

A COMPREHENSIVE STUDY OF E-LEARNING ENVIRONMENTS

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ABSTRACT

The concept of e-learning plays a tremendous role in today's training and educational filed. It was coined in late 90s as the innovative upgraded learning through internet. Now a day it captured many areas of digital media such as intranet, internet, satellite, extranet etc to make the learning easier and user friendly. The demand of e-learning is increasing day by day in our country. This paper describes various applications of e-learning and how e-learning is beneficial during lockdown period of our country. It also describes the importance of e-education system and its various applications.

Keywords- Science and technology; e-learning; internet; intranet; e-education system.

I. INTRODUCTION

In today's world development of science and technology in many fields has made people's live smooth as compare to the ancient time. Technology has become the integral part of our life. The 20th century was a boom in technology word. E-learning is a training or learning method with the help of digital devices like as computer, mobile phone, cable tv etc. It provided the mechanism to the user to learn anywhere, anytime. Students or People could study where they preferred. It is a traditional classroom model of learning. Simply we can say that e-learning provide online learning through computer or any other digital devices [1]. It is an asynchronous learning or training. Now a day with the boom of internet e-learning is known in the form of online learning. The major advantages of e-learning is, it save the time and money. Sometime it is considered that e-learning technique is 'student-oriented' or 'learner- oriented'. Covid-19 is a worldwide problem. In this fastidious situation schools and colleges are off. So there is only the way to handle the situation for the schools and colleges to learn their students is e-learning. Students are receive their learning through computer or mobile phone or any other way of digital devise rather than the traditional classroom. During 'covid-19' fastidious problem Indian government is providing many of course free of cost through 'AICTE' platform. Many of universities or colleges are organizing various 'webinar' to share their knowledge. E-learning is divided into two parts:

- i. Asynchronous e-learning
- ii. Synchronous e-learning

Asynchronous e-learning

Asynchronous learning is a general term that is used to describe the forms of learning, education that do not occur in the same time or same place. This form is usually applied on digital and online learning in which student learns from various instructions, such as game based educational task that students complete on their own-that is not being delivered in real time. In Asynchronous learning learner can log on to an e-learning environment at any time and download the documents or send the message to tutors. Lots of people take online courses because of their asynchronous nature, increasing knowledge or education with their work, family. Email exchanges between teachers, online discussion boards are the examples of asynchronous learning [2].

Synchronous e-learning

Synchronous e-learning is usually supported by digital media such as videoconferencing and chat has the prospective to support e-learners in the improvement of learning communities. Teachers and learners involvement synchronous e-learning as more social and avoid frustration by asking and answering questions in real time. Synchronous learning helps e-learners to feel like a participants rather than quarantines. Online webinar, conferences are the best examples of synchronous learning [3].

II. E-LEARNING ENVIRONMENTS

Nptel

The National Programme on Technology Enhanced Learning (NPTEL) was introduced by seven Indian Institutes of Technology (Bombay, Kanpur, Madras, Kharagpur, Guwahati, Delhi and Roorkee) along with the Indian Institute of Science, Bangalore in 2003. Five major areas of education were identified, namely, computer science and engineering, civil engineering, mechanical engineering and electrical engineering, electronics and communication engineering and 235 courses in web/video format were introduced in this phase [6].

Swayam

SWAYAM stands for "Study Webs of Active-Learning for Young Aspiring Minds".

It is an Indian MOOC (Massive open Online Course platform. It is a programme introduced by Government of India and designed to achieve the three important principles of Education Policy which is access, equity and quality. The main objective of this effort is to take the best teaching learning resources to all. SWAYAM tries to find to bridge the digital divide for students who have till now remained untouched by the digital revolution and have not been able to join the typical of the knowledge economy. It was launched by Honorable President of India on 9th July 2017 [7]

Swayam Prabha

The SWAYAM PRABHA is a group of 32 DTH channels whose main motive is to telecasting of high-quality educational programmes on 24X7. It uses GSAT-15 satellite for telecasting. Every single day, there will be fresh content for at least four hours which would be repeated five more times in a day, permitting the students to choose the time of their suitability. These channels are uplinked by BISAG, Gandhinagar. The contents of study are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. Web portal is maintained by INFLIBNET Centre [8].

IGNOU Online

IGNOU is handling around 150 programmes at different-different levels through their regional centers, and study centers, tele-learning centers spread all over India. The study centers of IGNOU are provide easy access and operative support services to learners. In the duration of 2012-2015 IGNOU has developed a website 'http://www.ignouonline.ac.in' to providing to the learning needs of IGNOU online learners' community. IGNOU is providing a provision of linking Education Broadcast National Centre for Innovation in Distance Education, IGNOU is also providing webcasting facility to learners by educational channel –Gyandarshan, Gyanvani and EDUSAT. Virtual classes also provides links to all the learner to all the online programmes of the university [9].

III. CHALLENGES AND ISSUES

As we know that e-learning program is a program through which the learner can take up training at their own place and in their free time. But there are some challenges that have to be addressed while delivering e-learning.

1. Lack of awareness: The learner are do not aware of effectiveness of e-learning. They might think that e-learning is not effective as compare to classroom learning, and the learner miss the opportunity of face to face interaction.
2. Motivating Learners: Motivating learners is also one of the major challenges faced by the eLearning developers. When a developer install the course and give the permission to the learner to use that at their devices, chances are that the learner may not perform effectively as they would do in classroom. So the challenge is –how can a developer motivate the learner and present a good learning experience to them?
3. Course content: When the learner joined with the eLearning course, it is time that the content of the course needs to be attentive. The value of the course is almost depends on the content of the course. Most of the time, the content received from the client is unstructured and to understand that become a challenging task. You may receive content which does not comprehend sufficient information to be covered under a certain topic.
4. Evaluating effectiveness: This is also of the major challenges in eLearning could be to evaluate whether your course has the intended impression on the learners. How the developer evaluate that your course is attaining its goal of meeting the learning requirements of the employees or trainees?

IV. CONCLUSION

E-learning is not just a revolution of technology and science. But also it become the center of attraction among the people, because of its effectiveness. E-learning enhance the ability to implement the new process or knowledge at the workplace. Its aim is to create an better environment where technology is used to enhance the learning in the remote areas also.

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