E-RESOURCES AND E-LEARNING THROUGH ICT IN LIBRARIES

Saleem. A.*, Shabana Tabusuim. S.Z**

Abstract *The Present Study is to highlight the user attitude and approaches towards electronic resources and Learning through information communication technology in the libraries. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access. This is especially helpful to distant learners who have limited time to access the libraries from outside by dial-up access to commonly available electronic resource, mainly CD-ROM, OPACs, and Internet (ICT Tools), which are replacing the print media. Those concepts are throwing challenges to the traditional delivery of instruction and training in the changing age of globalization and e-resources. Digital learning, digital content, online tutorial, examination and assessment, distance learning etc., it defines e-Resources, e-Learning and its characteristics, and describes the tools of e-learning. This paper briefly describes the Benefits of e-resources and e-learning, Impact on Student and selection of e-resources.*

Keyword: *E-Resources, E-learning, ICT, E-book, E-Journal, Blogs, Wiki*

INTRODUCTION

Today libraries are providing electronic access to a wide variety of resources, including indexes, full-text articles, and complete journals with back files and internet web resources. E-resources in collaboration with internet have become a sign of modern age being an invaluable tool for teaching, learning, and research. The library and information landscape has transformed with the onset of the digital era and today traditional libraries have changed their roles to serve as 'knowledge centers' with priority on value added electronic information services. The rapid growth of new technologies has changed the communication process and reduced the cost of communication for individuals. Electronic information sources can be seen as the most recent development in information technology and are among the most powerful tools ever invented in human history. (2)

Many of the most universities in the country are realizing that no everyone can attend regular classes to obtain a college education. As a result almost all of them offer distance learning programs that allow students from anywhere in the country to get a university education and even get an online degree. E-Learning is learning attempted through electronic means for achieving the computer and network-enabled transfer of skills and knowledge. It refers to courses that are offered fully online, course that mix face to face and online access to instruction and course materials and courses where teachers post notes and materials for students and provide access to online discussion forums on course topics. E-Learning, blended learning, online learning distance learning have been used interchangeably and the liners of demarcation among them are blurred. The origins of e-Learning, web-based education can be traced back to distance learning where participating learners would receive materials to pursue an educational or training course.(4)

E-RESOURCES

e-Resources are those electronic products that delivers a collection of data, be it text referring to full text basis, e-journals, image collection, other multimedia products and numerical, graphical or time based, as a commercially available till that has been published with an aim to being marketed. These may be delivered on CD-ROM, on tap via internet and so on. The library and information services of the 21st century are fast changing. With the rapid development of electronic publishing, libraries are not only acquiring reading materials such as printed books and journals but also arranging for providing access to various learning resources in electronic form. In the new situation, the role of library professionals in collection development and management has become restricted.

COMPONENTS OF E-RESOURCES

E-Journals: E-Journals have now become a major source of information delivery for scholars and researchers. Their timely production, delivery, incorporation of multimedia, hyper linking and searching facility has attracted the interest of people. E-Journals facilitate documentation in many

* Research Scholar, Bharathiyar University, Coimbatore, Tamil Nadu. India; Selection Grade Librarian, A.M.S. Polytechnic College, Chennai, India. Email: dr.saleem_lis@yahoo.com

** Research Scholar, Bharathiyar University, Coimbatore, Tamil Nadu. India. Librarian, A.M.S. Polytechnic College, Chennai, India. Email: shabana_lib@yahoo.com

ways. There are many Open Sources e-Journals are available through Internet. Some LIS Open Source e-Journals and their www's are given below:

- www.ifla.org
- www.ariadne.ac.uk
- www.dlib.org
- www.elj.warwick.ac.uk/jilt
- www.cindoc.csic.es/cybermetrics
- www.furstmonday.org
- www.InformationR.net/ir
- www.jodi.ecs.sonton.ac.uk
- www.press.unich.edu/jep

E-Books: Electronic Book includes the hardware, a suitable device to read electronic media, perhaps better called 'e-book reader'. The hardware is important as it provides what readers may need to exploit with the software available and link this to specific requirements. E-Books help the readers by giving more possibility of access and media of learning. They can be accessed from anywhere at any time and are free from time lag. The books need not go out-of-print. They can also create a personal book library from the collections they hold. The content, however, needs to be compatible to all hardware devices. They need to support any formats to make it easy to transfer and read. The features of e-book include; their portability gives a new chance of learning, e.g., Distance learning. Can be carried and transferred anywhere, their feature like changeable font size makes it easy for use and searchable and navigable through links are provided.(3)

E-Newspapers: Electronic News resources like LexisNexis and Factiva, and links to local, national, and international newspapers.

