

E-Learning in India: Challenges and Opportunities

¹RenuGangwar, ²D.K. Singh and ³Anil Kumar Singh

^{1&3} Assistant Professor, College of Agriculture, Kotwa, Azamgarh (ANDUAT, Ayodhya)

1. Associate Dean, College of Agriculture, Kotwa, Azamgarh (ANDUAT, Ayodhya)

ARTICLE ID: 33

Abstract

In present era, information technology is emerging at a greater stride with its widespread diffusion. It accelerates the pace of remote learning and improves skills in various online outreaches. e-learning is a fast and efficient way of providing and sharing knowledge with learners in different parts of the world. e-learning can be defined as electronic education and name given to computer enhanced learning. It is a discipline where teaching can be done through computer network and computer technologies that are combined to allow learners to access information with rapid technological advancement. India is a country that evolving around advanced technologies. In India, with an over burden population i.e. 1.3 billion, the adoption of smart technology are happening at an exponential speed. With the introduction of internet technologies in 1995 in India, the information can be communicated to any part of the country by overcoming geographical limitations. This has led to better integration of systems employed in government organizations, corporations and other business institutes. Computers play a big role in learning as well as education in supporting the cause of education varies greatly. Information technology is used both as medium and tool in education. In keeping with advancement of technology, the tools have undergone modifications in sophistication. From simple chalk and black board, they have come a long way to computers with multimedia and tele-techniques. People are fascinated to learn through online courses with growing knowledge of internet technologies.

keywords: e-learning, Challenges, Opportunities, Information and Communication, Technology.

Introduction

Around the world, Information technology is facilitating information dissemination and communication in all areas of education and training. In India, the education processes are primarily focused on class room lectures, presentations and laboratory experiments. These are supplemented with audio-visual aids like projectors. They find it less comfortable to

interact due to their perceptions of the atmosphere and the circumstances leading to the unsatisfied learning experience. By realizing the potential of e-learning, design and development of digital technology in India play crucial role in education. Our honourable Prime Minister has envisioned transforming our nation and creating opportunities for all citizens by harnessing digital technologies through digital India initiative. The initiative comprises of various projects in various areas relating to health, education, labour, employment, etc. As a part of the digital India project, many colleges and universities offer online correspondence courses to their students. e-learning is nothing but using advanced electronic technology for accessing various educational curriculums and knowledge content without having any traditional classroom setup.

In this ICT (Information and Communication Technology) era, people are fascinated to learn through online courses with growing knowledge of internet technologies. e-learning concepts, tools, models and methodologies can be readily deployed for online education, interactive education, commercial and business purposes. It can be said that e-learning is riding on the shoulders of the Internet. This will enable us to achieve the objectives and to bring about the all-round development.

Education scenario in India

The traditional learning system had been used in India and it sustainable for long. At present, educational needs are changing from time to time and a global education standard is imposing itself and forcing the Indian education system to undergo many changes. The concept of e-learning is definitely gaining popularity in the country but at a slow pace as compared to other countries. The Indian constitution resolves to provide quality education to all and to fulfil the educational needs of the country specifically for the diverse societies and cultures of the country. The government has chalked out different educational categories: elementary education, secondary education, higher education, adult education and technical and vocational education. e-learning is a useful medium through which India can attain the goal of reaching the unreached in rural areas, motivating the learners as well as woman empowerment through their education.

In this globalized world, education needs to meet the demands of present time. Due to globalization, online education can be used as a useful tool to raise awareness of environment, peace, culture, social diversity and increased competitiveness. Education gives

us that powerful tool by which we can live a life of worthiness. It is only through improving the educational condition of a society that the multi-faceted progress of its people can be guaranteed. e-learning is also a powerful medium to improve inclusiveness of education in our country. If an educational institution is committed to give high quality education, it should be built on values and ethics and be innovative in offering its teaching programmes. e-learning is multifaceted process, covering wide range of approaches and methods of teaching.

