Review Article

A Review on COVID Pandemic: A Boon or Bane for Indian Educators and Learners

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ABSTRACT
Education is one of the human rights of every student whether they are learning in schools, colleges or universities. School education and higher education both changed their methodology of teaching and learning aptitude from blackboard teaching to internet-based teaching. Although in terms of technology we are far away from the culture of foreign teaching and learning in pandemic crisis, millions of students were provided to adopt new technology of education. This technological revolution is new for both the learners and teachers that affected the students' knowledge and resulted in some outstanding opportunities and some unexpected challenges. The reasons to support online education system are the transmission of global knowledge, adoption of digital technologies and modes, time conserving, etc while the reasons for opposing arguments are the lack of sharing attitude, adverse effect on eyes, brain and growth, unavailability of internet sources in marginalized communities etc so, on an all for every achievement there are some pros and cons that severely changed the education system in India.

INTRODUCTION

The covid-19 pandemic has hit every sector around the globe and the education sector is no exception. The rapid spread and increasing death toll led to the closure of most of the educational institutes in India, including schools, colleges, universities and coaching centres by the end of March 2020. The Indian education system has developed and drifted towards online teaching-learning processes in a very short duration of time [1], or every new resource that develops includes some limitations and some advantages. Along with many negative impacts of the outbreak on the education field, there were remarkable positive and memorable impacts as well. Some researchers studied the positive and negative impact of the Covid-19 outbreak on our education system and reported a drastic change as earlier students were not allowed to carry electronic gadgets, whereas they are now encouraged to use digital tools [2].

E-learning can give a promising result in all disciplines except skill-development courses with hands-on training are the major lacunae. The excellent feature of the digital platform is the perfect blend between traditional book teaching and ICT tools in the form of e-books, e-libraries and pdfs that are too accessible at any time on demand. Online assessments to have a great future by providing the solutions to the issues related to examination schedule, sitting arrangements; co-coordinating with invigilators/examiners and handling question paper and answer sheets [3].

Human beings are surrounded by the harmful wavelengths of mobiles, the internet, Wi-Fi, broad-bands, which are causing damage to our mental, physical and social well-being. All the impacts of positive and negative factors show a combined efficacy on the learners and the educators [4]. Some research results showed that the majority of the students are influenced by the corona pandemic due to their serious positive and

negative impacts on their social and educational concerns [5]. One article reported that the student's mental health, fitness, weight loss, social life and sleeping and feeding habits have changed to a greater extent due to the COVID situation [6].

Positive Impact of Covid-19 on Indian education System Global transmission of knowledge- In higher education, the activities like seminars, conferences and workshops were all halted with the sudden imposition of lockdown to curb the rapid spread of the Covid-19 virus. However, the activities soon bounced back in a new version of Webinar, E-workshop and Web-conferences. Many online platforms offered the participation of thousands of students with just access to a link. As per the reports by "The Hindu" the webinars conducted from London during lockdown had a huge number of participants from all across the globe, including India [7].

The virtual platforms have offered the opportunity to educators and students to connect with peers from across the globe. With the rise of online activities, learners from various countries and institutions have become an international community. The pandemic has led us a step close to creating a global education system, with exposure to eminent researchers and scholars overseas. Some scientists reported a rise in attendance in international webinars during the coronavirus pandemic, as it has reduced the financial cost of attending the event [8]. In continuation, the face–to–face meeting will remain a valued component of educational events; however, the webinars may feature prominently in future endeavours as well.

Adoption of Digital technologies-With lockdown imposed across the country for a long period, it became challenging to impart education in traditional classroom systems [9]. The pandemic, therefore, paved the path for the introduction of many technologies and innovative methods in the education sector. It has expedited the inclusion of digital tools in educational setups. Almost every educational institute whether private or public has adopted blended learning and motivated educators and learners to become tech-savvy.

According to Dhawan *et al.* [1] at times of crisis and disaster, innovative and resilient solutions are provided by technologies, which help in connecting people and combating the disrupted life. Digital tools like open board software, screen recorder, OBS studio and products by Google like Google classroom, G-drive, Google-jam boards, drawings, Google hangouts, Google slides and sheets have helped in quick shifting to online mode and have provided an alternative to a physical teaching methodology [11].

