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# A Review Of Effectiveness Of Web Learning During Covid-19 Outbreak

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## Abstract

India being the second-largest populated country in the world, with just under 1.4 billion inhabitants and among this, a large group of people is engaged in traditional teaching-learning methods. Even though most educational institutions are exploring information communication technology (ICT) at schools, colleges, and university levels, still most of them are struggling with the implementation. The unanticipated outbreak of Covid-19 and imposed lockdown forced the education system worldwide to use the web-based learning platforms for sustainable education and left no option for the traditional pedagogy. This situation worked as a catalyst in changing the whole education system overnight, i.e., shifting themselves from person-to-person learning from classroom to web-learning. The aim of this study is to examine the significance of e-learning during the Covid-19 outbreak and it also highlights the growth and development of EdTech start-ups and tools during this pandemic. Thus, it has become the need of an hour to adopt online education along with the conventional approach to make it more effective.

**Keywords:** Covid-19, Online learning, pandemic, EdTech, education, web-based learning, Education, Effectiveness.

## Introduction

“Ever since the first report of Coronavirus Disease 2019 (COVID-19) at Wuhan, China in December 2019, it has affected over 200 countries and territories around the world with two million cases and more than 120,000 deaths as of 21 April 2020 (Aishwarya and Puneet, May 2020, 2020)” and led a significant effect on the world economy. As far as UNESCO report is concerned, it says that, Covid-19 had affected more than 90% of the total world’s student population during mid-April 2020 which is now reduced to 67% during June 2020. UNESCO along with WORLD BANK is continuously making effort to make countries (with vulnerable and disadvantaged communities) aware to utilize distinct web-based learning tools for effective learning even in lockdown. “Thereafter, the advent of forced technology tools is a result of the impact created by COVID-19 on all levels of educational systems (Shukla and Nirban, June 21, 2020)”. The imposition of lockdown in India by Prime

Minister Narendra Modi, on 17<sup>th</sup> March 2020 has led educational and learning institutions to remain temporarily closed and due to this, the biggest challenge among the conventional institutions came into action. With the advent of lockdown, teachers were asked to take classes using digital or e-learning platforms like Zoom, Meet, YouTube, Teams as the need of the hour forcing students to adopt the new change as early as possible. By this online learning or web learning become the only source for delivering lectures and conducting exams thereafter. Its value is afterward noticed by certain organizations as it is cost-effective, has minimal social distancing, offers flexible scheduling, offers an effective learning environment, offers complimentary interactive support that allows student to study anytime and anywhere even at working places, demands good internet connectivity and students located at any part of the world can access the lectures using their mobile phones and laptops, emphasis is on real-time assessment of students availability, helps the institution to portray themselves as being tech-compliant, etc.(Parvat,2020) while some scholars argue against it.

“ICT initiative of Ministry of Human Resource and Development (MHRD) (e-Brochure-<https://mhrd.gov.in/ict-initiatives>) is a distinct platform which combines all digital resources for online education. The digital initiatives of MHRD for secondary education during COVID-19 are Diksha portal (blend of video lectures, textbook, and assessment), e-Pathshala (learning application for students from class 1- 8 by NCERT), National Repository of Open Educational Resources (NROER) (an open-source portal which provides a vast variety of resources for teachers and students in multiple languages). The government initiative of a platform like Swayam, Swayam Prabha, e-PG Pathshala for higher education is shedding a light on the importance of e-learning in the dynamic world” (Parvat,2020).

However, the web-based platforms for online learning like Unacademy, Byju’s, Topper, Vedantu have gained huge popularity among students for learning from home without affecting their studies to a considerable extent. During the lockdown, even Tata steel provides certain courses with the registration of just Rs.1/- on courses like Basic TQM, MS

Office, Machine Learning, Advanced Microsoft Excel, etc. And thus, one can reach to the conclusion that online learning is a magic bullet to address the drastic change from conventional learning to online learning.

### **Review of literature**

Online learning is a collaboration of students, teachers, and resources to boost and support meaningful interaction among them (Dogbey et al.,2017). Rapid development in technology has made online learning easy (McBrien et al., 2009). “Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning, for ex.) have in common the ability to use a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means” (Cojocariu, et al., 2014).

Online learning can be understood as “learning experience in any environment (synchronous or asynchronous) with the use of different devices (mobile phones or laptop) with internet access which can be accessed by students anytime (coordinate with instructors and fellow students) from anywhere (Singh & Thurman, 2019). Online learning thus overcomes the limitation of time and space is increased by the number of resources and can increase its reach among many students by including teaching methods that cannot be attained through textbooks (Gray and Tobin,2010). Certain benchmarks have been established for teaching-learning platforms that must meet the criteria during the Covid-19 pandemic:

- a) Video conferencing is used as a tool for connecting with at least 50 students for delivering a lecture at the same point in time.
- b) Lectures are recorded on live streaming to benefit students, who do not have high bandwidth internet availability so that they can access lectures afterward with the rewind feature included in it.
- c) There is a choice for students that they can attend classes via any device whether mobile phones or laptops.
- d) Online submission of assignments/ quizzes/ tests is accepted. (Basilaia et al.,2020)

In a study done by Anderson (2002), a model was proposed, and expansion was done on the theoretical base of online learning. “The model illustrates the two major human actors: learners and teachers, and their interactions with each other and with the content. Learners can, of course, interact directly and spontaneously with any content that they find, in multiple formats and especially on the Web; however, many choose to have their learning sequenced, directed, and credentialed through the assistance of a teacher in a formal education system. This interaction can take place within a community of inquiry, using a variety of net-based synchronous and asynchronous.”

