



Cover Page



POTENTIAL OF DIGITAL INITIATIVES FOR SCHOOL EDUCATION IN INDIA DURING COVID-19 PANDEMIC

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Abstract

As described by the World Health Organization (WHO), the COVID-19 pandemic is widely regarded as the most challenging health crisis the world has ever faced. The new coronavirus has caused huge losses of lives, jobs and opportunities around the world. It has affected all sectors of the population and continues to do so. Almost all countries have implemented a total or partial lockdown to combat the spread of the virus. The school education sector is no exception and is severely affected by these lockdowns. Students of all backgrounds must face considerable challenges as they continue their studies. The pandemic has forced the education sector to use a variety of information and communication technology ICT tools to significantly shift to virtual and hybrid teaching models, and has fundamentally accelerated the pace and urgency of a number of ongoing education programs driven by this technology. This article highlights how digital learning can be beneficial in times of crisis, such as absenteeism or epidemics. To this end, some digital learning tools and techniques that can ensure the continuity of learning are highlighted. Introduced some emerging methods of the Indian government in digital learning. The advantages and disadvantages of online learning platforms are also discussed. Learners' and educators' perspectives on the Online Learning system during the lockdown are discussed.

Keywords: Digital Initiatives, COVID-19, Pandemic, School Education.

Introduction

The World Health Organization (WHO) declared COVID-19 a global public health emergency of international concern on January 30, 2020, and declared a pandemic on March 11, 2020 (Cucinotta & Vanelli, 2020). On February 11, 2020, the World Health Organization proposed the virus's official name as the acronym COVID-19 for Coronavirus Disease 2019. He was first discovered in Wuhan, China on December 31, 2019. The first death from COVID-19 was this 61-year-old man. Wuhan, China in 2020. The WHO declared COVID-19 a pandemic in 2020. The first case of the COVID-19 pandemic was reported in Kerala on January 30, 2020. India reported its first death from COVID-19 on March 12, 2020. It affects more than 4.5 million people worldwide (WHO). According to the UNESCO report, in mid-April 2020 it affected more than 90% of the world's total student population, and has now dropped to almost 67% in June 2020. The COVID-19 outbreak affected more than 1.2 billion students and young people around the world. In India, more than 320 million students are affected by various restrictions and the national lockdown against COVID-19. According to the UNESCO report, around 140 million primary school students and 130 million secondary school students are affected, which are the two levels most severely affected in India. The COVID-19 pandemic has changed the vision of education around the world. In mid-March 2020, all schools and universities were closed to save students and teachers from the pandemic. There has been a lockdown period of about 1.5 years, but we are still fighting COVID-19. Because schools and universities are essential places to maintain social distance. Therefore, the government cannot fully open these schools / universities until the pandemic is under control. In this case, education has shifted to home schooling and homeschooling methods. Although it is too early to judge the long-term impact of the coronavirus pandemic on education, there are signs that it will have a major impact on the teaching of learning methods. During the COVID-19 pandemic, digital programs played an important role in supporting education.

Digital learning tools and initiatives fill the gaps in traditional classroom teaching. In fact, some of the efficiencies brought by these tools are unmatched by traditional learning techniques. There is also a view that the amount of paper used for class notes and books needs to be reduced to save time, quickly access information, and facilitate research to recognize environmental impact. Digital learning provides an effective way to reduce costs, maximize resource use, and increase the reach and influence of students and educators. There are multiple digital platforms, tools and technologies that can be used to promote education at all levels. Tools like Google Classroom, Zoom, GoToMeeting, and Microsoft Team provide a communication network platform to connect teachers and students. Tools like WhatsApp are also widely used. There are several MOOCs (Large Scale Public Online Courses) available. MOOCs is an online course that students access through the Internet. These courses usually consist of traditional classroom materials that can be accessed online, of which includes filmed or recorded video lectures, reading materials, question sets, online quizzes and exams, interactive learning modules, and interactions with other students through forums. MOOCs are usually used for higher education and professional development. However, due to the COVID-19 pandemic, many public schools and degree programs have adopted MOOCs as the new standard. There are many universities and online platforms that provide high-quality MOOCs. Most popular: Coursera, edX, Udacity, Udemy, Kadenze, Future Learn, SWAYAM.



