



## Challenges Of Digital Libraries For Effective E-Learning In India

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### Abstract-

This study investigated the challenges of digital libraries for e-learning in higher education colleges of India. Instrument for data collection was a set of interview questions. Six higher education colleges were used and 18 samples were picked using simple random sampling. The result shows challenges associated with the use of digital libraries for e-learning in the colleges: it ranges from lack of effective access, non sustainability of the resources, unstable power supply, constraints in building the resources, inadequate training of staff and technical issues. Solution to these challenges were proffered suggesting that higher institutions in India should include library digitization into their policies and plans for effective use and assessment.

**Keywords-** E-learning, Digital Libraries, Challenges, Digitization, Digital Resources

### INTRODUCTION

The new and emerging technologies challenge the traditional process of teaching and learning, and the way education is managed. These technologies have brought about electronic learning (e-learning). E-learning is the term used to describe teaching and learning resources or experience that are in some ways delivered electronically; an advanced form of distance education. E-learning initiatives are timely access to high quality resources and tools that support innovations in teaching and learning at all levels. The libraries of 21<sup>st</sup> century have to use these educational technologies to maximize access to digital resources to enhance the research processes in the information environment. Information and Communication Technologies (ICTs) and its use have enabled the learners and educators acquire and deliver information and knowledge. Library then, being the nerve center of any citadel of learning for information processing, storage and dissemination is charged with the challenges posed in this age of ICT, its integration for global library services trends for on-line catalogues, indexes, and database including full text electronic resources through connection to both local, regional and global networks and by securing materials for numerous users. The emerging concepts, technology and strategies are to enhance the library information service delivery to numerous users, e-learners and widely distance patrons all over the world (David, 2008). The advent of ICTs has completely transformed libraries and information centers. They have emerged as early adopters of new technologies and act as service points for access to digital libraries. Digital libraries are considered as organized collection of knowledge, stored in digital or electronic interface technologies. This shows clearly that in an era of global information and knowledge sharing, the technology to create,

manage and use information is of strategic importance to teaching and learning, most especially the library. The library as an information provider should be equipped with the state of the art technologies and provide such opportunity where users can log in and access library materials anywhere in the world without being converged within the four walls of the library. The growth in e-learning in which education is delivered and supported through computer networks such as the internet, has posed new challenges for library service. E-learners and traditional learners now have access to a universe of digital information. New information and communication technologies, as well as new educational models, require librarians to re-evaluate the way they develop, managed and deliver resources and services. However, no matter the efforts made by libraries and librarians in enhancing e-learning, there are always challenges. Typically, libraries are left out of the decision making and implementation process of learning. This means that libraries have the challenges of developing their services in new learning environment using a technology outside their control. This paper therefore, examines the challenges that digital libraries face in delivering core services to e-learners. The focus of this paper is higher education Colleges of India.

### OBJECTIVES OF THE PAPER

The purpose of this paper is to determine the challenges of digital libraries in e-learning in India. Specifically, the objectives of the paper include the following:

1. Identifying the online resources available in the digital libraries
2. Identifying the expected roles of digital libraries in e-learning
3. Identify the challenges of digital libraries for e-learning
4. Suggest solutions to the challenges

### Conceptual framework

E-learning is the term used to describe teaching and learning resource or experience that is in some way, delivered electronically. Different terminologies have been used for learning such as online learning, internet learning, web based learning, networked learning, distance learning etc. all of these terms imply that the learner is at a distance from the tutor or instructor, that the learner uses some form of technology (usually a computer) to access the learning materials that the learner uses technology to interact with the tutor or instructors and other learners, and that some form of support is provided to learners.

The Australian National Training Authority (2003) proposes that e-learning is a broader concept, encompassing a wide set of applications and processes which use all available electronic media to deliver vocational education and training more flexibly than the general intent to support a broad range of electronic media (internet, interacts, extranet, satellite broadcast, audio/video tape, interactive TV and CD-ROM) to make vocational learning more flexible for clients. However, e-learning involves more than just the presentation and delivery of the materials using the web: the learners and the learning process should be the focus of e-learning.

E-learning can also refer to educational websites offering learning scenarios, worksheets and interactive exercise for children (Otubelu, 2011). It is learning enabled by electronic technology. E-learning technique could be web-based learning, computer-based learning or virtual classroom and content delivery via e-networks, audio conferencing, CD-ROM, IPODs, e-mails, wireless and mobile technology. course enabled by computer could be packaged in CD with simulations and students could play them in libraries to extract the packaged knowledge. The learners can assess the courses at any time at his or her own pace (Takalani, 2008)

### III. BENEFITS OF E-LEARNING

E-learning has a lot of benefits which it offers as means of increasing access to and improving the quality of education. Some of the benefits are outlined as follows:

- Education can be delivered to learners with limited financial resources who need to study on their own time while they remain at work.
- E-learning enhances the ability to adopt the program to suit specific student needs and work requirements
- Improved collaboration and interactivity among students teachers and experts

- Teaching and learning can be done at anytime and from anywhere eliminating up-to-date and relevant learning materials
- Education is learners centered as the learner has authority over learning environment
- Learning is self-paced as students can work with their own time-table
- E-learning gives learners an opportunity to be broaden their knowledge because they can lean on their own and that increases learner's level of confidence and independence (Horton, 2000)
- It can also be used for non-formal education like health campaigns and literacy campaigns (UNESCO, 2002).

