International Journal Advance of Social Science and Education (IJASSE)
Vol.1, No.1, 2023: 25-36

Knowledge of E-learning is a Must in 21st Century Digital Education Era

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A R T I C L E I N F O

Keywords: E-Learning, Evolution, Platform, Advantage, Disadvantage

Received : 6, April
Revised : 20, May
Accepted: 24, June

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A B S T R A C T

E-learning is now used on a global scale. It works together. One can learn whenever they want, as often as they want, and on their own schedule with e-learning. Other time-saving features include not having to commute to and from the classroom, being able to select only the portions of the course that interest them, and having uninterrupted time. This revolution was sparked by the invention of computers, and as time goes on and we become dependent on smartphones, tablets, etc. Online learning, often known as e-learning, may be traced back to the 1990s, when the trend first began to take off. E-learning can take many different forms, including online training programs, blended learning, mobile learning, podcasts, video training, microlearning, and webinars. Coursera, Skillshare, Udemy, Codecademy, Edx, Pluralsight, Future Learn, and Moodle are a few of the top online learning tools. We also have online course platforms like LearnWorlds, Teachable, Thinkific, Kajabi, and Podia in addition to online learning platforms. Both Zoom and Google Meet are widely used by both educators and students. E-learning benefits include ease of access, time and money savings, self-paced learning, cost effectiveness, rapid learning processes, immediate upskilling, and traceable learning outcomes. E-learning is dependable and efficient from the viewpoint of scholars and students, depending entirely on the users' implementation

INTRODUCTION

We should be conversant with the latest technology related with electronic learning in terms of online learning because we live in the 21st century, digital era. If we wish to keep up with new technology, everyone must understand how e-learning works and how to be tech-savvy. The world is rapidly evolving with new products and technologies, and one can fall behind if they do not have understanding of online learning or E-learning. It would have been inconceivable to envisage high-quality training offered online 20 years ago, but in the digital age, it has become a reality. E-learning, often known as online learning, is a broad concept.

THEORETICAL FRAMEWORK

Online Learning / E-Learning

Online learning, also known as E-learning, is diametrically opposed to the traditional classroom or traditional education, in which a teacher physically meets with students in a physical brick-and-mortar structure.

Online learning is a style of education in which students receive material over the internet using their home computers. Online diplomas and courses have been increasingly popular in the recent decade with many unusual students, including those who wish to continue working full-time or raising families.

Online learning has many different names and forms, but it all boils down to the same thing: online training, e-learning (electronic learning), computer-based training, computer-aided distance education, Web-based training, Internet-based training, and m-learning (mobile learning). This fundamental idea leads to an almost infinite variety of techniques for teaching and learning outside of traditional classrooms and college campuses. Students may use online learning to transform any location with Internet access and power into a classroom. It is possible to use audio, video, text, animations, virtual training environments, and live interactions with teachers. E-learning, often known as electronic learning, is the delivery of education and training using digital resources. Although eLearning is based on institutionalized learning, it is delivered via internet-connected electronic devices such as PCs, tablets, and even cellular phones. E-learning (also known as web-based training) is anytime, anywhere teaching offered to browser-equipped learners over the internet or a corporate Intranet.

If you ask me what the difference is between E-learning and online education, I can simplify it as follows. E-learning is solely self-paced, with pre-recorded lectures and learning materials, and users and learners simply needing the supplied account names and passwords to sign into the institutional websites for learning and submitting assignments and projects. E-learning allows students to communicate with their teachers solely through the internet. Even though they are on the same platform, they cannot learn or communicate with the tutor in any way. Online education is a supplement to, modification of, and expansion of E-Learning. Online education necessitates the aforementioned materials, as well as the requirement for students to communicate with teachers and mentors face to face via zoom meetings and Google Suites-like programs at webinars. On the

other hand, online learning enables for live and interactive learning via video chat and texts.

METHODS

Types of E-Learning

E-Learning methods are broadly classified as synchronous (instructor-facilitated) or asynchronous (self-directed and self-paced). Asynchronous e-learning, on the other hand, does not require all participants to be present, albeit electronically, at the same time. Asynchronous learning occurs when learning can take place at any time and in any location. However, some digital learning formats require participants to be present at the same time—in other words, live. This is known as synchronous learning. The following are the most popular types of E-learning:

Web-based training courses make learning information available through an Internet-based platform. This strategy is typically used as the foundation for digital knowledge transfer and can be supplemented with others.

Blended learning is more than just E-Learning. Blended learning, on the other hand, blends analog face-to-face encounters with online courses. The content of face-to-face meetings, on the other hand, is not duplicated online; rather, all learning is divided between the face-to-face session and the online course.

