

E-learning Online Education App

SURABHI KAILAS BORASE¹, NISHA SUBHASH PATIL², PRERNA SUDAM PAWAR³, MAYURI MAHENDRA PATIL⁴

^{1,2,3,4}B.Tech. COMPUTER ENGINEERING, PSGVP MANDAL'S D.N.PATEL COLLEGE OF ENGINEERING, SHAHADA, MAHARASHTRA, INDIA

Abstract - Educational establishments (schools, colleges, and universities) in India are presently based solely on ancient strategies of learning, that is, they follow the standard came upon of face-to-face lectures during a schoolroom. Though several lecturers units have conjointly started homogenized learning, still plenty of them are adhere with previous procedures. The fulminant natural event of a deadly sickness referred to as Covid-19 caused by a Corona Virus (SARS-CoV-2) barrel the whole world. The World Health Organization declared it as pandemic. This disease challenged the education system across the globe and compelled educators to shift to a web mode of teaching on the spur of the moment. Several education organizations that were earlier reluctant to vary their ancient pedagogic approach had no choice however to shift entirely too online teaching-learning. The article includes the importance of online learning and Strengths, Weaknesses, Opportunities, and Challenges (SWOC) analysis of e-learning modes within the time of crisis.

Key Words: E-learning, Covid-19, Pandemic, Pedagogy, online teaching.

1. INTRODUCTION

"A learning system based on formalized teaching but with the help of electronic resources is known as E-learning [1]". E-learning is another way to a conventional schoolroom learning expertise and is commonly stated as "online learning" or "virtual learning" or "remote learning" or "mobile learning" or "digital learning" or "distance education". E-learning involves victimization primarily the web and one or additional different technologies involving one/two-way transmission through open broadcast, loop, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices or audio/video conferencing [2]. E-learning exploits interactive technologies and communication systems to enhance the educational expertise. It's the potential to rework the approach we have a tendency to teach and learn across the board. It will raise standards, and widen participation in long learning. It cannot replace educators and lecturers, however aboard existing ways it will enhance the standard and reach of their teaching, and cut back the time spent on administration. It will alter each learner to realize his or her potential, and facilitate to make an academic force authorized to vary. It makes doable a very bold education system for a future learning society [3].

