

E-LEARNING: TRENDS AND POSSIBILITIES IN HIGHER EDUCATION IN INDIA

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ABSTRACT

Education is important for determining the status of a country and its future vision of development. One of the prime aspects of Indian education system is the inclusion of the recent digital methods and technological tools. Education being the backbone of a country, inclusion of digital technologies concentrates high attention in recent times. India is lagging behind in digital literacy and technology based quality education. What resulted is that no Indian academic institution counts within top 200 of the world. This paper is the outcome of a prolonged study of the prospects that E-learning may have in India and how it would revolutionize the scope, reach and the delivery of education in India. The paper sets out arguments about E-learning and its scope in Higher Education in India highlighting its need and importance.

KEYWORDS: *E- Learning, Higher Education, Digital Methods, Technological Tools, Digital Literacy.*

Introduction

E-learning is a kind of non-conventional education method where regular physical attendance and eye-to-eye contact with the instructor is not required and learning can be done from anywhere and at anytime according to convenience of student via internet, CD ROM or a standalone computer. It is an online teaching method of interactive presentations, videos, chat, online lectures, notes, quiz, tests etc. E-learning educates students to learn through e-text, multimedia, audio-video materials, online lectures etc. and assess themselves by online self assessment tests like quiz, online exams etc. E-learning has become more popular nowadays.

Types of E-learning

There are basically two forms of E-learning: synchronous and asynchronous with synchronous learning, the students and instructor are online at the same time, and interact live as though in a class together. Asynchronous, allows the participant to complete the Web Based Training (WBT) at his own pace, without live interaction with the instructor. A new form of learning known as blended learning has also emerged. Blended learning is a combination of E-learning with traditional classroom training for more effectiveness. Students can prepare and interact with teachers and students via an actual or virtual classroom. It helps in enhancing the retention rates of students without sacrificing their convenience at their places.

Why E-learning?

Technology has altered the way we live, work, think and learn. Today's workforce has to process more information in less time than in the past. Nowadays organizations and academic institutions need to find new, cost-effective ways to keep workforce competent. Knowledge and skills are required to be

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delivered more rapidly and efficiently than before because of the increasing complexity and velocity of the work environment groups. Today, traditional students-age 18 to 22-represent only a minority of the higher education student population. Working adults, the fastest-growing group attending higher education institutions, already account for nearly 50% of students, constituting a niche whose needs are severely underserved. The growth of the Internet has brought demographic, technological, and lifestyle changes.

Components of E-learning

E-learning components includes: Internet based training, assimilation of multimedia, Learning management system, learning content management system, e-commerce in a human collaborative environment.

Recent E-learning Trends

Latest trends in any industry are defined by the advancement in technology, and the field of E-learning is no different. The current requirements of learners involve:

- **Adding learning to work:** It involves merging courses and E-learning modules within the activities in workflow.
- **Embedding learning within workflows:** It enables development of learners in a work environment. This includes using mobile applications where users and staff can interact at any geographical locations.
- **Extracting learning from work:** It is based upon 'working followed by learning and then improving the way you work' instead of 'learn then work' model.

These three activities are device independent and put the learning and performance context first, then address the implementation question second. In other contexts, it's more about making access possible across all devices.

Tools of E-learning

In E-learning apart from blogging tools several other tools are also used from internet and intranet. It enables to access specific information for students as well as instructor to provide updated information.

- **E-mail:** E-mails as well as email based discussion forums deliver contents as well as communication about E-learning. News group:-A user can read and post message to central space which then copies it to individual and other news group.
- **Bulletin Boards:** Bulletin board is a public discussion (internet site) area where users can post comments about a particular issue or topic and also reply to other user's postings.
- **Web forms:** Web forms are used as a means for providing references service to the users in E-learning environment discussion under various topics but not in real time. Polling:- Polling enables us to setup a survey /questionnaire and obtain feedback from a large number of people.
- **Wikis:** Wikis is a web page collaboratively updated by any one who is allowed to access. Instant
- **Messaging:** Instant Messaging is online chat between two more people over the internet. It is used for multiple purposes such as simple request & responses; scheduling face to face meetings etc.
- **Online Discussion:** Online discussion allow users to hold conversations to a known location where other participant can read and respond to them, while video conferencing tools let the user see and hear one another . White board:- Whiteboard is a powerful instructional tool for classroom which allows the integration of media into the lecture and supports collaborative learning.
- **Course Management System:** This system help in the creation and management of course material such as lesson/course ware assignments glossaries, citation to the other recourses etc. also known as virtual learning system, learning management system etc. Internet telephony:- In this tool a user can make calls by using internet. An individual can make distance phone calls through the computer and the internet without playing long distance phone charges.