Mobile learning is simply eLearning done on a mobile device rather than a desktop PC. It provides learners with even more freedom than "traditional" E-Learning, allowing them to learn at any time and from any location.

Podcasts can be listened to online, but, unlike individual audio files, they are serialized and can be subscribed to. Podcasts are frequently devoted to a single underlying theme. Podcasts are also a wonderful approach to regularly deliver knowledge to listeners at any time and from any location.

Video trainings have the advantage of being significantly more motivating for learners than text-based trainings; they also appeal to both aural and visual learners. They make it easier to communicate complex subjects in ways that students can understand.

Microlearning divides the whole knowledge to be presented into as few learning units as possible. We call this "snackable content" since it is served in small, easily consumable chunks. This strategy avoids overwhelming learners and allows you to supplement long-term learning by offering tidbits on a regular and short basis.

Online seminars (Webinars) are digital equivalents of seminars, or lectures given in front of groups of people. Unlike video training, an online seminar is held in real time, allowing for direct interaction between the speaker and the attendees.

Virtual classrooms are perhaps the most complicated eLearning option. They do more than just convey knowledge through individual courses; they provide a virtual learning environment with all the benefits of a traditional one. Webinars, video and text conversations, data sharing, and interactive whiteboards are all part of a virtual classroom.

Massive Open Online Course (MOOC), which is a free and open online course. MOOCs are available on relevant platforms and can be started at any time. The

length of the course is determined by the intricacy of the topic and the resources of the individual students. Participants in the course listen to online lectures, complete tasks, exchange ideas with other students, and take examinations.
Virtual reality (VR) is the most recent and cutting-edge E-learning method, and you may have already used it. Participants, like in gaming, don special glasses that allow them to enter a virtual area where they may walk around and even affect what is going on.

E-Learning Platforms

Users can use a number of e-learning systems in educational, business, or independent settings. PowerPoint presentations are used in the majority of web-based training. Learning management systems are used practically everywhere. Moodle, Blackboard Learn, Canvas, Saka, and Schoology are the platforms that enable digital learning through administering e-learning courses, online exams, and analyzing student performance data. Learning Management Systems are scalable, adaptable, goal-oriented, and user-friendly. Adobe Captivate Prime, Docebo LMS, Looop, TalentLMS, iSpring Learn, Northpass, eFront, Kajabi, Cisco Webex and Learnupon are some of the greatest enterprise-level LMSes.

Social networking platforms are also quite beneficial for e-learning. Because services like Facebook, Twitter, Instagram, YouTube, and LinkedIn are second nature to many users, social media has become a popular learning tool. These platforms are suitable for bringing together communities of learners and facilitating the sharing of e-learning information. Users on Facebook and LinkedIn can form groups to share information and ideas, and members of the groups can openly discuss the shared material.

MOOCs are courses of study that are made available to a large number of individuals via the internet, typically for free. MOOC courses are frequently modeled after top-tier universities such as Harvard and Yale, which is ideal for students seeking free quality training on a certain field. Coursera, edX, and FutureLearn are some of the most popular MOOC platforms. Other online learning platforms, such as Udemy and Skillshare, are similar to MOOCs in that they are widely available. They differ from more university-centric MOOCs in that they charge the user and emphasize practical engagement with material rather than passive learning methods such as lectures. Regardless of platform, e-learning is a flexible, adaptable tool that can be used by both professionals and students to further their education.

RESULTS

Why We Should Know E-Learning and Why It Is Important

E-learning is a method of learning that is based on formalized education but makes use of electronic resources. While teaching can occur both inside and outside of the classroom, computers and the Internet are the primary components of E-learning. As a result, most colleges and universities are conducting E-learning virtual class rooms in addition to traditional teaching courses practically everywhere in the world and thriving day by day. E-learning in higher education has been shown to increase productivity, focus, and thus academic results.

According to one study, students can increase their recall rates by up to 25-60% by using e-learning. As a result, all students and teachers should be aware of E-learning and its critical role in 21st-century education.

Evolution of E-Learning

Since its first use at a CBT systems seminar in 1999, the word "e-learning" has only been in use. To provide a more precise explanation, new terms like "virtual learning" and "online learning" started to appear. The evidence shown below suggests that early kinds of e-learning existed as early as the nineteenth century.

When it changed its goals and focus in 1946, the University of South Africa—now one of the largest open distance learning institutions in the world—became a champion and developer of distance education. In 1954, BF Skinner, a Harvard professor, devised the "teaching machine," which allowed schools to provide students with programmed instruction.