Virtual teaching in virtual classrooms is now a common phenomenon. Digital exams and online assessments employing Google forms have become a routine activity. Earlier all such tools and processes were included just for the sake of introduction or merely defining them. In absence of a pandemic, we might have adopted them a decade later [12].

Upsurge of Online activities- The last five years witnessed the increased popularity of online activities and e-learning in India, however, a large section of the population and number of institutions were reluctant to gain online proficiency [1]. In the pandemic, the inevitable norms of social distancing left the internet-based services as the only option to interact, connect, communicate and perform job duties from home. This has resulted in an upsurge in online activities from 40% to 100% in comparison to the pre-pandemic period. Every organization is experiencing this shift, including educational institutes [13].

The stay-at-home imposed during pandemic led to the rise in virtual meetings, teleconferencing, webinars, online training and e-conferencing. Even the student's related co-curricular activities like debate, essay writings, recitation, poster competition and singing competitions all are being conducted through virtual connections. It has speed up the entire process rejuvenating and connecting students back to their student life. Entries, write-ups and recorded videos are invited online and even the assessment and result declaration are also done the same way. To ensure the smooth progression of teaching-learning, instructions and online etiquettes were also shared with students [14].

Enhancement of information and knowledge sharing- Young generation is amongst the most quickly adapted group of people during the outbreak. They have very promptly learnt the techniques and benefits of sharing information and learning material with their peer groups. Earlier the use of social media was limited to entertainment purposes, but the Covid-19 led isolation made them understand the benefits and bliss of sharing. Students are now more willingly sharing soft copies of

books, learning materials, educational links and also informing each other about any update from the educational institutes [1].

Raise in digital literacy- The new generation or youth born into the digital age is regarded as "Digital natives" as they are well versed with various gadgets and applications, however, the people born before the advent of digital tools and ubiquitous internet connectivity are called "Digital immigrants". They were either struggling to adapt to the new age of computers or were not willing do to so although, to follow physical distancing and avoid close gathering, people were left with only digital mode for performing their duties. This induced them to install and learn the functioning of many new apps like Zoom meet, Webex meet, Telegram etc. The Digital natives also helped them to become acquainted with digital technologies. Amidst the crisis, the Zoom application of Google play store is trending the most owning to its viable features [15]. It is being used for conducting live meetings, online classes, webinars, web-conferences live chats and even business meetings at the same time practicing social distancing [1]. Now working from home is a new normal everywhere, all thanks to the increased digital literacy. Teachers with digital literacy are replacing teachers without digital literacy. Many workshops and training are being offered to explain the use of various online learning tools.

Adoption of new Assessment modes- The pressure of examination and the alarming suicide rates after the declaration of board results is an open secret [16]. The cancellation of secondary and higher secondary board examinations was unimaginable before the Covid outburst. Suspension of board exams amidst pandemics has forced policymakers to consider alternative modes of assessments with a more practical approach. Some universities have already changed the pattern of examination by replacing long answer type questions with MCQ's and summary modes. CBSE also considered the open book tests, projects and assignments involving practical application of knowledge in place of regurgitation of textbooks [17]. Therefore, a shift can be seen from quantitative to qualitative assessments. The students will also be given credits for performing social works like awareness campaigns for hygiene, helping underprivileged people and distributing masks and essential commodities.

Change in the curriculum- To combat and sustain disasters and crises whether man-made or natural, the education system needs to be resilient and explore new teaching-learning ways [18]. The recent disaster in the form of the Covid-19 pandemic again posed unforeseen challenges for the education sector. The time of dismay and gloom required us to unite and help each other the most. It has led to the development of a new curriculum for inculcating courage, kindness, co-operation, resilience and leadership in students apart from their usual academics. In this series, the "Aanandam" programme has been introduced to teach students the "joy of giving", in crucial times of life. The students are given the small task of helping or serving needy young, elderly or even animals in their native areas. They are also taught to respect their environment by reducing pollution and encouraging plantations [19].

