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## Impact of Covid-19 on Education Sector in India: An Analytical Review

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### Abstract

Children and teenagers are deprived of interaction with other children and youth when educational institutions are closed. This can have a significant impact on their development. Because of this, they are limited in their development and growth. India's public health crisis is, as a result, posing the greatest danger for the fastest and most extensive reorganisation of the country's education system. By the month of March 2020, the end of the month epidemic of covid-19 had spread to over 185 nations and resulted in the closure of over 95% of all schools, colleges, and institutions, leaving millions of students unable to complete their education more than three hundred million pupils." There were few pre-planning measures in place for the rapid spread of the pandemic, and no one could imagine the implications of such a fast shift. Several institutions and numerous competitive examinations hold entrance tests at a time when the education system is being greatly affected. The constant COVID-19 threat to the school system is a stern reminder that revolution is always a prerequisite.

**Keywords:** Health crisis, Education, Covid-19, Pandemic, Examination etc.

### Introduction

The Covid-19 virus is transmitted from animals to humans as an intermediary host. Palm civet and camel are the intermediate hosts for SARS-COV, whereas pangolin and snakes are the probable intermediate hosts for SARS-CoV-2. Bat, being the final host for all three, serves as a reserve. Bat is such a prolific carrier of viruses and corona viruses that she has never contracted either one. Bats transfer the disease from intermediate hosts to humans, not the other way around. Covid-19 transmission can be made directly, in the form of droplets generated when a person sneezes, coughs, speaks, or accidentally inhales those droplets. There are droplets that are greater than 5µm in diameter, which you can catch if you are within 1m of them. In contrast to direct touch, indirect transmission occurs when viruses are deposited on dead surfaces, such as doorbells, elevator buttons, stairs, and so on, which may come into contact with a large number of healthy people. The virus makes its way from

the eyes, nose, and mouth, via the new corona patient, and on to the new patient's ear. Faecal matter, which has come into contact with an infected individual, has been shown to be the transmitting source, which means it can spread by faecalal transfer (Kumari and Shukla, 2020).

The deadly and profound effect of Covid-19 has completely rocked the globe. Educational institutions are shut down worldwide as governments try to control the spread of the Covid-19 epidemic. Nearly all of the world's student population is affected by these countrywide closures. Even in India, which is participating in the country-wide lockdown, the government has shut down all educational institutions, causing a domino effect, which affects learners from elementary school to graduate students. In addition to kids, teachers, and families, school closures effect the entire community, both economically and socially. Poor families experienced additional difficulty as a result of the hardship suffered by disadvantaged children and their families, which in turn caused learning difficulties, poor nutrition, childcare problems, and increased economic costs for the families who could not work (Verma and Prakash, 2020). Because to the lockout, the usual academic session has been disrupted. In the case of primary and secondary school children, they are the most negatively affected as they are completely cut off from the opportunities to engage with their teachers. Teachers, school administrators, and government officials face an unprecedented challenge when it comes to e-learning; the disruption in education and learning may have medium and long-term effects on the quality of education.

According to reports, the globe is facing a pandemic owing to the Coronavirus Covid-19 outbreak. All nations have been touched by the virus as well as the millions of people whose lives have been altered by it. Since a result of the pandemic, the education sector has had an impact as the major rolling stock of this industry, the student, has been compelled to remain at home to prevent infection and death due to the virus. This has pushed virtually all educational institutions to employ webcams and cellphones to run their daily lessons. Pre-recorded or on-demand access via sites such as Coursera, Academy, and UdeMy has seen an upswing in popularity. After the pandemic and the lock down, the survivors may not be as confident as they were in the pre-pandemic era, when they sent their children and wards to schools and colleges. That may lead the schools and colleges to provide online-based courses to cater to the survivors' needs. In this circumstance, instructors and professors will have to alter to align better with this new paradigm.