### **Methodology:**

The study being descriptive in nature has undergone a systematic review of previous literature. The data collected for this review is secondary and the research tool is extensively used for this study is content analysis considering the qualitative aspect of this review study.

The present paper will help in critically reviewing the following:

1. Examine the importance of EdTech in e-learning during Coronavirus exposure.
2. Highlights the benefits and drawbacks of COVID-19 pandemic on education.
3. Insights to prevalent digital social and communal media platforms used by higher education institutes in overcoming the academic loss during pandemic .
4. Put limelight on suggestions for effective implementation.

### **IMPORTANCE OF EDTECH IN E-LEARNING DURING CORONAVIRUS EXPOSURE.**

With the advent of Educomp, the EdTech flourished in India. The first wave was led by Educomp, Everonn Education, and Core Education among others, industries that focused on digitizing classrooms (Chakraborty, 2020). Byju Raveendran, founder of Byju Online Application says, “The Outbreak is increasing the application of online education.” In the year 2019, Byju became one of the most valued EdTech companies.

According to the reports advanced by KPMG and Google, a rise could be seen in the EdTech sector in the coming years, and it is about to reach the milestone of approximately 2 billion USD by the end of 2021. The list of EdTech startups is exceptionally long, listing few of them includes Byju’s, Adda247, AptusLearn, Asmakam, Board Infinity, ClassPlus, Egnify, Embibe, ExtraaEdge, iStar, GlobalGyan, Lido Learning, Pesto, Vedantu, Edubrisk, ZOOM Classroom, ZOOM Business, Toppr, Unacademy, Coursera, Seesaw, Khan Academy, e-pathshala, GuruQ, etc. Since EdTech cannot replace traditional learning fully, but it can provide the educational institutions with an opportunity to bring a drastic change in their teaching-learning methods.

### **POSITIVE AND NEGATIVE REPERCUSSIONS OF COVID-19 OUTBREAK ON EDUCATION SYSTEM.**

**POSITIVE IMPACT OF COVID-19:** With the outbreak of a pandemic, the educational system although hit hard from the impact at the beginning but somehow institutions managed to accept the challenge and put all their efforts to transform their current face-to-face offline learning into online learning. It provides institutions with an opportunity to explore new dimensions in e-learning.

1. **Growth in the use of learning management systems:** With the advent of online learning there is a huge demand of LMS raised by institutions more specifically educational ones in strengthening the loopholes in online learning.

2. **Enhanced use of digital content and rise in digital literacy:** The use of digital content in providing quality lectures for students has increased the use of the digital library and made students and teachers more digitally literate.
3. **Tech-savvy India:** Use of presentations or voice-over presentations in delivering content online, use of a soft copy of learning material, use of different portal like google classroom, google forms, etc., basic activities from attendance to assignment submission done on portals made students and teachers both tech-savvy in the dynamic learning.
4. **Better time management:** Wastage of time in going to school is managed by online learning, students, and teachers both can attend and take classes respectively, sitting anywhere with good internet connectivity.
5. **Learning becomes more blended:** It becomes the mixture of both online learning as well as offline learning in which students can write assignments and can submit online, teachers can take tests and make reports, etc.
6. **Personalized learning improved:** Students can assess a large variety of content not only confined to one teacher but with a variety of teachers and can gain extra knowledge and guidance as much as possible.

NEGATIVE IMPACT OF COVID-19: With the opportunities seen after the outbreak, threats in the sector were also addressed.

1. **Reduction in employment opportunities:** Recruitment process come to halt with the lockdown, companies delay on on-boarding of placed students, lay-off of employees is seen, “The Centre for Monitoring Indian Economy’s estimates on unemployment shot up from 8.4% in mid-March to 23% in early April and the urban unemployment rate to 30.9% (Educationasia. in).” The struggle for food overlaps the struggle for education with an increasing rate of unemployment and leads to decreasing rate of interest in education (Pravat, 2020).
2. **Unbalanced work-life:** With 24/7 service delivered by teachers, work-life balance is disturbed in many aspects, however, results in less discipline and more haphazard in the life of teachers.
3. **Educational assessment system affected:** Postponement of most of the external examinations and cancellation of all the internal assessments took place which ultimately hurts students’ learning. “Many institutions have been managing the internal assessments through online mode using different digital tools, but the postponement of the external assessments has a direct impact on the educational and occupational future of students’ life. This uncertainty has created anxiety among students as they are stuck in the same grade/class without promotion. Similarly, many students who had appeared final/board examinations would suffer a lot as, by the time they get their certificates, it might be too late for them to apply for the forthcoming academic year in other countries due to lockdown (Pravat, 2020)”.