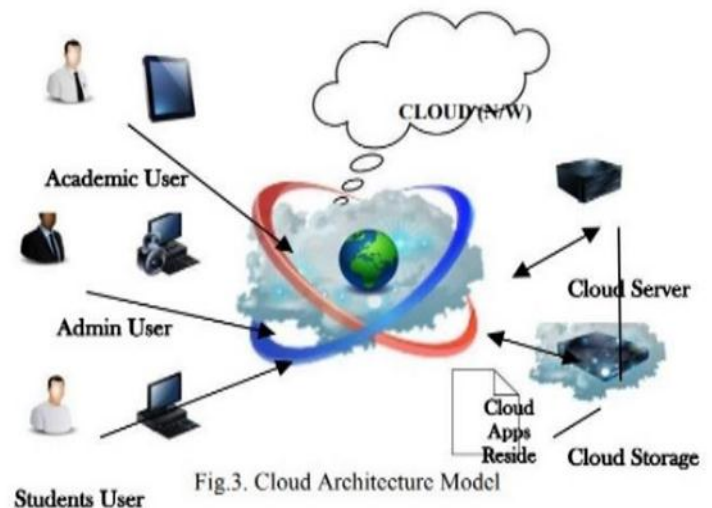
2. LITERATURE REVIEW

In [4] the author Tagreed Kattoua, Prof. Musa Al-Lozi, and Dr. Ala'aldin Alrowwad stated the growth of Internet technology in today's era. They also showed that how e-learning system depends on several factors like students' acceptance and also usage of e-learning. Despite the large growth of e-learning in education and its perceived edges, the potency of such tools won't be totally used if the users inclined to not settle for and use the system. Therefore, the booming implementation of e-learning tools depends on whether or not the pupils are willing to adopt and gain the technology. Fischer et al. (2015) studied how proceedings of scientific conferences can be used for trend studies within the field of e-learning. Since the ICTs became an important part of the training expertise for individuals all ages, so it's become a plan that must be explored, the researchers started elaborating the transition from Web 2.0 to e-learning and also the aggregation of the ability of Web 2.0 with social networks within the learning method. They used Think tag Smart, a new Web 2.0 platform; that mixes the training opportunities offered by the web 2.0 with the training opportunities of social networks for sharing data, to coach 137 students in two subjects (Tourism, and Sociology of innovation), after this experience they gave them a form to gauge the training expertise, and also the platform. E-learning in pharmacy education was an extremely appropriate educational format for pharmacists and pharmacy pupils. It is the advantages that facilitate their e-education system within the field of universities, where all the pupils are taking the attendance and leave them through computer system due to the student e-education, e-has to grasp the amount of absence, as well as upon request duties is due to send and receive the answer through e-education persist this technique its ability to sweep all organizations work accuracy and speed. Teo (2014) aimed to clarify the extent of teacher satisfaction of the application of e-learning program among persevere teachers. Teo (2014) investigated the key drivers of teachers' e-learning satisfaction. 387 participants in a postgraduate diploma in education completed a survey form to measure 6 constructs (tutor quality, perceived usefulness, perceived ease of use, course delivery, facilitating conditions, and course satisfaction. Nevertheless, the facilitating conditions construct was found to be a significant mediator of perceived ease of use and satisfaction. The trend of using e-learning as learning and teaching tools is now speedily expanding into education. Suri

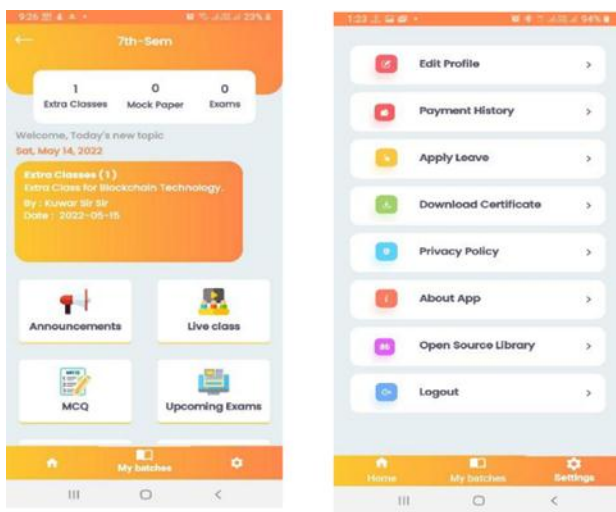
and Sharma (2014) examined the connection between disciplines of pupils and their responses and attitudes towards e-learning. The researchers found that the provision of the e-learning services within the proposed model was above than those of the fundamental resource management services. This model maintains a trade-off between cost and the degree of quality of e-learning services. Ciobanu and Bunco (2014) investigated in a very theoretical manner the challenges related to the use of mobile technology in adult education. In [5] the author M.R.M.Veeramanickam, and Dr. M. Mohanapriya said that how cloud computing is emerging as the important factor in E-learning. They also shown that how education is seen as important for every individual and leads towards country's growth. Online, virtual, dispersed settings, and leveraging a network for Web-oriented learning approaches are all examples of different modes of teaching and learning. The Collaborative Learning Taxonomy is a tool for creating, planning, teaching, and accessing curricula, courses, and projects that include learning activities. These are the more reasonable design issues that can be implemented in a precise manner in our cloud application model with the same processes. Taxonomy describes the various degrees of comprehension and learning techniques. As a result, we need to look at applications that deal with Practice, Exercise, Demonstration, Simulation, Schedule, Project Sketch, and Role Plays. Stairs were employed in Bloom's taxonomy to depict the cognitive levels in taxonomy representation, which were ordered in sequence order. Each step is a new challenge. In [6] the author Kayte O'Neill, Gurmak Singh, John O'Donoghue states how has education become a commodity where people seek to invest their own personal gain, to get equal opportunity which will route to a better life (Davis, 1998). A transition to virtual learning necessitates a major shift in the organization of traditional colleges. Many students' virtual learning experiences are an online learning programme sponsored by an established university or, in some cases, an online module that contributes to a degree that will be completed in a classroom setting (Brewer, 1998), whereas for many students, the virtual learning experience is an online learning programme sponsored by an established university or, in some cases, an online module that contributes to a degree that will be completed in a classroom setting. In any event, the transition from one form of organization to another is a challenge that must be carefully navigated. Academics, managers, and policymakers must recognize the need for technology-supported learning as traditional universities strive to shift away from the didactic classroom or lecture-based form of delivery. In [7] the author Shabnam Mohamed Aslam described "As the average person's every move gets online, e-learning has become one of the most popular fields in the modern period. Furthermore, E-learning pedagogy plays a significant role in the Social Service paradigm by providing free on-demand education via the internet." The general public's understanding of computers (Edwards, P.N., 1995) leads to the free education of people with more software technologies. Universities and colleges have specialists and

