IMPACT OF E- LEARNING AND ITS APLICATION AND CHALLENGES

J.JAGANBABU *1, MRS. MAJULA *2

*1 LIBRARIAN   , PEACE ON GREEN EARTH   PUBLIC   SCHOOL   , KUNDRATHUR   , CHENNAI , TAMILNADU

*2   MRS .MAJULA, DEPARTMENT OF ENGLISH , PEACE ON GREEN EARTH   PUBLIC   SCHOOL , KUNDRATHUR , CHENNAI , TAMILNADU

ABSTRACT:

We examine the application of e-learning in the educational system in this essay. Studies on the benefits and challenges of using e-learning have been conducted. Some of the most well-known e-learning platforms are discussed. The advantages and disadvantages of these platforms have been examined. The results of the study are used to pinpoint the issues that will prevent e-learning from being developed and used successfully in the future.

KEYWORD   : **E- LEARNING, E- LEARNING PLATFORM, ICT, EDUCATION,**

1.   INTRODUCTION:

When a wider audience gained access to the Internet, computer technology and communication capabilities around the end of the 20th century, the concept of e-learning emerged. At first, e-learning was mostly business-oriented providing quick and effective employee training and retraining. Later, it gained traction as a substitute for traditional education. E-learning has emerged as a viable option for lifelong learning and on-the-job training at the start of the twenty-first century. Technology-based learning or e-learning is the process of delivering course materials electronically across a computer network to distant learners. On the one hand, businesses must use effective and efficient training techniques to guarantee that partners and employees of the channel have access to the most recent knowledge and cutting-edge abilities. However, educational institutions need to offer efficient ways for students to gain deep long-lasting knowledge and skills. Globally, the COVID-19 epidemic has drastically altered education turning traditional classroom instruction into online instruction. Academic institutions were compelled to promptly reconstruct and modify their curricula to accommodate the novel circumstances. Although e-learning was required for school pupils, university students find it to be a very popular mode of instruction because it allows them to pursue their studies while also receiving competent training. The 21st century has witnessed a significant shift in the way people perceive the progress of education due to the rapid pace of technological advancements which has been linked to the growth of the Internet and the World Wide Web (WWW). A growing number of "technology-based" educational models are gaining traction; these models decide how students, teachers, and technology fit into the evolving global information network.

2.   NEED OF E- LEARNING

The preferred method of online instruction in schools are synchronous e-learning, which makes use of real-time capabilities to facilitate simultaneous contact between the teacher and pupils. This keeps you from feeling alone. Furthermore, there is less flexibility for pupils to study during synchronous online communication sessions. This explains, among other things, why asynchronous communication works better in non-formal education and in certain university settings. Asynchronous communication takes place offline during homework assignments, and all forms of contact are generally sent via forums, emails, and messages. One

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could argue that asynchronous learning involves pupils learning on their own. For those who have more obligations every day or who would rather research a topic independently, this is the greatest choice.

3. COMPONENTS OF SIMULTANEOUS CONVERSATION

ONLINE CONFERENCE Online conferencing enables video communication. With this service, live broadcasting from a home or school is possible. One benefit is the capacity to share slides and visuals, facilitate synchronous subject discussions, administer surveys, and incorporate any other kind of interactive component

PODCASTS AUDIO Podcasts on audio are audio connections via the Internet. Students can save the audio file and play it whenever it's convenient for them. The ability for students to communicate with one another through chat messaging while the audio podcast is in progress is its greatest benefit.

VIRTUAL WORLD Students can convene "live" in virtual worlds to talk about the subjects they are studying online. Because users may communicate with each other via an internet phone or headset and a microphone, virtual worlds are good for learning.

INTERNET TECHNOLOGY (VoIP) it is utilized for holding faculty-student conference calls. Planning ahead is required in this case; files and documents must be ready to utilize during the call.

CHAT With the possibility of a synchronous online connection, a huge number of people can use chat rooms. Asking questions, sharing ideas, and exchanging resources are all quite welcome in chat rooms. Chat sessions can be distributed and viewed again by saving them in the.txt or.rtf format.

4. COMPRISING OF ASYNCHRONOUS COMPONENTS

E- MAIL: An integral component of any online course is email. Asking questions, staying in contact, sending and receiving documents, news, reminders, and even rating things are all possible with this useful tool. Emails are the primary method of communication between students and teachers in many online courses.

SOCIAL NETWORKING a lot of online courses already make use of social networks to enhance student engagement and online communication. Social networks come pre-installed in a lot of learning management systems. A few of the most popular social networks are YouTube, Facebook, Twitter, blogs, and wikis.

DVD, CD-ROM, or FLASH A few courses include DVDs with media or video content. Students can efficiently manage their internet time and go over the study materials offline by using them.

E-PORTFOLIO An e-portfolio displays a subject's expertise and knowledge. Text, pictures, slideshows, music, videos, and links can all be combined by students. They can be used as a forum for conversations as well.

VIRTUAL LIBRARIES You can upload and download a variety of assets, including presentations, graphics, audio, video, training manuals for conducting online courses, and more. Students can access educational content from anywhere at any time, thanks to virtual worlds.

5. **PLATFORMS USED FOR E-LEARNING IN INDIA**

Two categories of e-learning platforms can be distinguished: Learning Management Systems (LMS) and Communication Platforms. Synchronous learning uses communication platforms, which are among the most widely used online teaching tools. Among these, the following applications were particularly noteworthy

ZOOM is a platform designed specifically for conference calls. It provides features including screen sharing, video webinars, conference rooms, meetings, chat, session recording, and transcription. Combines easily with digital white boarding, real-time co-annotation, one-click content sharing, and LMS

MICROSOFT TEAMS is a digital hub that enables educators to create dynamic learning environments by centralizing discussions, information, assignments, and apps. Create cooperative learning environments, make connections with peers, and participate in professional learning communities.

