

Role of Information Technology in Education Sector and Library: An Overview

Dr. Rajesh Kumar

Librarian in Jat College, Kaithal, Affiliated to Kurukshetra University Kurukshetra(Haryana) (India)

ARTICLE DETAILS

Article History

Published Online: 20 February 2019

Keywords

Information Technology, Electronic Libraries, Digital Library, E-Learning

ABSTRACT

The great benefit of Information Technology is for those users who get information on computer in library. Internet services provide enormous storage information to the user. To increased access, combination of work and education, flexibility of content and delivery, new way of communication and higher quality of education are the various benefits for user provided by information technology. The objectives of the study are to identify role of IT in education sector and library. The main problem traditional organization system of education and library is unable to deal with modern services delivery. But this can be resolve by Information technology. It also enables a large number of users to have read access of information materials more efficiently than having them line up for access to a limited number of reading books in the library. It is helpful to steer those academic institution which provide various professional courses and other continuing education programs.

1. Introduction

This is surely true, special and higher academic libraries are becoming useful for higher quality education. Electronic bulletin boards, microcomputer based online services, such as the free net based systems for the library user has become more comfortable. Through academic introduction to computers greater numbers of student are introduced to information technology earlier in their academic skill. Many more institutions are in search of to provide themselves advance elevating experiences through multimedia publications and CD-ROM for use with their home computer system. But the traditional organization has established increasingly unable to deal with modern library service delivery. Academic institution of information science increasingly have moved in the direction of highlight skills involving information technology such as online search development, database design, bibliometrics and various statistically based studies of information importance and use. In information technology, these institutions produce better trained students. They provide the specialized skills needed in archival, curatorial and research library operation. Arrangements of academic libraries are supporting and managing by information technology depends on the size of the library; die size of its parent academic institution. The capabilities of the library, staff and management and communication resources and computing are subsist by academic institution.

2. Information technology in education sector

To all phases of life, Information Technology is very important. IT has become fundamental to basic life from research and development, from education to governance, from activity and operation and health services to amusement. Therefore in higher education, information technology system plays an important role in serving needs of the user research, IT helped in this field. For modern education institute, IT has become one of the basic building blocks. Many of the countries regard understanding IT and mastering concept and skills of IT as part of the core of education, writing, and numeracy and alongside reading. (Swamy, 2012)

IT put a great impact in the changes the education process. Formal learning IT in higher and school education institutions make available organized education. And lastly, through distance education and other organized programmers non-formal education occurs with adult education, continuing education. Education sector is the best user of information technology. There is a need for online education, digital libraries, databases and collaborations, financial, and staffing limits of educational institutions, administrative function, course education systems, mobile learning. To address the changes of meting rising demand for education IT also offer the most promise particularly among working professionals in need of continuous education-in spite of other limit to physical infrastructure and alarming faculty shortages (Ankush, 2012)

Used in an educational organization in information system, the community includes learners, educational providers, and administrative staff. Information Technology helps in progress the quality of education. Through multimedia capabilities such as model and reproductions, IT has an ability to develop the quality of education and to address all sectors of education. Communication technologies give learner access learner access to concepts how could not take hold of earlier. (Selinger, 2011)

3. Benefits of Technologies Using in Education

Search study topic on internet, communication through e-mail, taking help from e-library can create the interest in education, and increase technological based learning can regularly improve the learning. A seekers approach may all help in incorporating digital projectors in the lessons and posting assignments on the web portal. Many of the benefits of using different types of technologies in the education are: To improve well provides opportunities for the teacher, through the use of ICT tools and techniques teaching can become more helpful, through ICT Multiple methods of teaching can be used, at their own students can access the resources and substance, for assessing student's progress efficacy teacher effectiveness new approaches to learning and offering a framework, access to reading material is simplified, it can complement and improve traditional teaching styles. For the learner, the IT can

become a medium of knowledge, to improve their teaching reaction and their perspective can be easily seen which help the teachers.

3.1 Education With Technology

Information technology includes an array of communication device. It can be described in a wide term. It may include radio, television, computer network hardware and software, cellular phone and satellite systems as well as various application and services correlated with them. In higher educational libraries, IT are being used for numerous purposes such as developing course material, communication between learners, creation and delivery of appearance, teacher and the outside world, sharing and delivering content, administration support, academic research and student enrolment etc. The use of information technology is based on analytical research on their impact on the student context and performance.

3.2 Teaching And Learning With Technology

As the young generation are becoming techno/ mobile savvy, so there is a great need to enhance the conventional efforts and strategically plan with modern technology and tools more. Learning the content by using all electronic technology is accepted definition of teaching with technology at great level. These content may include the video conferencing, web casts, satellite broadcasts, e-bulletin boards, CD-ROM, internet, computer-based instruction, chat rooms, audio and video tape, video and audio conferencing and e-library. It may also include correlated necessary like web-based learning and online learning. These learning take into account learning by means of the internet. Computer-based learning is limited to learning using e-learning and computers. Learning with technology is also known as online learning, computer-assisted teaching, web-based learning and distributed learning. In the past, it has been only two ordinary e-learning modes like computer-assisted teaching and distance learning. Computer-assisted teaching is also called computer-bases learning.