However, the first computer-based training program was not introduced to the world until 1960. Programmed Logic for Automated Teaching Operations, or PLATO, was the name of this computer-based training software. It was originally intended for University of Illinois students, but it has since been used in schools throughout the area.

When the University of Houston started broadcasting the first college classes on KUHT (now known as Houston PBS), the nation's first public television station, in 1953, it made history for distance learning. KUHT, which bills itself as "The Channel That Changes You," carried 1–5 hours of educational programming each week, accounting for around 38% of the channel's total broadcast time.

Many of the courses aired in the evening, allowing learners who worked during the day to watch the material. The personal computer and the personal web were the next big breakthroughs to transform remote education after television. In the 1980s, the first MAC let people use computers in their homes, making it easier for them to learn about specific subjects and build specific skill sets. In 1989, the University of Phoenix was the first to start a fully online academic institution that provided both bachelor's and master's degrees.

By the early 1990s, a number of institutions had been founded that only provided courses online. By utilizing the internet, these colleges were able to educate students who would not have otherwise been able to do so due to time or geographic restrictions. Technological improvements also assisted educational institutions in lowering the costs of distance learning, which were then passed on to students, allowing education to reach a wider audience.

The first accredited, entirely online university, Jones International University was established in 1996 by Glen Jones and Bernand Luskin. Since the founding of these universities and programs that are totally online, distance learning has grown in a variety of ways. The Open University in the United Kingdom was eager to take advantage of e-learning. Their educational system has historically placed a strong emphasis on distant education. In the past, both course materials and teacher correspondence were sent via mail. The Open

University was able to offer a wider range of interactive educational experiences and quicker connection with students via email and other channels with the development of the internet.

In Australia, E-learning has gradually advanced from the history of post-secondary education with the print-based educational program in correspondence offering to the students in university since 1911 onwards. (Department of Employment, Education and Training 1993) Before the invention of the internet, online learning was named as 'distance education' in its preliminary stages. Distance education started from print and fastly increased in the 1920s due to the request of studying materials from some parents because they lived in remote areas. In 1970,Some provincial governments recognized distance education's greater potentiality with a few decades under Canada's belt of correspondence. The Alberta government opened Athabasca University, through "open" system that they relied on the printed courses of materials and interacted over the phone. In the 1980s, Canadian Education introduced across broadcast television companies by providing educational programming for all learners in different ages. In1990s, With the emergence of the internet, accessing online learning in Canada through massive information sources, contacting with people from a distance, and a resource pool provided by many. Online learning in Canada flourished, and most of the companies tried to persuade people in new methods in learning and education digitally . In Canada toady, online learnings from accredited institutions are fully accepted and respected by most employers.

Businesses began embracing e-learning to teach their personnel in the 2000s. Both new and seasoned personnel now have the option to broaden their industry knowledge and skill sets. Individuals were given access to programs at home that allowed them to get online degrees and better their lives through increased knowledge. In the late 20th century, e-learning delivery techniques became popular with the emergence of the computer and internet. Then, during the next decade, virtual learning environments truly took off, with people obtaining access to a variety of online knowledge and e-learning opportunities.

The idea of online learning in India dates back to 2004–05, when various government organizations such as ISROU, MHRD, and IGNOU attempted to launch two-way video communication, but the initiatives failed due to insufficient technological improvements.

The educational world will be given wings by technology to soar higher and quicker than ever. Online learning has altered our image of education, causing the education industry to improve over time and contributing to our level of comfort. The Government of India has announced several projects as part of its education campaign, with the goal of benefiting students from various socioeconomic backgrounds. The Ministry of Human Resource Development (MHRD) launched DIKSHA—Digital Infrastructure for Knowledge Sharing—as part of PM eVidya as part of the Atma Nirbhar Bharat program, which combines the efforts of online, digital, and on-air educational modes toward education. "One Nation, One Digital Platform" was created.

DISCUSSION

Advantages and Disadvantages of E-Learning

E-learning is effective. E-learning and online learning both provide teachers with an efficient approach to deliver lessons to students. Teachers can use a number of resources from online learning, including podcasts, PDFs, and videos, into their lesson preparations. By using internet resources into the lesson plan in addition to traditional textbooks, teachers can become more effective educators.

E-learning is easy to utilize. To access the shared platform, all you need is a smartphone, desktop, tablet, or other device with an internet connection. Once logged in to their unique space, virtual classroom students can access educational materials, different training modules, and even take tests.

It is accessible everywhere and at any time. Lessons can be attended by students remotely from any location. Additionally, it enables institutions to expand their student base without being constrained by geographical boundaries. Online lectures can also be captured, saved, and distributed for later use. This makes it possible for students to access the course materials whenever they choose.

