

An Overview of E-Learning and its Challenges in India

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Abstract:

Nowadays, technology is emerging at a greater pace, with the widespread diffusion of technology, knowledge access becomes easier and remote learning has become a common practice. It enhances the individual's learning ability also improves skills in different dimensions in new subject areas. The best part is, it made individuals acquire knowledge without meeting the teacher physically. One of the prominent modes of distance learning is E-Learning. Online Education has to go long way with rapid technological advancement. India is also one of the countries that evolving around advanced technologies like many other nations. In India, with a heavy population i.e.; 1.3 billion, and the adoption of smart technology is happening at an exponential pace. Especially with the usage of smart mobiles and with 4G and 5G technologies, high-speed internet, and other latest electronic gadgets. People are becoming more and more technology-oriented day by day. The emergence of the World Wide Web has influenced the lifestyle of the people in many ways in India. Ex. doing online shopping, social networks, online food deliveries, online money transactions, and online learning, etc. Even though e-commerce is the most influential industry online, E-Learning is right next to it. In this present scenario, this paper through an adequate light on the overview of e-learning and the challenges facing and future trends in India

Keywords: e-learning, challenges, Technology, Blended classroom

1. Introduction:

The rapid diffusion of technology has created a greater influence on the educational system. In the recent past, students have become more technology-oriented learners and relying more on advanced internet technologies and networks for their better learning experience. Thus the modern educational tools and methodologies have taken a new leap against traditional learning approaches (paper-based).

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.

In General, E-learning can be defined as the use of information technology connected through the internet for learning. It comprises of

- a) Accessing and sharing the learning material.
- b) Speaking with the tutors (teachers) and fellow students.
- c) Seeking assistance while learning process.
- d) Obtaining greater knowledge and gaining better experience.

By witnessing greater success in various technologies in India, Our ambitious Prime Minister (PM) intends to transform India by introducing digital technologies through the Digital India Initiative that provide greater opportunities for all kinds of people in the country. This Programme majorly focusses on important sectors like Health, Education, Employment, etc. Majority of the colleges and Universities conducting online classes for being the part of modern India initiate. Which is an indication of acceptance of the new technologies in the education system.

2. Research Methodology:

The present paper is a conceptual study on E-Learning. Thus adopted a qualitative research strategy. (Saunders, M, et al 2003), He explained that in conceptual research, it is essential to do a literature survey on the selected topic thereby analyze in-depth to conclude. In researching of qualitative approach, it is always possible to make the necessary changes subjected to the market and integrate the survey. (Ader et al., 2008), He says that, in qualitative research, no independent and dependent variables are involved, it is experimental in nature, Therefore the present study based completely on the qualitative method.

3. Objectives of the Study:

- i. To analyze various components of E-learning.
- ii. To examine the various challenges of E-Learning in India.
- iii. To evaluate the future trends of E-Learning.

4. Online education Market in India:

- In 2016, the online education market in India has a worth of \$0.25 billion, and by 2021 it is going to become \$1.96 billion with a compound annual growth rate of 52 percent.
- In 2016, 1.6 million users enrolled in different online learning courses. And is estimated to grow up to 9.6 million by the end of the year 2021
- The Classroom education cost is 175% higher is estimated, so online education is more cost-effective than traditional classroom cost.
- In India, 48 percent of target customers are of the 15- 40 age group with higher aspirations and expectations but with lesser income. Noticed that online channel acceptability in the younger demographic is extremely high.
- Below figure 1. Represents India's online education market

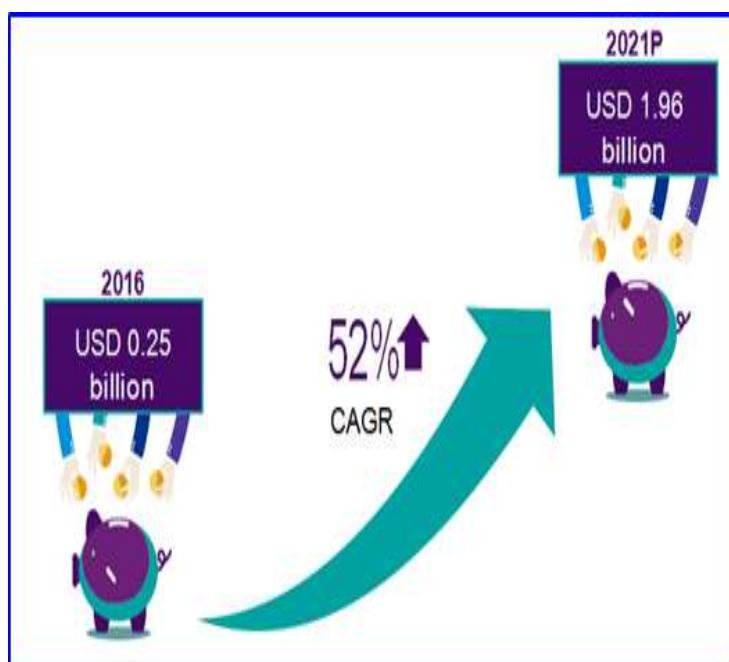


Fig: 1-Online education Market in India:
 Source: KPMG in India's research and analysis 2017

The above-said facts reveal that the future potential of online education in India. It has both advantages and disadvantages over traditional education.

