E-Education : An Online Perspective

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Abstract

Recently there has been a rapid growth of Internet in the use of online communication for E-education, which means of becoming literate with new mechanism, such as computer networks, multimedia, content portals, search engines, electronic libraries, distance learning and web-enabled class rooms. Many teaching programmes incorporate the tools and techniques of E-education. The article introduces a conceptual framework for understanding the role of E-education. The article then analyses four basic models of implementing E-education.

Keywords : E-education, Web-based education, Tools and Techniques

0.   Introduction

During the last few years it has been seen, an almost exponential development and growth of the digitalization, automation and the Internet, with little sign of a slow down. No longer is Internet access restricted to a few select educational establishments; it is now available to anyone in their place of work, local libraries, the Internet cafes and even in the home. It is the information that has become the key to the success in different walks of life. The information technology has two aspects of retrieving correct information and able to disseminate to the right person and this is the information age paradigm shift that has attached the concept of Library and Information Science. It too has seen a fundamental shift in the concept, manner and method by which the information managers deliver their services, and this is the practice of education, which has the purpose of teaching, training and learning. Today when the people talk about education, the conversations unknowingly turns to a new type of education called 'E-education'.

1.   What is E-education?

The term E-education means electronic education and it is basically the online delivery of information, communication, training and learning. E-education seems to have a multiplicity of definitions to each of its users and the term seems to mean something different. A very comprehensive definition has been given by the *Cisco System, which defines* 'E-education is Internet-enabled learning. Components can include content delivery in multiple formats, management of the learning experience, and a networked community of learners, content developers and experts. E-education provides faster learning at reduced costs, increased access to learning, and clear accountability for all participants in the learning process. In today's fast-paced culture, organizations that implement E-education provide their work force with the ability to turn change into an advantage'.

2.   Need for E-education

Due to the social technological and economical transformation, E-education has become an important aspect of learning as globalization encompasses local economies like never before, the development of a skilled work forced becomes an international concern. The W.R. Hambrecht report lists some general E-education benefits as seen from the corporate side of E-education are given.

The new global economy poses more complex challenges to workers, requiring higher levels of education, computer literacy, critical thinking, information analysis, and synthesizing skills. However, educational deficiencies have brought the organization of curriculum and teaching methods as they relate to labour market preparation is needed. Academic and corporate environments must be redesigned to adequately prepare people to function in an information society.

At the beginning of the new millennium, corporations view learning increasingly as a competitive weapon rather than an annoying cost factor. Business success depends more and more on high-quality employee performance, which is turn requires high-quality training. Corporate executives are beginning to understand that enhancing employee skills is key to create a sustainable competitive advantage. In the quest to remain competitive in today's labor market, companies are exploiting advances in technology to train employees more rapidly, more effectively, and at less expense than in the past.

Organizations and training providers need to evaluate whom they train and how. Today, traditional students in higher education make up less than 20% of all students. The fastest growing group attending higher education institutions are working professionals. This new group of "learning adults" is seeking education principally to advance their careers and increase their salaries. For universities and business-to-consumer (B2C) training provides, these individuals are excellent candidates for education delivered to their homes or offices.

The emergence of online education is not only a matter of economic and social change, but also of access. One estimate states that, by 2003, the number of Internet users worldwide will grow to about 502 million, up from 87 million in 1997. Through its increasing reach and simplicity of use., the Internet has opened the door to a global market where language and geographic barriers for many training products have been erased.

3.   Scope of E-education

This new mode of education promises to transform the experience of the classroom in a number of fundamental ways: by augmenting traditional textbook materials with online resources; lectures through the use of rich multimedia and interactive content; and by extending student discussions beyond the walls of the classroom via a wide range of new communications platforms supporting inter classroom collaboration. As human capital becomes the chief source of economic value, education and training become lifelong endeavors for the majority of workers. E-education offers us potentially less expensive, more convenient, and richer ways of becoming educated, and of coming into contact with more diverse groups of fellow learners than ever before.

4.   Tools of E-education

To take the better opportunities of E-education we have to know the tools associated with E-education. Some of them are:

4.1   E-mail

E-mail is the foundation for all forms of online learning and teaching. Although we are taking email in a casual way but still it is very highly appreciable tools of E-education. http://www.ncsi.iisc.ernet.in/ncsi/services/lisforum.html is a good example of this, where library and information professionals share their knowledge with other people through e-mail.

4.2   Real-Time Conferencing

Real-Time Conferencing covers any form of online synchronous interaction. One of the simplest forms of real- time conference is online chatting. Here participant's exchange typed messages with everyone having common interface. Others can see what a person is typing on the other side, all in real time. Each message is preceded by the name of the sender to identify who said what. For example: Different messengers for instant messaging, such as Yahoo messenger, MSN messenger. The instant messaging software provides interesting features for communication or sharing of knowledge.

4.3   Desktop Video

The most advanced form of real-time conferencing is desktop video system. A desktop video system is basically a chat system that uses video images instead of text messages. The video images (including audio) are captured by a small digital camera that is connected to the Personal Computer. These cameras are relatively inexpensive and can be connected to any computer (including laptops). Using software, that comes with the camera or is obtained separately, it is possible to connect to a server running a video conferencing program — or make a direct link with another person using their IP address for a two person video session (called a point-to-point connection).

