



## Global impact of E-learning during COVID 19

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### Abstract

The present study emphasizes the global impact of the e-learning process during COVID-19. The implementation of lockdown and social distancing has been enforced as one of the preventive measures to spread the corona virus infection which has resulted in complete paralysis of global activities. Especially the education system which is completely shut and to proceed with the academic curriculum, there is a shift from the regular learning process to electronic learning. This can be cited with an increased number of online classes, conferences, meetings, etc. It can be noted that the world is completely dependent on information technologies during this crisis. Hence, the present study provides an insight into the process of electronic learning and its advantages along with the updated version of its usage. To best of our knowledge, there have been scanty scientific reports on this particular situation of the impact of e-learning during COVID 19. The present study is a compilation of the components of e-learning tools along with the future perspective on education using information science.

**Keywords:** E-learning, COVID 19, global platform, google apps, online learning

### Introduction

During the present pandemic crisis when the entire globe is sailing amid the storm, technology has played a pivotal role. Technological development and the internet have changed the lives of people immensely and have also brought a huge change in various fields (Nadikattu, 2020) <sup>[7]</sup>. Especially in the education system E-learning has been found to be a significant tool for effectively continuing the teaching-learning process during the lockdown. The web has become one of the important mediums of learning that opens the door for people around the world to access education easily at free or lesser cost (Noor-Ul-amin, 2013) <sup>[8]</sup>. E-learning has fixed its root especially in the field of modern education. The need of modern learners is quite different and E-learning has been found beneficial for fulfilling their needs. The mediums of E-learning and principles of artificial intelligence are gradually gaining popularity in the world (Misko *et al.*, 2004; Soni, 2020) <sup>[9]</sup>. It is providing a solution to the learners who are unable to access the traditional means of education due to the present pandemic situation. The present paper is going to unfold the aspects and impact of various E-learning platforms that the educational institutes have been following globally in diverse fields during the pandemic crisis of COVID-19.

### Role of E-learning in COVID-19 crisis

Education is one of the key factors in building a good nation (Baiyere *et al.*, 2016). The outbreak of the COVID-19 virus has caused a sudden suspension of schools, colleges, universities and other government institutions. Amid these hard times, teachers have been utilizing e-learning platforms to impart education to the students. E-learning refers to a learning system that is conducted via electronic media. It was first used in 1999 at a CBT systems seminar. It is also described as virtual or online learning. It offers a way to share reading materials using internet through emails, documents, presentations or webinars. IT has become an important part of modern education and it shows huge

involvement of ICT in the present teaching-learning process (Anderson, 2005). Educators can share study materials and lectures in the form of PPT, PDF or Word document by uploading them on their respective university web- pages, on whatsapp or through e-mails to maximum students during this lockdown. According to Felix, (2020), Lectures have been also taken through WeChat, by sharing audio-visual videos through e-mails, by different online teaching apps like Voov, Zoom, Google meet, Microsoft meeting, Superstar, g-suite cloud meeting and so on. The development in technologies has offered a favourable domain for teaching-learning processes. It offers teachers to change their pedagogical approaches. It enhances the teaching and learning procedures (Thamarana, 2016) <sup>[13]</sup>. The teachers can motivate students to enhance their learning skills through innovative ways. E-learning has brought a huge change in the traditional methods of teaching and learning. Due to ongoing of COVID-19 an increased number of students are found to use the learning platform and apps. Some of the platforms are already established like ED-TECH and cloud computing as they are available in reasonable prices and are easy to access (Naik, *et al.*, 2017).

### Global-transition to online-education in Educational institutes during the pandemic crisis

Since the outbreak of the COVID-19 virus, educational institutions from all around the world have migrated from the traditional methods of learning to imparting education through online means. The education system has been suddenly shifted from the conventional classroom environment to electronic devices and online applications (Mnyanyi & Mbwette 2009) Most universities in India have asked the Professors and students to opt for e-learning platforms for educational purposes and to motivate students to study from their respective residents (Li, *et al.*, 2013). The faculty members were urged to provide study materials in the form of PPT, PDFs or Word documents and other forms such as audio, videos to upload on online platforms.

Chinese universities have implemented online education since the starting of the 21<sup>st</sup> century. With the widespread of the virus, educational procedures have been accomplished via apps like Zoom, Google meet and Voov. Various undergraduate and graduate courses have been provided to students through online means. In Iraq, students have been using online platforms and applications since the global lockdown. Mostly apps like Google classroom, Teams and Zoom have been used to fulfill the academic needs. The Education Ministry of Georgia has provided the application of Microsoft Teams for all the public schools.