Growth of ICT and E-learning in India

India has taken a very long leap in last few years to improve its educational system and structure, no. of colleges and no. of students has increased dramatically which helps educate a large no of student in different ways. Government set up lots of bodies, centers and started different project to educate its large no of population, government have started lots of distance and online learning programs.

After the establishment of University Grant Commission (UGC) in 1956, coordination, determination and safeguarding standards of university education went in the hand of UGC. Government also promoted the usage of ICTs by National Mission in Education through ICT in its Eleventh five year plan (2007-2012). To promote technology driven education, India launched EDUSAT a satellite on September 20, 2004 to bring quantitative and qualitative revolution in education. There are a number of E-learning projects launched in India which helps and motivate learners to learn on a computer.

Growth of important Projects of E-learning in India

Currently there are several projects to promote education and e-learning environment like; eGyanKosh, Flexilearn, NPTEL, CEC, Institute of Lifelong Learning (ILLL), e-PG Pathshala. SAKSHAT as a part of the National Mission in Education through Information and Communication Technology is developed by the Ministry of Human Resource Development.

- **eGyanKosh** (egyankosh.ac.in/) is a national digital repository to store, index, preserve, distribute & share digital learning resources developed by the Open and Distance Learning Institutions in the country. It is implemented and maintained by Indira Gandhi National Open University (IGNOU). The collection comprises print & video based contents. Access of all materials are open to all through the one time registration process.
- **Flexi Learn** (<http://www.ignouflexilearn.ac.in>) IGNOU has introduced a open course portal called Flexi Learn which provides a self-learning environment with a list of academic advisors / course guides to act as mentors. Flexi Learn provides free and easy access to IGNOU's courses without any charges.
- **National Programme on Technology Enhanced Learning (NPTEL)** (www.nptel.iitm.ac.in/) The National Programme on Technology Enhanced Learning Provides high quality learning material to engineering students all over the country (NPTEL) is a project funded by the Ministry of Human Resource Development (MHRD)
- **Consortium for Educational Communication (CEC)** (www.cec-ugc.org/) The Consortium for Educational Communication popularly known as CEC is established by the University Grants Commission of India with the goal to cater to the needs of Higher Education through the use of powerful medium of Television and Information Communication Technology (ICT). Currently 21 Media Centre's are working across the country under the umbrella of CEC.
- **Virtual Learning Environment, Institute of Lifelong Learning (ILLL)** (www.vle.du.ac.in) The Virtual Learning Environment is an initiative of the University of Delhi to provide Open Educational Resources (OER) to the teaching and learning community. VLE provides the courses in all streams at both UG and PG level.
- **Creation of e-Contents of Fermentation Technology** (<http://www.elearnmicrobiology.com/>) e-Content of Fermentation Technology is a dedicated project for student of microbiology specifically for industrial microbiology. The illustrations related to dynamic textbook, lesson plans, self-assessment quiz, and interactive demonstrations given in the content has been developed by core team of the subject experts.
- **e-PG Pathshala** (<http://www.inflibnet.ac.in/epgp/>) e-PG Pathshala provides e-content in 77 subjects at postgraduate level is being developed by MHRD, under its National Mission on Education through ICT (NME-ICT), has assigned work to the UGC for development of High quality, curriculum-based, e-PG Pathshala. Content developed by it is available in open access through a Learning Management System (LMS) set-up at the INFLIBNET Centre as well as on Sakshat portal.

Benefits of E-learning

- **Integration:** All stakeholders of higher education can be integrated on regional, state, national and international level. Sharing of knowledge, experience, infrastructure and technology will enhance the effective and efficient utilization of available resources. Students can have an access to unlimited storehouse of information at any hour and from any place. E-learning has no constrained of distances, so good academicians can be scaled up. Faculty availability is not restricted by geography or even time because of recorded classrooms.
- **Access to best faculty and quality study material:** The expert teachers also will be identified and honored by the demand for them from learners.