Students' academic achievement is harmed when schools are closed. The fundamental element of education is the learning it gives, and when schools stop, children and teenagers are left without a chance to grow and develop. The disadvantage is significant for students who don't have as many possibilities after school, as they are only likely to have a limited number of educational pursuits. The number of dropouts increases as a result of school closures since it is difficult to ensure that all students return to school once the closures have finished. Closures that last for an extended period of time, particularly for school buildings, are particularly concerning. People assemble and socialise more frequently in public schools than they do anyplace else. When schools are closed, many children and teens are deprived of the social interaction that is so important for their learning and development in

general. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), around 32 million children in India lack access to school. To avoid a disruption in education, UNESCO advises the adoption of distance learning programmes, as well as open educational applications and platforms that schools and teachers may use to reach learners who are located in different locations across the world. Because they do not have access to technology or a reliable and fast internet connection, rural inhabitants and those from low-income families are at an unfair disadvantage in the digital era. A key impediment to long-term learning is an inability to use technology or a lack of strong internet connectivity. By coping with the impact of school closures, particularly for vulnerable and disadvantaged communities, and facilitating continuity for everyone, remote learning seems like a viable solution for students at this time. As a result, the government has implemented a programme of learning on the fly. To this end, education has radically shifted by switching classrooms from face-to-face to online teaching. According to research, it appears that online learning might lead to a greater retention of information and require less time. A recent study reveals that, on average, online learning results in students obtaining between 25 to 60 percent more learning content compared to classroom learning since e-learning takes 40 to 60 percent less time to learn than the traditional classroom environment.

The exponential rise of the outbreak, the closure of colleges and universities, and the ensuing shift to online teaching caused the pandemic to sweep over the country so quickly that it had little time to consider or prepare for the effects on education. It is possible that a large portion of our students will become passive learners due to their short attention spans as a result of this sudden shift to online learning without planning, particularly in countries such as India, where the foundation for online learning has not been prepared and the curriculum has not been designed for this format. This is further confirmed by the fact that, as a result of the digital gap, many developing countries, such as India, are left out in the cold when it comes to enrolment in educational institutions. So, because most of the professors are just delivering lectures on platforms such as Zoom that may not be genuine online learning, they must make do with what they've got without the specialised online platform needed to provide proper online learning. Although there is a danger that learning goals may not be realised, there is also the possibility that pupils may be distracted, and so no learning will occur.

Educational improvement is supported by the addition of Covid-19, as every disruptive development brings chances that will revolutionise the system worldwide and notably in India, which plans to implement a planned educational reform. This will need all educators to become more technology aware and undergo training to help them reach the level required. For universities and colleges, it will be an excellent opportunity to finally improve the quality of the teaching and learning material they employ. Because blended learning will be the future format of learning, there will be a drive to identify innovative and creative methods of design and delivery, especially in light of the usage of learning management systems. Faculty members and professors are delivering online courses to students from other schools to equal the playing field. The ability to collaborate across the country to gain from each

other is also possible for academics and instructors. Finally, it is predicted that there will be a big increase in teleconferencing opportunities, which might potentially have a detrimental impact on travel.

As of when was Covid-19 discussed in the education sector?

The professors of some institutions have demanded that they be able to give online lessons and provide reading material through email. To sum it up, conventional classroom education is used as an e-classroom education system for more advanced pupils. This represents a worldwide tipping moment for adoption of the new "e-education" system and the "work from home" working culture, which are both now being promoted by various organisations and people. There is disagreement on whether a new paradigm of education is in the offing. Before, teachers used to use several techniques, including chat groups, video meetings, voting, and document sharing, to help students. Now, the epidemic has changed the way that teachers use these techniques to help their students. With the progression of information technology in education, online education is expected to become an increasingly more essential part of schooling. Many platforms, like BYJU'S, provide free online classes or substantial discounts on e-learning modules in response to notable consumer demand. Several businesses, such as LARK, a Singapore-based organisation that provides a single service for instructors and students, make use of this concept. In addition to unlimited meeting minutes, auto-translation features, real-time co-editing of project work, and a smart agenda scheduler, this product also provides these features: unlimited videoconferencing time, auto-translation features, real-time co-editing of project work, and cloud-based storage. Lark rapidly increased its worldwide server infrastructure and technical skills in order to guarantee constant connectivity during a moment of crisis. Due to the participatory nature of online learning, it also qualifies as an intriguing and interactive alternative to classroom instruction.

Can digital education reach the same level of effectiveness as that of conventional education?

There has always been significant development and adoption in such educational technologies as language labs, virtual tutoring, video conferencing, online courses, and online learning software. While many nations are questioning if online learning will continue to persist beyond the epidemic, the impacts this would have on the education industry are also being considered.

