

E-Learning in Indian Higher Education System

Dr. Sampada Gulavani

*Asso. Professor,
Bharati Vidyapeeth Institute of
Management, Kolhapur.*

Abstract - *E-Learning is the use of technology to increase the effectiveness and accessibility of learning with the use of technology to enable people to learn anytime and anywhere. E-learning is an approach to facilitate and enhance learning through computer and communication technology. It is the acquisition and use of knowledge distributed and facilitated primarily by electronic means. It include the use of web-based teaching materials and hypermedia in general, multimedia CD-ROMs, websites, discussion boards, collaborative software, e-mail, blogs, wikis, test chat, computer aided assessment, educational animation, simulations, games and learning management software with possibly a combination of different methods being used. E-Learning can be viewed as an innovative approach for delivering well-designed, learner-centered, interactive and facilitated learning environments to anyone, anyplace, anytime by utilizing the attributes and resources of various digital technologies along with other forms of learning materials suited for open, flexible and distributed education environments. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio. E-learning provide the strength of constructive learning which emphasizes learning as a process of knowledge construction rather than memorization of facts. ICT tools used in e-learning offers the creation of interactive and collaborative learning opportunities. Higher learning institutions are shifted to e-learning due to the number of socio-economic and pedagogical factors such as easy access to information, rapid electronic communication, increased cooperation and collaboration, synchronous learning, cost effectiveness, simulation, virtual experiences and graphic presentation. The paper discusses concept of e-learning, characteristics of e-learning, types of e-learning, e-learning in Indian higher education system and advantages of e-learning.*

Keywords : *e-learning, ICT, higher education, MOOC.*

I. INTRODUCTION

The term e-learning is coined in 1998 by Jay Cross, a CEO of e-learning Forum, a 1200-member think tank and advocacy group, founder of Internet Time Group and a veteran of the software industry. The term e-learning or electronic learning or online learning is used to refer to the computer-based training or computer enhanced learning delivered over internet. E-learning is the acquisition and use of knowledge distributed and facilitated primarily by electronic means. It include the use of web-based teaching materials and hypermedia, multimedia CD-ROMs, websites, discussion boards, collaborative software, e-mail, blogs, wikis, test chat, computer aided assessment, educational animation, simulations, games and learning management software. E-Learning is “The delivery of a learning, training or education program by digital

means, which makes the use of a computer or electronic device (e.g. a mobile phone) to present training, educational or learning material” (Stockley, 2005). It is an approach to facilitate and enhance learning through computer and communication Technology. E-learning is broadly divided into forms like computer based training, web based training and virtual classrooms.

E-learning is a means of education that incorporates self-motivation, communication, efficiency and technology. It is a flexible term used to describe a means of teaching through technology. E-learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance (Rosenberg, 2001; Wentling et al., 2000). It include the concept of web and the internet along with the components like e-portfolios, cyber infrastructure, digital libraries and online learning object repositories. These components create a digital identity of the student and connect all the stakeholders in the education.

II. CHARACTERISTICS OF E-LEARNING

- Empowered by Digital Technology: E-learning is a pedagogy empowered by digital technology.
- Computer Enhanced Learning: E-learning is a term which is used to refer computer enhanced learning.
- Technology Enhanced Learning: E-learning includes all types of technology enhanced learning (TEL), where technology is used to support the learning process.
- Online Learning: Use of E-learning is generally confined to “on-line learning” carried out through the Internet or Web-based technology, with no face-to-face interaction.
- Confined to Web-based and Internet-based Learning: E-learning should be confined to the type of learning carried out, supported or facilitated through web enhanced instruction and the Internet based communications like e-mail, audio and video conferencing, mail list, live chats and telephony.

III. TYPES OF E-LEARNING

E-learning comprises of three basic elements- Content, Services and Technology. The content mix consist of a combination of pedagogy skills, IT skills, business skills and interpersonal skills depending on desired competencies. The technology enables hosting the service and content management through Learning Management Systems (LMS). The service mix consists of collaborative tools including

mentoring, threaded discussions, online seminars and subject matter chat sessions.

- a) **Web-based Training:** It is content focused and deliver driven which gives emphasis on individual learning. It include elements such as putting a course outline and lecture notes on line, use of e-mail and links to online resources. In web based training, there is minimal interaction with tutor and no collaboration with other learners.
- b) **Supported Online Learning:** It is learner focused and activity driven which include online discussions, assessment or online project/collaborative work. It creates significant interaction with tutor and considerable interaction with other learners.
- c) **Informal e-learning:** It is group-focused and activity driven. In this learning, participants act as learners and tutors. It is a multi-way and provides interaction among participants. It includes online discussions, assessment or project work which replaces some face-to-face teaching and learning.