The below table: 1 advantages and disadvantages of online learning (E-learning)

5. Advantages/Disadvantages of E-Learning:

Advantages	Disadvantages
Learn from anywhere, at any time	Chances of distraction are very high
Save Money and Time	Fraudulent Online courses
Learn at your own pace	Cannot do courses that require Labs/Workshops
Recognition of online degrees	Lack of transformational power

Table: 1 –Advantages /Disadvantages of E-learning

6. An overview of E-learning:

In a nutshell, the E-Learning concept must be understood in different ways, one must analyze various *definitions* with different perspectives, *Characteristics* that can describe an e-learning course/module/program, different *types* of e-learning

methods at different levels, and the teaching *approaches* adopted for instruction to extract the best performance from both the ends.

The below picture: 2 represents an overview of E-Learning

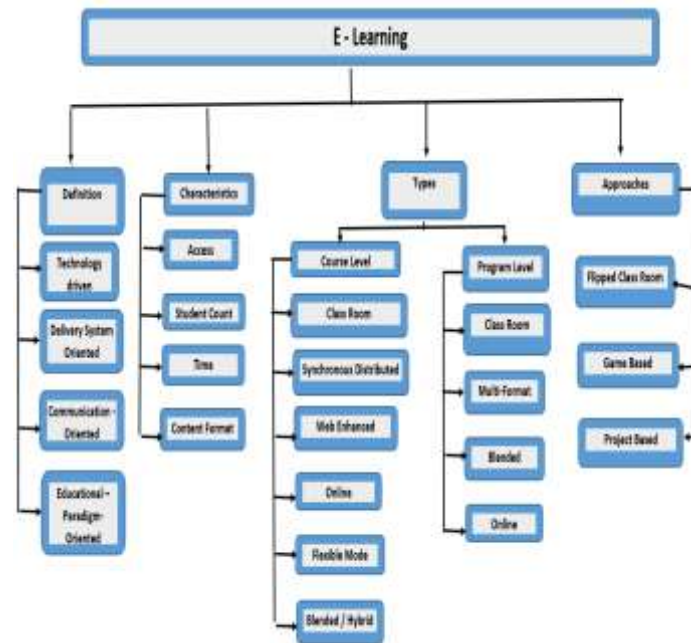


Fig: 2 – An Overview of E-Learning

A. DEFINITIONS

- **Technology-Driven Definitions:** As per the Technology Dimension, E-learning is all about delivering the content and conducting teaching and learning Programmes by using appropriate technology.
- **Delivery-System-Oriented Definitions:** This type majorly focuses upon the usage patterns of the services rather than the achievement of the outcome. It defines E-learning as a process of educational content delivery through an electronic system that includes all activities related to teaching and learning.
- **Communication-oriented definitions:** This concept includes the usage of various communication and interactive tools for the effective transfer of information between the two parties. It defines as pedagogical interaction between instructors and students, students and students among the students through the World Wide Web by communication tools.
- **Educational-Paradigm-Oriented Definitions:** This views e-learning as a new side of education, it focuses on new developments and innovative breakthroughs in the existing educational system. In this perspective, E-Learning is defined as the usage of smart technologies to facilitate remote access to resources and services for better collaboration and exchange of ideas.

B. CHARACTERISTICS

Some characteristics can describe an e-learning course/module/program, which is listed below

- **Access:** This characteristic feature focuses on how students can access and use the program/Course material. They are of two types 1) Online: By using smartphones, laptops, and tablets connected through the internet 2) 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.
- **Student Count:** This function check whether proper communication established among the students is 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 Programme /module /course doesn't suit them, they may drop.
- **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.
- **Content Format:** It defines which type of data and its format is being delivered.

i) 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.

ii) 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.

C. TYPES

There are various means to segregate E-Learning courses based on the level of the course.

- **Classroom Course:** This is a regular way of teaching using computers and simulation designs in a traditional classroom.
- **Synchronous Distributed Course:** Programme /modules are been taught in the conventional class and streamed through online-based conferences to the learners off-campus.
- **Web-enhanced Course:** This sort of Courses are mostly executed by using online tools, mostly face-face interaction is initiated
- **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.

i) Blended Classroom Course: Large portion of the course is conducted through a conventional classroom.

ii) Blended Online Course: a major portion of the course will be conducted online.

- **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.

D. APPROACHES

Three different teaching approaches adopted mostly in the online learning process, they are briefly discussed below.

