# E- Learning: Opportunities and Challenges in New Dimension for Higher Education

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**Abstract - The development of information communication technology (ICT) in higher education has led to the expansion of new teaching and learning methods at college and universities. The increased involvement of technology in all aspects of our lives places educational institutions under pressure to include these aspects at the heart of their learning. The recent advancements in IT have changed the world scenario and information technology revolution has affected each and every aspect of human society and has opened new opportunities and challenges for all and particularly a new dimension in e-learning. The e-learning is an advanced system for learning through Information Communication Technologies (ICTs). The ICTs serve as a source of innovative knowledge indicators on higher education. The ICTs are becoming popular in higher education system and services in the present knowledge based society for learning and teaching in academic and R&D carrier development. In view of this, the present paper presents e-learning and new dimensions in higher education related concepts are analyzed.**

**Keywords: E-learning, Information Communication Technologies, New dimension, Higher education**

## I. INTRODUCTION

E-learning now a days has become essential and it is implemented in every field from Space to Government. Networked based modern technologies such as the internet and World Wide Web are dramatically changing education, learning and teaching style as they enable people to access and use of information more conveniently. It offers high-quality learning resources, exchanging information and makes learning groups virtually. As the use of internet is rapidly increasing day by day and people takes it as part of life, it means that internet based learning form of education and training is becoming easily accessible and increasingly important. The term 'e-learning' is used in a variety of ways that is often used interchangeably with terms such as online learning, Computer-based Learning, Web-based Training, Online Resource-based Learning, Networked Collaborative Learning and others. Today even the most affluent countries are convinced that they will not be able to provide adequate education to people as long as they exclusively depend on the formal education stream.

Basically e-learning is the online delivery of information, communication, education, and training. E-learning can be in offline form also like CD, DVD, etc. E-Learning provides new set of tools that can add value to all the traditional learning modes- classroom experiences, textbook study, CD-ROM, and traditional computer based training. It is characterized by speed, technological transformation, and mediated human interaction. The most recent influence of the ICT in the field of education is recognized as e-learning. E-learning has many other nomenclatures such as computer assisted instruction, computer-based training, online education, distance education, web-based training, etc. E - learning has brought new opportunities to education in all subjects. This paper describes e-learning, its suitability to higher education, and on-going initiatives in applying e-learning in higher educational institutions.

## II. OBJECTIVES OF THE STUDY

The objectives of the study are focused on the following issues:

- To know the concept, forms of e-learning and facilities offered by e-learning in higher education
- To identify the problems of e-learning in higher education and make a proposal for the introducing e-learning higher education system

- To recommend a number of activities to implement the proposal plan and future development of e-learning education

## III. CONCEPT OF E LEARNING

The term e-learning has a variety of meanings, and is often used interchangeably in literature with learning technology, educational technology or machine-assisted learning. Simply speaking e-learning is;

- Learning facilitated and supported through the use of information and communication technologies.
- Education offered using electronic delivering methods such as CD-ROMS, Video Conferencing, websites and e-mail. Often used in distance learning program.
- Learning that is accomplished over the Internet, a computer network, via CD-ROM, interactive TV or Satellite broadcast.

However, generally three types of e-learning are available. These are namely; web-based training, supported online training and informal e-learning. The following table summarizes the key characteristics of these approaches are:

Table 1: Types of e-learning

| **Web-based training** | **Informal e-learning** | **Supported online training** |
|---|---|---|
| Content-focused | Group-focused | Learner-focused |
| Delivery-driven | Practice-driven | Activity-driven |
| Individual learning | Organizational learning | Small group learning |

## IV. ADVANTAGES OF E - LEARNING

E-learning is beneficial to education, corporations and to all types of learners. It is affordable, saves time, and produces measurable results. E-learning is more cost effective than traditional learning because less time and money is spent traveling. Since e-learning can be done in any geographic location and there are no travel expenses, this type of learning is much less costly than doing learning at a traditional institute.

Flexibility is a major benefit of e-learning. E-learning has the advantage of taking class anytime anywhere. Education is available when and where it is needed. E-learning can be done at the office, at home, on the road, 24 hours a day, and seven days a week. . E-learning also has measurable assessments which can be created so the both the instructors and students will know what the students have learned, when they've completed courses, and how they have performed.

E-learning encourages students to peruse through information by using hyperlinks and sites on the worldwide Web. Students are able to find information relevant to their personal situations and interest. E-learning allows students to select learning materials that meet their level of knowledge, interest and what they need to know to perform more effectively in an activity. E-learning can also save trees by saving paper. Many e-learning courses are entirely self-contained, presenting all learning content online, or providing alternatives to paper-based forms of communication through such tools as email, PDF manuals, synchronous classrooms, and other web-based tools.

E-learning helps students develop knowledge of the Internet. This knowledge will help learners throughout their careers. E-learning encourages students to take personal responsibility for their own learning. When learners succeed, it builds self-knowledge and self-confidence in them. E-leaning helps to center learning on the student instead of the classroom. E-learning also can focus on the strengths and needs of individual learners, which is sometime not possible in a crowded class room within the stipulated time period. E-learning accommodates automated, continuous assessment of student progress. E-learning permits to develop materials using the web resources and it offer links to useful learning materials.

E-learning allows instructors to communicate information in a more engaging fashion than in text-based distance education programmes and also offers a wide-range of text, diagrams and images with video and sound, including virtual reality technology that in the future will improve the effectiveness of the approach even further. E-learning provides immediate feedback and positive reinforcement. It enhances computer and Internet skills of faculty members as well as students and also they become more competent with keyboard and other ICT components.