The Indian govt. has started an educational programme through Television and online class through educational institutions. The ministry has also collaborated with Georgian Public Broadcaster and has started an educational programme named - TV school to ensure better understanding of class lessons (The Government of Georgia, 2020). Virtual classrooms have been created on different online platforms to provide education in private schools. EL.GE is also a platform that has been supported by the Ministry of Education, Science, Culture, and Sport and has hosted all possible thematic resources that are based on Georgian National Curriculum (MES,2020). Two platforms G-Suite and Edu-Page are widely used in this education process (Google, 2020 and Edupage 2020). The Association of African Universities have created an online resource page to aid educational institutions in proper planning of class lessons and to easily shift to E-learning methods. The outbreak of the Pandemic has caused the association to offer efficient learning through online mode of education. The Association of American Colleges and Universities are providing a wide range of webinars to support educators and learners. Virtual seminars and discussions are being conducted to help the students to cope with the ongoing tough times.

### **Most universities are uploading study materials on their respective university websites.**

In this pandemic situation, well-known companies like Google, Microsoft, Zoom and Slack have offered many features of their products that could be beneficial in the field of education for free to the educational institutes. According to the recorded report Microsoft team users were 750 as of 10<sup>th</sup> March but by 24<sup>th</sup> March it has risen up to 138698 which is indeed a significant growth. (OECD, 2020). Zoom has elevated the video calling time limits in Italy, Japan, US and China on request (Rani Molla, 2020)<sup>[11]</sup>. The world still demands much more access to zoom and Google Meet communication solution facilities. Thus, globally there has been a huge and sudden change in the field of academia with the spread of the deadly COVID-19 virus. There has been a global transition to online methods of teaching and learning (Basilaia, *et al.*, 2020). The conventional classroom atmosphere has been replaced by digital means to stop the spread of the virus and to ensure safety of the educators and learners.

### **Advantages of E-learning**

E-learning fulfils the needs of today's learners at their own comfort and requirements. Thus it has proven to be fruitful because of various reasons. It can be availed at any time at the learner's own convenience by purchasing the subscriptions of different platforms or logging in to access

the courses (Colchester *et al.*, 2017). It can share and offer teaching-learning materials in diverse formats such as slideshows, audios, videos, PDFs, e-mails, word documents and so on. Webinars and direct communications with teachers via various chat forums or messaging is also an open option in E-learning process. It offers free access to certain e-manuals like PDFs. It provides clear, easy, gradual instructions for better understanding of the learners. It is often regarded as the most suitable way for self-learning. It provides a wide range of materials for the learners that covers almost all topics and doubts (Bajaj and Sharma, 2018).

### **Challenges of E-learning**

Due to the pandemic crisis there has been a huge, disruptive shift from existing educational system to online education system. An online course requires detailed lesson plans to design good study materials. Certain challenges of online education include, lack of online teaching skills in educators, online preparation of lesson plans as it is very time-consuming, lack of appropriate support from the technical teams, and traffic overload in online educational platforms. Not only the teachers but the students are also facing challenges due to their deficiency of proper learning attitude, lack of suitable materials for learning, more involvement in classroom learning, incapability of self-discipline, and the inadequate learning environment at some of their homes during self-isolation (Brazendale, *et al.*, 2017).

### **Beneficial role of E-learning platforms during the Pandemic**

E-learning has specially proven to be beneficial during this COVID-19 crisis. More students have opted to Ed-tech and other online platforms for education during this ongoing pandemic. Online platforms like Vedantu, Unacademy and Byju's have been offering free access to live classes to help students learn comfortably from homes and a significant elevation in students have been recorded for using these educational apps. Educators of the online platforms have also started to take more live classes (Owusu-Fordjour *et al.*, 2020). Furthermore, Vedantu has been offering free access to live classes to students. Another online platform Coursera has declared free access to its courses to many universities in the world till 31<sup>st</sup> July. Sc Edu-page cloud-based web portal unity and a mobile app have been widely used at 150,000 schools in around 173 countries across the globe for the education management with free access and user-friendly functionality (Edupage, 2020). The app includes features like curriculum management, attendance control, time-table automation, homework assigning, messaging features and grading Parents can also communicate with the teachers by using this app.