Cover Page



In India, most of the population lives in rural areas and people cannot afford a quality education. Massive Open Online Courses (MOOCs) can definitely be considered a game changer. This cost-effective way of learning through online media certainly has a bright future in India, because the government does not have to spend money to build schools and universities. MOOCs cannot replace traditional education and learning systems, but they play a very important role in bridging the gap between knowing and not knowing. It can help match supply and demand. In a developing country like India, we cannot completely rely on the formal education system to meet demand. MOOCs are an inexpensive alternative to formal education and will not affect the quality of education. Also, in the era of the Fourth Industrial Revolution, people constantly need re-skills or improve their own skills. MOOCs are a good solution. The courses offered by the best universities in the world provide good opportunities for students who cannot be admitted to these universities. In short, MOOC courses are the future of global education, including India. (Banwari Vijeta, 2018).

Though it is an exceptional situation in the history of education, COVID-19 opportunities to come out of the rigorous classroom teaching model to a new era of digital model. The lockdown has compelled many educational institutions to cancel their classes, examinations, internships etc. and to choose the online modes. At first, both educators and students were quite confused and did not understand how to deal with this sudden crisis, and educational activities were forced to close. But then everyone realized that the government shutdown provided many lessons for the emergence of such pandemics. As a result, the lockdown disrupted all students' schedules. While this is a special situation in the history of education, COVID-19 has the opportunity to break out of the strict classroom teaching model and enter a new era of the digital model. The lockdown has forced many educational institutions to cancel courses, exams, internships, etc., and opt for an online modality. At first, educators and students were confused and did not understand how to deal with this sudden crisis, which led to the closure of educational activities. But then everyone realized that the government shutdown provided many lessons for the emergence of such epidemics.

Objectives

The present research paper focused on the following objectives:

- To highlight various digital initiatives taken by the Government of India for the school education sector during this pandemic.
- Emphasize the various positive effects of Covid19 on school education.
- To list some COVID-19 negative effects and to put some effective suggestions for continuing education during the pandemic situation.

Methodology

The data and information provided in the current study are compiled from various reports on the COVID-19 pandemic prepared by national and international agencies. Information is collected from various authentic websites, journals and e-contents relating to the impact of COVID-19 on the educational system of India.

Digital Initiatives for School education

DIKSHA

DIKSHA is an initiative initiated by the National Council for Educational Research and Training (NCERT) and MHRD in 2017. It is a national platform for school education in grade 1-12 for all states and central governments. The DIKSHA platform is designed to essentially support countries to exercise autonomy, independence and choice through the use of solutions, tools and data on the platform, in order to design and execute learning plans that meet their needs and achieve their goals. The Diksha portal contains e-learning content for students, teachers, and parents consistent with the curriculum, including video lessons, worksheets, textbooks, and assessments. Under the direction of the National Board of Education (CBSE) and NCERT, the content was created by more than 250 teachers who teach in multiple languages. The application can be used offline. It has more than 80,000 e-books of level 1 to 12 created by CBSE and NCERT, available in various languages. We can also view the content through the QR code in the textbook.

SWAYAM

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) is a comprehensive platform that provides online courses, covering schools (9-12 years old) up to postgraduate level. So far, SWAYAM has provided 2,769 MOOCs (Massive Open Online Courses), and about 1.02 million students have registered for various courses so far. It can be accessed at swayam.gov. At NCERT (National Council for Educational Research and Training), he has been developing for 12 subject areas of the school education system (accounting, business studies, biology, chemistry, economics, history, geography, mathematics, physics, political science) MOOC course module, Psychology and Sociology) is the course IXXII. Twelve (12) courses were offered in the first cycle. Approximately 22,000 students participated in various courses. Twenty (20) courses were offered in the second cycle. About 33,000 students are registered.



Cover Page



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eVidyaloka

eVidyaloka is an educational social enterprise whose vision is to provide quality education to rural children in India. As part of the eVidyaloka project, students can interact and learn online with the help of volunteer teachers. Over the years, rural education in India has seen many reform plans to increase enrollment and improve the overall quality of education. In this sense, eVidyaloka is committed to improving rural education through technology. eVidyaloka tries to improve the quality of education by reducing the gap between urban and rural education through the use of online and digital classrooms.

Manodarpan

The Human Resources Development Department initiated the Manodarpan Project to provide psychosocial support for the mental health and well-being of students during the difficult times of the pandemic. The platform can be used on the portal. The Covid19 crisis is not only a serious medical problem, but also caused social and psychological pressure on everyone.

SWAYAM Prabha TV Channels

SWAYAM Prabha is an initiative of MHRD to provide DTH channels to support and reach those who cannot continue to access the Internet. "SWAYAM" represents an active learning network for young and aspiring minds. MHRD has 34 channels that broadcast high-quality educational programs 24x7. School education and higher education go through separate channels. Provides TV broadcasts on these channels for interactive live conversations with experts from home via Skype.

