



# ROLE OF E-LEARNING IN HIGHER EDUCATION

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**Abstract:** In the modern era, learning is very important but at the same time learner interest also has to be kept in much attention. E-learning provides the learner with most of the things he desires to quip himself. This e-learning can also be widely coined as "online learning" or "virtual learning". E-learning primarily means electronic learning. It doesn't restrict the learner. E-learning helps people get access to a world-class learning experience when traditional higher education may not be possible due to financial, personal or any other constraints.

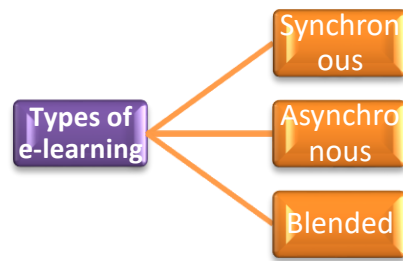
**Index Terms** – Higher Education, Quardant, MOOC, e -earning

## I. INTRODUCTION

In the modern era, learning is very important but at the same time learner interest also has to be kept in much attention. E-learning provides the learner with most of the things he desires to quip himself. This e-learning can also be widely coined as "online learning" or "virtual learning". E-learning primarily means electronic learning. It doesn't restrict the learner. E-learning helps people get access to a world-class learning experience when traditional higher education may not be possible due to financial, personal or any other constraints. Its typically means using a computer to deliver a part or the entire course whether it's in a school, part of mandate business training or a full distance learning course (Vivekananda and Ruvn,2017). Online Learning embraces a range of technologies such as the worldwide web, email, chat, new groups and texts, audio and video conferencing delivered over computer networks to impart education. It helps the learner to learn at their own pace, according to their own convenience (Dhull and Sakshi, 2017). In simple terms, the concept of e-learning uses various resources of information and communication technologies. ICT also includes the communication technologies which provide access to information. These include internet, wireless network, satellite communication, cell phones; digital television etc. E-learning is also recognised as digital learning. E-learning is the method to learn anywhere, anytime and any number of times by using personal computers or smart phones. E-learning also allows the design of digital content & establishment of digital libraries where the students as well as teachers can access from any place the subject related course material & research material at any time (Watson G, 2006).

E-learning refers to the use of information and communication technologies to enable the access to online learning/teaching resources, defined e-learning to mean any learning that is enabled electronically (Abbad et al; 2009). The term 'e-learning' is applied in different perspectives, including distributed learning, online-distance learning, as well as hybrid learning (Maltz et al; 2005). E-learning is defined as the use of information and communication technologies in diverse processes of education to support and enhance learning in higher education, and includes the usage of information and communication technology as a complement to traditional classrooms, online learning or mixing the two modes (OECD, 2005).The term e-learning refers to the attainment and use of knowledge that are mainly facilitated and distributed by electronic means (Wentling et al; 2000).The e-learning depends on computers and networks, but it will progress into systems comprising of a variety of channels like as wireless and satellite, and technologies such as cellular phones (Wentling et al;2000).The features of e-learning process are mostly centered on the internet; global sharing and learning resources; information broadcasts and knowledge flow by way of network courses, and lastly flexibility of learning as computer-generated environment for learning is created to overcome issues of distance and time (Liu and Wang, 2009).

## Types of e-learning Models



There are basically 3 types of e-learning:

- **Synchronous**
- **Asynchronous**
- **Blended Learning**

1. Synchronous means at the same time, so in Synchronous type of E-learning, there is an interaction between participant and instructor through Web Bases Portal.

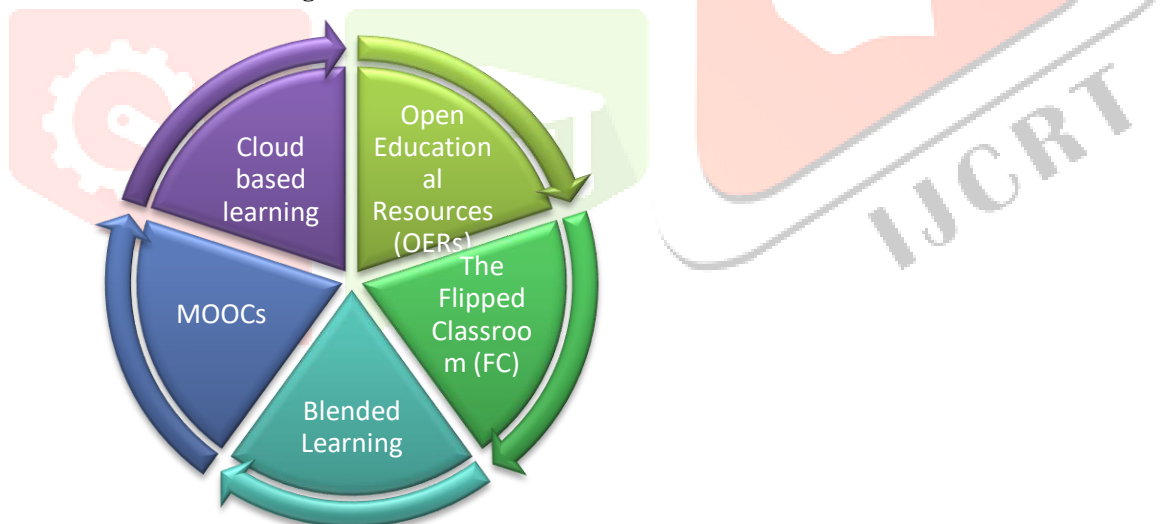
2. Asynchronous means not at the same time, so in Asynchronous system of E-learning the portal allow the participant to complete the syllabus or training without interaction with the trainer or instructor.