- **Individualized instruction:** eLearning makes learning exciting and also offers individualized instruction, which print media cannot provide. Blended learning is a combination of E-learning with traditional classroom training for more effectiveness. Private messaging readily supports these exchanges while protecting the participants' privacy. Based on the individual and/or group needs, interests, career objectives and job profiles, lesson modules can be chosen.
- **Learning in experience:** A Chinese proverb says, 'Tell me, and I'll forget. Show me, and I may remember. Involve me, and I'll understand'. Difficult or dull subjects become interesting, easier and more appealing by E-learning. It is an active experience with the emphasis on interactivity and 'learning by doing'. Also, many studies have proved that absorption levels are at least 20% higher in eLearning compared to traditional learning. (www.gurukulaonline.com)
- **Fast learner - Slow learner mechanism:** Quality of output information can be adjusted to the required level and are flexible. E-learning emphasizes continuous learning and promotes "just-in-time" and "just enough" learning. Both slow and fast learners can take their own time of learning because they do need separate timings. And hence the overall stress in the classroom environment can be removed. Flexible: On-demand availability enables them to remove stress. E-learning empowers us to access online library resources.
- **Cost effective for both students and organisation** Since the playback of recorded sessions are possible, absentees can learn the lessons when they are back and the slow learners can listen for more than one time. Cost effective for both students and organisation: eLearning makes the best knowledge products available at an affordable rate by cutting down the travel and extra living expenses. Overall cost for the organisation is also reduced (instructor's salaries, meeting room rentals, and student travel, lodging, meals, etc).
- **Zero opportunity cost of time:** Since learning can be planned after regular working hours or on holidays or at home, the opportunity cost of the time spent on training is zero. Research shows that when student learns by experience their understanding and retention power improves.
- **Technologies like modeling, simulations, gaming virtual reality interfaces etc.** help students to enhance their skills while being taught. This will help the students in Albert Einstein's scientific method of learning. He says 'I do not teach my pupils. I provide conditions in which they can learn.' And hence eLearning is a wholesome learning.

Why technology is used in Education Industry?

Economists identify three factors that lead to growth which is based on increased human capacity:

- The ability to use equipment will lead to more productivity.
- If the workforce is more knowledgeable it will add more value to economic output.
- Creativity will be enhanced.

The above three productivity factors are complementary somewhat overlapping with each other relates education policy with economic development. The Technology literacy approach-focuses on increasing the usage of new technology by students, citizens and the work force by incorporating technology skills into the school curriculum. The Knowledge deepening approach – focuses on increasing the ability of students, citizens, and the workforce to use knowledge to add value to society through economic output. The Knowledge Creation approach-focuses on increasing the ability of students, citizens, and the workforce to become innovate and produce new knowledge.

Technology as tools of Teaching

There are various types of technologies currently used in classrooms.

Among these are:

- **Computer in the Class Room:** Computer can be an asset to any teacher in order to explain new lesson or to give some updated information from websites.
- **Class blogs and Wikipedia:** A variety of Web 2.0 tools are currently being implemented in the classroom.
- **Blogs,** are a regularly updated website or web page which are written in an informal or conversational style allows students to maintain a running dialogue and also for comment and reflection.
- **Wikipedia,** an online encyclopedia, allows usage of data and it can be edited according to need.

- **Wireless classroom microphones:** With the help of microphones, students are able to hear their teachers more clearly and understand in a better way.
- **Mobile devices:** Mobile devices such as tablet or smart phone in the classroom increases the possibility of getting feedback.
- **Interactive Whiteboards: An interactive whiteboard or smart class board enhances the experience in the classroom by showing** anything that can be on a computer screen. It not only aids in visual learning, but it is interactive so the students can draw, write, or manipulate images on the interactive whiteboard.
- **Digital video-on-demand:** Digital video eliminates the need for classroom and allows teachers and students to access video clips when they chose to. Rather than having to watch at a specific broadcast time.
- **Online media:** Digital media, which includes photos, videos etc., distributed over the Internet, can be utilized to increase a classroom effectiveness.
- **Online study tools:** Tools that motivate studying by making studying more fun or individualized for the student.
- **Digital Games:** *Learning with Digital Games* provides accessible, straightforward introduction to the field of computer game-based learning and up to date knowledge of current trends and the changing learning needs of today's students.

Challenges of E-learning in India

- The cost of hardware's can be very high.
- The potential of plagiarism is high as student can copy information rather than learning and developing their own skills.
- It may affect the bonding process between the teacher and the student as there is no face to face conversation and thus the transactional distance is increased.
- It focuses more on developing ICT skills instead of learning process
- Since all teachers are not experts with ICT they may be slack in updating the course content online which ultimately slows down the interest of students.