E-Learning: E-learning is also known as online learning, computer-assisted teaching, web-based learning and distributed learning. In the past, it has been only two ordinary e-learning modes like computer-assisted teaching and distance learning. Computer-assisted teaching is also called computer-bases learning. When it comes to IT, education can be thought of as E-Learning. The full form of E-Learning is electronic learning. It is the term which is used by people to illustrate computer-enhanced learning. It is associated with two technologies: networked and multimedia technologies. The number of e-learning resources available to educators has been increased due to the development of internet and educational technology. To deal with admittance e-learning sources, within teacher education, digital libraries have been established. Within a few time, the idea of prolonged right to use a large number of elevated value, sharable e- learning materials and examine-analysis offered by these digital libraries. Generate e-learning material involves different elements. These are called are called management of content like digital libraries, e-portfolios, portals, search engines, repositories. Some content development includes modules, tutorials, learning objects. Other is standardization of content and delivery of content.

4. Role of IT In Transforming Library

Due to the use of information technology in education sector, teaching and learning are changing. It effect can be seen on new concept of library. Library has been considered the structure of knowledge for higher quality education. In the age of technological developments today's need is to protect knowledge of their mother institutions and culture along with the acceptance of universal knowledge through globalization. In accessing and achieving knowledge in the digitized form which were known to be present in library mainly in the print form, the information technology familiarized environment has brought in opportunities of a revolutionary nature. To set up digital libraries for better access and to digitize its documented knowledge base, new techniques are developed. All these programmes are seen to be projects with one time funding.

4.1 Changing Concept Of Libraries

In other words, to formulate full use of knowledge, it is important to develop new concept in libraries. For representing the same concept, different kind of terms used synonymously such as 'electronic library' 'virtual library' 'gateway library' 'polymedia library' 'digital library' ' web-library' or 'on-line library' to represent the same concept these term are used synonymously. But different author used these terms in different way. Terminologies central theme remains focused on electronic content of the documents.

Higher education into a global quality education has almost been changed by the information communication technology. The IT sector has revolutionized the perception in libraries and also manipulating information industry at its peak. It has also been used to store, record, and disseminate in the information in the electronic form. With the passage of time quality research are increase in higher education and information are available in different format. Traditional libraries are limited by storage space. But new concept of library like digital libraries has the potential to store much more information. Because of digital information requires very little physical space to contain it.

To meet the demand put on it, every library shifts over to this aspect with new development. New concept is developed of technological advancements only when the outgrowths of digitization of available information reach the user through information centers, electronic libraries and their similar agencies. These concepts of library play the role in such a way:

- By installing data, library providing free information twenty four hours.
- All matters relating to E-governance provide One-Window Information system.

With the development of information technology the meaning of electronic library is be different from a traditional library. Usually a library is considered to be a place in which books, musical scores, manuscripts, or other artistic and literary materials are kept for use, not for sale. It is a place where user can use the facilities like an institutions adjusted towards collections and protection. On the other side an electronic library is a computer based system for obtaining, storing, and organizing, distributing & searching resources for readers. It is designed as proficient of being connected to a network; Digital library consists of browser interface. In

electronic form, it is not just collection of material. While facilitate search with speed, data in electronic library can be made available through communication network to anyone anywhere and it require less space. As linked to the resources of many collections, so it is not a single unit.

Traditionally libraries have facilitated the production of new knowledge, its organisation and its conservation to make it accessible for user. With the passage of time library is required to convene the challenges of information explosion. To process the large data volume restructuring practices and understand resources in the print and electronic form held across the globe. Both of them are very important. Alternative by the libraries to application of successive forms has been the essential and it can be called as Electronic library technology. In setting up combine research and virtual learning environment on a near universal scale, the Open Archives Initiative is one current development is expected to support the libraries. Grid computing is imagined as future extension of this concept. Without sacrificing the local autonomy the technology of Grid Computing would let people share database, computing power and other online tools related to institutions.

4.2 Traditional Library To E- Library

Due to the growth of databases, online databases, electronic libraries, virtual libraries, and library and information networks traditional methods of collecting, storing, developing and disseminate information have undergone a substantial transformation. Electronic technology, physical content and internet connectivity can now be join together which result in an electronic library. In science and technology, media and entertainment, art and cultural, education, cultural legacy and history, and literature and humanities, electronic libraries and digitisation of print materials can maintain resources. Including e-journals and databases, or other important collection, a significant number of information centres and libraries have started electronic library projects. Use of technologies, development and growth of libraries has renamed services and management as Automated Library, Electronic Library and Digital Library through functioning. Some reasons have been mainly responsible for the popularity of the above mentioned libraries. These reasons are such as: quantity of contents, the readers can use unlimited access to information resources anytime, anywhere and any format. Doubling of manpower, money and material reduce.