## **Review of Literature**

In order to fully comprehend the potential impact of Covid19 on the Indian education sector and the opportunities and difficulties that this may provide, a literature review was performed to locate any relevant material that might be found on the topic. Acquiring research papers via the internet, having access to the goals of this article, was done since databases that were inaccessible because of the lock down of the institute were made available online. Research publications having a link with the aims of this study were accessed from the internet (and Google Scholar). Search keywords that were used for this purpose were: the 2009 H1N1 Pandemic, the 2008 H1N1 Pandemic, the H5N1 Pandemic, the H1N1 Flu Pandemic, the H5N1 Flu Pandemic, and the 2009 Flu Pandemic.

In this particular case, it was impossible to locate publications that identified a resemblance between the current shutdown and the one in 1919 because e-learning and online learning as a whole did not exist until the year 1919. As a result, new issues were identified using the snowball methodology, which utilised searching and identification of relevant research publications.

Papers were identified using a search engine using the keywords, and after further consideration, a final selection was chosen for the purpose of the literature review based on the following criteria:

- 1) Identification of articles that addressed and discussed issues linked to the major aim of this study with a little to less emphasis on reporting 'stories of success' pertaining to the challenges, as compared to other studies.
- 2) Papers that chose not to pursue the institution (which wrote/commissioned the papers own e-learning and online education goods and services) were identified in step two.
- 3) That the articles were not 'too technical,' that is, that they did not convey the core material in a way that was difficult to grasp by the general public.)
- 4) That the articles were not 'too technical,' that is, that they did not convey the core material in a way that was difficult to grasp by the general public.) that the papers were relevant in relation to the major aim of the article and did not redirect the reader's attention away from the primary objective to other topics.

Due to the discovery of the Covid 19 or Corona virus, the world has come to an end. The number of individuals impacted is around 55 million, and the number of deaths has been over 3 million. This is a clear comparison between the pandemic of 1919 and the threat posed by Covid 19, since the spread of the former resulted in numbers just as powerful as those produced by the latter. The global Spanish flu pandemic of 1918–1919 was initiated by the 1918–1919 Spanish flu which rapidly spread throughout the world. while refusing to do anything substantial to help those afflicted, the Colonial Governments from that era dismissed the crisis as a 'Non-notifiable illness' (Killingray David, 2003) The epidemic began in March, 1918, and spread swiftly through Europe, Asia, Northern Africa, and Western Australia. It then moved over the Pacific to reach Australia four months later. Although transoceanic aircraft travel did not exist at the time, the pattern of the distribution suggests that ships and other marine vessels may have been the vehicles used for the transmission of the Covid-19 virus. There was a second pandemic outbreak, which was first attributed to France. It lasted until the year 1919. More than 50 million people were killed due to the virus, estimates ranging from about 40 million to more than 60 million people, which is equivalent to the amount of deaths caused by World War One. The number of people killed by the accident caused by Covid-19 is almost a hundred times smaller than this amount.

Following the virus, it was widely thought that schools, restaurants, meeting halls, cinemas, theatres, and other places with a high concentration of people should be closed. A general quarantine was then enacted, and restrictions were put in place in towns and cities all over the affected countries. Most of

the schools were closed and students were urged to stay home, because their well-being was at stake. This was first discovered in the United States, where it has been shown to benefit the overall health of the youngsters (Alexandra M. Stern, Martin S. Cetron and Howard Markel 2009). People resisted the implementation of quarantine, notably in New York City, where several individuals and companies resisted closing their doors. (Nancy Tomes, PhD, 2010) It is quite apparent that the conduct we witness now, of individuals disobeying social distance standards, refusing to wear masks or protective equipment, and so on, is not new. This is because it was seen in the past and continues to be observed today.

Young people were more vulnerable because of the virus, particularly those between the ages of five and fifteen. An abnormal, deregulated pro-inflammatory response to the 1918 flu was hypothesised to have been a contributing factor to the increased mortality among children and young people during the era of the virus. The virus was proven to have had a part in the victims' deaths, as the infection severely damaged their lungs. This supports a stronger argument for maintaining quarantine and closing schools during the year in question. Efforts like this, focused on combatting gender-based discrimination, are crucial in furthering gender equality. Additionally, there is an estimate which predicts that the virus, Spanish flu, which caused the worldwide pandemic in the years 1918 to 1919 would resurface today, resulting in the deaths of between 21-147 million people. One must also bear in mind that the factors that amplified the virus numbers to a Brobdingnagian levels in the years prior to 1918 (1918-19) had everything to do with a high morbidity and mortality rate associated with the 1918 flu pandemic, which is linked to the 1918 virus. The Madhav Report.