Aids to e-learning

In today's world, each and every person of the society grows with hard-pressed technology and affected by the process of digitalization. In other words, modern technology has pretty much permeated every pore of our society and that includes education as well. However, there is a still lot of potential in that field that hasn't been taken advantage of and that situation should be remedied in the future, because there are plenty of benefits digital education is here to give. With the advancement of science and technology, the traditional imparting of education is supplemented by the use of audio visual aids like overhead/slide projectors and videos. These are passive teaching tools. Advancement in computer multimedia introduced a new teaching media. Multimedia education has brought in many advantages. User centered asynchronous distance learning with interactivity has brought new vistas of learning. Growth of Internet has introduced a new dimension to learning.

Advantages of e-learning

The main advantage of electronic learning is its flexibility and convenience. User can learn at one's own pace by choosing time as per self-convenience. As the sessions are asynchronous, it is not bound by time or place. This makes it open ended, most suitable for distance learning. It is very cost effective. Great adaptability to the needs of the learner, more variety in learning experience, repeatability of the learning environment is some of the other advantages. The abstract concepts can be presented better with the help of multimedia.

Disadvantages of e-learning

The greatest disadvantage is the absence of human touch. Education is not just acquiring knowledge; especially educating the young involves personality development. This aspect would be missing in e-learning. Even though human interactions can readily be achieved through audio or video-based web conferencing programs, threaded discussion

boards etc., it will not bring in face to face interaction effect. The chances of distraction are very high in online teaching learning process.

e-learning environment

Scope of e-learning extends widely encompassing several areas like academic, corporate, service etc. Today e-learning industry comprises millions of rupees. Whatever be the area, creating an effective e-learning environment plays a very important role. It involves institutional (administrative and academic), pedagogical (goals, content, design approach, organization, methods and strategies), technological (infrastructure planning, hardware and software), interface design (page and site design, content design), evaluation (assessment of learners instruction, evaluation and usability testing), management (maintenance of learning environment and distribution of information) and ethical (social and cultural issues, geographical diversity, learner diversity, information accessibility and legal).

Characteristics of e-learning

Some characteristics can describe an e-learning course which is listed below:

- 1. Access:** This characteristic feature focuses on how individuals can access and use the course material. They are of two types:
 - **Online:** By using smartphones, laptops and tablets connected through the internet.
 - **Offline:** By using hard disks, pen drives DVDs; CDs learners/students can access various offline content. Furthermore, this mode is more effective as it is free from all net connectivity distractions as sometimes they landed up with unrelated sites.
- 2. Student Count:** This function check whether proper communication established among the students or not.
 - **Individual:** Interaction between students/learners will not be established for interaction, learner will interact with the tutor and the task will also be completed on a one-one basis only.
 - **Group:** A Group of learners/students will communicate among themselves through discussion boards, open forums, e-mails and chat rooms. Peer interaction is prominent between the learners whenever they feel the course doesn't suit them, they may drop.
- 3. Time:** It defines the actual time of information access by the students.

- **Synchronous:** In this process, the content will be delivered in real-time to the students through virtual platforms like teleconferencing and conference calls. The main limitation of this platform is differences in time zones because the learners are geographically scattered across the world.
 - **Asynchronous:** In this method, accessibility of the content has no time restriction, it can be accessed at any time. Open forums and discussion boards are the main means for communication. It is helpful to get rid of the incompatibility of different time zones.
- 4. Content format:** It defines which type of data and its format is being delivered.
- **Static:** It means that the delivered content is through Programme/course/module is the same all the time. Here the continuity of the content can be well maintained. But still few learners/students withdraw as their needs may not be fulfilled through it.
 - **Dynamic:** In this process, it is possible to respond more specifically to student/learner requirement, this overcomes the problem static nature, data or information can be modified and delivered to the respondents as and when it is required effectively, But it poses a challenge in creating new content every time and to sustain it for the long run.

Types of e-learning

There are various means to segregate e-learning courses:

- 1. Classroom Course:** This is a regular way of teaching using computers and simulation designs in a traditional classroom.
- 2. Synchronous Distributed Course:** Programme is being taught in the conventional class and streamed through online based conferences to the learner's off-campus.
- 3. Web-enhanced Course:** This sort of course is mostly executed by using online tools; mostly face-face interaction is initiated.
- 4. Blended/hybrid course:** This is a mixture of both online and offline instruction. These will be initiated when the students are from far places not in a position to attend face to face. There are two types of blended/hybrid courses are given below.



