

Recent Trends Challenges and Problems Faced by Education Sector and Role of Technology During Covid

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Lockdown changed the perspective of schools and colleges closed for months, e-learning came to the forefront, across the world. Schools and teachers have been forced to adapt to e-learning leaving the traditional way of teaching. Teachers followed the new trend, hoping to return to the classrooms soon. Technology added a competitive edge to the e-learning sector. The new crisis has taken us to the big question. How will complex Indian education system respond to the emerging situation? The ed-tech firms have witnessed 10-fold rise in registration for trial or free coaching, in the last two months. Lack of quality training amongst teachers. Private schools and colleges too face a problem with teacher training. The Ed-tech firms will change the way teachers teach and students learn. It offers a chance to get out of boring classes and offers real-life learning opportunities and diminish the gap between what is taught in the classrooms and the real-life workplace requirements. The schools and colleges are implementing plans for quality, flexible and sustainable learning options. the entire education sector came together and thought anew and acted a new. School leaders, school administrators, and teachers alike rose to the occasion and adapted to the need of the hour. A combination of synchronous and asynchronous methodologies using digital platforms and video-assisted learning has made online learning fun and collaborative for learners faced with challenging times and this trend is likely to continue ruling in 2021. At the same time, teachers are just like the rest of us in that they are experiencing this strange new world as mothers, fathers, aunts, uncles, and grandparents. They are trying to deal with their individual lives and take care of their kids and find new ways to make sure that learning continues.

KEY WORDS: Ed-tech, Coursera, Collpoll, OTT platforms, e-learning, immunization. WHO

I. INTRODUCTION

Lockdown changed the perspective of schools and colleges closed for months, e-learning came to the forefront, across the world. Even in developed countries, students have been the primary movers of this initiative. Teachers followed the new trend, hoping to return to the classrooms soon. There is a paradigm shift witnessed in the education sector in India for last two months. Schools and teachers have been forced to adapt to e-learning leaving the traditional way of teaching. The adaption of technology was reluctant for many teachers and schools. That new technology added a competitive edge to the e-learning sector. The ed-tech firms strike gold in the pandemic as both private and government schools ensure education through e-platforms. In India, online tutorials including Coursera, Collpoll and many more are gaining immense popularity during this crisis. However, such expectations are unlikely to materialize any time soon. When schools re-open, they have to operate with reduced classroom strength, to ensure social distancing. It means the scope for classroom education will remain curtailed and e-learning has to fill the gap in the education sector. With blended learning as potential solutions for schools, e-learning will continue to dominate the sector for a longer period. The new crisis has taken us to the big question. How will complex Indian education system respond to the emerging situation? Avoiding the question is of no use as students are keener than ever. The ed-tech firms have witnessed 10-fold rise in registration for trial or free coaching, in the last two months. In the absence of a comprehensive action plan, for the complex Indian school education system, which are divided by multiple boards of unequal standards and the benefits of technology will

be acquired by a section of teachers and students that can adapt and afford it. In India, state governments are the largest providers of education. However, they are plagued by several challenges including large student teacher ratios, infrastructure and lack of quality training amongst teachers. Private schools and colleges too face a problem with teacher training. These challenges combined with India's huge education market size, where 35% of its 1.3 billion population below 15 years of age, present an immense business potential for ed-tech products to scale-up by plugging gaps.

II. ROLE OF TECHNOLOGY

The Ed-tech firms will change the way teachers teach and students learn. In place of the traditional brick-and-mortar classroom, schools will witness the rise of 'flipped classrooms' leveraging blended online and offline instructions, where students watch video lectures at home and do their 'homework' in class. It offers a chance to get out of boring classes and offers real-life learning opportunities and diminish the gap between what is taught in the classrooms and the real-life workplace requirements. With technology, students can be more engaged in the classroom in various ways. There is a huge digital divide in urban and rural schools. In a recent survey, over 75 pc of students are impacted due to the lockdown as they found hard to study online, over 80 pc students said they need hand holding to shift from offline to online and over 25 pc said they need proper training to pursue education through online.