Under the terms of the epidemics diseases act of 1897 and the disaster management act of 2005, in India, lockdown was imposed following the discovery of the Covid-19. For the cost of life to be minimised as much as possible, all institutions wherever a considerable number of human presence was normally present were ordered to be closed. Education content was given to pupils via the internet method, since it is the case that all SSC exams take place in March, April, and May. To this end, the Indian government has made its online and MOOC (Massive Open Online Courses) offerings available to students and professors to help them not miss out on their courses. DIKSHA and NROER portals were established to offer resources like as e-worksheets, e-textbooks, and exams to students of all ages up to grade 12. Additionally, SWAYAM offers a MOOC database with 1900 courses for those who are interested. This database might help students who want to improve their skill level when they are at home. There are two ways to describe what happened next. Either the SWAYAM PRABHA's network, which now comprises 32 DTH channels, was made available on all DTH platforms (TataSky, Dish TV, etc.) or the DTH platform network was extended, allowing more DTH channels to appear on the platforms (World Bank).

As virtually all articles discovered in the search mainly discussed the good and associated impacts of school closures, it is necessary to conduct further study especially on the topic "how was education given to school children, during school closures induced due to the 1918-19 pandemic?" The only study or actual delivery of education information which we could find dealt with a piece of news reporting about the telephone, written by an author of a Fast Company article who claimed that during the 1918 flu pandemic, the telephone was used to deliver educational content to school children whose families had access to the device so that they would not miss out on their lessons due to the pandemic.

Additionally, one must keep in mind that not all colleges, schools, institutes, and universities like physical education programmes, and a select few have put the technology to use for the benefit of their pupils.

Although the history of e-learning in India begins in the early 1990s, we may trace its roots all the way back to the 1980s. When the domestic industry was just getting off the ground, there were not many competitors in the newly established market and entrepreneurs in the area started producing e-learning goods and solutions for the international market. Many companies created and supplied e-learning content based on curricula given by international universities, training programmes for employees, and corporate training programmes and self-development programmes for customers' employees. ICICI Bank, Tata Steel were among the early customers that helped pioneer the business. One of the earlier adopters of this subject from the academic standpoint was the Symbiosis College in Pune (now Symbiosis University Pune). TIS was the first company of its type in India, which launched the country's first e-learning project and products effort in the early 1990s. On the private school market, the estimate is 266 million USD, while on the public school market, the estimate is 740 million USD. An estimated 13% growth is expected over the coming years in the industry by the year 2020

Several R&D projects, including those involving content development, R&D technology initiatives, human resource development projects, and faculty training initiatives, have been funded by and are being carried out by the Indian government to promote the development of e-learning in the country. The Department of Electronics and Information Technology is involved in developing educational tools and technologies to foster e-learning through various R&D projects, including those involving content development, R&D technology initiatives, human resource development projects, and faculty training initiatives. It is anticipated that this initiative would cost around 17,000 crore Rupees (INR) in the current fiscal year, which will help to advance the Skill India goal. As a result of this investment, both local and international e-learning product and service providers have benefited from the development. Birds of a feather flock together in order to survive.

## Difficulties and challenges

However, there are difficulties and challenges to be faced in the brave new world of e-learning, and the challenges have become more important due to the enforcement of lock down.

(Nurul Islam, Martin D. Beer and Frances Slack, 2015) have identified five major challenges in e-learning experienced by students and teachers. They are -

1. Challenges of Learning Style and Culture
2. Challenges of Pedagogical E-learning
3. Challenges of Technology
4. Challenges of Technical Training
5. Challenges of Time Management

## Learning Style and Cultural Challenges

When compared to traditional classroom learning, e-learning is significantly different, since the main focus here is to inspire students to learn on their own by using instructional tools and study materials given online by the e-learning product provider. Gnothi Seauton is a Greek expression which translates to 'know thyself'. This concept is important to e-learning as the most effective educator a learner can have is himself. A key point to bear in mind is that the self-learning approach does not always provide flawless results; as a result, there is the possibility of 'false positives' in that the student assumes that the material he is studying is right, even if it is actually incorrect. Another possibility is that there might be a challenge related to 'pace.' For example, some pupils may learn at a faster rate while others learn more slowly. This issue may be handled by having a teacher available 'on demand' to help students grow their mental stamina and confidence by having their questions and difficulties addressed.

