



PROSPECT OF E-LEARNING IN INDIAN HIGHER EDUCATION: TRENDS AND ISSUES

Dr. Devendra Bhongade¹, Dr. Yogesh M. Sarode²

¹Principal, Jeevan Vikas Mahavidyalaya, Devgram, Maharashtra, India.

²Asst. Professor, Jeevan Vikas Mahavidyalaya, Devgram, Maharashtra, India.

Abstract

E-Learning in Higher Education is an important issue as far as Indian Higher Education is concerned. An honest effort has been made through this paper to focus on role of e-Learning in Higher Education in India; concepts and aspects of e-Learning; trends and issues; scopes; types of e-Learning, challenges, industry-market; impact of MOOCs; benefits and advantages and future of e-Learning.

Introduction

E- Learning is defined as an acquisition of knowledge and skills using electronic technologies such as computer, internet based courseware and local and wide area network. E-learning is a way of providing training and development to the employees through various electronic media such as internet, audio, video. In a society, the student generation has to realize the importance of technology and have to be well aware about how to teach the future leaders. Annually, the demand for higher education is growing globally and India is no exception to it. In fact, in India, the number of applicants is three to five times as against the number of seats in any institution of higher education. It can be also defined as a “Internet based Training (IBT)”.

The e-learning activities are important for the development of any country. In modern era everybody is thinking about growth. If it is planned properly then proper results comes. The main objective of E- learning is to focus on classroom learning and E-Learning in India as a main wheel of development of education. Soon after independence in 1947, the Govt. of India had the challenge of bringing uniformity in educational system and providing education to large segments of the population. Due to various

schemes undertaken by India to improve the literacy rate. These measures have resulted in increase in literacy rate from 65.38% in 2001 to 74.04% in 2011. Learner’s satisfaction rates increase with e-learning compared to traditional learning, along with perceived ease of use and access, navigation, interactivity, and user-friendly interface design. It was found that below average number of professional courses’ teachers in higher education are using e-learning mode whereas only a few non-professional courses’ teachers are using e-learning mode. There are three modes of e-learning: online mode, hybrid/blended mode and e-enhancement mode but only e-enhancement mode is being presently used by the professional and non-professional courses’ teachers in Indian higher education.

In this era of information technology, the emergence of globalization of knowledge economy has resulted in digital online learning in higher education system. E-learning could have potentially major effects on the way higher education is designed, implemented and delivered. Higher education institutions must determine the most suitable environments and courses for e-learning delivery. Though Indians have been traditionally inclined towards conventional classroom based academic programs, the Government of India has been actively supporting the e-learning drive to overcome the various challenges and to strengthen accessibility. Technological advancements have made it possible to deliver digitized education through contemporary platforms in 4G environment. Digital devices like tablets, iPads and mobile phones are foreseen to be the classrooms of the future. The prospect of making education available to

anyone, anytime, anywhere is becoming increasingly appealing to students, the corporate world and the populace at large. With online courses, students can take charge of their own learning. Anyone can choose from thousands of courses and further their learning, often for free. Online education modernizes the learning experience to fit the needs of the young generation. Courses like MOOCS (Massive Open Online Courses), MOODLE, COURSERA ETC. It gives people access to skill building opportunities on demand, exactly when they need it. Aspiring professionals can now earn certificates from online courses offered by the world's top institutions. It is necessary to consider both the advantages and disadvantages of online learning so you can be better prepared to face the challenges of working in this new environment. The following is a good listing of these strengths and weaknesses of online education.

Concept and Aspect of e-Learning

E-learning is electronic learning, and typically this means using a computer to deliver part, or all of a course whether it's in a school, college, part of training or a full distance learning course. E-Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely. In other words, e-learning can also be described as learning that is delivered online, via the internet, So e-learning can be defined as courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. It is interactive learning in which learner can also communicate with teachers, professors or other students in the class. Sometimes it is delivered live; where one can "electronically" raise hand and interact in real time and sometimes it is a lecture that has been prerecorded. Normally, there is a teacher or professor interacting /communicating with learner and grading the participation, assignments and tests. E-Learning has been proven to be a successful method of training and education. It is becoming a way of life for many citizens in our country e.g. farmers education, adult education, pre-primary and primary education as well as in higher education.