### SUPPORTING E-LEARNING THROUGH DIGITAL LIBRARIES

The primary objective of the library is to house and provide information resources intended for reading and learning. Many terms have been coined to refer to the concept of digital library such as electronic library, virtual library, library without walls, paperless and computer based library. Digital libraries are organizations that provide resources including the specialized staff, 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 (The Digital Library Federation 1998). Based on these working definitions, a digital library is a series of activities that bring together collections, services and people in support of the full life cycle of creation, dissemination, use and preservation of data, information and knowledge. Digital libraries are characterized by the digital materials they contain. These digital materials are produced within the library or organization and subsequently made available to users electronically either via the internet or intranet. Colleges of Higher Education are academic institutions established to enhance academic and professional excellence in teacher education for sustainable national development. Most of these colleges run degree programmes in affiliation with various universities in India. Following the growth and expanding of e-learning in these colleges, library services and methods of accessibility of information are done electronically in digital libraries. These digital libraries ought to be a viable and productive community player in developing e-learning landscape by providing digital resources

#### Methods

The data used was collected through library visit and interview of digital librarians and computer

analysts. 6 digital librarians each from the six Higher Education Colleges and 12 computer analysts 2 each from the Senior Colleges in Central India. The colleges include conventional colleges of degree.

### Results

From the survey made about digital libraries for e-learning in the Higher Education Colleges of India. The results related that e-learning in the colleges is still at infancy stage.

### Expected Roles of Digital Libraries in e-learning

Digital libraries have the potential to significantly change fundamental aspects of the classroom in ways that could have an enormous impact our teaching and learning and therefore should play the following

roles:

- i. Create a library website that brings together multimedia resources.
- ii. Design online interactive information literary modules.
- iii. Improve students' performance
- iv. Create access to information resources globally
- v. Increases the quantity, quality and comprehensiveness of Internet-based educational resources.
- vi. Make these resources easy to discover and retrieve for students, parents and educators.
- vii. Ensure that these resources are available all the time.
- viii. Participate in Collaborative team with technology experts and instructors to enhance e-learning.
- ix. Libraries as partners in teaching and learning.

### Challenges of Digital libraries for E-learning

Despite the impact of e-learning through digital libraries in the present learning scenario, there are a lot of challenges such as:

1. Inadequate Infrastructure: Non availability of adequate number of computers and viable internet connection is a major problem facing e-learning in these colleges. For learning to succeed in the developing world, it needs to build on another important pillar: the existence of infrastructure, along with some degree of connectivity (Gunawardana, 2005).
2. Lack of Resources- An institution may have the vision and goal to execute an e-learning programme, but lack of finance will pose a threat to the actualization of this dream. This was supported by Zake (2009) who stated that poverty is one of the most important barriers, especially due to the fact that ICTs are

important and therefore relatively more expensive in Africa than in developed countries. The issue of lack of resources especially lack of money is a big threat to the establishment and running of e-learning programme

3. Inadequate training of staff: The transition from analog information to digital is very pervasive, resulting in various forms of electronic resources - websites, electronic /digital books and journal, digital government archives, electronic sound, images and film collections, business and educational databases, this calls for constant training of staff to manage information effectively. From this study, it is observed that training of librarians is an impediment. The training of staff is a necessary investment if an organization must be productive. It is therefore imperative that training and re-training be done as a routine in order for librarians to cope with innovation and advancement in ICT for digital library service initiative at this age
4. Technical issues: Some technical limitations such as bandwidth and power outage affect effective e-learning in these colleges. Limited bandwidth can cause downloading to be very slow and that can have a negative effect on the learning process of the learners (Takalani, 2008). Power outage can also pose a serious threat to e-learning, especially in developing countries. In the same vein, in his survey of e-learning in India found that most rural areas do not have electricity at all while in most urban cities there are irregular supply of electricity and these problems affect e-learning in India.
5. Perception of e-learning: There are wrong perceptions or misinterpretation of e-learning by both teachers and learners. To successfully create e-learning program, we need to ensure that value is really there and it is in concrete terms. An e-learning project may fail due to lack of vision and foresight. In some e-learning studies conducted in developing countries, it was found that lack of vision and framework in implementing e-learning lead to a failure of these e-learning project (Kizito and Bijan, 2006);

### Solution to the challenges

The challenges are the factors militating against the colleges from rendering effectively the expected roles of digital libraries for e-learning. These solutions if applied in the digital libraries will enhance service delivery for e-learning and they include the following:

1. Libraries should be actively involved in decision making and implementation process of e-learning
2. Academic librarians should embark on the creation of computer based information system that are based on their library collections and connected to internet
3. Librarians should apply their skills on metadata creation developing and targeting learning objects.
4. Alternative power supply should be sought for to enhance effective access to global information resources.
5. A major part of the library intervention sent to libraries by Tertiary Education Trust Fund must be utilized in building up resources for the digital libraries.
6. Academic libraries in India should include library digitization into their policies and plans for effective access to both global and local resources and this enhances e-learning.
7. There must be re-orientation of various authorities in higher institutions in India to see digital libraries as very important aspect of the education process and so be ready to provide enough fund for library maintenance

and management as this ensures sustainability of the resources

#### **CONCLUSION**

Digital Library Services are an essential component of a quality e-learning system. E-learners are largely dependent on the quality and academic usefulness of services that the digital library can offer electronically. The strength of digital libraries and digital collections depends on the relationships libraries develop and maintain with the creators and users who learn from, and evaluate these resources. Providing technical, reference and instructional support to e-learners requires that libraries redefine their values and services, collaborate with their users, and approach their tasks creatively. The library has no doubt, played vital roles in the planning and execution of e-learning programmes in the colleges, although it has been confronted with many challenges. Many expected roles of digital libraries for e-learning have not been accomplished as a result of the challenges of digital libraries for e-learning. Based on the challenges that face e-learning as discussed in this paper, solutions were proffered with a view to improving e-learning pedagogy in using digital libraries in these colleges.