## Pedagogical E-learning Challenges

An e-learning environment where knowledge level, learning level, memory retention, and recall level and other quantifiable elements such as delivery and receiving of education are absent, will be challenging for course designers. Information and Communications Technology experts who plan or direct the construction of the content must stay up-to-date on the latest technological advancements in the field to provide useful content to students, who can then use this to prevent their time and resources from being wasted on delivering walls of text that won't be liked. Enable a feedback/control mechanism in the e-learning content to enable someone assigned to listen to students' queries, doubts, and complaints to forward those queries, doubts, and complaints to the product developers. This will benefit students because the issues will be resolved, which will result in an additional benefit.



## Technological Challenges

Several obstacles arose with the introduction of e-learning goods and systems, among them was the discovery of technological difficulties with the products. There are several goods that have their own advantages and disadvantages, making it difficult to find a product that suits everyone. In addition, Blackboard, a popular e-learning tool, only works inside the confines of its environment. That means that the device is only used for communications from a single vendor, such as updates, alerts, information, and so on, and also inhibits student participation because of its unique features, which only allow academic staff and students to exist inside the confines of the environment. Many other goods have comparable problems, such as regulations and other technical concerns from the manufacturer. This is a significant obstacle to e-learning uptake and popularity.

## Technical Training Challenges

Because the use of e-learning tools is significantly different from conventional ways of education, students and teachers who use the goods will need to receive training. The instructor must be aware of the product so that he or she can assist pupils in grasping the product's intricacies, thereby making the most of it. Differences inherent in the person need to be taken into consideration when training to use the product so that the individual may receive the greatest advantage from it. An instructor who comprehends the product extremely well may act as a 'one-stop' resource for his students, answering inquiries and resolving difficulties.

## Time Management Challenges

Tackling the issue of time management is among the main concerns to overcome in order to fully realise the benefits of e-learning applications and systems. E-learning systems are available at any moment of the day, so students do not have to stick to the prescribed classroom hours to access them. Students are assumed to be in agreement with each other when they have signed into the system in order to follow each other's progress and provide advice or remedies for any difficulties or uncertainties that could be affecting each of them. If there is no defined use time, that is, students are divided into batches based on the time slots chosen for the product, it will be difficult for a teacher to pair with his students, since he does not know when they will be using the system. The solution to tackle this problem is to create custom batches to better meet the needs of the students. Most of the problems in Coventry 19 revolve on the listed problems as well as other problems relating to the system - availability of the internet, electricity, workload of the instructor and the student.

## Objectives of the Study

1. To identify or discover numerous dangers and opportunities in education systems in light of the likely arrival of the Pandemic of CoVID-19 in India.
2. To study the impact of Covid-19 on students and teachers in India.
3. To study about the positive and negative effect that can be seen in the Indian education industry because to covid-19.

## Moderating Impact of Crises on Education / conceptual framework

Crisis management in the education industry appears to be cyclical or repetitive. The Indian government started “preparing”, a response to a natural or man-made disaster. Implementing actions to reduce the negative influence during the crisis is known as “coping.” As mentioned earlier, familiarising school screenings can take place. In addition, school sanitation practise campaigns might be implemented. As a result, school closures could be ordered. Additionally, some schools could be used as emergency facilities. Once the crisis has been averted, communities and governments go into a “recovery” phase and put in place new laws and programmes to help overcome lost time. The strategies employed may include rules to the academic calendar, as well as giving priority to grades to help students be better prepared for standardised examinations, and including distance learning as an alternative to schools. An emergency education concept model or Cycles.

The education field used to be considered as a respectable career in the past. Teachers were held in high regard in the way that kings were at the Gurukuls and pathshalas, where pupils strived to gain acceptance in their favoured training facilities. According to the study, the priority of education in the previous generations (1) was to provide skills that were crucial in day-to-day living. Because the general people did not have access to many of these talents, firearms training, medical, biology, chemistry, and engineering were not typically available to the public. Doctors, architects, engineers, and the military were those who had these skills. Scholarly insight: The Indian epics, the Ramayana and the Mahabharata, serve as outstanding illustrations of education in ancient times. Kautilya's Arthashastra offers another detailed explanation. Takshashila, Nalanda, Valabhi, Vikramshila, and other prestigious universities in those days had earned their names for themselves as schools of distinction and renown. Over time, the fundamental aim and purpose of education in India changed following the Islamic conquest. During the years following the entrance of European traders into India, a further drop occurred due to the British government's decision to fundamentally restructure the educational environment of India to meet their profit-seeking objectives. Without Thomas Babington Macaulay, these innovations wouldn't have occurred. In the post-independence era, in particular following the LPG reforms in 1991, education is being used as a means to turn lives into lives that are worthwhile living rather than as a way to spread noble principles to students. The two impacts that this has are both positive and harmful.