E-Databases: e-Databases include periodical indexes & abstracts e.g. Library and Information Science Abstract (LISA), WIPS (Worldwide Intellectual Property Search), METADOX (Metal Abstracts), SCOPUS (Abstracting, Indexing and Citation data in Science, Engineering and Technology. Emeralds, EBSCO, are some of the examples of online databases.

E-Thesis: Electronic theses creation, use, dissemination, and preservation of dissertations we support electronic publishing and open access to scholarship in order to enhance the sharing of knowledge worldwide. e.g. Network Digital Library of Thesis and Dissertation, Vidyanidhi Digital Library & e-Scholarship Portal.

E-Mail: e-Mail is shorthand term meaning Electronic Mail. E-mail much the same as a letter, only that it is exchanged in a different way.

Benefit of E-Resources

1. Libraries:
- More Content/service
- More Value for Money
- Save Shelf Space
- Higher Internal efficiency

2. Researchers:
- Easier to search
- Convenience to access
- Easier to cite

3. Authors:
- Wider distribution
- Increased Usage
- Global readership

4. Other Benefit of e-Resources:
- Quick Access
- Remote Access
- Mobility
- Space Consumption
- Research Comfort ability
- Multiple Accesses
- Job Simplicity
- Acquisition and Maintenance

TYPES OF E-RESOURCE

Broadly three types of E-Resources are available to cater scholarly information needs of the users:

1. Bibliographical Resources: These are the resources provide bibliographical information only like: title, author, name of the journal, volume and issue number, publication date, publisher and most importantly an abs tract of the entry. Bibliographic e-resources are mainly containing information on single subject.

2. Full-text E-Resources: These E-Resources provide full-text of the document apart from its bibliographical information. Some full text e-resources are:

- ACM Digital Library
- ASCE Journals
- ASME Journals (+AMR)
- ASTM Standards and Journals
- CRIS INFAC Industrial Information
- Digital Engineering Library (DEL)
- EBSCO Database

- Elsevier's Science Direct
- Emerald Full-text
- Engineering Science Data Unit (ESDU)
- IEEE/IEEE Electronics Library Online (IEL)
- Indian Standards
- INSIGHT
- Nature
- Springer Link

3. Portals Products: Portals provide a single interface to search various database, e.g., Under UGC-Info net: e-Journals Consortium Indian Universities are accessing more than 20+ different databases or products. User has to search individually for a single term if wants to search in all the provided products then this exercise needs much time to cover all 20+ products. Here portals can help a user; portals will search the needed term in all the products from single interface. Some of the library consortia are:

- UGC-INFONET e-Journal Consortium. http://www.ugc.ac.in/new_initiatives/infonet.html
- Indian National Digital Library in Engineering Science and Technology (INDEST) Consortium. http://www.paniit.iitd.ac.in/indest
- Health Science Library and Information Network (HELINET) http://www.reguhs.ac.in/hn/ne whell.html
- Forum for Resource Sharing in Astronomy and Astrophysics (FORSA) http://www.iiap.res.in/library/forsa.html
- Council of Scientific and Industrial Research (CSIR e-journal Consortium) http://www.niscair.res.in

Use of E-Resources in Libraries

The electronic resources are becoming more and more available in the libraries. The print media is now being digitized, which increases the availability of books and journals in the electronic format. The electronic books are helpful because of their portability and its feature of incorporating more than one book in a single hand held device. The Published material is also available on open access. This helps the poorer people also to get the information required free of cost. They need not worry for licensing and usage of the information.

What is E-Learning?

The Learning facilitated and supported through the use of Information and Communication Technology (ICT). Education offered using electronic delivery methods such as CD-ROMs, Video Conferencing, Websites and e-Mail. Often used in distance-learning programmers'. The Learning that is accomplished over the Internet, a computer network, via CD-ROM, interactive TV, or satellite broadcast. Therefore, following above three definitions we can easily get an idea about e-learning. In general, we can say that the term e-Learning used to describe education and training supported and delivered through online networks or Internet and all its components. However, generally three forms of e-learning are available and are using in different institutions. These are namely; web-based training, supported online training and informal e-learning. (1)

There are three forms of e-Learning:

Web-Based Training

- Content-focused
- Delivery-driven
- Individual learning
- Minimal Interaction with tutor
- No collaboration with other learners

Supported Online Training

- Learner-focused
- Activity-driven
- Small group learning
- Significant interaction with tutor
- Considerable interaction with other learners

Informal E-Learning

- Group-focused
- Practice-driven
- Organizational learning
- Participants act as learners and tutors
- Multi-way interaction among participants

Therefore, following above discussion, it can easily get an idea about e-Learning. In genera can say that the term e-learning used to describe education and training supported and derive through online networks or internet and all it components. At present, the new term virtual Learning Environments (VLEs) are used in institutions to support e-learning.

Necessity of E-Learning

- One doesn't need to travel anywhere to get online degree. Learn from leading companies and experts

right at home or at work.