Virtual Lab

The virtual laboratory project aims to develop a fully interactive simulation environment for conducting experiments, collecting data, and answering questions in order to assess understanding of the acquired knowledge. To achieve the objectives of such an ambitious project, a virtual laboratory must be developed with the latest computer simulation technology to create a real-world environment and problem-solving capabilities. Approximately 225 of those labs are in operation and more than 1,800 experiments have been conducted, benefiting more than 1.5 million students.

Sampark Didi Mobile App

The Uttarakhand Department of Education has opened virtual courses for primary school students through the mobile application "Sampark Baithak App" developed by the Sampark Foundation. Through the application, students can access their homes during the epidemic, such as animated videos, audios, worksheets, puzzles and interesting activities. The study program is available in Hindi and English. Schools can share their best practices through this app, and students can directly share their assignments, opinions, and questions with teachers through this app to receive their concerns and support. The application also provides the convenience of a QR code scanner, which can be used to view the content available in the multimedia workbook.

Gyandeepp Programme

Approximately 89% of Uttarakhand is mountainous, and internet connection is still a major problem in mountainous/rural areas. Therefore, it is difficult to provide online e-learning materials for all students. Given that all students in the state can easily access the learning content, it was decided to start the learning content stream through Doordarshan ("Gyan Deep" program) at the state level, because Doordarshan has better access to remote areas and is the most popular among people from all walks of life..

ePathshala

ePathshala is NCERT's multilingual e-learning application, suitable for classes 1-12. The application contains books, videos, audios, etc. For students, educators and parents who speak multiple languages (including Hindi, Urdu, and English). In this portal, NCERT has provided 1,886 audios, 2,000 videos, 696 e-books, and 504 flip-books in different languages for grades 1-12. Mobile applications are available.

The National Open Education Resource Repository (NROER)

NROER Portal provides students and teachers with rich resources in multiple languages, including books, interactive modules, and videos containing a large number of STEM games. The content is mapped to the curriculum of 112 classes, including unified resources for teachers.

e-Basta

In accordance with the government's Digital India plan, the project was created to make textbooks accessible, user-friendly and user-friendly. The eBasta books are provided in digital format. EBastas can be read and used on tablets and laptops. The main idea is to bring together several publishers and schools in the same stand. The participants in the eBasta framework are publishers, schools,



Cover Page



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teachers and students. Students from all over the world can easily download the eBasta app. The required content is chosen by the school and the teacher. The publisher uploads and manages the content on the portal.

Saransh

CBSE Committee launched a facility called "Saransh" for CBSE affiliated schools on November 2, 2014. It can help schools evaluate their performance and compare it to all CBSE schools at all levels. With the help of this online tool, schools can find areas that need improvement among students, teachers, and courses, and take the necessary steps to make the changes. It also provides the general and personal performance of students in academic and extracurricular activities.

ShaalaSiddhi

It is a platform initiated by the National Institute of Educational Planning and Management. It aims to evaluate schools to achieve the goal of sustainable improvement. They can also make informed decisions to achieve their goals by comparing their performance with the standards set by the school standards and evaluation framework.

The Positive impact of COVID-19 on school education

Although the COVID-19 epidemic has caused many negative effects on education, Indian educational institutions have risen to the challenge and made every effort to provide uninterrupted support services to students during the pandemic. India's education system provides an opportunity to move from a traditional system to a new era. The following points can be considered positive effects.

Rise of blended learning

COVID-19 accelerates the adoption of digital technology to provide education. Educational institutions switched to a blended learning model. Encourage all teachers and students to become more proficient in technology. New methods of learning and assessment provide enormous opportunities for major changes in the field of curriculum development and pedagogy.

Greater use of learning management systems

Before the pandemic, companies that developed learning management systems were considered a niche market because not much traditional online learning took place. Its scope was mainly limited to professional apprentices or people with the best financial situation. Staying at home forced by COVID-19 changed all this. The learning management system may now grow at a very fast rate. Companies in the industry that have strengthened their foundations over a period of time will have an advantage. This can make e-learning more affordable. This is another positive impact on education and industry.

Mental health of children

The pandemic has highlighted the importance of mental health in an unprecedented way. Humans are social animals, and the lack of social interaction for such a long period of time has caused losses to many people. In this regard, children are most affected. Unable to go to school or the playground, his behaviour changed significantly. This has caused many parents to worry about their children's mental health and well-being. In a way, this is a welcome change in the focus on pure academic progress.

Improvement in Collaborative work

Teaching and learning no longer need to be divided and restricted. The pandemic provides opportunities for cooperation between students and teachers, regardless of geographic, socio-economic background, or any other factors.

Improving digital literacy

Pandemic has prompted people to learn and use digital technologies, and has led to an increase in digital literacy.