### **Instructional strategies to improve student's engagement during E- learning**

The following instructional strategies can improve the E-learning efficiencies of the students when educators implement them efficiently. For the accomplishment of large-scale online education, it is very essential to generate advance contingency plans to overcome the technical problems like traffic overload in the online educational platforms. Educators have divided the teaching material into

several smaller modules to enhance the focus of students and to ensure their better understanding. Faculty members have appropriately dropped the speed of their speech to drag their attention, allow them to note down the key points from the lectures and the jot down the necessary information from the board in an audio-visual lecture. Inexperienced faculty members consulted online teaching assistants to ensure the objectives and needs of each and every class that has to be taken by them. Educators have modified their various teaching techniques by providing creative and skilful assignments that can fulfill the learning requirements of the students for engaging them during the online classes. The faculty incorporated online teaching methods and offline self-studying. Professors can engage students in discussion to encourage their perspectives and can provide feedbacks on their assignments. Through this mode of teaching student will not learn surface, ambiguous and fragmented knowledge. Instead the students would experience thorough learning through diverse discussions. Insufficient pre-class study preparation, limited participation in class discussions, and inadequate discussion depth are common phenomena in traditional in-class teaching, similarly, those issue should not be overlooked in online teaching (Su *et al.*, 2016; Johnson *et al.*, 2019). The difficulty, length and quality of teaching material should match the student's online-learning behavioural characteristics and academic readiness. Timely feedback should be shared by the educators with their students to motivate them Educators should provide email guidance within and after class as well as online audio-visual tutoring. It is always advisable to adopt few measures for the improvement of student's in-depth participation in online classes. This would help in generation high-quality participation of students. Student's mental health should be taken into consideration and various suitable measures should be taken by the educators to relieve their mental stress and anxieties during the COVID-19 crisis, to ensure that the students could regularly, effectively and actively participate in their online learning sessions (Brooks, *et al.*, 2020).

### **Inequalities faced by learners and Educators in the present scenario**

Educators are experiencing huge weight on their mental health as they have to endure the load of the education system during these difficult times. They have to follow administrative and ministerial directives. Teaching through online mediums has become a challenging task for most of the educators. Lack of resources is also becoming a great hurdle for the teaching-learning process. Sometimes the unhealthy environments and technical issues are reasons behind discontinued process of teaching-learning. Learners sometimes do not have proper means to learn from the online medium. As most of the learners and educators are habituated with the traditional way of teaching-learning processes the outcome on E-learning is obtained comparatively low. Students are also facing difficulties with poor internet connection majorly in few places of the world like India, Iraq, Iran, Syria, Africa etc. Due to lack of motivation and shaky mental health issue E-learning is not providing expected success in the global education system (Jimoyiannis and Gravani, 2011; Khalid *et al.*, 2016).

### **Means to bridge the unequal gap between learners and educators**

The pandemic had undeniably made clear that countries throughout the globe need to allocate funds for proper training of educators and to create innovative learning domain that could provide education to the learners in the easiest way. This situation of crisis shows the urgency to consider the needs of the learners. Education materials and pedagogical provisions should be greatly introduced in all emergency curricula which could keep educators and learners safe and mentally healthy in the present pandemic crisis (Pragholapati, 2020). Education ministers or the government should provide funds for the disadvantaged children and focus on the educational needs of marginalized learners. Most significantly National authorities in their respective countries should provide efficient measures to convey the vital significance of well-being for both students and educators.

### **Recommendations**

It has been recommended by Google that the Google classroom platform can be integrated to Google meet system for creating laboratory practices for STEM courses (Google, 2020). Other suitable educational platforms can also be integrated to Google meet system for lab practices. Educators and students should be provided suitable trainings to become efficient users of educational apps that are widely used globally such as Voov, Zoom, Google classroom, Teams etc during the COVID-19 crisis. The pandemic situation demands tech-savvy and highly skilled educators. Thus, educators should enhance their knowledge and skills that is required for the maximum usage of technological devices, E-learning tools, educational apps and other online platforms like TV School, Online portals, Google Meet, Slack, Zoom, Edu-Page etc. Students should be encouraged to use different educational apps and should be provided with easy, effective and interesting study materials by the educators to drag student's attention towards E-learning. Various online-learning types can be also promoted to the students and educators. They could get appropriate online-training to use various learning methods such as knowledge-based training, hybrid training, synchronous training and asynchronous trainings.

### **Conclusion**

Different countries though-out the globe have introduced several solutions in this pandemic to carry forward the education system. TV broadcast, Online libraries, resources, guidelines, online channels, video lectures, are highly introduced at around 96 countries. The quality of E-learning needs much improvement. Due to the sudden out-break of COVID-19 there was insufficient time to assure the quality of the E-learning or online teaching-learning process because the focus was to save and continue the education process at any cost and in all possible format during the global crisis. UNESCO portal on COVID-19 has provided immediate support to many countries across the globe to facilitate the learning-continuity and minimize the disruption of education, especially for the sake of the vulnerable class (Under National Learning Platforms and tools by UNESCO 2020). (UNESCO, 2020).

Though there are few challenges related to E-learning, it has actually emerged as a benefit to learners and educators around the world. The global crisis has specially manifested the immense importance of e-learning in today's modern world. Without the means of e-learning platforms education would have come to a sudden halt since the outbreak of the virus.

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