This is still a dream for the majority of students in India. Most of the parents in India cannot afford OTT platforms for their wards to study. However, a concerted effort can mitigate many problems. Until now, most ed-tech products catered to tier 1 cities and children from the high-income segment, ignoring the majority of students who come from tier 2, 3 cities and rural areas. With more students enrolling from tier 2 and 3 cities, the crisis presents a perfect playground for various companies to modify products, adapt and contextualize them as per the needs of different customers. Firms should therefore utilize this crisis to build the best possible evidence around learning outcomes. Bharat net is connecting all the villages with high-speed broadband network. Part of the project connecting remote areas in North-East India is already complete. Ensuring digital connectivity, therefore, may be easier.

The 2011 project to distribute cheap 'Akash' tablets to promote e-learning in villages was unsuccessful due to quality and procurement issues. The scheme can be revived in rural areas by the state governments. States like Tamil Nadu have started distributing tabs to students for studies.

PROBLEMS INVOLVED IN ADOPTING ONLINE EDUCATION : There are bigger problems to solve. Adapting to online education is easier for English medium students and teachers due to the ready availability of tools or content. The situation is opposite in vernacular languages that dominate the Indian school education scene. Only a few ed-tech firms provide vernacular content.

➤ **Quality of content :** The quality of content is a biggest issue. Providing quality content is a major take for Ed-tech firms There is no check on the quality of content provided by the platforms to students The schools and colleges are implementing plans for quality, flexible and sustainable learning options which includes the

- Readiness for e-learning
- Professional development of teachers in the e-learning environment
- Designing 21st-century tool kit based upon synchronous and asynchronous instruction.
- Conducting creative online assessments.
- Emotional well being of students teachers and parents
- Most importantly using technology to the advantage of the unique learner in each Delfite.

❖ RECOMMENDATIONS OF WORLD HEALTH ORGANIZATION (WHO)

➤ **Community-level measures:** Carry out early detection, testing, contact tracing and quarantine of contacts; investigate clusters; ensure physical distancing, hand and hygiene practices and age-appropriate mask use;

shield vulnerable groups. Community-led initiatives such as addressing misleading rumors also play an important role in reducing the risk of infection.

- **Policy, practice and infrastructure:** Ensure the necessary resources, policies and infrastructure, are in place that protect the health and safety of all school personnel, including people at higher risk.
- **Behavioral aspects:** Consider the age and capacity of students to understand and respect measures put in place. Younger children may find it more difficult to adhere to physical distancing or the appropriate use of masks.
- **Safety and security:** School closure or re-opening may affect the safety and security of students and the most vulnerable children may require special attention, such as during pick-up and drop-off.
- **Hygiene and daily practices at the school and classroom level:** Physical distancing of at least 1 metre between individuals including spacing of desks, frequent hand and respiratory hygiene, age-appropriate mask use, ventilation and environmental cleaning measures should be in place to limit exposure. Schools should educate staff and students on COVID-19 prevention measures, develop a schedule for daily cleaning and disinfection of the school environment, facilities and frequently touches surfaces, and ensure availability of hand hygiene facilities and national/local guidance on the use of masks.
- **Screening and care of sick students, teachers and other school staff:** Schools should enforce the policy of “staying home if unwell”, waive the requirement for a doctor’s note, create a checklist for parents/students/staff to decide whether to go to school (taking into consideration the local situation), ensure students who have been in contact with a COVID-19 case stay home for 14 days, and consider options for screening on arrival.
- **Protection of individuals at high-risk:** Schools should identify students and teachers at high-risk with pre-existing medical conditions to come up with strategies to keep them safe; maintain physical distancing and use of medical masks as well as frequent hand hygiene and respiratory etiquette.
- **Communication with parents and students:** Schools should keep students and parents informed about the measures being implemented to ensure their collaboration and support.
- **Additional school-related measures such as immunization checks and catch-up vaccination programmes:** Ensure continuity or expansion of essential services, including school feeding and mental health and psycho-social support.
- **Physical distancing outside classrooms:** Maintain a distance of at least 1 metre for both students (all age groups) and staff, where feasible.
- **Physical distancing inside classrooms:**

In areas with **community transmission** of COVID-19, maintain a distance of at least 1 metre between all individuals of all age groups, for any schools remaining open. This includes increasing desk spacing and staging recesses, breaks and lunch breaks; limiting the mixing of classes and of age groups; considering smaller classes or alternating attendance schedules, and ensuring good ventilation in classrooms.

In areas with **cluster-transmission** of COVID-19, a risk-based approach should be taken when deciding whether to keep a distance of at least 1 metre between students. Staff should always keep at least 1 meter apart from each other and from students and should wear a mask in situations where 1-metre distance is not practical.