## **Impact of Covid-19 on the education sector of India**

COVID 19 has impacted 5,513,369 people on a worldwide scale as of May 25, 2020, resulting in 3,46,000 fatalities (6). It is being predicted that there will be over 14,000 new instances of the virus, which equates to over 77,000 people who are already infected, 57721 who have recovered, and 4024 who have died. Invoking Section 6(2)(i) of the Disaster Management Act, 2005, Prime Minister Narendra Modi has ordered a full lockdown across the country. As of March 24, 2020, the lockdown is in effect. Under the terms of the Epidemic Diseases Act, 1897 as well as the preceding mentioned Act, the central and state governments have issued orders to prevent the spread of epidemic diseases. All over the nation, firms and workplaces have closed down their registered and branch/representative locations as a result of the Lock Down regulation, meaning that employees have been forced to work from home. India is in lockdown due of the virus and about 32 crore pupils (almost 7 million) have been infected. According to this count, 13 crore students fall into four age groups ranging from the youngest (elementary school students in classes K and L) to the oldest (senior secondary school students in classes 10 and 12) and thus are all affected by the lockdown, which is referred to as a "crucial time" for the administration of all schools and pre-university educational boards and agencies. The four classes falling into this range are considered "very important" and, as a result, a significant number of state school and pre-university education agencies have made provisions for online classes to be made available to their students so that they are not negatively impacted by the lockdown. Schools and institutions will stay closed until the end of May 2020 until the lockdown order is no longer in effect (depending on whether the lockdown ceases from this date or is extended).

While the effects of COVID 19 were confined to only the commercialised educational institutions, their income streams were reduced because of students being unable to attend school. Despite this, due to the growth of online learning resources, namely, mobile applications, college-owned learning portals, and cooperation with MOOC and online course providers, the loss of revenue can be offset by this new technology.

## **Impact of COVID-19 on the teachers and the students**

Due to the Coronavirus epidemic, several institutions have requested their faculty and lecturers to use Google Video, Skype, Zoom, Facebook live, and YouTube to facilitate their lessons and course work. No one can say with certainty that all instructors know about this new way of thinking, but most are committed to completing the curriculum given to them to the best of their ability by using all the available methods at their disposal (8). However, there have been a few hiccups in this new paradigm, such as people do not have a clear understanding of how to proceed, given that there has been a rapid shift from learning in the classroom to using a smartphone or computer. Additionally, as the course has a short time to finish, the stress on the professors and students is great as they have to complete the course before exams, which will be done via the internet method, through protected means, or after the lockdown is released. This can be claimed with certainty, as the present batch of students will likely be known as the "experiment batch" because the teaching done via online methods will be subject to

statistical analysis and interpretation to develop new policy frameworks, as well as operational frameworks.

The reality of teaching over the internet has now set in during the Corona virus epidemic. It's possible that the current batch will have issues as a result of their not being adequate groundwork for online learning (8). Finally, the variety of online modes of receiving and delivery of education have not been standardised or implemented in all schools, colleges, and institutions across the country. Several educational media vehicles have been made available to aid this goal, such as the DD Network of Educational channels, SWAYAM's online learning platforms, and so on. Until recently, however, they have been considered an assistance to the delivery of education, not the principal delivery mechanism. Having a teacher in the classroom is considered best since there is continual feedback about the subject matter that is being taught, and feedback is much harder to obtain. To determine if the student has truly grasped what has been taught, the instructor relies on the student's body language. The quality of the internet connection, the type of recording device used, and audio recording media, is critical when it comes to receiving and delivering course content in the online classroom. A guarantee cannot be made about whether all of the students and the instructor in the class have an adequate internet connection. Few students and teachers have broadband or optical fibre internet access resources or the motivation to implement a cable or fibre cable connection. In a certain locations, internet access is frequently interrupted because of national security and intelligence concerns in order to neutralise territory, enemy agents, and other rebels. Due to this, online education will not be able to reach these pupils.

However, since the range of radio transmissions at the beginning and end of a class, from both AM and FM stations, is limited, it may be possible to utilise the radio (especially in these unique situations) but General radio transmissions from radio stations are not able to cover the entire course curriculum. It is worth noting that owing to the nature of radio, it is impossible to know whether or not the material was grasped by the pupils. This equipment is considered a HAM Radio set, and it is rather rare to find people with the licence to operate it, as well as the equipment itself. Due to the sensitivity of the northernmost region of India, the "radio quiet" order can be implemented by Union Territory (UT) military commanders or by the UT administrator, making use of such equipment as meaningless.