Affordability of e-learning- E-learning has lower educational expenditures [20]. One reported that online pedagogy is a relatively cheaper mode of learning as it has reduced the charges of accommodation, transportation and overall expenditure incurred in institution-based learning [1]. Even such petty savings can be useful in times of low income and unemployment. E-learning offers an inclusive education at the time of crisis. It's easy accessibility from remote and rural areas is also a merit.

Another remarkable aspect of e-learning is its flexibility, as a learner can opt for the timing of online courses as per convenience. The increased use of soft copies of books and easy sharing of digital learning materials is also a merit of this new system. Further, the e-literature is easy to store and manage.

Some reports state that abundant availability and reliability of ICT learning tools, e-books, e-notes and digital learning resources like Massive Online Open Courses (MOOC's) are most helpful in such panicky situations [21].

Bridging the Generation gap- Generally, the growing kids and students in their teen years, demand privacy or prefer to stay isolated from other family members. However, the lurking threat of losing loved ones and seeing the ordeal of those who lost their parents has made a great impact on the behaviour of young folks. They are now more concerned about the well-being of family members.

The lockdown also resulted in spending much time with family and helping each-others in performing all daily chores. The elder members also sought the help of the new generation in learning digital transactions and online functions [22]. Such reciprocation led to valuing each other and bridging the communication gap between generations.

According to a survey conducted by Godrej, lockdown brought the millennial generation close to their families. The study also reported that spending time with family kept 32.75% of respondents from 45 years age group, happy and content in lockdown [23].

Reducing the stress of educational institutes- In many cases, we turn a blind eye towards the stress caused by the environment at educational setups, like ragging, bullying, the pressure resulting from the inability to cope up with peers, homesickness in hostlers etc. As per the UNESCO report, 32% of students are bullied by peers in schools worldwide [24] however as per the survey on Indian students the rate was found to be 42%, underlining the lack of emotional and social learning in Indian schools [25].

Students facing frequent bullying are at higher risk of developing serious mental health issues that may extend even into adulthood. An increased occurrence of anxiety, depression suicidal thoughts and behaviour has been reported in bullying victims as well as aggressors by some researchers [26-28]. A study on bullying prevalence rate before and during the pandemic was conducted by research on Canadian students and the result suggests a considerable reduction in all forms of bullying, including physical, mental, verbal and social, during the pandemic period [29].

Increased efficiency of time management- The pandemic restricted various unnecessary recreational activities along with the strict stay-at-home protocol. This saved the time of commuting to the workplace and institutions. Further, the new tools and technologies of teaching-learning offered easy access from home with a click, thus leading to better and efficient time management. The reduced social interaction also proved to be a blessing in disguise for competitive exam aspirants. According to an article assessed that lockdown provided more study time for regular students as well as working professionals appearing for exams [30]. As per the report by "The Tribune", many spent idling away the lockdown days, however, the students meticulously using the time has secured good All India ranks (AIR) in the Common law admission Test (CLAT). Many people spent idling away the lockdown days, however, the students meticulously using the time has secured good [31].

Suspension of student election-A BOON-The contribution of student politics in producing powerful national leaders can't be ruled out, where the menace and disruption of teaching caused by such activities on campus are quite well known. The riots and fights are fairly frequent during campaigning [32].Violence during elections negatively impacts the stability of campus life. The increased involvement of money and political parties has further deteriorated the scenario [33]. The halt following the pandemic has suspended all campus activities including student politics. This could prove a silver lining in the dark cloud, as it has prevented a large gathering as well, that might have caused another wave of Covid-19, as observed after general elections in India.
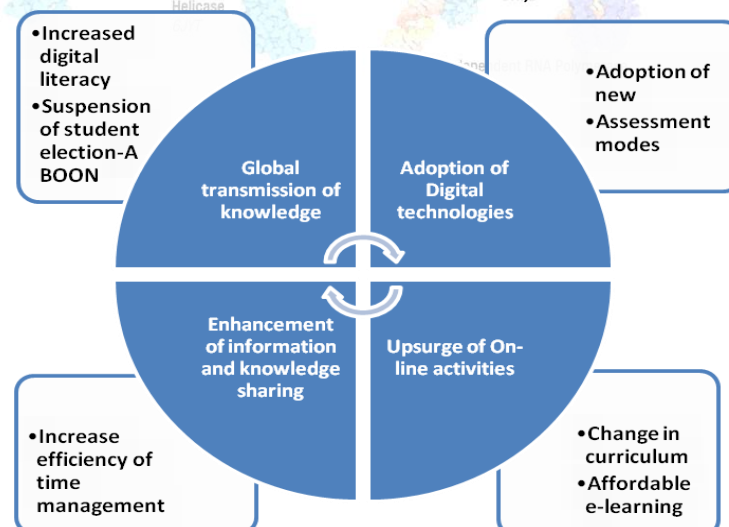
Fig 1: Positive Impact of Covid-19 on Indian education System