In areas with **sporadic cases/no cases** of COVID-19, children under the age of 12 should not be required to keep physical distance at all times. Where feasible, children aged 12 and over should keep at least 1 metre apart from each other. Staff should always keep at least 1 metre from each other and from students and should wear a mask in situations where 1-metre distance is not practical. **Remote learning:** Where children cannot attend classes in person, support should be given to ensure students have continued access to educational materials and technologies (internet, texting radio, radio, or television), (e.g. delivering assignments or broadcasting lessons). Shutting down educational facilities should only be considered when no alternatives are available.

- ❖ **EXPECTATIONS ON EDUCATION SECTOR IN 2021:** The Year 2020 saw disruption in the global education system like no other year in our living memory. COVID-19 created a plethora of problems but also brought new opportunities and opened doors to innovation in the Education Sector. The silver lining in this disruption is that as a sector we did not adhere to the “dogmas of the past”. Instead, the entire education sector

came together and thought anew and acted a new. School leaders, school administrators, and teachers alike rose to the occasion and adapted to the need of the hour. Innovative approaches and distance learning solutions were thought of and implemented like never before. Practices, which were previously considered impossible have now become possible due to the quick and concerted efforts by educationists who seized the opportunity to find new ways to make learning possible and managing to keep children and parents positively motivated and engaged all through the year. As we look back at this turbulent year, it's now time to look forward and focus on the trends that will shape the future of education. This pandemic has given the education sector a golden opportunity to pilot changes that would have otherwise taken many more years to implement.

❖ **EMERGING TRENDS TO DEVELOP EDUCATION IN THE YEAR 2021**

➤ **Education technology**

Digital platforms came to the rescue as schools migrated to online learning as the new way of teaching-learning due to the pandemic.

A combination of synchronous and asynchronous methodologies using digital platforms and video-assisted learning has made online learning fun and collaborative for learners faced with challenging times and this trend is likely to continue ruling in 2021.

➤ **Personalized learning**

Due to remote learning, students are now learning individually. This has led to increased instances of personalized learning allowing educators to customize and personalize learning basis the needs of each student.

➤ **Hybrid schooling**

With countries deciding to open schools in a phased manner, the possibility of Hybrid Schooling seems to be an option that most schools across the globe are likely to opt for.

Hybrid schooling provides an opportunity to strike a balance between online learning and traditional classroom learning, thus making it more interesting and innovative. This fast-growing trend in education seems to be in tandem with the evolving situation across the globe.

➤ **Project-based learning**

For those schools that value and promote Project Based Learning (PBL), increased use of Edtech tools due to remote learning has provided the right platform for children to collaborate and work on projects in a group. It gave an opportunity to students to stay connected with each other and helped the teachers to facilitate curriculum delivery in a meaningful manner.

Although 2021 will see schools opening physically, flipped classroom methodology will come in handy in imparting PBL wherein the students work individually on a project and then brainstorm and ideate either in small groups in a classroom or during online learning.

Presenting the projects to brainstorm by using technology while working on the projects remotely, will make the entire teaching-learning process interactive and more meaningful.

➤ **Professional development of teachers**

COVID -19 saw teachers stepping up their game and adapting to newer ways of imparting education by embracing technology. The learning curve has been pretty steep for teachers across the globe.

They have worked creatively, coming up with solutions to ensure that “Learning Never Stops”. Although they have done a marvelous job, they will need to be supported with a sound understanding of technology and its wide range to plug in the gaps that have been identified during the remote learning year of 2020.

COVID -19 crisis has stirred transformation in the education system and this is just the beginning

❖ TOP 10 RISKS AND OPPORTUNITIES FOR EDUCATION IN THE FACE OF COVID-19

1 Distance learning will reinforce teaching and learning approaches that we know do not work well.

Many countries are shifting to distance learning approaches, whether through distributing physical packets of materials for students or through using technology to facilitate online learning. And there are real risks because many of these approaches can be very solitary and didactic when you’re just asking students to sit and quietly watch videos, read documents online, or click through presentations—that’s really dull. The worst form of learning is to sit passively and listen, and this may be the form that most students will receive during school closures. It serves no one well, especially those who are the furthest behind.

2. Educators will be overwhelmed and unsupported to do their jobs well.

Teachers had little or no notice about their schools closing and shifting to online learning—this can be challenging for anybody. They’ve shared that they are overwhelmed with all sorts of materials and products, and we are seeing educators begin to push back and request help filtering through all the resources to find those that are quality.