Scope of E-learning in India

India has a major role to play in the international E-learning services industry. It is already among the foremost IT service provider countries, and it is now aiming to achieve the same position in the IT enabled services. The presence of world-class educational infrastructure and training professionals enables it to be as among the foremost E-learning services providers in the world. On the domestic front, the government and private sectors have taken many E-learning initiatives. Though these initiatives have been met with a lot of enthusiasm and user acceptance, their commercial viability is still under consideration. The government has taken some proactive measures in a regulatory and financial capacity to boost the E-learning environment in India. Funds have been invested in rural areas for setting up Internet kiosks for the purpose of communication, which can be used for E-learning initiative as well and can help in providing informal and vocational training as well as formal education. The main strengths of the Indian E-learning services industry are:

- English speaking, highly qualified and techno savvy manpower
- Safe Electronic Environment-Official recognition for Digital Signatures and E-transactions
- Lower costs of human capital when compared to developed countries
- Strong and buoyant domestic education industry that facilitates up-gradation of skills and introduction of new products.

Recommendations

- Active Discussion Forums should be devised for student-instructor interaction.
- Digitization of books & e-libraries should be done that makes them more interactive with graphics & animations.
- Strict legal provisions should be implemented to check the spurt of illegal and low quality contact centre's.
- The instructor training modules and course design of curriculum should also be revised and updated regularly.

Conclusion

The article has suggested the meaning and importance of E-learning in recent education. At present we have lots of E-learning projects in India but there is lack of awareness among learners in order to get the benefits from it. This study aims to thorough some light and investigates progress of some of the popular E-learning projects running in India. E-learning involves almost all forms of ICT technologies which able to covers a large number of users. But it is also remarkable thing that the future of E-learning will depend upon its management, the platform, its content, entities for Content Creation of E-learning and their expertise.

References

- Arora et.al, "A Review of Recent E-learning Trends: Implementation & Cognitive Styles", International Journal of Information And Computation Technology,4(3),25-220, (2014)
- Bonk and Kim, "Future of E-learning In Higher Education and Training Environment",20th National Conference on Distance Teaching and Learning, 1-5, (2005)
- E-learning Fundamentals, http://www.leerbeleving.nl/wbts/1/history_of_elearning.html
- Elroy & Beckerman, "Managing Web Based Digital Learning Content in Higher Education Institutions", Managing Web-Based Digital Learning Content In Higher Education Institutions,1-11, (2003).
- HM Rakesh, "Contextual Factors in using E-learning Systems for Higher Education In India", IOSR Journal of Business And Management,16(2),98-102, (2014).
- Ismail Johan, "The Design of an E-learning system beyond the hype", Internet and Higher Education,(4),329-336, (2002).
- Koohang et al, "Active learning in E-learning: Advanced Systemic Model", Issues in Information Sciences,13(1),68-76, (2012).
- Poulouva et.al, "ICT contribution to the process of E-learning Implementation in the field of education", Advanced Educational Technologies,157-161, (2008)
- Ray Pratim Partha , "Web Based E-learning In India; The Cumulative Views of Different Aspects", Indian Journal Of Computer Science And Engineering,1(4),340-352, (2012).
- Rozac et.al., " Integration of Learning Management Systems With Social Networking Platforms", The Fourth International Conference On Mobile, hybrid and Online Learning,101-107,(2012).
- Saleewong et. al., " Case- Based learning on Web in Higher Education: A Review of Empirical Research", Scientific Research, (3),31-34,(2012)
- Sarkar Sukanta, "The Role of Information And Communication Technology In Higher Education For The 21st Century" The Science Probe,1(1),30-41,(2012)
- Seoud et.al, "E-learning And students Motivation: A Research Study on the effect Of E-learning On Higher education", International journal of emerging technologies in E-learning,9(4),20-26.(2014)
- Sharma And Vatta, "Role of Learning Management system in Education", International Journal of Advanced Research In Computer science and Technology,3(6), 997-1002,(2013).
- Surry et. Al, " Implementation of web-based learning in colleges of education: Barriers and enablers", Canadian Journal of Learning and Technology,35(3),1-18,(2009).
- Trakru Monica, "Effectiveness of E-learning in Higher Education: A Study of Professional Institutes and Traditional Institutes", Dr. art thesis, JK Lakshmipat University, Jaipur (2002).
- Wallace M ,"Online Learning in Higher Education: A review of Research on Interactions among teachers and students", Education, Communication & Information,3(2), 241-282,(2003)
- Ware Bourgeois, "Learner Centered E-learning : An Exploration Of Learner Centered Practices in Online And Traditional Instruction In Higher Education", PhD Thesis, Louisiana State University And Agriculture And Mechanical College (2006).
- Woo and Reeve , "Interaction in Asynchronous Web Based Learning Environment: Strategies Supported By Educational Research", Journal of Asynchronous Learning Montrieux et. al.,
- Zhang W, "Entering the 3rd generation of E-learning characteristics And Strategies", Journal of Education Technology And Development,6(1),1-12,(2013) Networks,12(3-4),179-194, (2006).