- Proven and Certified – It become proven and certified by many leading universities, educational board and many multinational companies. Microsoft approved courseware – e-learning prepares you for Microsoft Certification.
- Easy to Use – One only need an internet browser; HTML based and designed to load quick and get him learning fast; tested and proven online training designs with step by step, easy walk through.
- Great return on one's investment – online training is cheaper than any formal courses, e-learning is cost effective and easy on one's pocketbook. One can get access to a large library of online resources free of cost or very nominal charges.
- Interactive – simulations have learners do what they are learning which leads to greater retention of covered material; accommodates different learning styles through audio, visual graphics, testing and printable exercises.
- Self Directed and Convenient – It gives lost of flexibility to learn by own choice. He can focus on his needs and where, when and how he wants with unlimited access 24 hours/day, 7days/week.
- Complete lessons – Students can learn subjects in depth – most of the time course includes built in notes, tips, quick references, detail links, and simulations; with exercises and practice files that increase you retention, up your level of involvement and keep the material fresh.
- Pre and Post skill assessments measure your progress – most of the case assessments can be used before, mid-way, or after taking the course. First try, best try and online course grade and tracked
- Cross platform – online education is accessible by Windows, Mac and Unix USERS. (5)

Tools for E-Learning

Apart from the Internet, Internet and other network tools and techniques, the e-Learning community extensively uses the following tools:

CMC (Course Management Systems): CMS tools are also known as virtual learning systems, content management systems, learning management systems, learning content management systems, etc. CMS tools help in the creation and management of course material such as lessons/courseware, assignments, glossaries, citations to other resources, etc. In other words these tools help in total e-Learning. Model, Sloddle, Lecture share, element, Blackboard, Authority, www.digitalTthink.com India Web Developers, E-Learning Solution is some of the course management tools. Each one of them has its own specialty. In order to have some uniformity in various CMS a set of specifications known as SCORM (Sharable Content Object Reference Model) has evolved. Most CMS are free and open source, so that they can be downloaded free and can be customized to once own needs.

Blogs: A blog enables to disseminate and access specific information. Apart from blogs devoted to LIS, the websites of departments of library and information science have blog facility. Blogs can be used b y students as well as by instructors to provide updated information. They are useful to initiate discussions.

Wikis: Wikis is a piece of software where individuals under the control of an editorial board, can upload contents or modify existing contents. Wikis is a useful source for getting information and extensive links to information. For example, LITA (Library and Information Technology Association) offers blogs and wikis for the LIS e-Learners. Wikipedia and Knol are other examples of wikis.

E-Mails: E-Mails as well as e-mail-based discussion forums such as LIS-forum are useful in delivering contents' as well as communications about e-learning. Messenger such as Yahoo Messenger, MSN Messenger can be used for synchronous interaction. Facilities like e-Z meeting can also be used for real-time conferencing. The ACRL, for example, has live chat series called on Point. Using this tool the ACRL organizes e-Learning events for various occasions.

E-Learning 2.0: It refers to new says of thinking about e-learning. It is inspired by the emergence of WEB 2.0. It emphases on use of social learning, and tools such as blogs, wikis, podcasts, and virtual world such as second life. According to Craig3 new generation learners are influenced by social networking. Experienced and empowered to create, publish and redistribute contents, they find structure of LCMS traditional and inflexible in contrast with the user-centered approach of web 2.0 services. Case studies4 indicate that LIS schools are making changes in curriculum and teaching learning methods using more and more Web 2.0 technologies. (7)

E-Learning in LIS:

Like many universities in the world we the library professionals in India can also think about online course of Library and Information Science. Through one of its kinds is already implemented by many open Universities and few Universities as distance learning but there are some elementary differences between online courses with that of distance learning or open University Courses.

In e-Learning environment the course content and learning objects are fully interactive and as same as classroom teaching. Difference is that, e-Learning environment

classrooms are virtual and are accessible at anytime of the day.

E-Learning is

- Augmenting traditional textbook materials with online resources and content portals.
- Enhancing customary "chalk-and-talk" lecturers through the use of rich multimedia and interactive content providing students with Web-based tutoring on demand.
- Allowing learners to access their course work from multiple locations, including the home, rather than solely on school grounds.
- Emerge multiple collaboration, i.e., teacher-student; student-student, as well as teacher-teacher. Multiple collaborations also include collaboration between the content development experts and the technology people.
- Impossible without active participation from the learner. If the learner does not respond to the initiatives of the teacher the learning purpose remains unattained.
- Being self-paced, it can develop skills in the e-learner which can be useful to him for lifelong learning. (6)