E-learning offers two types of training:

- **Asynchronous Training:** It involves self-paced learning, either CD-ROM-based, network-based, Intranet-based or Internet-based and includes the use of technologies like email, blogs, wikis, hypertext documents, audio-video courses and social networking using web2.0 . It may include access to instructors through online bulletin boards, online discussion groups and e-mail. Self paced learning includes interactivity and bookmark facility. It help students to proceed at their own pace.
- **Synchronous Training:** Synchronous training is done in real-time with a live instructor facilitating the training. Everyone logs in at a set time and can communicate directly with the instructor and with each other at the same time . This type of training usually takes place via Internet web sites, audio- or video-conferencing, Internet telephony or even two-way live broadcasts to students in a classroom. It includes virtual classroom, audio and video conferencing, chat rooms, skype conversations, shared whiteboard, application sharing and instant messaging. Synchronized learning fosters online awareness and helps to improve writing skills of students.

IV. E-LEARNING BOON TO INDIAN HIGHER EDUCATION SYSTEM

In higher education system e-learning has seen a fair amount of progress in India. Coursera provides such online courses through collaborations with various well recognized National level Universities and Institutes all across. One such very popular open online course in India is MOOCs which collaborates with National level Institutes as IITs and brings online courses. MOOCs are massive courses designed to support an indefinite number of participants and offers online courses . Connectivity is provided through social networking and the set of freely accessible online resources provide the

content of the study material. The primary means of communication in a MOOC may be through a learning management system such as Moodle, online groups such as Yahoo or Google groups and with an aggregation of various distributed platforms such as Blogs and Twitter. MOOCs use Cloud computing design and other application software . Course delivery includes synchronous and non-synchronous access to lectures, videos and other learning material. The courses are all free and provide free certificates of completion who have completed all the quizzes and peer evaluation assignments in the respective courses. Online courses for various fields are available like Professional Marketing, Digital Pedagogies, International Business (PGDBM), Forensic Sciences and several MBA courses in the form of distance education.

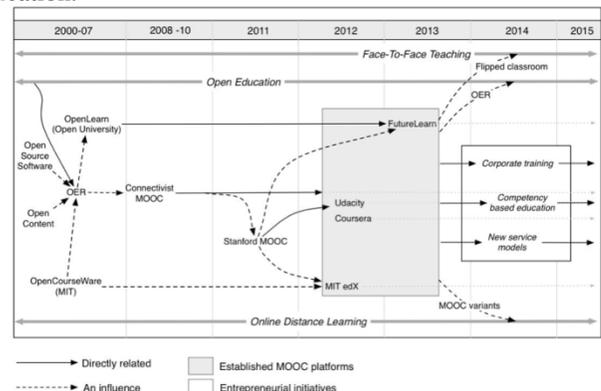


Fig1 :MOOC Details

V. ADVANTAGES OF E-LEARNING

- **Individualized Instructions:** E-learning provides individualized instructions suiting to the need, abilities, learning styles and interests of the learners. E-learning has much potential to make the education, instruction and learning opportunities provided to the learners adaptable to the need, local need and resources at their hands.
- **Easy Access:** The learner gets access to learning by breaking all barriers of time, place and distance. The learners can access information and educational contents anytime and at anyplace. E-learning is available even in areas where there is no school or college. It can reach any remote or far off areas of the country or world.
- **Disadvantageous Children:** E-learning is available for those with poor health or disadvantageous conditions that can inhibit them from under going any institutionalized education. E-learning enables handicapped students like deaf and dumb to learn.
- **Flexibility:** The flexibility of E-learning in terms of delivery media (like CD, DVD, Laptops and Mobile. Phones), type of courses and access may prove very beneficial for the learners. It is flexible in the sense that the traditional constraints of space and time don't bother the learner.

- **Interesting and Motivating:** E-learning may make the students more interested and motivated towards learning as they may get a wide variety of learning experiences by having an access to multimedia.
- **Self-learning and Self-improvement:** E-learning leads to self-learning. It can be utilized for improving technical and vocational skills.

VI. CONCLUSION

Information and Communication Technology and e-learning are medium of fast connectivity and development. For the smooth penetration of ICT at the grass root level, government of India has launched policy of programmes to increase awareness at the educational level. It will help in overall socio-economic development of the country. In 21st century students require interactivity and using modern technologies like e-learning, M-learning, virtual learning and web learning as a teaching device. With the emergence of social networking, blogging and You Tube, students expect to be able to utilize modern technology on the fly to connect everything. For the successful implementation of e-learning, there is a need to use internet-based e-learning courses which are growing day-by-day. The major hindrance to the acceptance of e-learning can be attributed to the Indian mindset that is more inclined to traditional classroom teaching. For the successful implementation of e-learning, there is a need that both the instructor and the learner need to shift their methods of teaching and learning. It is necessary to change teacher education programs by including innovative methodology for e-content creation and development. For successful implementation of e-learning self evaluation, accountability, autonomy, transparency, quality assurance and innovations are required.

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