- **Blended classroom course:** Large portion of the course is conducted through a conventional classroom.
 - **Blended online course:** A major portion of the course will be conducted online.
5. **Online course:** All requirements will be done to conduct learning sessions online, face-to-face interactions are not be encouraged, those students who have the difficulty in attending the classes physically can take part in it.

Key challenges for online education in India

Even though online education has large growth potential in India but it has many future challenges. The major challenges are mentioned below.

- In Indian population, more than 30 per cent of people are not having computer literates; they don't even know how a computer can be started.
- Most of the Indian population belong to the rural communities. Their financial position may not support them to have a computer or a laptop.
- Teacher's familiarity with technology is also one of the challenges for the new format of online education. They are not well trained; some teachers are not familiar with the new education format. Furthermore, there is no guarantee that a good traditional class teacher to be a good online tutor.
- Non-availability of required resources for conduction of electronic-based reviews is also a problem, moreover, the question pattern of the exam and number of questions to be asked is also a challenging task.
- It is difficult to teach some practical-oriented subjects through digital education because it involves performing arts and experimentation using chemicals and other machine tools and equipment.
- It is basically a screen-based learning system that many times may not encourages students to practice it.
- Internet connectivity is not proper across the country; there are some people in villages still struggling with 2G or 3G even these days.
- Students must be self-disciplined and well-focused in the online learning process.

Initiatives of Government of India on e-Learning

- **Swayam:** The objective of SWAYAM is to provide a learning platform to all, including the most disadvantaged. It hosts almost all the courses taught in classrooms

from Class 9 till post-graduation. More information on SWAYAM can be obtained on the official website, swayam.gov.in.

- **Diksha:** This is an initiative of the National Council of Educational Research and Training, Ministry of Education, Government of India. DIKSHA can be accessed at diksha.gov.in by the learners and teachers across the country. It currently supports various courses of NCERT, CBSE and SCERTs across India.
- **e-ShodhSindhu:** It will continue to provide current as well as archival access to more than 10,000 peer-reviewed journals and a number of bibliographic, citation and factual databases to its member institutions. e-ShodhSindhu can be accessed at ess.inflibnet.ac.in.
- **e-PGPathshala:** It is an initiative taken by the MHRD under its National Mission on Education through ICT which is being executed by the UGC. The platform, eggp.inflibnet.ac.in provides interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural and mathematical sciences.
- **SwayamPrabha:** It consists of 34 DTH channels which is devoted to telecasting high-quality educational programmes 24X7. The course contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. The website is swayamprabha.gov.in.
- **NPTEL:** The National Programme on Technology Enhanced Learning was initiated by IIT Bombay, IIT Delhi, IIT Kanpur, IIT Kharagpur, IIT Madras, IIT Guwahati and IIT Roorkee along with Indian Institute of Science, Bangalore in 2003. NPTEL platform provides open online courses around engineering and core science subjects.

Conclusion

Due to the emergence of ICT in the world, the acceleration in internet connectivity is playing a catalytic role in the growth of e-learning. In underdeveloped and developing countries, e-learning raises the level of education, literacy and economic development. The business of e-learning is fast growing and at the same time many institutions are creating free online platforms to assist students everywhere. e-learning systems play significant role in the learning activities. Communication between students and teachers is no longer based in one way communication but usually a two way communication. e-learning plays a vital role in educational development as a wheel of growth in education sector. It is expected that if India



proceed as joint venture and work mutually on the issue of e-learning, it will be beneficial for the development of educational sector worldwide. Through e-learning, lot of opportunities can be captured and speedy development will possible.

References

- Chandra, S. 2014. e-learning prospects and challenges. International Journal of Research in Finance and Marketing, 4(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>.
- Laurillard, D. 2006. e-learning in higher education. Changing Higher Education: The Development of Learning and Teaching, 71-84.
- Sharma, R. C., and Mishra, S. 2013. International Handbook on e-Learning, Vol. 2.
- Singh, P. P. and Sharma, S. 2005. e-Learning New Trends and Innovations. New Delhi: Deep and Deep Publications Pvt. Ltd.