Normal regions can employ general radio delivery of course information while verifying if the course content was comprehended or not by having students call a few randomly selected people. When utilised in this circumstance, HAM Radio is preferable, as it enables the professors to directly connect with the pupils by offering the opportunity for direct feedback verification.

### **Possible difficulties and opportunities that can be experienced in this new paradigm**

Being that the COVID 19 pandemic is a situation, for which no one was prepared well in advance, one cannot say that it will be easy to make a smooth transition from the offline class to the online one. A few difficulties that can be experienced have been described here -

**The Institution:** There are distinct disparities in pupils in terms of quality and number within India. There are several factors which make it possible to identify different student demographics. These include geography, religion, language, caste, gender, identity, and origin. Due to the proclamation and implementation of lock down, many students who had gone home for the semester break will be required to remain (8). Because students, as a rule, do not bring all of their study materials home with them, they have to study in the absence of their resources and make do with things they find locally. To say that students and teachers alike are forced to interact via laptops and smartphone interfaces is an exaggeration. While it is not for certain that all educational institutions have prepared for running of online classes, it cannot be assumed that all of them have equipped themselves for effective computer and internet usage, which depends on the device, battery life, and internet connectivity. A few universities, including the Ashoka University in Haryana, have avoided problems since they have material delivery arranged in advance. The majority of colleges, institutions, and universities didn't foresee a significant problem and were able to avoid disaster. One additional possibility is that some educational institutions opposed forming an arrangement for delivering their educational content on an online content delivery platform, fearing the negative commercial impact this would have on their institutions. To make sure students may receive the education and course content via the online method, the Indian government has put in place many initiatives, including the e-PG Pathshala, SWAYAM, NPTEL, and other mechanisms including the commercial sector such as Tata Sky, Dish TV, and others.

**The Teacher:** While teachers often perform before an audience in real life, students are the targets of their instruction. One of the most critical indicators of how well a student understands what is being taught in the classroom is the level of participation the student has in class. To check if the students comprehended what was taught, the instructor may ask questions, choose certain students to read sections narrated by the teacher, or set up a question on the board to see how many students can solve it. The classroom is maintained free of interruptions and distractions such as smartphones and idle chit-chat. This is determined by the ability of the instructor to keep control of the classroom and prevent unnecessary distractions. There are some specific obstacles to transitioning from the offline route to the online one in an emergency (11). The biggest problem is to maintain student attention and response to the information presented. The student is in his own surroundings, which means he does not have as much fear and respect for his teacher as other students may. Students who do not care about the class or who misbehave often need to be scolded or sent out of the classroom by the teacher. The principal instructor cannot be physically present in the student's home setting, and there is no way to check if the student is really listening to his lesson. Another source of distraction is social media, specifically Facebook, Twitter, Instagram, Telegram, and Discord, since there is no guarantee that a student cannot be drawn in and teachers cannot stop students from using social media while they are in their own home and not in the classroom. Due to this, it is very impossible for professors to guarantee that pupils are studying at home in earnest. Additionally, it's tough to produce new internet material. When delivering lectures online, teachers will face a vastly different way of doing things compared to when delivering lectures in person. This might provide difficulties for certain teachers. The teacher must also

utilise PowerPoint software, as well as other tools that convert PowerPoint files into movies, audio, and video editing software, before posting them on the internet for students. This new online teaching paradigm will make it tough for many teachers who aren't acclimated to it to meet deadlines since they're unfamiliar with the many technologies. Thus, it is necessary for teachers to utilise high-quality equipment to record their films and for students to use high-quality equipment to view the videos. It should also be noted that equipment such as computers, cellphones, and strong internet access are not guaranteed to be in every student's hands. As a result, some students may be unable to get education via the online method.