It is affordable. It is a reduction in financial costs. Online learning is significantly cheaper than traditional education. This is because online learning is less expensive for students in terms of transportation, food, and—most significantly—real estate. All study materials and course materials are additionally accessible online, creating a paperless learning environment that is more affordable and ecologically friendly.

It is appropriate for the students diverse learning methods. Every student has a different learning style and experience. While some students prefer to learn visually, others prefer to learn audibly. Similar to how some children do well in the classroom, others prefer to study by themselves and are easily distracted by large groups. The online learning system can be customized in a number of different ways due to its multitude of options and resources. It is the best way to design an ideal learning environment that is suited to the requirements of each student.

The vast majority of online learning courses provide a comprehensive set of practical communication and collaborative tools. These resources are critical for increasing knowledge and building a strong, collaborative staff, which can increase engagement and foster a pleasant learning environment.

Last but not least, students can take online classes without missing a beat, rain or shine. Students are less inclined to skip lessons in online courses since they may be taken from anywhere, including their homes.

There is no internet or electricity. This can be a concern in rural areas and in areas where internet and energy are not yet widely used. What is the use of having a device if you do not have access to electricity or the internet to use it and take advantage of mobile learning? Make sure you have satisfied all of the prerequisites for the optimal e-learning experience in order to enjoy it. Another significant barrier to web-based learning is internet connectivity. Despite a significant increase in internet usage in recent years, it might be difficult to obtain

a dependable connection with appropriate speed in smaller towns and villages.

For many Institutions, one of the most difficult aspects of online learning is the difficulty to focus for extended periods of time. Furthermore, there is a greater chance that online learning will cause pupils to get easily distracted by digital platforms or other websites. Online learning necessitates self-discipline and time management skills while reducing social connection. Too much time spent in front of a computer screen might be hazardous.

Scholars Perspective on E-Learning

The following are the scholars' perspectives on E-learning:
McCann et al [8] identified several other reasons why there may be a growing demand for e-learning, including: the growth of the online economy and the resulting shift from old to new economy; the growing demand for skills and ongoing education; the developing global market in education; and the growing acceptance by teachers of the value of e-learning as a teaching method.

According to John Chambers, President and CEO of Cisco Systems, [5] the Internet and education are two critical life equalizers. E-learning removes time and location limitations, resulting in universal, on-demand learning opportunities for individuals, businesses, and countries.

Learning possibilities in the information era last a lifetime, from youth to adulthood. To keep up with new technology and trends, our skills and knowledge must be constantly refreshed. E-learning enables us to know more and learn more quickly and affordably, as well as to harness the power of information and knowledge. E-learning increases output, profitability, and employee loyalty. Overall, it gives more information from a wider range of sources, more access to knowledge for lifelong learners, higher service quality, and faster acceptance of new information and programs.

E-learning delivers accountability, accessibility and opportunity. It enables individuals and companies to keep up with global economic changes that now occur on Internet time. In the twenty-first century, e-learning will be the great equalizer. Individuals can now take ownership of their own lifelong learning by removing limitations such as time, distance, and socioeconomic status.

Various research activities show that the Internet alters the interaction between students and teachers: there is less conversation between the teacher and a larger number of students in computer classes. Furthermore, it shifts the roles of the teacher and students, making learning more student-centered. The Internet is a great place to find more materials and authentic papers according to Graus[3]. In contrast, the growing amount of information often confuses learners when they try to access specific information mentioned by Chafe [2] .

The Internet is also proven to be a powerful way for encouraging students, aiding their creative work, and allowing them to communicate and network while studying. According to Passov's [7] categorization, intrinsic and extrinsic motivation are distinguished in the study of a foreign language, and the so-called wide societal as well as personal incentive, connected to the possibility of personality development, belongs to extrinsic motivation.

Since the first correspondence students, what is now known as distance, external, or flexible education has evolved over several generations, taking advantage of new technologies as they became available. Taylor [11] specifies five generations of remote education in his model of the development of this teaching method, the latter two of which might be regarded as levels of e-learning, to explain these changes through time. The levels are as follows: the correspondence model, in which learning materials are printed; The multimedia paradigm, in which learning materials are presented in a number of formats, such as print, audiotape, videotape, or computer-based learning; The telelearning approach, in which means of learning material presentation include audio or video conferencing as well as broadcast TV or radio; Flexible learning approach in which students have online access to interactive multimedia, computer-mediated communication, and Internet-based resources; The intelligent flexible learning model, which builds on the fourth generation, will also provide "campus portal access to institutional processes and resources," allowing the institution to cut variable costs to near zero.