Negative Impact of Covid-19 on Indian education System

Internet sources in villages and poor families- Where many schools and colleges switch over from offline learning to online learning there are majority of students who are unable to use the internet sources [34]. Borderline poverty people are not able to manage the technological sources and gazettes like computers, laptops, mobile, i-pads etc. Along with this, it seems to be hard for them to afford the internet charges and maintain video-based learning. Many of the people underlying in the marginalized communities living in the villages or slum areas of different cities are continuously struggling for their daily living as some of them lost their jobs due to the COVID-19 epidemic. For them, it's necessary to feed their families first then invest their money in digital sources.

Lack of personal touch between the teacher & student- The abrupt changes in the education policies and teaching-learning technologies resulted in a wide gap between the teacher and a student. For this sudden change, neither the teaching fraternity nor the students were ready to cope up with the hybrid technology of the developing world's education demand. The loss of direct contact between the two communities has led to the variable obstacles where both the provider and beneficiary are unsatisfied due to the lack of punctuality, sincerity and discipline [35].

Digital Impact on eyesight- The transition from offline to online learning, which is new for teachers, students, administrators, and government for which no one was mentally prepared. Many patients are reporting minor issues including weak eyesight, double vision, dropping of the eyes, inflammation, clotting of the retinal blood vessel, dryness of eyes, and other ophthalmological problems in the last year due to excessive use of digital platforms in post covid situations. COVID-19 is one of the major reasons for these irregularities and the increase in the number of patients [36]. One study reveals the use of smartphones causes visual fatigue and imbalance [37].

Adverse effect on the brain- In the covid situation, the priority was to prevent the disease from being spread at the community level. Therefore, the social distancing concept was implied to prevent the spread of disease and isolation of covid positive patients within the home

or hospitals. The present kind of education system is leading the human being in a way that causes an imbalance in the psychology, the experience of anxiety in the student, ill effects in mental health efficiency, the significant increase in the depression levels observed [38].

Disinterest in learning- The way of distance learning without any direct association and interaction between the student and a teacher is not a proper channeling for filling a gap. However, it has been proven as an alternative methodology in the COVID-19 situation. According to the study online teaching-learning mode, the students are showing disinterest and dis-involvement in approximately 75% of the test sample [39] that can be assessed by their absence during the online lectures. Whenever, the situation will overcome this pandemic, the student will prefer the offline teaching mode.

Cost-cutting of staff members- Due to the thousands of life losses and morbidity that occurred all over the world in the COVID-19 situation economic crisis, recession, reduction in workforce management [38] has led to the closure of private educational institutions. Due to the less workload and financial losses, the cost-cutting of the staff members were acquired by many institutions. UNESCO reported that approximately 900 million learners have been seriously affected by covid and lead to socio-economic implications [40].

Wavelength of digital instruments- Our body is exposed to variable wavelengths of light in our daily routine. In the current scenario, the unavoidable use of smartphones and other digital devices has led to the exposure of skin and eyes towards short wavelengths (blue light) of visible lights (blue region). Several studies reported in the research paper showed that the lights scattering from the electronic devices cause changes in the reactive oxygen species (ROS) generation, apoptosis, necrosis, ageing, skin damage and other biological effects which may be long term or short depending upon the time of exposure [41].

