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# INTERNET AND EDUCATION IN INDIA AMID COVID-19

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**Abstract—** The COVID-19 pandemic brought drastic changes in lives across the globe. Be it work, family, lifestyle, or education, not a single aspect was left untouched by its effect. The complete inclusion of the internet in education has always remained a topic of discussion among experts and digital education was perceived as the future of the education sector. But, the sudden outbreak of COVID-19 resulted in an indefinite lockdown and brought a halt in our lives. The educational institutions were shut down in India and the whole education system relied upon internet technology. The objective of this paper is to explore the method adopted by education institutions to continue classes through the online mode and the challenges faced by both the teachers and students in adapting to the new face of education amid the lockdown. The study presented in this paper is descriptive and analytic in nature and to achieve the objective of this paper, the data has been collected from secondary sources like blogs, news articles, and journals. The findings have revealed that, though various initiatives have been taken, still there is a need to work on several factors to enhance the learning and teaching experience of the students and teachers respectively.

**Keywords—** COVID-19 Pandemic, Digital Divide, Education, Internet

## I. INTRODUCTION

The year 2020 was a turning point in the history of the world. The outbreak of a pandemic unknown to the world changed the way people lived. To curb the community transmission of the novel corona virus, a complete lockdown was the then and only solution. Every major or minor sector was affected, the education sector being one of them. According to a report by UNESCO, by the end of April 2020, 186 countries have implemented nationwide closures, affecting about 73.8% of the total enrolled learners (UNESCO, 2020). India is the country with the second-largest education system in the world after China. The sudden complete lockdown in March 2020 in India compelled schools and higher institutions to rely upon internet technology to continue with their studies. This has affected over a million students since this sudden transition

from a face-to-face mode of education to the digital mode of education brought new challenges and exposed vast inequalities in education. Although a lot of online content has been made available to the students to support their studies, the limited access to internet facilities has hampered the studies of the students in some way or another. According to a report by UNICEF, only 32% of the rural population of 12+ years and 54% of the urban population had internet access with only 11% of Indian households having devices such as desktops, laptops and tablets (excluding smartphones) in the year 2019. The states of Bihar, Odisha, Chhattisgarh, Jharkhand and Uttar Pradesh were among the most affected states where students suffered in their studies due to the lockdown. The reason is the lack of access to digital devices and essential e-learning tools. Those who even had access to the internet suffered due to poor internet speed and other factors (geographical location, electricity availability, affordability, digital illiteracy, etc.). This difference in the access to online education has somewhere created a gap between the students and has developed a class of have and have-nots that is reflecting upon their class performance. Almost 60% of school children in India cannot access online learning opportunities. Even among students of private schools in the urban areas, half of the parents reported issues with Internet signal and speed. Many struggled with the cost of mobile data. According to the Remote Learning Reach ability Report (2020) by UNICEF, only 24% of households have access to the internet across India. Only 20% of school-age children in India had access to remote education during the pandemic, of whom only half participated in live online lessons. This limited or almost no education, or the fear of falling behind their peers among many students who already suffered due to barriers in education (differently-abled students, students in remote areas, etc.) has forced many to discontinue their studies. This has been felt that the students are falling behind when compared to where they should be, including in social skills, physical activities, job prospects, etc.

Teachers play a major role in imparting education to students and this shift to online mode has even posed a challenge for them as well. The lack of proper infrastructure made the teachers suffer to conduct classes in the majority of the cases. The teachers being accustomed to the



traditional method of teaching found it a great challenge to a sudden shift in the online mode since, it was not possible to be familiar with the digital tools and online platforms within a few days. They experienced difficulties in accessing digital content and found it hard to reach out to every student, especially in remote areas. A need was felt to create an infrastructure enabling teachers to enhance their digital skills by providing them with the support they need.

## II. THE APPROACH: STEPS TAKEN

The government had no other option but to impose a lockdown to cut down the spread of the COVID-19 virus. With the schools and higher educational institutions closed, the government, schools and higher education institutions made sure to reduce the negative impact of the lockdown on the education of students. Various open-source platforms such as Google Classrooms, Zoom, Whatsapp, YouTube, Google Meet, Blackboard, Skype, Google Hangout etc. were used to continue with the studies in the online mode. The Ministry of Education made efforts to make the learning experience smooth for both teachers and students through various e-learning platforms. The government's implementation of EdTech interventions in partnership with some NGOs like Khan Academy, EkStep etc. has developed a repository of learning content for teachers and students, all free of cost. Some of those are as follows:

### 1) SWAYAM

SWAYAM is a national online education platform having over 1900 courses for both school and university (undergraduate and postgraduate) students. Integrated with conventional education, SWAYAM enables credit transfer (up to 20% maximum) in its courses. The teachers can also make use of this online platform to increase their knowledge and efficiency. Website: [swayam.gov.in](http://swayam.gov.in)