Scope of e-learning

There are basically two parts or phases of e-learning. In one phase e-learning is used for educational purpose and at other level it is been used for training. The educational; use is limited to secondary and higher secondary level. In the second phase it is used to provide training to the employees and to upgrade their skills. E-learning is growing at very low rate in India as compared to international market where it is been used at all levels. In India if we can be able to make e-learning as a source of learning in rural areas then it is the easiest and fastest tool to educate people. If we consider the population in India it is hard to accommodate all the people in specific university or educational area to get the education.

Formal and Informal e-Learning

Some forms of e-learning – online education and online training recreate the formal learning experience online. Online education provides adults with limited literacy skills with a safe and patient place to develop basic skills such as reading and mathematical skills. The only factor that separates online training from education is that the skills and knowledge taught via training are expected to be used immediately. E-learning allows us to explore the potential of informal learning such as Knowledge Management and Electronic Performance Support. Knowledge Management is basically recorded pieces of corporate information such as policies, procedures and product information documents, reports, presentations and proposals expertise, often recorded in the form of documents like lessons learned, stories and case histories and online interaction with colleagues and can also include online chats, discussions and symposia during which participants can exchange information not yet been recorded. Electronic Performance Support (EPS) refers to a work environment on a computer in which performers /learners receive assistance. EPS is used in providing information, training, coaching and monitoring needed for support to learners.

E-Learning Literacy in India

As per Census Report 2011 published by Government of India:

Table 1. Percentage of Literate Population

Year	Literates (% of total population)	Illiterates (% of total population)
2001	65%	35%
2011	74%	26%

Source: Annual Report 2013-14, published by Ministry of HRD GOI.

The above Table 1 shows that the percentage of literate population in the total population has increased in 2011, from 65% to 74%, similarly, the percentage of illiterate population has decreased from 35% to 26% in the span of a decade. Still the fact remains that 26% of India's total population is still illiterate and e-learning can prove helpful to reduce the illiteracy as the advancement in technology and communication has made teaching and training possible anywhere, anytime. The Learner can learn anywhere; i.e. outside the boundaries of formal classroom. It will be very effective in case of adult education and training. It is a very powerful medium for pre-primary and primary education as it is in audio visual form and can attract even the school dropouts. It will be very effective in case of adult education and training.

Women and e-Learning

Traditionally women in Indian society suffer from various social and cultural handicaps and it is felt that unless the women are sufficiently empowered, the socio-economic development may be difficult to achieve. Empowering women starts from initial involvement in analyzing their own problems, proposing solutions and consequently taking collective action. Regional networking, social mobilization, changing the attitudes and knowledge of women is really needed to increase the women power. The e-learning strategies can really shape them and can bring it into reality. The e-learning techniques would empower women, create legal awareness, encourage them to take up cases of women and also help the women litigants-learning software would bridge the gap between the laws and their effective implementation in rural and urban areas. E-learning networking can make links between social and legal organizations concerned with legal issues.

For Ex. E-learning networking would establish links between Mahila Mandals, lawyers and courts. This means by having concentrated efforts of e-learning we can bridge the gap

between social organizations and legal system, between lower and high court, between rural and urban areas, between senior and junior lawyers and so on.

E-Learning and Government

Government can make use of e learning medium in various ways. It can help the government to communicate rules and policies effectively. It can create awareness about various schemes and plans among citizens. It will give people an open platform to communicate or learn. E-learning can manage semi-structured and unstructured information. It can deliver the government agenda. A good e-learning solution can help government in multiple aspects. The Government can provide the Learning Portal around Government Policies, Rules & Regulations in Public Private Partnership (PPP) model. A government can bring transparency in governance by way of a meaningful education among the people through e-learning. Creating social awareness amongst the citizens, providing information about taxation and laws can also be done in an effective manner. Right now, the Government has done it for the farmers of our country by developing online consultancy for growth of agriculture production using latest technology.