Sharing is caring- Whether, it's school or college the students tend to share their food, belongings and feelings that make them more mature and responsible. But due to the humanitarian and pandemic crisis that occurred in the last two years the students are no longer taking care of them, became careless, frustrated, lonely and undisciplined [42].

Natural immunity booster- In classes, where bulks of students are sitting side by side are in continuous exposure to a variable number of germs. These germs help the children to build up their immunity against multiple pathogenic microorganisms. The outbreak of this newly emerged life-threatening disease COVID-19 has led to the compulsion of students to learn in captivity and hence, their basic immunity to fight the diseases has been also declined with a decrease in vitamin D levels that enhance the capacity of bones and teeth [43].
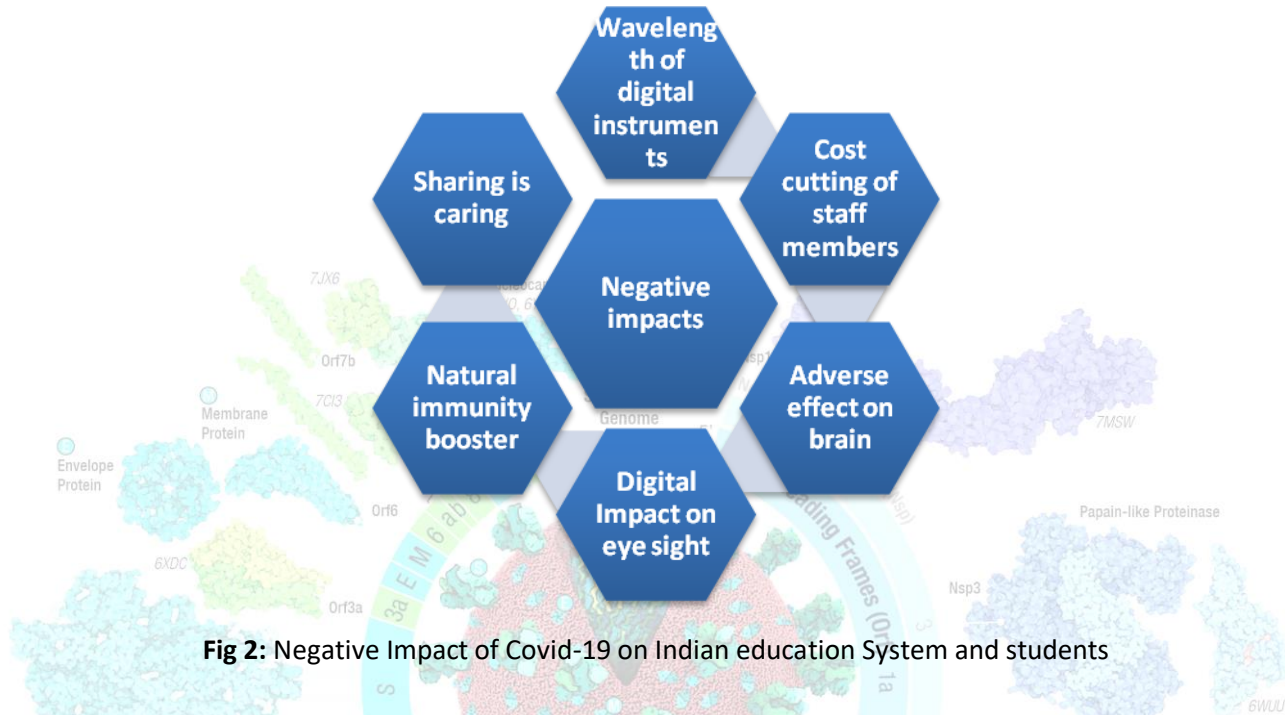
Fig 2: Negative Impact of Covid-19 on Indian education System and students

CONCLUSIONS

These days much is being talked and written about the pessimistic and optimistic facet of online education adopted during forced lockdown however, it can prove to be the brighter face of the Indian education system in upcoming times. In the light of the New Education Policy (NEP) 2020, only e-learning can lead us to achieve the target of 50% gross enrolment ratio (GER) by 2035. Further, the successful accomplishment of multi-point entry, exits, and credit banks requires the employment of e-services.