Companies of all sizes are increasing their usage of e-learning. However, technology is already used to train employees by 41.7% of global Fortune 500 companies (Global E-learning Growth: E-learning Magazine, 2013).

Distance education is rapidly expanding in Asia. The Asian learning market is likely to be the most diverse in terms of remote education forms: open universities (public and private), virtual institutions, online programs - everything is available by Jung et al[6] .

Learning will no longer be reliant on memorizing material; instead, people will put more effort into self-education, and e-learning has promising prospects in this regard. In terms of the future, the Russian Ministry of Education said in October 2015 that distant learning might be equalized with the full-time study mode Tihomirov [12] .

According to Dave Evans, International Business Machines Corporation (IBM) saved around $200 million by moving to e-learning. Companies can decrease expenditures associated with travel, hotel accommodations, equipment, and instructors, to mention a few according to Adkins [1].

Hughes Corporate [4] stated E-learning has grown in popularity in India, owing to increased computer literacy and, in part, to government pushes made by Department of Electronics and Information Technology. E-learning is described as "a set of practices that uses technology-assisted interaction to create, provide, and improve learning." by Rice & Gregor [9].

Students Perspective on E-Learning

I just conducted an online learning survey. The majority of students expected the greatest advantage to be the ability to learn anything on the internet from the comfort of their own homes. The majority of participants were able to access multiple learning resources online at the same time. The vast majority of participants feel that they can complete all of the E-learning courses at their own pace. Some respondents were unsure whether online learning outperformed traditional classroom instruction. However, half of them were confident in the

benefits of online learning.

In terms of drawbacks, the majority of respondents stated that spending too much time in front of a computer screen was dangerous. They also emphasized the value of self-discipline and time management skills over online learning and the absence of social connection. The majority of respondents favored online learning because it is flexible and available from anywhere with a great internet connection; however, the negative is that they must pay a lot of money to obtain the finest internet connection, according to Soe Thane [10]

CONCLUSIONS AND RECOMMENDATIONS

E-learning, as far as we know, is a style of instruction in which students get course materials and engage with instructors and classmates remotely, generally via the Internet. E-learning, often known as online learning, is a type of organized education that uses the internet. The majority of the time, it is supplied online. In other words, education delivered over the Internet. It is also commonly referred to as "online learning." Postsecondary education in a variety of fields that takes place in digital environments. Distance education gave birth to this style of education. Online learning refers to instructional activities or programs given over the Internet. A sort of distant learning in which students and teachers connect via the Internet rather than attending a physical institution. The programs and courses that are accessible computerized (web-based); created expressly for web-based delivery for self-directed, self-motivated learners; provides flexibility and convenience for learners who have obligations that make traditional class scheduling inconvenient. Learning that occurs electronically in a virtual setting and is not dependent on geographical location, as opposed to traditional on-campus education that shares a physical space. Teaching and learning activities are carried out in a virtual setting, utilizing online e-platforms and resources.

A dynamic learning format delivered via the Internet in which learners and instructors engage using a variety of technologies for the purpose of purposeful learning. Instruction that takes place over the internet with the instructor and students not in the same physical area. It varies from typical classroom instruction in two key ways: physical distance and time, offering the student greater flexibility. The simplest way is to distribute syllabi, lecture notes, reading materials, and homework via the Internet. The advanced version includes computer conference facilities, a help desk, conferencing and Web page assignment integration, testing and course administration tools, and evaluation. Teaching and learning mediated by computer-based technology, with variations in how learners can manage time, place, medium, and pace of instruction. Online learning, often known as E-learning, provides more advantages than we realize. Nothing is without flaws, thus everything is dependent on how the e-learning users utilize it.

Online learning, which is more vital than ever nowadays, plays a crucial role in a society's educational growth. Millions of students around the world are receiving their education via online education and have reached new heights in this field. Every country should create e-learning so that students can study easily and remotely. The government should set aside funds for the implementation of

online learning for the benefit of their country. For online learning, a uniform education management system should be built across the country. The Internet should be available in all sections of the country, even distant areas. If internet speeds are slow across the country, students and teachers will be unable to take advantage of online learning. Because teachers and students are unable to conduct effective online learning due to slow internet speeds and high prices, it is recommended that special attention be paid to the internet's speed and low cost. For example, students and teachers may be offered specific Internet packages. Finally, for the benefit of greater education in any country, the government supports E-learning and pays for the necessary e-learning expenses.

FURTHER STUDY

This research still has limitations so that further research is still needed on the topic knowledge of e-learning is a must in 21st century digital education era.

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