DISCORD is a chat platform that facilitates communication between users via text, images, videos, and audio.

SKYPE is one of the original chat and video call apps. It provides features including call recording, phone calls, screen sharing, group building, chat and video conferencing, file and document sharing, and more.

MESSANGER APP is a component of Facebook, although it may be used independently of the social media network; the account remains the same. The application's primary functions include screen sharing, chat and video calling, file, document, and photo sharing, among other things.

VIBER was first designed for voice and chat conversations. Creating groups, screen sharing, file, document, and photo sharing, as well as phone conversations, are among the capabilities it provides.

A collection of interactive web tools for organizing, managing, and presenting educational materials is known as a learning management platform. Additionally, there are tools for monitoring, evaluating, and reporting the attained outcomes. They are a favored instrument for reaching the educational objectives of different kinds of institutions and organizations since they automate the process of conducting distance learning.

MOODLE offers training modules for making, sharing, and modifying educational resources; it also tracks file histories, forums, and offers an all-in-one calendar, notifications, and progress monitoring. It also offers modules for administrative management, including bulk enrollment, secure authentication, course design, rights management, and others.

VEDAMO provides a learning management system in addition to a classroom platform. The classroom has the following features: breakout rooms, media player, screen-sharing, video conferencing, online whiteboard, and recording. Features like cloud-based library, messaging, virtual sweet room, system reminders, bespoke tests, course management, and attendance are all provided by the learning management platform.

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SCHOOLDY is an LMS that offers the following features: a calendar, an assessment management platform, an in-platform messaging tool, a structural tool for developing courses and lessons, and a tool for data, analytics, and personalized learning.

GOOGLE CLASSROOM facilitates speedy assignment creation and organization, effective feedback delivery, and simple class communication. With the aid of Classroom, students may manage their assignments on Google Drive, finish and submit their work, and interact with peers and teachers in real time. Developing, distributing, and revising materials; doing experiments; managing projects.

ONEBOOK.BG is an online platform designed to manage education. An electronic journal, institutional, teacher, and student portfolio digitization, reference tools, and quick and simple document generation, uploading, editing, and platform verification are among its features.

Both kinds of platforms are employed in e-learning; they enhance one another and improve communication between instructors and students. The majority of the platforms provide integration with other online learning resources and platforms. Applications that may be installed on many devices (PC, laptop, tablet, smartphone) running various operating systems (Windows, Linux, Android, iOS, Mac) are available on almost all platforms.

6. MERTIS AND DEMERITS OF E- LEARNING TECHNOLOGIES

All platforms and apps have interoperability with one another as their primary benefit. Furthermore, the majority of programs have mobile versions available, giving customers' flexibility with regard to where they can use them. Because they were ill-prepared to handle the influx of freshly registered user accounts and learning content data, e-learning platforms found them inundated with a significant number of registered and active users during the pandemic. There is a lot of versatility in generating and presenting the study material through files, presentations, and visual clips thanks to the various platforms that are used and how they integrate with other resources. Teachers may find this challenging, but students will benefit from being able to review and study the content whenever they choose and utilize it for self-study. Teachers find the hardest part of creating electronic materials to verify their validity or to create them in the first place because using these tools and platforms takes time and demands proficient computer skills. Most platforms offer comparable modules, services, and tools in general. The selection of a platform is heavily influenced by its well-crafted design and ease of use across all features. The need to train more teachers and then provide the required e-learning materials is the primary obstacle to the use of e-learning platforms. The final phase is encouraging student learning and reactivating the parental role in education

7. CHALLENGES WITH ONLINE LEARNING

- Teachers have a challenge as a result of the advancement of technology and the digitization of education. They must continuously keep an eye out for new developments and enhance their knowledge and abilities. Numerous training programs and courses are currently available to help teachers become more qualified in this area**.**

- Distance learning poses certain challenges and obstacles for educators in the technical and natural sciences. These include the execution of laboratory exercises that necessitate direct interaction with particular tools and methods, as well as the use of particular experiments and models to facilitate class instruction. The virtual classrooms with integrated simulations provide one potential remedy in this case.

- One of the challenges of remote learning is implementing attendance control because it requires equipment on both ends and an internet connection. A significant portion of the populace in developing nations lacks access to computers, tablets, and other gadgets needed to complete homework assignments and electronic classes.

- Several academic fields at the institution have their own websites where students can be tracked, protocols can be uploaded, projects can be completed, and more. The adoption of these technologies with LMS is a hurdle.

- Examining and evaluating is an additional challenge. Students have the option to carry over their exams to the following year, even though this should occur at the conclusion of the academic year.

- Virtual lab development and dissemination remain a problem and are hard to accomplish for all disciplines.

8. CONCLUSION

If switching to e-learning is required or preferred as a mode of instruction, it can be done so with success thanks to the development of e-learning platforms and applications, as well as existing information and communication technology. The aforementioned platforms and apps offer the features and resources required for producing, modifying, and delivering electronic instructional materials. The achievement of educational goals will be secured by ensuring teachers with the necessary technological competence for the proper implementation of e-learning. The most widely utilized e-learning platforms and apps in Indian institutions and schools were suggested in the article. We identified a few issues in integrating e-learning technology into the educational process. Lastly, we outlined the difficulties that would face e-learning practice research and development in the future.

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