- **Flipped Classroom:** This is an innovative approach to execute, where all assignments will be done in the classrooms and all pre-recorded videos and learning material can be made available to the students at home to watch before they come to the class, videos are not only be watched at home but they will be discussed in the class said by Jonathan Bergmann, the founder of this approach, Also said, this will be more useful for the slow learners by completing the assignments in the class with discussing with others, this is a blended method of teaching.

- **Game-based:** The name itself is indicating that it is based on games, students work towards a specified goal in the form of a game. This allows them to experiment and gain points of achievement along the way. This type of learning method helps in improving cognitive and psychomotor processes. It is a useful online teaching mode without interacting with the teacher.

- **Project-based:** This approach helps students to work on a project by exploring real-world challenges. It ensures students solve issues by developing innovative solutions. This, in turn, enhances creativity and practical orientation in comparison with traditional approaches. It is also helpful in both blended courses and online courses. In this approach, instructors play the role of facilitators that guide the learners in their projects.

7. Key Challenges for Online Education in India:

Even though online education has large growth potential in India, but it has many future challenges. For instance, a new education policy has posed many challenges to the field of online education. The major challenges are mentioned below.

- In India's population, more than 30% of people are not computer literates, they don't even know how a computer can be started.
- Most of the Indian Citizens belong to the communities like farmers, cleaners, sweepers, housemaids, waiters, etc., their financial position may not support them to have a computer or a laptop.
- Teacher's familiarity is also one of the challenges for the new format of online education. They are not trained, some teachers are not familiar with the new education format. Furthermore there no guarantee that a good traditional class teacher to be a good online tutor.
- Nonavailability 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, especially in the online learning process, a survey says that below 17 years of age group people lagging in these skills.

8. Future Trends of E-Learning

In the nearest future, India is going to witness new trends in the e-learning market, they are as follows:

i).Hybrid Model: There will be an amalgamation of both offline and online education designs. There are certain additional education activities like e-tuitions, internship programs, after-school coaching, and live projects that will be organized online; some of them also reach the students through offline touchpoints like labs and community meeting halls. Virtual classrooms and offline teaching pedagogy both will help the students to be more interactive and gain practical knowledge about the subject and help in learning soft skills.

(ii). Addition of new and offbeat subjects: Along with the regular subjects like digital marketing, cloud computing, and data science online education curriculum also offers peculiar subjects like cyber law, culinary management, and forensics, etc.

(iii).Gamification: For making learning activities more effective, engaging, competitive, and rewarding for both professionals and students, the courses must add different features like discounts, badges, and leader boards. Educational institutes and corporates must coordinate with each other to develop learning content.

(iv). Peer-to-peer learning and profile mapping: E-Learning enhances better peer-to-peer learning and develops collaborative learning among the students. It helps to share their ideas and exchange notes, and also post their comments on a common forum. Emerged technologies like artificial intelligence (AI), data mining, big data, and facial recognition, etc. are vividly used to teach personalized profile-based courses.

(v). Investor interest will grow: In India, in the last three years, a considerable number of big deals have been taken place in the E-Learning market. For instance, Chang Zuckerberg has invested fifty million dollars in Biju's; Bertelsmann India has invested 8.2 million dollars in Eruditus, and Kaizen Management Advisors and DeVry Inc. have invested 10 million dollars in EduPristine. The Khan Academy, which has earned billions of rupees from the Bill and Melinda Gates Foundation, Google, and Netflix founder Reed Hastings, also exists in the list. This E-learning sector will therefore be creating more enthusiasm in the potential investors to attract funds.

9. Conclusion:

In developing countries such as India, the face of education has changed with the emergence of e-learning, made education available even to remote places thereby the literacy rate has drastically increased day by day which further leads to economic growth. This is the fact in the case of nations where technical education is costlier, economic inequalities exist, and scarcity of resources. For such countries E-learning industry is becoming a sunrise industry. It may not totally replace traditional learning, but a hybrid model (both online and offline) will become popular in the coming days. Undoubtedly quality content, distribution, and access (three-fold process) are going to be the better design for e-education. The prices have come down to a greater extent for the network access through various electronic gadgets so that the students can access the information or subject content remotely and explore worldwide opportunities to seek better careers, thanks to satellite technology. Even though the Indian Online market is at the nascent stage it has to go a long way by carefully focusing on require technology and infrastructure that further improves opportunities in various fields of business.

In the present Business scenario, the online education market is booming with many online platforms like Swayam, Edureka, Coursera, and Udemy, etc, and will positively record exponential growth in the nearest future. However, it cannot be agreed by most people that it is a total replacement for traditional classroom education. So a model which comprises of both modern and conventional learning system will gain momentum in the coming days. More digital learning apps will take birth to cater to the needs of learners, In the future, Digital classrooms will gain their importance by systematically engaging conventional classroom experience. To meet the future requirements of education, the Education Industry must adopt hybrid models and virtual classrooms that are more viable for better implementation of online education.

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