E-Learning and Higher Education

According to a recent study in a global level online learning program, after the United States, India has been reported to have the second highest number of online course enrollments with more than over 1,55,000 students from the country. Of a total of around 1.2 million students worldwide, 32% are from the U.S while 15% are from India. In higher education, there is a growing demand to create a virtual learning environment (VLE) in which all aspects of a course are handled through a consistent user interface throughout the institution. Some of these programs are initiated in our country and students need to attend orientation sessions in colleges, but the course content is delivered online. Several universities do offer online student support services, such as online advice and registration, e-counseling, online textbook purchase and student newspapers. E-learning has the potential to overcome the non-availability of adequately qualified teachers in rural India. Live online tutoring; streaming videos and virtual classrooms are some of the solutions that e-

learning can offer to these problems. While there is no substitute for effective and organized classroom teaching, e-learning's is the best option. School drop outs can be taught through e-learning as they feel insulted to go to school again. Computerized Assessment of students' performance becomes easier to the teacher/professor, for the courses where the number of students is large. Physically disabled students can learn at home through e-learning study material. Though e-learning is audio-visual medium of learning, it is not free from limitations. According to another report, India's online education market size is set to grow to \$40 billion by 2017 from the current \$20 billion. It has been observed that a group of people who oppose to the concept of e-learning saying that it is informative and does not impart the knowledge of the subject. On the other hand, some people oppose classroom learning saying that self-learning with the help computers and other e-material is always better than classroom learning as it does not motivate for self-learning. This is especially true for countries where technical education is expensive, opportunities are limited and economic disparities exist. India has one of the largest education systems in the world with a network of more than 1 million schools and 18,000 higher education institutions. More than half of the country's 1.2 billion population falls in the target market for education and related services. Even Agriculture industry is required to connect with higher education and E-Learning.

The Global e-Learning Industry Market

The global eLearning Market is expected to reach \$107 billion by 2015. The global self-paced eLearning market reached \$32.1 billion in revenue in 2010, with a five year compound annual growth rate of approximately 9.2%. This means that the self-paced eLearning market should see estimated revenues of \$49.9 billion in 2015.

Impact of Massive Open Online Courses (MOOCs) on Higher Education

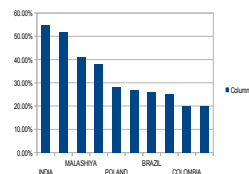
Massive open online courses (MOOCs) are one of the most prominent trends in higher education in recent years. It represents open access, global, free, video-based instructional content, problem sets and forums released through an online platform to high volume of participants aiming

to take a course or to be educated. With time and place flexibility, MOOCs gathers scholars and learners around the world. It promise to open up higher education by providing accessible, flexible, affordable and fast-track completion of courses for free or at a low cost for learners who are interested in learning. MOOCs bring new opportunities for innovation in higher education that will allow institutions and academics to explore new online learning models and innovative practices in teaching and learning. MOOCs become the latest trend in the field of distance education which indicates a significant need of research studies to reduce the threat related on it.

Country-wise Top 10 Growth Rates

Growth rate shows how each country adopts e-Learning and is a significant indicator since it can reveal revenue opportunities. The following table shows the growth rate of self-paced e-Learning of the countries-

Sr. No	1	2	3	4	5	6	7	8	9	10
Country	India	China	Malaysia	Romania	Poland	Czech Republic	Brazil	Indonesia	Colombia	Ukraine
Percentage	55%	52%	41%	38%	28%	27%	26%	25%	20%	20%



Benefits/Advantage of e-Learning

A multi-billion dollar industry does not spring to fame without an amazing array of benefits tagging along, which make the millions all the more worthwhile. Let's have a look at some of them.