## V. IMPLICATIONS OF E-LEARNING IN HIGHER EDUCATION SERVICES

In the present age of information highway, e-learning opens a new hope and aspiration in higher education, services and professions. Higher educational institutions services are currently involved in rapid changes as a result of:

- Opportunities offered by e-learning
- Demand for new services
- Pressure for increased productivity and accountability
- Increased demand for 24 hour/seven-days-a-week services
- Changing Learning Trends
- Job-Specific Needs
- More Content and Short Duration

### *5.1 Acquiring information skills*

Sometimes e-learning activities involve traditional information knowledge and skills, and to get involved in working in a new ways with new groups of people. E-learning makes the information workers more confident and competent in the use of ICT.

### *5.2 Time Reduction*

The nature of e-learning with its visual and auditory reinforcement of information and individualized feedback systems, the time taken to learn the information is significantly reduced. E-learning also can be delivered as 'just in time" training, reducing the period between the learning and application of the knowledge which enhances the learning process.

### *5.3 Anywhere Learning*

E-learning provides remote access to learning facilities through the Information communication Technologies. The e-learner can learn from the place of his convenience, even from home, office, while traveling, or literally from anywhere. In the globalize world the work style is changing. People are expected to work from anywhere and anytime.

## VI. E - LEARNING EDUCATION TOWARDS PROFESSIONAL SKILL DEVELOPMENT

Higher education system, a skill-oriented professional discipline require adequate skill development amongst the learners, which changes over time depending upon the development of methods and techniques of the concerned professional discipline and requirement of professional competency in the market place. The impact of information in all spheres of society coupled with the utilization of IT development for access and utilization of information are dramatically changing the face of the higher educational institutions. In this changing scenario, the custodian roles of teaching professionals are changing to the role of facilitators and distributors.

The development of ICT and its application has changed its traditional methods acquisition, organization and access of information. The purpose of higher education is to provide skills for developing professionals who link the people and information. Basic skills required are the intellectual organization of information and processing, management, retrieval and provision of information to its students.

## VII. MAJOR CHALLENGES

The rapid growth of e-learning courses at academic institutions has brought about a big change for students and tutors with various levels of academic experience. Instructors and students must possess specific skills to successfully use various e-learning tools. Students may demonstrate their learning efforts via different types of

technology such as text, video or audio devices. Instructors often need to restructure their courses to be successfully incorporate learning. These activities represent challenges that all groups must overcome to succeed in e-learning.

The increasing demand of higher education with the changing global scenario of job market requires facing the challenges with regard to survive in the competitive climate and to provide quality of higher educational programmed is important. Limited Internet connectivity, inadequate computer and communication infrastructure make it difficult for universities and institutions to access and download full text databases and other key resources. The major challenges and issues of introducing e-learning higher education are discussed below.

*7.1 Lack of finance*

The major challenge in improving e-learning higher education is the lack of finance. It is not possible to make any resource available without appropriate financial support.

*7.2 Lack of Knowledge and Training*

One of the main constraints of e-learning systems is that students do not know how to use the particular information technology. Much more attention will be required in the future web based training that will be delivered over the internet using the non propriety www server and client technology.

*7.3 Insufficient Contact Classes*

Being a practical oriented course, higher education required computer training and practical classes for classification and cataloguing with personal contact between teacher and student, but the number of days for contact classes are very limited.

*7.4 Lack of IT proficiency*

In a developing country like India, teaching professionals are facing severe shortage of ICT facilities and mentor for higher education. There are certain specific problems that act as deterrents to the higher education to adopting modernization i.e., low computer literacy among students of higher; lack of basic knowledge of hardware and software among working professionals; and inadequate funds for purchase, installation and working with computers in school, college, public libraries and universities.

*7.5 Lack of Evaluation*

There is no mechanism of assessing teaching effectiveness and quality of study materials of distance learning program courses. Students' evaluations of teaching will help to provide instructors and course designers with feedback about the quality of their efforts.

## VIII. IMPLEMENTATION PLAN FOR FORMATION OF E-LEARNING IN HIGHER EDUCATION

As in the perspective phase of e-learning system is not possible to introduce all higher education institutions, therefore it will be wise to introduce higher education through distance learning method in less ICT facilitated institutions in different phases. There are some elementary differences between online courses with that of distance learning courses.

Extensive preplanning of an online course is essential. Knowledge of the capabilities and limitations of the e-learning system is an important prerequisite to design an online course. Faculty members should have a solid understanding of the major principles of online course design before they attempt to put a course together.

Mobile based learning should be encouraged in higher education. The success of the mobile phone and subsequently short message service in remote areas has demonstrated the functionality of portable communication devices with the access to internet resources using LAN or long range wireless communication services.

## IX. CONCLUSIONS

In general, the use of the e-learning system, as an important approach in managing knowledge and educational needs of higher education institutions, creates some challenges. At present age, information needs are changing and demands of this profession are also varying. This is the time to think intensely about the new syllabus for higher education system. Simultaneously, e-learning is now the global scenario and it should not avoid. As a developing country like India, it is hard to design a new courses and new e-learning higher education system but not impossible. Lot of issues and challenges are involved with this task but as soon as it put forward, it will overcome all those problems. Hope the proposed plan among higher educational institutions will make a new opportunity and make the higher education competent for the world. In 21$^{st}$ century, learning mode is increasingly relying on various forms of electronic delivery and communications.

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