5.   What the 'e' Is about?

E-education is electronic education, but the 'e' in E-education has a number of other implications as mentioned below :

Exploration	e-Learners use the Web as an exploratory tool to access a plethora of information and resources.
Experience	The Web offers e-Learners a total learning experience, from synchronous learning to threaded discussions to self-paced study.
Engagement	The Web captivates learners by enabling creative approaches to learning that foster collaboration and a sense of community.
Ease of use	Not only is the Web easy to use for learners who are already familiar with the navigation capabilities of the medium, but to learning providers as well, as they can easily make content immediately available to learners across all technical platforms (Windows, N4AC, Unix, etc.).
Empowerment	The Web puts learners in the driver's seat with a set of tools that enables personalization of content and allows learners to choose the way in which they best learn.

6.   Implementing E-education

Des Casey, (1998) has illustrated four learning models for web based tuition. In the *first*, he suggested the web as an information source. Here traditional paper based course material is reproduced as a web document. This is much as was originally used by academics and still represents much of its importance today.

In the *second* model, the web becomes an electronic book. The course material is presented in a more structured format. Using hyperlinks it is possible to provide an optimal path through the material, multimedia clips can illustrate and further explain issues and finally on-line tests allow the level of comprehension to be assessed. However, the interaction is only between the student and the web page.

In the third model the web becomes more like the tutor. There is some simple interaction between the student and tutor through e-mail or chat rooms. Clearly, there is less of an interaction than would be provided by a face-to-face meeting, as the link may not necessarily be real-time.

The final model proposed by Casey is where the web actually becomes the medium of communication between the tutor and the student. Rather than publishing the course material on the web and the student learning from it, the tutor is involved in a direct interaction with the student. The difference here is that the student is not learning from the web but learning through the web.

6.1   Students perspective

For the student it would seem that the advent of on-line education has many potential advantages that would allow them to fit their education in with their way of life, that is other commitments. The need to be physically present for a range of lectures and tutorials is alleviated however there will need to be a greater self-motivation.

6.2   Tutors perspective

For the tutor there are new requirements that e-education needs addressing. In order for the course to be interactive there much more planning and preparation are required. Similarly as there could be a larger number of users and with that, a wider range of skills and usage of the material these will also have to be pre-empted.

6.3   University perspective

Many of the commercial services that have moved their services to Internet have done so because they offer customers a better or a faster service. In reality, the driving force will most often be cost savings for the company. When we look towards education these may still hold but the primary advantages that are gained are the conquering of time and distance. The geographical location of the students and tutors is not an issue.

7.   Requirements for implementing E-education

Taking on board many of the points raised above here are some requirements for a successful implementation of E-education. Clearly most of these need addressing before attempting to implement any electronically based education system.

- Provision of free or low cost access
- Collaboration to be encouraged between various organisations
- Mixture of different teaching models
- Closer monitoring of individual student progress
- Provision of greater support to motivate students where needed
- Standards require monitoring
- Readily scalable service with high bandwidth an availability

8.   E-education in LIS education

In the present scenario the information needed the users have been changed. Thus, many library schools all around the globe have already introduced E-education as a tool for continuous learning in Library and Information Science. In United States, there has been a fast adoption of E-education techniques in the LIS schools, as such; this has immensely benefited the students and practitioners.   Usnews.com and World Report carried out a survey on the best online LIS schools accredited by American Library Association. The survey reveals that the first on line LIS education was started in the year 1993 by Syracuse University, New York. 12 LIS schools accredited to ALA organizing online programmes in different courses, such as, Master in Library and Information Science, (MLIS), Master in Library Science (MLS), Master of School Library and Information Technologies (MSLIT), etc.   These schools have been using varieties of learning technologies, such as Chat rooms, threaded discussions, audio & video, simulations, laboratory exercises, etc., In most of the schools (66.66%), the programme participants need not visit the school campus. All the schools, ranging from 4-24 hours daily provide online technical help. It is evident from the results of the survey that E-education/online learning has been playing a strategic role for the developments of quality education and professional practice in library and information science.

In India, the E-education initiatives have already begun. The following messages mentioned in a mailing list depict the development of E-education in Indian education sector. Satyam in E-education partnership with Canadian firm. Toronto, Dec.6-ISOPIA Inc. an E-education infrastructure software provider here, and Satyam, Infoway, a premier Indian information technology (IT) company, have announced a partnership to launch on online learning site in India. Through its newly formed subsidiary, Satyam Education Services Limited (SESL), Satyam Infoway will promote online learning courseware and offer India's burgeoning web population the opportunity to expand its education to meet growing skills requirements.

9.   Conclusion

The effective use of information technology in the learning process can best be achieved by taking an integrated approach to change involving the examination of pedagogy, curriculum and organizational structures within the community. Library and information science schools and other educational and professional bodies should take up the challenge of electronic education and integrate the appropriate learning platform. The cooperation of teachers, professionals and students would make the centre a great success and thereby making provision for a continuous quality in the field of LIS education.

10.   References

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