### 2) SWAYAM PRABHA

This initiative makes learning an all-new experience for the students. SWAYAM PRABHA has 32 D2H TV channels that transmit educational content on a 24/7 basis. These channels can be accessed throughout the country with the help of a Doordarshan free dish, antenna or a set-top box service. Course content related to school students (Class 9-12) and university students (undergraduate and postgraduate) is broadcasted on these 32 channels free of cost. The broadcast schedule and other details can be accessed by visiting its official website [swayamprabha.gov.in](http://swayamprabha.gov.in)

### 3) e-PATHSHALA

The National Council for Education Research and Training (NCERT) on its e-PATHSHALA portal has made available around 696 e-books, 1886 audios, 2000 videos and 504

flipbooks for classes 1-12 in many languages. This portal even has a mobile application to make its access easier for the students. Website: [epathshala.nic.in](http://epathshala.nic.in) or [epathshala.gov.in](http://epathshala.gov.in)

### 4) DIKSHA

DIKSHA (abbreviated form of Digital Infrastructure for Knowledge Sharing) is an open-source national platform for students and teachers. The portal has over 80000 e-books for students available in several languages. It has question banks to help students with their homework and exam preparations. It provides training to teachers on various topics, provides them with necessary access tools, helps prepare lesson plans, content explanation and assess their students. It also has an application and QR coded textbook materials. Website: [diksha.gov.in](http://diksha.gov.in) or [seshagun.gov.in/shagun](http://seshagun.gov.in/shagun)

### 5) NROER

The National Repository of Open Educational Resources (NROER) is a portal having 2779 documents, 1345 interactive content, 2586 images, 1664 audios and 6153 videos in multiple languages. Website: [nroer.gov.in/welcome](http://nroer.gov.in/welcome)

## III. NEED OF THE HOUR: RECOMMENDATIONS

The following points need to be kept in mind for ensuring a better education environment for the students at all levels:

### 1) Strategy Development

There is a need to devise a strategic response to situations like the COVID-19 pandemic where the students and teachers are prepared beforehand. This can be done through teacher training and building student familiarity with information and communication technology (ICT).

### 2) Reducing the Digital Gap

The government needs to expand the digital network in India to reach every student and teacher. The quality of internet infrastructure is also to be kept in mind for seamless internet connectivity through mobile networks so that none of the students and teachers falls through the gaps and ends up having no access to learning opportunities.

### 3) Electricity

Uninterrupted cheap electricity is yet another important factor to consider that plays a crucial role in supporting the use of technology. The government needs to ensure that even the remotest parts of the country have an uninterrupted electricity connection so that the students and teachers are ensured all-time connectivity with others over the digital tools.



#### **4) Upskilling Teachers**

Teachers are the backbone of the education system and play a crucial role in the overall development of a student. Hence, they should be provided with the required tools to carry out their duties of imparting education to students without any difficulty. To make blended learning successful, there is a need to keep in mind the changing roles of teachers and provide them with the professional development and support they need to carry out their duties effortlessly.

#### **5) New Curriculum Development**

The shift to the digital medium has brought up the need to reframe the course curriculum that can be digital-friendly and can be easily taught to students keeping in mind their holistic development and other important aspects including practical or project-based learning methods.

#### **IV. CONCLUSION**

The COVID-19 pandemic no doubt has completely changed the face of education in India up to a great extent. This change brought with it many challenges and a number of effective measures to curb the negative impact of the pandemic on the education system of the country. The National Education Policy (2020) highlighted the concept of digitalization in education to strengthen access to quality education. Other continuous efforts are being made through online learning platforms like SWAYAM, SWAYAM PRABHA, e-PATHSHALA, etc. to make learning smooth and student-friendly. Still, there is a need to take into consideration factors like the digital divide, lack of other facilities that are hindering quality education to students in these times of the COVID-19 pandemic. The teachers also face challenges with the current transition phase and need

support tools and other facilities to carry out their duties well. The current situation has brought into limelight the inequalities within the education system, especially in terms of opportunities for continued learning as schools close and transition to a distance mode of learning. To be more resilient in the face of another systemic shock, context-specific strategies to promote distance learning are needed to ensure that the most marginalized children do not drop out of the schools. Ambition and reality must be bridged so that equity is ensured, and all students can have the same access to e-learning irrespective of any other factors considered.

#### **V. REFERENCE**

- [1] Gope, P.C., Gope, D., Gope, A. (2021). Higher education in India: challenges and opportunities of the COVID-19 pandemic. *Asian Journal of Distance Education*.
- [2] Joshi, A., Vinay, M., Bhaskar, P. (2020). Online teaching amidst COVID-19 in India: an outlook. *Asian Journal of Distance Education*.
- [3] Muthuprasad, T., Aiswarya, S., Aditya, K.S., Jha, G.K. (2021). Students' perception and preference for online education in India during COVID -19 pandemic. *Social Sciences and Humanities Open*. <https://doi.org/10.1016/j.ssaho.2020.100101>.
- [4] UNESCO, U., UNICEF, U. (2021). India case study situation analysis on the effects of and responses to COVID-19 on the education sector in Asia. UNESCO, UNICEF.
- [5] UNESCO, U. (2020). COVID-19 educational disruption and response. UNESCO.
- [6] World Economic Forum. (2020). 3 ways the coronavirus pandemic could reshape education.

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