**The Students:** Students must confront a variety of issues resulting from the Covid 19 epidemic (12). It is pleasant for students to be in a classroom when they are around their classmates and peers. Until he performs an act of mischief or misconduct, the instructor does not see him since he is camouflaged as a tree in a forest. Online education delivery contains a clear camera image of the learner, and this cannot be avoided. It isolates the pupil as he is now a tree in a desert. It has also been noted that many students have claimed that the online education system has produced a stressful home situation due to the presence of an active instructor, the increased homework, and the loss of friends and socialising. Since the student is in his residence, he may be expected to cover more of the study material, resulting in a larger burden. A small number of intelligent students have used technology to "trick" the instructor by utilising video and audio editing tools to make the virtual presence appear more real to the teacher. Due to the tension that is brought on by the lockdown and the stress on his brain, the instructor may not be able to detect this cheap ploy, and he may be misled by it being called a 'Jugaad'. Some pupils, however, aren't intelligent or bold enough to try to cheat the teacher, so they must learn in a tense setting. A few students may not be able to purchase internet-enabled cell phones and laptops due to their economic or social status. This has led them to be unable to enjoy the stuff that their peers will see because of this, which may impact their performance in the next exams.

**End-of-course examinations:** Covid-19 has disrupted the normal daily routines of students, instructors, and institutions, making it imperative that the test also will provide its own share of unique and unpredictable obstacles (8). In Delhi University, a survey conducted by means of the online mode discovered that students have doubts and concerns about the examinations that will be held at the end of the course, which will be conducted by means of the online mode across the country due to the implementation of lockdown to lock down the university. It appears that online assessments are a useful way to measure the final quality of students at the conclusion of their course. Although it is simple to accomplish, doing so is quite difficult in reality. The biggest problem having online tests is that there is no way to verify that all students are doing their exams honestly. As we can see from examples published on social media, parents and guardians have an established tradition of helping their children and wards cheat during exams in Bihar. A student is supposed to give his exams honestly, but someone who has been through the 'vaastavata of life' will definitely cheat if given the opportunity. In order to manage the students and make sure they are only taking their exams honestly, the institution is

depending on the controlling effect of parents and the eye of the Big Brother (webcam and cameras) on the students. However, because there are so many students in any one school and institution, it is not feasible to verify a person's exam results with absolute precision. a future date, since this will allow the schools and institutions to do the examination fairly when the lockdown is removed.

### **Opportunities to be gained from the pandemic**

While it is thought that light follows the dark, and so, there are certain chances that may be obtained from the challenge of Covid 19 on the education sector in India, it is also believed that light follows the dark, just as the day follows the night. Capable of great things

The Covid 19 has developed a "Blended Classroom" concept. A 'Blended classroom' is an atmosphere where both offline and online teaching approaches and strategies are used to help students learn. An aptly named "second wind" was discovered by the online learning platforms, portals, methods, and techniques of delivery of lectures at the time of the pandemic plague, and thus new opportunities for blended classrooms were created. More augmented reality is likely to be included in the blend in the future.

Teachers are required to weather the current crisis by delivering education to pupils while without compromising on the anticipated standards of quality and competence. Through the use of internet-delivered education, it is possible that a 'personal bond' may be established between the instructor and the student, and that relationship may enhance the student's learning experience in the future following the end of the Covid 19 epidemic.

The chance provided to instructors because of the lock down will strengthen their skill sets, and as a result, overall quality will grow in the instructional material. Furthermore, students will be able to profit greatly from the instruments of online education and will therefore enhance the overall quality of education for themselves. Online education on the side of the student enables him to grasp what is being taught to him, and also it improves his study habits.

In the post-Covid 19 future, new portals for 'on-demand' distribution of educational information will be established and made available to students. Both students and service providers will gain because of this, which results in a "win-win" situation for both sides.

No longer will time and place be a limitation when it comes to delivering education. The paradigm shift caused by today's and post-Covid-19 online learning opportunities, such as Google Hangouts and Zoom, will remove that hindrance and enable the delivery of education at a higher quality level to the student.

## Conclusion

The Coronavirus Covid-19 pandemic has had a substantial and quantitative impact on the overall quality of life in the world, particularly in developing countries. Numerous countries have closed their borders, as well as the borders of their nationals, in order to safeguard the lives of their inhabitants from this small microscopically dangerous menace. As a result of the pandemic, the education sector has been impacted, as it is reliant on the physical presence of teachers and students in schools, colleges, and universities owing to the nature of the sector (commercialised). Students are being taught via the internet method by professors who are adjusting to this new paradigm as a result of the lockdown implemented to combat the virus's threat. A number of difficulties are being encountered during this current lockdown time, including issues pertaining to the changing circumstances, access to the internet, and energy supply, to name a few of them. However, there is always a silver lining to every cloud, and there are a few possibilities that can be derived from this new normal that will be beneficial to both the student and the teacher in the long term if taken advantage.

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