3. Blended learning is a combination of e-learning tool with traditional class room teaching. In Blended learning students can enjoy classroom experience with interaction with teachers and students through actual classroom. Blended E-learning has benefits of face to face interaction with social benefits of classroom training and different teaching techniques (Joshi and Dewangan, 2021).

E-Learning Technologies in Higher Education:

Now-a-days, the scenario of the classroom teaching is changing. Former, Knowledge is communicated by the teacher in a teacher-centric mode, which is not able to gain learner's interest and learner feels bored. The education in 21<sup>st</sup> Century is student-centric education (Jonassen et al; 2003).

- **Open Educational Resources (OERs)**
- **The Flipped Classroom (FC)**
- **Blended learning**
- **MOOCs**
- **Cloud based Learning**



### Open Educational Resources (OERs):-

OERs are any type of learning and teaching materials that are freely accessible and are available in the public domain and can be used with an open license (Creative Commons). The nature of these OERs is that they have free access to everyone; one can legally & freely copy the content, use it and also re-share it. OERs include course materials, modules, textbooks, lecture notes, assignments, tests, projects, software tools, audios, videos and animations. It also includes various techniques used to support access to the data. The advantages of OERs are that it can decrease the cost of education especially large tuition fees for the students that are not able to afford them because they are either free or of low cost. Lower costs will result in students being less dependent on student loans and may even result in higher program completion rates. Moreover, it maintains quality & helps prior learning and after learning. OERs also allow creation of knowledge and sharing of content outside the boundaries of the traditional classroom. OERs are fully revisable and remixable. Hence it permits the choice to revise the contents of the subject either by deleting the inappropriate content or by adding one's own content.

The Flipped Classroom (FC) :-

Flipped classroom is a new type of blended learning that reverses the concept of traditional learning by providing online instructional material outside the classroom. In a flipped classroom approach, students see online lectures, work together as a team in online discussions and perform research at home and employ the concepts in the classroom with the guidance of a teacher or a mentor. In short, in flipped classrooms students see lesson videos at home at any time convenient to them. The advantage of flipped classroom is that students can see the e- content or the videos as per their convenience. Thus a student can learn at his own pace. Secondly, the teacher can get a lot of time to fulfill the learning & emotional demands of students. Thirdly, students get ample coverage and new perceptions of the course material and are capable to spend more time with scientific tools that can be only used in the classroom & this will motivate the students to perform the work they want to do (Fitzgerald, 2006).

Blending Learning:-

Blended learning is an innovative model of learning which combines the benefits of both traditional face-to-face learning and ICT supported learning including both offline and online learning. It has extensive possibility for collaborative; constructive and computer supported learning. The advantage of blended learning is that some of learning is done through ICT, either by online or offline mode, thus teachers & students find a lot of time for creative activity in the classroom and it also built the spirit of teamwork among the students. Furthermore, students get sufficient time to interact with their peer group which are doing same course. They can also work together with them inside college premises and also in virtual environment (Picciano, 2014).

MOOCs:-

Massive Open Online Courses are the planned courses where e-content is provided to the learner in the form of a virtual class through a web-based portal, preferably by LMS (Learning Management System). They can be accessed by any suitable device i.e., desktop, laptop, tablet or smart-phones. The e-content is arranged in a logical sequence, either in topic-wise format or weekly format for learners to meet specific learning outcomes. In addition to e-content, there are various activities provided to the virtual group of learners like online quizzes, discussion forums, live chat and live videos (Chatterjee et. Al., 2014).

The basic philosophy of the MOOCs is 4 A's - anytime, anywhere, anyone, any number of times. MOOCs are extremely cost-effective as they are made available almost free of cost. MOOCs are like mini smart colleges. A new portal for MOOCs 'Study Webs of Active-learning for Young Aspiring Minds', in short, SWAYAM, is said to present students with an opportunity to study anything from a list of 2000 courses (Shah,2016). Government of India is making sincere efforts in this direction. SWAYAM is a portal that provides an integrated platform for various online courses, using latest information & communication technology and covers content material of High School as well as all higher education subjects.