E-Learning Adopted in LIS Education

- The growing use of ICT in Library activities is enforcing many changes. However, the staff working for many years in libraries may not be well-convergent with the ICT. The reason could be the emergence of ICT long after they had their education.
- Most of the undergraduate courses are of three years duration. The postgraduate courses are of two years duration. They also expected that the library staff should be able to provide library services effectively.
- The skills required by libraries are changing, a study indicates that library staff needs more and newer skills.
- The traditional LIS education, particularly in India, is a general LIS education in the sense that the learner of this system of education does not get specialized in managing a specific type of libraries.
- The e-factor is an image building factor. As such the provision of e-learning, if made available by the LIS educational institutions will definitely improve the image of LIS teaching profession.
- In India library science is mostly taught as a postgraduate course, these course are of one – and or two – year's duration. The changing learning trends are of part-time/home learner. To respond to these trends the LIS education should adopt the e-learning.
- The distance education and e-learning share many common features such as remote learner, course material, emphasis on self-study, learning at once own pace and time, etc.

ROLE OF ICT USED IN E-RESOURCES AND E-LEARNING

The Information Communication Technologies (ICTs) are generally categorized as asynchronous or synchronous. Asynchronous activities use technologies such as blogs, wikis, and discussion boards. The idea here is that participants may engage in the exchange of ideas or information without the dependency of other participant's involvement at the same time. Electronic mail (e-mail) is also asynchronous in that mail can be sent or received without having both the participants' involvement at the same time. Asynchronous learning also gives students the ability to work at their own pace. This is particularly beneficial for students who have health problems or have child care responsibilities and regularly leaving the home to attend lectures is difficult. They have the opportunity to complete their work in a low stress environment and within a more flexible time frames. Synchronous activities involve the exchange of ideas and information with one or more participants during the same period of time. A face to face discussion is an example of synchronous communications. In an e-Learning environment, an example of synchronous communications would be a Skype conversation of a chat room where everyone is online and working collaboratively at the same time. Synchronous activities occur with all participants joining in at once, as with an online chat session or a virtual classroom or meeting.

Virtual classrooms and meetings can often use a mix of communication technologies. One example of web conferencing software that enables students and instructors to communicate with each other via webcam, microphone, and real-time chatting in a group setting, is Adobe Connect, which is sometimes used for meetings and presentations. Participants in a virtual classroom can also use icons called emoticons to communicate feelings and responses to questions or statements. Students are able to 'write on the board' and even share their desktop, when given rights by the teacher. Other communication technologies available in a virtual classroom include text notes, microphone rights, and breakout sessions. Breakout sessions allow the participants to work collaboratively in a small group setting to accomplish a task as well as allow the teacher to have private conversations with his or her students.

In many models, the writing community and the communication channels relate with the e-learning and the M-learning communities. Both the communities provide a general overview of the basic learning models and the

activities required for the participants to join the learning sessions across the virtual classroom or even across standard classrooms enabled by technology. Many activities, essential for the learners in these environments, require frequent chat sessions in the form of virtual classrooms and/or blog meetings.

CONCLUSION

In conclusion, it can be said that in view of credibility, the internet and e-resources have exponentially changed the way people communicate, interact, acquire, share knowledge, search, investigate and participate in creation and re-use of content and prompted to bring revolutionary changes in almost all spheres of activities of present day education and learning system and evolved broadly a collaborative structure over the ground and pillars of a range of new technological tools and techniques. Libraries have to develop ways to manage access to materials available in electronic format and to effectively share they much as they have shared print resources for over a century through inter.

No library can effectively satisfy its user's e-sources within its walls. We are living in a time where a library's worth is increasingly being measured by the services it offers in terms of helping clients to access universal information rather than its respective collection. From this paper we have given an overview on a availability of digital library portals for engineering aspirants and their history and services. E-learning becomes an unavoidable way to learn in this digital era. The digital resources plays vital role in e-learning in the professional course like engineering and technology.

REFERENCES

Kothari, C.R. (1985). *Research Methodology: Methods and Technique*, New Delhi.

Dixit, M. (1998). *Internet: An Introduction*. Tata McGraw Hill, 1-10.

Fusilier, M., & Durlabhji, S. (2005). An exploration of Student Internet use in India: the technology acceptance model and the theory of planned behavior. *Campus-Wide inf. System*, 22(4), 233-246.

Bhabal, J. (2008). *E-Learning in LIS Education: Case Study of SHPT School of Library Science*, 6th International CALIBER.

Hatua, S. R. (2006). *Design for Library and Information Science Program in E-Learning Environment.* DRTC-ICT Conference on Digital Learning Environment, Bangalore.

Islam, S. Md., Chowdhury, S., & Islam, A. Md. (2009). LIS *Education in E-Learning environment: Problems and Proposal for Bangaladesh.* Asia-Pasific Conference on Library & Information Education & Practice.

Kumbhar, R. (2009). Use of e-Learning in Library and Information Science Education. DESIDOC. *Journal of Library & Information Technology*, 29(1).