Benefits of e- learning

- Cost effective and time saving
- Large target audience base
- Higher knowledge retention
- Encourages sharing
- Room for discretion
- Easy course tracking

Some Other Benefits of E Learning

1. Convenience: This convenience is in relation to study location, time, course duration, etc. No commuting/traveling time to a campus. Students can learn at their pace and study at her/his convenience. One can express oneself in writing rather than verbally. The learners can have virtual discussion rather instructor-led lecture. Also the course work and instructions can highly be customized with respect to the learner's choice. Student centered: They may actively engaged only in those parts of the contribution most relevant to their needs. The interactive learning environment may contribute to self-direction and critical thinking. Provides high level of dynamic interaction between the instructor and students as well as among the students themselves.
2. Access to Resources: It is easy to include guest experts or students from other institutions as well as access to resources and information around the world. Ideas and resources are shared, as each individual contributes to the course discussions and comments on classmates' work.
3. Less Expensive: Generally these courses cost less than regular classroom academics. No travel and hostel costs. Class attendee can continue to work at his/her job while taking classes
4. Technology: One can work on the course just about anywhere you have computer access. Online courses provide an opportunity to learn new technologies.
5. Global level: The learners will work with classmates not only from all over the India, but could be around the world.
6. Indiscrimination: No discrimination among students due to race, sex, sexual orientation, religion, nationality, age, dress, physical appearance, etc. Equal participation from all classmates and the most outgoing student will not monopolize the discussion. These courses are better for those people who are introverted

as well as who learn through visual cues and require more time in understanding the material. E-assessment has many advantages over traditional (paper-based) assessment. The advantages include.

7. Flexible: greater flexibility with respect to location and timing
8. Partial: improved impartiality (machine marking does not 'know' the students so does not favour nor make allowances for minor errors)
9. Greater storage efficiency - tens of thousands of answer scripts can be stored on a server compared to the physical space required for paper scripts

Disadvantages

1. Limited Social Interaction: There is a limited opportunity to interact face-to-face with professors and other students. Especially in self-paced courses – difficult to develop relationships with classmates. Possibility of limited local networking opportunities. Most of the communication through email, chat room or discussion groups, but no offline get-together. No personalized attentions from instructor with regards to face-to face interactions and feedbacks. No campus atmosphere to create social interaction.
2. Technology Cost and Scheduling: Students may be required to equip the necessary digital system and learn new or enhanced computer and troubleshooting skills. One must have high-speed Internet and adjust studying schedule around instructor's assignment due date...
3. Problematic for Instructors: As software is getting more and more advanced, instructors are constantly trying to learn how to keep up. Traditional instructors believing in lectures and handouts may have tough time in adopting the system and software. Student must be self-motivated and disciplined to progress through his/her program in a timely manner.

Issues & Challenges in E-Learning**1. Technological Challenges**

The e-learning raises significant challenges in the technological research area. For development of e-learning resources that meet the users requirement need to be addressed.

The technological challenges of e-learning can be considered as a two key technological research areas.

2. Development of New Forms of Learning community and Interactive Learning

In e-learning environments interaction, cooperation and community play an important role to support learning. The developments in the area of e-learning environments provide new forms of interaction for learning experience. It generates new relationships between learner and computer and also form a new learning community. Key issues include:

- New forms of multimodal interface to support learning.
- New techniques to understand and support learning communities.
- The development of systems to support mobile communities of learners.
- Personalization techniques that meet user personal needs and current activity.
- Techniques to promote and support interaction.
- Discovery of new learning communities.
- Support for time to time assessment services.

3. Developing New Knowledge Facilities for e-learning

E-learning environment needs to support the rapid increase in the size and variety of data by appropriate semantic services. The semantic services generate a surrounding semantic context for learning support. Research that needs to work on:

- Development of learning and reasoning theories for uncertain and incomplete knowledge.
- Support for the development of large-scale learning facilities.
- Support for a dynamic learning process.
- Support for information sharing across different learning facilities.
- Developments of lightweight knowledge capture technique for promotion of lifelong learning.

4. Research Issues for e-learning

Current e-learning research brings together pedagogical, technical and organizational concerns within a wider set of socio-cultural factors. These factors influence the research agenda in e-learning system. Understanding these broader social and cultural issues is of

significant importance to the research communities involved in e-learning and will have a significant role in informing future practices.