Massive Open Online Courses (MOOCs) integrates the online courses which are developed as per the pedagogy and have four-quadrant approach

- Quadrant I: It consists of e-tutorials, which includes video and audio contents, animations, simulations, video demonstration, etc.
- Quadrant II: It consists of e-content, self- instructional materials, e-books, case studies etc.
- Quadrant III: It consists of Web Resources, which includes supplementary reading, related links, Wiki/Glossary, Open content in the internet etc.
- Quadrant IV: It consists of self-assessment. It includes various problems and solutions, MCQs, fill in the blanks, match, etc. and various e-quizzes and the feedbacks. It also includes discussion forum, where learner can seek clarifications or doubts and difficulties from the course coordinators.

The advantage of MOOCs is that one can learn according to own pace of learning at any time convenient to you. Other advantage of MOOCs is that it will make learning learner centric and interactive unlike our traditional method of teaching, which is basically teacher centric.

#### Uses of e-learning in Higher Education:

The development of multimedia and information technologies, as well as the use internet as a new technique of teaching, has made radical changes in the traditional process of teaching (Wang et. Al; 2007). Schedules of schools and educational institutions have recognized e-learning as having the prospect to transform people, knowledge, skills and performance. Colleges, universities, and other institutions of higher learning race to advance online course capability in a rapidly developing cyber education market (Love and Fry 2006). E-learning, has come to be more and more important in institutions of higher education. The introduction and expansion of a range of e-learning tools has been initiating several changes in higher education institutions, particularly when it comes to their educational delivery and support processes (Dublin, 2003).

#### Advantages of e-learning in Higher Education:

1. It is flexible when issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. According to, the adoption of e-learning provides the institutions as well as their students or learners the much flexibility of time and place of delivery or receipt of according to learning information (Smedley, 2010).
2. E-learning enriches the efficacy of knowledge and qualifications via ease of access to a huge amount of information.
3. It is able to provide opportunities for relations between learners by the use of discussion forums. Through this, e-learning helps eradicate barriers that have the potential of hindering participation including the fear of talking to other learners. E-learning motivates students to interact with other, as well as exchange and respect different point of views. E-learning eases communication and also improves the relationships that sustain learning. Note that E-learning makes available extra prospects for interactivity between students and teachers during content delivery (Wagner et. Al., 2008).
4. E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is likewise cost effective in the sense that it offers opportunities for learning for maximum number of learners with no need for many buildings.
5. E-learning always takes into consideration the individual learners differences. Some learners, for instance prefer to focus on certain parts of the course, while others are prepared to review the entire course.
6. E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators, lab technicians etc.
7. The use of e-learning allows self-pacing. For instance the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick. It therefore increases satisfaction and decreases stress (Holmes et.al., 2006).

**Future of e-learning in India:** As far as E-learning industry is concerned, India has main role to play at International level. Existence of worlds one of the best training professionals and educational infrastructure, makes India, world's best e-learning provider. As India is already a leader in IT Industry, the future of E-learning portal is bright. Through regulation and financial support, Government of India is taking every measure to enhancement e-learning environment in India. Not only government but many private sector participants are also taking every step to provide pace to e-learning system in India. All these measure and steps make India as attractive destination for E-learning industry. Many foreign company are planning to setup their business of e-learning system in India. The future of Open University are also very bright in India. Till date there are more than 10 open universities in India providing more than 500 courses. Indira Gandhi National Open University (IGNOU) is the pioneer and biggest Open University in India. In order to promote Distance Education, Distance Education Council has been set up to promote and develop Distance Education in India. Distance Education is also expanding its scope and pace in India, as it is 50% less in cost and better and high quality education could be accessed without leaving home and profession. Expansion of bandwidth, expansion of network and towers, providing low cost internet are some of the measures taken by Government and Private Network service providers to expand the scope of E-learning Services in India. Through the increase in number of mobile phone users, awareness amongst youth, we can say that future of e-learning services are very bright in India (Joshi and Dewangan, 2021).

## CONCLUSION

The future of Education in coming period is E-learning or web-based learning system. It is boon to the society as it could be accessed by every section of the society. Government needs to expand the scope of online education and should create awareness amongst different section of the society. E-learning is not only beneficial for students but also helpful for teachers and professionals to advancement their knowledge and skills. I a country like India, where there are variation in language, religion, age and knowledge, one need to focus on marketing of e-learning system. More marketing will create new customers for e-learning Providers. Vast expansion of internet, mobile phone and other electronic gadget users, we can say that traditional learning system can be replaced by e-learning system in near future. In a country like India, level of economic development, education and literacy can be achieved with the help of expansion of e-learning system. Not only to students, teachers, professionals but online education will also provide diversified opportunity to corporates to expand their business opportunities (Joshi and Dewangan, 2021).

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