indological Research Institute launched The Muktabodha Digital Library and Archiving Project (http://www.muktabodhalib.org/digital_library.html) in July 2003. The main goal of the digital library is to preserve rare Sanskrit texts and manuscripts in a variety of electronic formats and make them available to people through websites.

National Digital Library of Electronic Thesis & Dissertation

Shodh Ganga:

Shodhganga (<http://shodhganga.inflibnet.ac.in/>) is a national repository of electronic theses and dissertations. Its goal is to enable free access to Indian theses and dissertations for academicians worldwide. It was initiated on May 20, 2010, by INFLIBNET, with backing from UGC. Beginning on June 1, 2009, university researchers are required by UGC to submit their theses and dissertations in electronic format. The term "Shodhganga" refers to the storehouse of Indian intellectual output that the INFLIBNET Centre hosts and maintains. The Best ICT-Enabled Higher Education Institute for the Year 2011 eINDIA JURY CHOICE Award went to Shodhganga.

ShodhGangotri

Researchers who submit approved synopses to institutions in order to register for Ph.D. programmes can find them in the repository maintained by ShodhGangotri (<http://shodhganga.inflibnet.ac.in>). In an effort to prevent research duplication, it tracks the patterns and paths taken by Indian universities' research efforts.

Vidyanidhi Digital Library

The Department of Library Science at the University of Mysore has launched Vidyanidhi (<http://www.vidyanidhi.org.in/>), an online platform for doctorate research in India, with funding from NISSAT, DSIR, the Indian government, Microsoft India, and the Ford Foundation. It started off as a pilot initiative in 2000 with funding from the Ford Foundation, the government, Microsoft India's dissertation repository, and a number of resources for PhD research in India. Vidyanidhi enjoys the University Grants Commission's (UGC) strategic assistance. The entire text of theses and a metadata database make up the two layers of the Vidyanidhi Digital

Library. Vidyanidhi has held over 50,000 bibliographic records and 5,000 full text theses that were submitted to Indian universities.

Digital Library of Online Courseware

Seven IITs and IISc oversee the NPTEL (National Programme on Technology Enhanced Learning), or (www.nptel.iitm.ac.in), an open courseware initiative financed by the MHRD. Raising the bar for engineering education in India is the main objective of this initiative, which aims to create more than 200 curriculum-based online and video courses.

e-Gyankosh

IGNOU is an open university that provides billions of students globally with distance and open learning opportunities. eGyankosh (www.egyankosh.ac.in) is a National Digital Repository of learning resources, launched by IGNOU. This repository aims to house, catalogue, maintain, disseminate, and exchange the nation's open and remote learning institutions' digital learning resources: A range of learning resources, including audio-visual programming, archives of live interactive radio and television broadcasts, and self-instructional study materials, can be seamlessly combined and integrated into the repository.

e-PGPathshala

(<http://epgp.inflibnet.ac.in/about.php>.)

Under NME-ICT, the MHRD has given the UGC funding to generate PG-level e-content in 77 academic areas. In accordance with the directives of the Standing Committee, e-PG Pathshala, the INFLIBNET centre is in charge of the technical and administrative coordination of programmes. Under the programme called e-PG Pathshala, top-notch curriculum-based interactive content in various social science, arts, fine arts & humanities, scientific & mathematical sciences, linguistics, and language disciplines is being developed.

Other Initiatives

Traditional Knowledge Digital Library

The Department of AYUSH, NISCAIR, CSIR, the Ministry of Health and Family Welfare, and the Department of Science and Technology are collaborating on TKDL (www.tkdl.res.in). Five languages—English, German, French, Japanese, and Spanish—are used in the effort to document traditional information about Ayurveda, Unani, and Siddha that is in the public domain. The Indian government, through TKDL, is attempting to protect its traditional medicine from potential copyright threats from Western pharmaceutical companies. In addition to

providing intellectual property protection, it will allow researchers to examine and record the scientific foundations of the drugs and treatments in the collection.

C-DAC Projects (http://cdac.in/index.aspx?id=mc_hc_digi_lib)

C-DAC (Centre for Development of Advanced Computing) is the premier research and development organisation for IT, electronics, and allied subjects within the Ministry of Communications & Information Technology's Department of Electronics and Information Technology.

It conducts:

- Digitization of Libraries
- Digital Library at Gujrat Vidyapeeth, Ahmedabad
- GyanNidhi:Multilingual Parallel Corpus in Indian Languages
- Digital libraries at Uttaranchal
- Digital Library at President's House
- Mobile Digital Library: Dware Dware Gyan Sampada
- Digital Library at Nagari Pracharini Sabha Varanasi;
- Mega Centre for Digital Library;

Problems and Challenges

Acute shortage of qualified staff to take up the task of digitising local content and evolving digital information repositories is one of the challenges facing India's digitization initiatives. Other challenges include copyright, implementation of access rights, content selection and security, efficient internet bandwidth, financial support, proper documentation, lack of ability, lack of incentives, lack of role model initiatives, and lack of incentive programmes.

Bhattacharya (2004) lists the following problems that Indian libraries face: intellectual property rights; inadequate funding and infrastructure; technological advancement; inexperience; lack of experience; appropriateness; proliferation of information on the internet; high maintenance costs; bandwidth issues; preservation of existing infrastructure; a lack of training and political and social restrictions

According to Dr. Gurram Sujatha, three aspects need to be considered in order to ensure the success of planned programmes for digital resource development and digital libraries across the nation: the digital divide, sustainability difficulties, and the national strategy for digitization.

Conclusion

India has taken the lead in the digital library movement by digitising and making traditional knowledge, rare documents, century-old publications, theses, dissertations, and journals available in Indian libraries freely accessible. This is made possible by the country's access to advanced ICTs and information infrastructure. In an effort to establish a really digital library, one such project is the Digital Library of India. Indian doctoral theses can be easily accessed and archived online thanks to centrally controlled digital repositories called ShodhGanga. This also helps to improve the calibre and standard of the study. Various organisations, including the apex higher education agencies, are also developing crossarchive search services and open courseware. In emerging nations, India has led the way in the digital library movement.

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