Future of e-learning in India

India has a major role to play in the international e-learning services industry. It is already one of the leading 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 one of the leading 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 been taking some proactive measures in a regulatory and financial capacity to boost the e-learning environment in India. Funds have been invested in setting up Internet kiosks in rural areas 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.

Future Trends of e-learning in India

- Future Trends in e-learning Business-to-employee initiatives will address e-learning : Companies can build B2E intranets or corporate portals to conduct business with employees, and provide them self-service for access to benefits, forms and information. B2E capabilities will become increasingly important tools for recruitment, retention, and employee-relationship management. Also will reduce cost, save time for the company.
- E-learning will extend to customers: CRM initiatives might include customer education. Companies can use e-learning to introduce new products, educate customers in self-

service techniques, and compare competitors' products and services

- Simulation, gaming and interactivity will enrich e-learning: Research shows that student understanding and retention improves when they learn by experience. Technologies such as collaboration, interactivity, modeling, simulations, virtual reality interfaces and gaming will help students experience the skill while being taught.
- There will never be enough of the right skills: Along with technologies and business practices, some skills are changing so quickly that they're outdated within a few months of introduction. In addition, the number and range of skills required of the average employee is increasing.

Conclusion

In anticipation of this growth, the governments, business companies and professional associations can start focusing on applications and the effective and efficient implementation of e-learning. By recognizing that e-learning truly is a methodology, one can experience the greatest benefits that e-learning has to offer now and in the future. In the end, the fact remains that, with respect to e-learning, poor quality procurement practices are a barrier to growth and adoption. So it is necessary to make a thorough evaluation when it comes to choose e-learning software for education in order to improve the knowledge of learners, the learning outcomes, the performance outcomes, and the business and policy impact and in order to value the money spent. In underdeveloped and developing countries, e-learning raises the level of education, literacy and economic development. If the agricultural industry targeted through E-learning, the growth rate will defiantly increase. E- Learning and E-commerce can be developed through proper investigate and plan of action. It is proved that the developing wave of adaptive learning will help higher education, women, government. E-learning is increasing the percentage of literate population in the total population of India. E-learning plays a vital role in educational development as a wheel of growth in education sector. It is expected that if India and developing countries proceed as joint venture and work mutually on the issue of e-learning, it will be beneficial for the development

of educational sector. Through E- learning lot of opportunities can be captured and speedy development will possible. It is expected that India should work out on this issue for development. It will be beneficial for educational as well as social sector in future.

References:

1. Pande Deepali,, Wadhai and Thakre, Current trends of E-learning in India, Maharashtra,India
2. Gaikwad Arun and Randhir Vrishali Surndra, E-Learning in India: Wheel of Change, Maharashtra, India.
3. Hemant Rana, Rajiv and Manohar Lal, E-learning: Issues and Challenges, IGNOU New Delhi-68
4. Sheikh Mohd Imran, Trends And Issues of E-Learning In Lis-Education In India: A Pragmatic Perspective, Aligarh Muslim University, India
5. Kerry Blinco, Jon Mason, Neil McLean, Scott Wilson – “Trends and Issues in E-learning Infrastructure Development”, July 2004
6. Consuelo L. Waight, Pedro A. Willging, Tim L. Wentling – “Recurrent Themes in E-Learning: A Meta- Analysis of Major E-Learning Reports”
7. Sharma, R. C., & Mishra S. (2013). International Handbook on e-Learning, Vol. 2.
8. Laurillard, D. (2006). E-learning in higher education. Changing Higher Education: The Development of Learning and Teaching, 71-84.
9. Sing, P. P., & Sharma, S. (2005). E-Learning New Trends and Innovations (pp. 39). New Delhi: Deep and Deep Publications Pvt. Ltd.
10. Jaiswal, V. (2013). Current Status of e-learning in Indian higher education: A case study of U.P. Retrieved from the Social Science Research Network (SSRN) website: <http://ssrn.com/abstract=2231910>
11. Annual Report 2013-14, published by Ministry of HRD GOI.
12. v.<http://www.ey.com/IN/en/Industries/Government>
13. vi. www.indiaeducationreview.com