For conserving and disseminating knowledge, electronic libraries and digitization are essential. In developing country, electronic library activities are gathering thrust. In our country some research institutions and most higher education are controlled and funded by the state and central governments. For databases, standards, metadata, multi-lingual, copyright, collection and protection methods, training and co-ordination, clear cut policies and national plan are needed. As a result of this, present and future generations can be guided and benefited by them.

4.3 Electronic Libraries

E-library allow users to reads library books and conduct research at home, at school or in the office using the internet without stepping in to the library. It refers to a system in which information is made available and stored electronically through network and electronic systems. By using an internet in library

network, which referred as an electronic library service, enable user to employ electronic data successfully. By using various types of electronic media it presents information resources and services. In processing and networking technology, this type of library services applies quickly advancing data and it is highly epoch-making and suitable mode of services. Basically, the processes of a library develop into electronic in nature. Broad use of electronic media for the retrieval, storage and dissemination of information is one of the most important features of such libraries. Electronic library is more of inclusive as it include all the materials that can be held by digital libraries. By using IT, these types of libraries make attempts to automate most of their schedules. In such libraries there will be wide use of electronic media for higher education.

Advantages of technology in libraries:

- With better quality control faster addition to the collection.
- For individual users reduced official procedure and provide more freedom.
- Faster access to information originate and Improved search functionality.
- Through the use of digital technology, the function of acquisition, storage, preservation, retrieval is carried out.
- Users want and often wish to correlate things from some sources and them usually in another place than the information.
- Document's translations articulate the same information essentially, e. g., versions of classic literature in different languages.
- Collection of information organized in digital text or any other form and the whole collection is available globally directly and indirectly through networks.
- Each user must understand the catalogue arrangement to find specific information and in dealing with information objects support users and in computer readable form resources are available.

5. Conclusion

Any academic institutions can create and manage their own library. Information can be exchanged very easily in the library. But traditional organization system of library is unable to deal with modern library resources and services delivery. With the passage of time new technologies are developed but there is also the need to develop over skills and capacity for the enhancement of library services. For development of high quality education, it is necessary to update the library with the technology. Now higher education system is changing at global level. The IT sector has revolutionized the perception in libraries and also manipulating information industry at its peak. It has also been used to store, record, and disseminate in the information in the electronic form. With the passage of time quality research are increase in higher education and information are available in different format. New concept is developed of technological advancements only when the outgrowths of digitization of available information reach the user through information centers, electronic libraries and their similar agencies. The institutions of higher learning are spending huge amount on the subscription of these resources. There is a need that all the barriers coming in the way to access of these resources should be eradicated for proper utilization of these resources for the development of society.

References

1. Aderibigbe, NurudeenAdeniyi (2012). Use of Library Information Technology Resources by Graduate Students of University of Agriculture, Abeokuta. *Library Philosophy and Practice 2012*, P: 1-10 <http://unllib.unl.edu/LPP>
2. Bhatia, Ranjana (2011). Enhancing Teaching: Learning with Technology. *University News, Association of Indian Universities*, Vol. - 49(31); P: 13-15
3. Gowande, S. M. (2016). Roll of E-governance in Education Sector. *University News, Association of Indian Universities*. Vol. - 54(47); P: 22-25
4. Gupta, Sanjay and Garg, Suresh (2011). Use of Technology in Education: A Paradigm Shift form Little Media to M-Learning. *University News, Association of Indian University*. Vol. - 49(36); P: 02-09
5. Khanduri, Ajay (2015). E-Governance: Emerging Issues, Challenges and Opportunities. *University News, Association of Indian University*. Vol. - 53(47); P: 28-30
6. Paulson, C. (2013). ICT in Arts and Science College Libraries. *International Journal of Science and Research (IJSR)*. Vol.-4(1); P: 2120-2123
7. Singh, Geetanjali and Dewal, O. P. (2016). Internet and Higher Education: Indian Scenario. *University News, Association of Indian University*. Vol. - 54(40); P: 101-105
8. Singh, Ritu (2014). Development of e-Learning and e-Content Creation in Indian Higher Education System: Issues, Solutions and Suggestions. *University News, Association of India University*. Vol. - 52(12); P: 19-24
9. Sundararajan, N. (2015). Digitization of Higher Education in India: Making the Dream a Reality Changing Landscape of Higher Education. *University News, Association of Indian Universities*. Vol. - 53(47); P: 10-21
10. Sundararaj, N. and Nanda, V. B. (2016). Digitization of Higher Education in India: Making the Dream a Reality. *University News, Association of Indian University*. Vol. - 54(15); P: 06-17