Improve the use of information exchange in electronic media

Learning materials are shared among students in a simple way and related queries can be resolved through email, text messages, phone calls and the use of different social networks (like WhatsApp or Facebook).

Better time management

Students can manage their time more effectively through online education during the pandemic.



Cover Page



Open Distance Learning (ODL) Requirements

During the epidemic, most students preferred the ODL model because it encourages self-study and provides various resources and personalized learning opportunities as needed.

Negative impact of COVID-19 on Education

Due to the outbreak of COVID-19, the education sector has suffered huge losses. It has had many negative effects on education, some of which are listed below:

Fewer job opportunities

Many entrance exams and recruitment processes are cancelled, which negatively affects and challenges students' lives. Indians who have been working abroad are also upset about quitting work. In India, the government department did not recruit, and recent graduates were under pressure because they feared that vacancies in the corporate sector would be cancelled due to the pandemic. All these facts mean that the unemployment rate has increased due to this pandemic. As unemployment rises, people's interest in education may gradually decline because people struggle for food rather than education.

Technological Challenges

One of the problems discovered when introducing digital learning products and systems is technical problems related to the product. Various products have their own advantages and disadvantages, and it is difficult to choose one product that satisfies all parties. For example, the popular e-learning product "Blackboard" is limited to its environment. In other words, it is limited to discussions, updates, information updates, notifications and other messages from a single provider and, due to its unique characteristics, limits student participation, restricting academic staff and students to the limits of the environment. . Many other products face challenges related to manufacturer policies and other similar technical issues. This is a huge challenge to the adoption and popularization of e-learning products.

Educational activities are blocked

Classes are suspended, exams are postponed at all levels. The different boards of directors postponed the annual exams and entrance exams. Delays in admission procedures. Due to the ongoing closure, students were absent from school for the year 2020-21, further impairing the continuity of education. After the big gap, students will face great difficulties in returning to school.

Nutritional loss caused by school closures

Due to the temporary closure of the lunch program, the school closure has had a serious impact on the students' daily nutrition. Several studies have indicated that lunch is also an important factor in increasing school enrolment.

Inadequate preparation of teachers and students

Teachers and students are unprepared for online education, they are unprepared for the sudden transition from face-to-face learning to online learning.

Digital devices

Especially in rural areas, many students have limited or no Internet access, many students may not be able to afford compatible computers, laptops or mobile phones at home, online teaching can create a digital divide between the students. According to various reports, the lockdown has dealt a severe blow to poor students in India because most of them are unable to explore online learning.

Create differences

This online teaching method has created a huge gap between rich and poor students and urban and rural students.

Recommendation

- India must develop innovative strategies to ensure that all children have sustainable learning opportunities during the COVID-19 pandemic. India's policy needs to include people from different backgrounds, including remote areas, marginalized and minority groups, in order to be able to provide services effectively.
- Immediate action is needed to mitigate the impact of the pandemic on job opportunities, internship programs, and research projects.
- Many online learning platforms offer multiple courses on the same subject, with different levels of certification, methods, and evaluation parameters. Therefore, the quality of the program may vary between different online learning platforms.



Cover Page



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- Globally, Indian traditional knowledge is known for its scientific innovation, values and interests in sustainable drug and technological development. Knowledge systems in different fields must be integrated with the current general school education system.
- Governments and educational institutions should plan the continuation of educational activities to maintain social distancing. 40-50% of students and teachers can follow COVID-19 guidelines to go to school for educational activities in two shifts a day.

Conclusion

COVID-19 has had an enormous impact on the education sector in India. Although it presents many challenges, it also creates various opportunities. Different stakeholders educated by the Indian government have adopted different digital technologies to deal with the current COVID-19 crisis and explore the possibilities of open and distance learning (ODL). India has not yet fully equipped with the ability to spread education to all corners of the country through digital platforms. Due to the currently selected digital platform, students who do not have the same privileges as others will be affected. But Indian governments tirelessly search for solutions to this problem. The first task should be to use digital technology to create a favourable position for millions of young students in India. Educational institutions need to strengthen their knowledge and information technology infrastructure to prepare for situations similar to COVID-19. Even if the COVID-19 crisis lasts longer, there is an urgent need to work hard to maximize the use of online platforms to enable students to not only complete their degrees this academic year, but also prepare for the digital environment of the future. In this pandemic situation, the concept of “working from home” has greater relevance in reducing the spread of COVID-19. India must develop creative strategies to ensure that all children have sustainable learning opportunities during the COVID-19 pandemic. Indian politics must include people from different backgrounds, including remote areas, marginalized and minority groups, in order to effectively provide education. Since online exercises are of great benefit to students, they should continue after being blocked.

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