At the same time, teachers are just like the rest of us in that they are experiencing this strange new world as mothers, fathers, aunts, uncles, and grandparents. They are trying to deal with their individual lives and take care of their kids and find new ways to make sure that learning continues.

3. The protection and safety of children will be harder to safeguard: In the U.K., we have stringent processes around checking who has access to children during school, in after-school clubs and sports. Schools have safeguard measures in place to ensure that predators toward children, such as pedophiles, can’t access young people. Now, once you move to online learning in a home environment, you can’t safeguard against this. People have to be mindful about the design of online learning so that bad individuals don’t get to children outside of their home.

4. School closures will widen the equity gaps: Over the last decade or so, progress has been made in the number of students who have access to devices and connectivity, making this move to online learning possible. At the same time, not every child has access to digital devices or internet connectivity at home, and we need to ensure those kids get access to learning resources as well. This means that learning resources need to be available on every kind of device and it means, for kids who don’t have access, we still need to find a way to reach them.

5. Poor experiences with ed-tech during the pandemic will make it harder to get buy-in later for good use of ed-tech : We know that some students who use ed-tech during the pandemic will have a poor experience because they’re not used to it. Some people will say, “During the virus we tried the ed-tech-enabled learning approaches, it was terrible, and look at my test scores.” Yes, this will happen. People’s test scores will be impacted. People will become unhappy because the mental health effects of being isolated will be profound. We must be prepared for that. Those poor experiences are really important to learn what does and doesn’t work.

❖ **OVERALL OPPORTUNITIES**

1. Blended learning approaches will be tried, tested, and increasingly used.

We know that the more engaging learning styles are ones that are more interactive, and that face-to-face learning is better than 100 percent online learning. We also know blended learning can draw on the best of both worlds and create a better learning experience than one hundred percent face-to-face learning. If, after having done 100 percent online at the end of this, I think it's quite possible that we can then think about rebalancing the mix between face-to-face and online. Teachers will have started to innovate and experiment with these online tools and may want to continue online pedagogies as a result of all this. That's really exciting.

2, Teachers and schools will receive more respect, appreciation, and support for their important role in society.

I think it will be easier to understand that schools aren't just buildings where students go to learn, and that teachers are irreplaceable. There's something magic about that in-person connection, that bond between teachers and their students. Having that face-to-face connection with learners and being able to support them across their unique skills—that's very hard to replicate in a distance learning environment. Also, many students access critical resources at school, such as meals, clothing, and mental health support that may not be as widely available at home.

3. Quality teaching and learning materials will be better curated and more widely used.

Educators are looking to other educators as well as trusted sources to help curate high-quality online learning tools. At National Geographic, we've curated collections for K-12 learners in our resource library. We've created a new landing page that allows educators, parents, and caregivers to access our free materials quickly, and inspire young people. But it's not just teachers struggling—it's parents and other caregivers who are trying to bring learning to life. To that end, we're livestreaming our Explorer Classroom model that connects young people with scientists, researchers, educators, and storytellers. During this transition, we want students and families to have access to that larger world, in addition to their own backyard.

4. Teacher collaboration will grow and help improve learning.

As a profession, I hope we come out of this crisis stronger by collaborating and working together. I'm a firm believer in not asking heavily burdened teachers to reinvent the wheel. At my company Tes, we've got a big resource-sharing platform for teachers, including coronavirus-related resources. There are other platforms too, such as Teachers Pay Teachers and Khan Academy, where teachers can see what others have done. A teacher could say, "well, rather than record a video with the instructional element I need, I might be able to find someone who has done that really well already." One of the most important things teachers can do now is draw on what others are doing: Form community online, share the burden, and make things a bit easier.

5. This crisis will help us come together across boundaries.

We would be remiss if we didn't take away a greater sense of empathy for each other—the idea that we can work through anything together—from this crisis. I think it's an opportunity for the education sector to unite, forge connections across countries and continents, and truly share what works in a global way. I don't think, prior to this crisis, that we've been able to do this, and we will have missed a big opportunity if we don't try to do that now.

We will get through this stronger. I live in a divided country, and from where I sit, it looks like the U.S. is a divided country too. When you go through a big national crisis like this, you come out stronger as a country because you've been fighting together, working together.

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