educational resources readily hand. The concept of cloud computing (Kannan K and Narayanan K. 2015) allows us to consider how university resources and expert knowledge might be made available to students in regular schools and low-income educational institutions whenever resources are idle. The goal of social service is to provide an e-learning framework specifically for teaching FOSS to college and high school students. As a result, the study includes a review of existing e-learning systems (Somayeh, M.et al. 2016). Although different countries use different languages, globalised E-Learning approaches represent the possibilities of world-level uniformity of teaching-learning procedures. Although different countries use different languages, the globalised E-Learning approach is universal. Western countries may learn from Eastern countries' methodology, and Eastern countries can learn from Western countries' learning and teaching ways, which increases student motivation (Heuel, E., and Feldmann, B. 2013). E-Learning necessitates unique features such as communication technology and a pedagogical (Martnez Cerdá, J.F. et al.2020) approach to integrating educational elements into course delivery via ICT (Abdallah Moubayed et al.2018). E-Learning systems are being developed in novel ways all around the world, raising the level of university education and incorporating many organisations (Vrasidas C. 2000.). Cloud computing is being incorporated (M. R. M. Veeramanickam and M. Mohanapriya. 2016.)

3. ARCHITECTURE



4. SCREENSHOTS FROM STUDENTS APP



5. ADVANTAGES OF E-LEARNING

1. It is versatile once problem with time and place area unit taken into thought. Each student has the luxury of selecting the place and time that suits him/her. In keeping with Smedley (2010), the adoption of e-learning provides the establishments in addition as their students or learners the abundant flexibility of time and place of delivery or receipt of according to learning data.

2. E-learning is price effective within the sense that there's no would like for the pupils or learners to travel. It is conjointly price effective in the sense that is offers opportunities for learning for max range of learners with no would like for several buildings.

3. E-learning invariably takes into thought the individual learners' variations. Some learners, for example choose to target bound elements of the course, whereas others area unit ready to review the complete course [8].

6. DISADVANTAGES OF E-LEARNING

1. E-learning as a way of education makes the learners endure contemplation, remoteness, additionally as lack of interaction or relation. It thus needs awfully robust inspiration additionally as skills with to the management of your time so as to scale back such efforts.

2. E-learning may additionally most likely be misled to piracy and plagiarism, susceptible by inadequate choice skills, still because the simple copy and paste [8].