4. **Adverse impact on Researchers and Professional developers:** The imposition of lockdown adversely affects the researchers and professional developers as traveling from one place to another is not an easy task and this led to a full stop in various research in which data is collected on the primary basis.
5. **The rich-poor gap widens:** The poor students suffered a lot in the pandemic with no or minimal availability of devices like a mobile phone to attend classes online and internet connectivity which is not readily available to poor students. This hampered their studies to a great extent.
6. **School and College fees delayed:** The payment of school and college fees by the parents of vulnerable and poor students is delayed as they face unemployment in the pandemic.

### **INSIGHTS TO POPULAR SOCIAL MEDIA PLATFORM**

“It’s found that different social media applications have been used by the students for the acquisition of academic knowledge. However, popular social media sites, like Facebook, Twitter, and Instagram are used only to collect information, not necessarily about academic knowledge. Meanwhile, social media allows students to develop communities to share experiences, discuss conceptions, and create a space for co-learning (Ankuran, 2020)”. Educators can interact with students beyond the confines of the classroom, too (Persaud, 2019). WhatsApp among all web messaging applications is widely used to share documents, texts, videos, presentations, etc. A student has stated his experience of using Skype for online classes, “You get the intensity of something when you go through a phase, experience and deal with it. I had heard about the 1918 Spanish Flu that infected 500 million people and killed an estimated 10-50 million, devastating the global economy. Something similar would hit us was never in my thoughts. I still cannot swallow the fact that on 14th March of the varsity phase was the last day we were out free, enjoying, and now here we stand without any certainty as to when we see our department again. I, honestly, did not imagine that online classes through Skype will fill up that distance and make our days pass with ease. I am fortunate that our teachers had taken this initiative to keep us occupied to live a mentally-sound time during self-quarantine.” Youtube and video conferencing applications like Zoom, Skype, Starleaf, Whereby, Hangouts have become highly popular tools for self-learning and connecting with the rest of the world in an isolated pandemic.

### **SUGGESTIONS FOR EFFECTIVE IMPLEMENTATIONS**

From the whole scenario, it becomes noticeably clear that any sort of pandemic can hit human life to any extent and can adversely affect the current situation. And this will however bring innovation and change in pattern to achieve something extraordinary. Now coming to the e-learning perspective one can understand that providing teachers and students with online tools is not enough to increase productivity, one must blend the

traditional and the web learning tools to make its implementation more effective. After examining the literature of implications of web-based learning during the COVID-19 outbreak, the following summary can be prepared, which is as follows:

1. The five fundamental principles: instruction, content, motivation, relationships, and mental health must be taken care of by the educator while imparting online education (Dhawan, 2020).
2. Proper training for both the teachers and students should be given from time to time to give them insights into changing technological scenarios and to make them comfortable with the applications.
3. The most affected group of people during this pandemic is the marginalized or the weaker section of the society who are living on daily wages, the government and the stakeholders should focus on certain plans and policies to available online teaching to them at a very minimal price or no price. The immense opportunity still seeks this section.
4. The quality assurance program should be run for a variety of courses so that they can keep a check on the quality content delivered to students rather than quantity content.
5. A recent report by WHO (World Health Organization) suggests that people should become familiar with the fact that COVID-19 is not going to be eliminated in the society and everyone should know how to deal with it. "It is important to put this on the table: this virus may become just another endemic virus in our communities, and this virus may never go away. HIV has not gone away, but we have come to terms with the virus. There are no promises in this and there are no dates. This disease may settle into a long problem, or it may not be" said by WHO emergencies expert Mike Ryan in an online briefing (Sandhya, 2020).
6. A proper insight is to be given to academic assessment in which a proper framework is developed for the submission of projects, assignments, and quizzes online. It will not only reduce the paperwork but is also a move towards a green economy.

## **CONCLUSION**

The government initiative of Digital India somehow relates to the repercussions of the outbreak of COVID-19 pandemic. India has become more digital in every aspect as in the case of web-based learning. Since India is a developing country, so there are certain areas in which extensive up-gradation is still needed, with the implementation of ICT-based tools to a marginalized group of the society. The government must work a lot on internet connectivity, bandwidth applicability to remotest areas, data security, and web privacy. An elevated level of preparedness should be done so that if any such pandemic hits the country, it takes extraordinarily little time to manage things accordingly. Educators can fully utilize web-based learning tools to enhance their productivity and to reach millions

of students at the same time. The opportunities are knocking on the door to bring the best of the best by web-learning tools.

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