More importantly, going digital will also reduce paper production eventually reducing the cutting down of trees, which is the need of the hour to save our earth for posterity.

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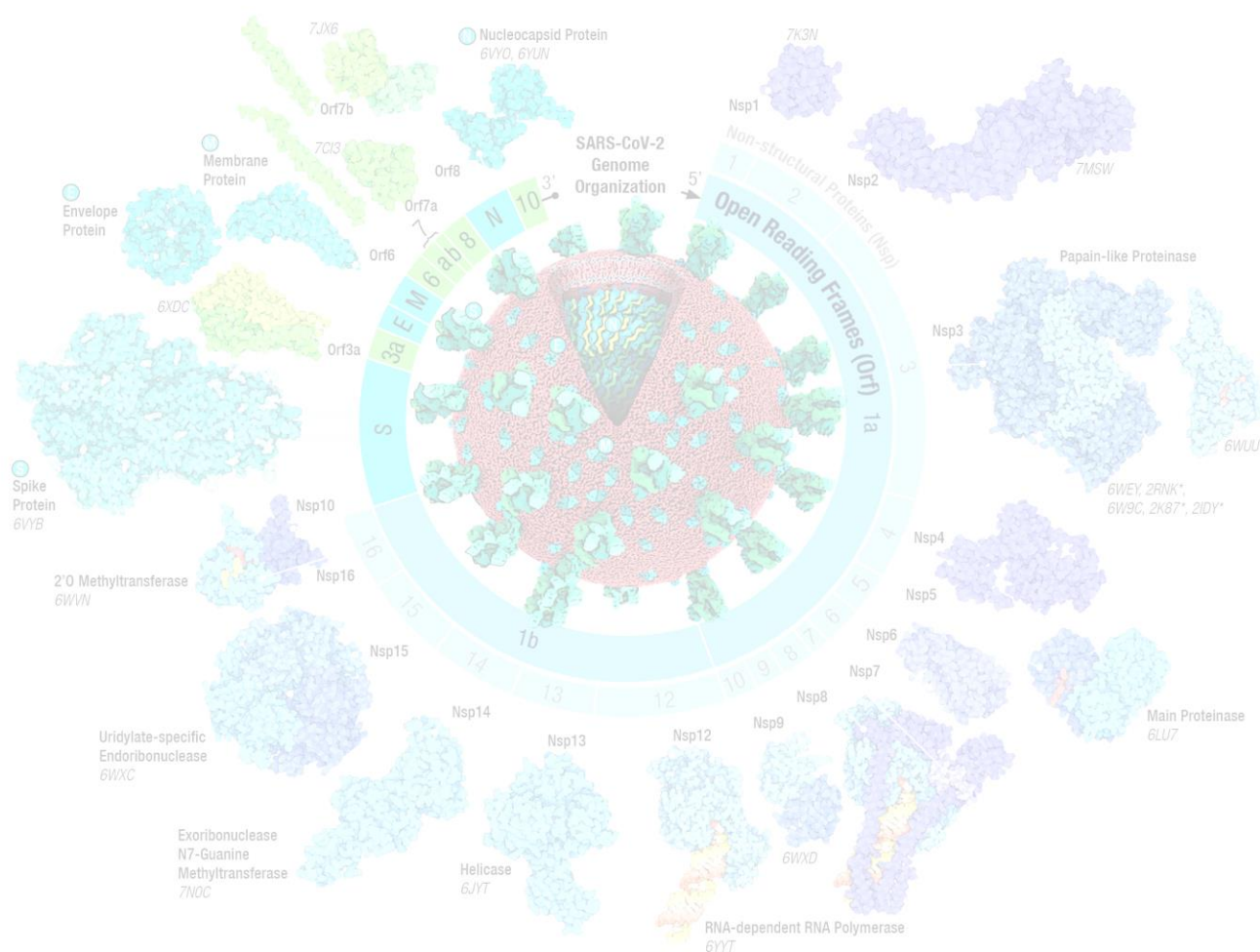
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