7. FUTURE SCOPE

As a country, we're going through an inconceivable phase of technological development and it's impacting every sector –

not just in business but in education as well. For a long time, we've reckoned on traditional tutoring styles that involved a educator addressing a group of pupils in a four-walled classroom. The extent, to which education could be circulated in this way, depended upon the educator's capability to help pupils fantasize delicate generalities without the right tools. Still, with the inception of the Fourth Industrial Revolution, we've begun transitioning towards a world that relies heavily on digital technology to make effects easier. Several online literacy platforms have proliferated up in the once many times to make literacy easier, simpler, and accessible. As of now, we've furthermore than 560 million internet druggies in the country, and the number is growing exponentially. It means that the online world has come fluently accessible for a major knob of our population, and we need to make the utmost of this change. The e-learning marketplace that stood at \$247 million in 2016 is now anticipated to reach \$1.96 billion by the end of 2021 with a CAGR of 52%! Indeed, though the e-learning marketplace was formerly evolving fleetly, the intervention of the Covid-19 epidemic has added energy to the fire. With seminaries, sodalities, and other educational institutions shut down to help any outbreaks, online literacy has surfaced as the primary tutoring platform [9].

8. CONCLUSION

The study on the impact of the COVID-19 epidemic on tutoring and literacy across the world concludes that although colorful studies have been carried out, in the case of developing countries, suitable pedagogy and platform for different class situations of advanced secondary, middle and primary education need to be explored further. Internet bandwidth is fairly low with lower access points, and data packages are expensive in comparison to the income of the people in numerous developing countries, therefore making availability and affordability shy. Policy- position intervention is needed ameliorate this situation. Further disquisition and investigation on effective pedagogy for online tutoring and literacy is an area for exploration. Need for developing tools for authentic assessments and timely feedback is set up to be another area of study. Our project "E-learning Online Education App" has developed with different technologies and platforms. The project we have developed will be very useful for students as well as for educators, as we have included android app called E-learning for students. The affordability and availability for all learners of varied profitable background is linked as a challenge, for which the educational tools inventor could concentrate on customization. The policy position intervention is also vital. Education system across the world including Bhutan needs to invest on the professional development of preceptors, especially on ICT and effective pedagogy, considering the present script. Making online tutoring creative, innovative and interactive through stoner-friendly tools is the other area of exploration and

development. This would help and prepare the education system for similar misgivings in the future.

ACKNOWLEDGEMENT

We have taken efforts in this application. However, it would not have been possible without the effortless support and help of our institution which delivered data for this project. We are highly grateful to our project guide Prof. V. T. Patil for innumerable acts of timely guidelines, encouragement and we sincerely express our gratitude to him. We express our massive pleasure and thankfulness to all the faculty members of the Department of Computer Engineering for their cooperation and support. The authors are thankful and gratefully acknowledge all reviewers for their valuable suggestions for enriching the quality of the paper.

REFERENCES

- [1]. <https://economictimes.indiatimes.com/definition/e-learning>
- [2]. <https://www.bellevuecollege.edu/elearning/start/intro/>
- [3]. Gizella Dewath: "A Study of the current state of e-learning in the United Kingdom" | Perspective on E-learning
- [4]. Taghreed katoua (Al-Balqa' Applied University), Musa AL-Lozi (University of Jordan), Alaaldin Alrowwad (University of Jordan), "A Review of Literature on E-Learning Systems in Higher Education", January 2016.
- [5]. Murugappan, Veeramanickam & Mohanpriya, M., (2016). Research paper on E-learning application design features: Using cloud computing & software engineering approach. 1-6.1109/ICICES.2016.7518886.
- [6]. O'Neill, Kayte & Singh, Gurmak & O'Donoghue, John. (2004). Implementing e-learning Programmes for Higher Education: A Review of the literature. JITE. 3. 313-323.10.28945/304.
- [7]. Aslam, Shabnam, (2021). A solution for Social Education – Free Open Source Software Teaching through E-learning Framework. 18.686-703.10.14704/WEB/V18S105/WEB18255.
- [8]. Valentina Arkorful (University of Cape Coast), "The role of e-learning, advantages and disadvantages of its adoption in higher education", December 2014
- [9]. Nishant Agarwal, Founder, Proctur.com, "The future of e-learning in India". May 19, 2021