Pandemic Impact on Education Sector

Madhuri V. Tikam

H R College of Commerce & Economics, Mumbai

hrlib@rediffmail.com

Sambhāṣaṇ Volume 1 : Issue 02, June 2020 | संभाषण वर्ष 01: अंक 02, जून 2020

Introduction

The novel Coronavirus disease 2019 (COVID-19) was first identified in December 2019 in Wuhan, China. It has since spread globally so rapidly that World Health Organization confirmed it as pandemic on 11 March 2020. It has affected 225 countries and territories with over 27,36,979 reported cases and 1,92,125 deaths up till April 24, 2020 (Wikipedia, 2020). Most countries have implemented social distancing measures to curb the spread of infection and minimise the impact of the virus. Closure of educational institutes was part of the preventive measures followed by 191 countries. As of 24 April 2020, approximately 1,579,634,506 learners have been affected due to school closures in response to the pandemic (UNESCO1, 2020).

How is the education sector dealing with the scenario?

The reaction of education sector to this novel scenario was mixed. Even the developed countries fumbled in dealing with this crisis. Former secretary of education for Massachusetts, Paul Reville approved that there is a need for a backup online learning system while dealing with such crisis which is missing in majority of educational institutions. Educational institutions were equipped with

technological infrastructure to a varied extent. Management Information System (MIS) is used widely in administrative and management system of educational institutions. In teaching learning process, the use of technology is limited and in supportive role. Full-fledged formal online delivery of education with appropriate assessment and evaluation technique was rarely observed in most of the schools, colleges and universities worldwide.

Realising this situation, many experts in the field came forward to support educational sector.

UNESCO launched a global education coalition programme on March 26, 2020. It aims to support countries in scaling up their best distance learning practices with the help of private sector, philanthropic and non-profit organizations. Microsoft, GSMA, Weidong, Google, Facebook, Zoom, KPMG, Coursera, Khan Academy, Dubai Cares, Profuturo and Sesame Street joined the coalition. They agreed to contribute their resources, services and expertise around technology to support schools, teachers, parents and learners during this time of unparalleled educational disruption. Companies using learner and educational data have committed to uphold ethical standards.

The education ministries and educational institutions worldwide have begun using various distance education methods. Educational resources are made available to learners via open educational resources and digital repositories. Various online courses are made available to students and teachers. Teachers continued their teaching work with the help of various online solutions such as Google classroom, Google hangout, G-suit, YouTube, Moodle, Skype, Blackboard, Office 365, Ted Ed, Zoom. Many countries where availability of infrastructure and internet is a challenge have adopted traditional modes of broadcasting lectures via television and Radio. Countries like Argentina, Fiji, Kenya, Korea, Malaysia, Maldives, Nigeria, Peru have started training via radio to reach the maximum learners. Many countries like Argentina, Bhutan, Bulgaria, India, Indonesia, Japan, Libya, Malaysia, Mexico have incorporated television broadcast of educational content.

Hindering Blocks

The pandemic hit the world and the educational sector unexpectedly. Online delivery of education which was additional feature of education system suddenly became the core. It affected all the stakeholders of the education system. The major obstacles were preparedness of stakeholders, infrastructure and timely availability of necessary guidance and support.

Preparedness of the stakeholders

Educational Institutions: Many educational institutions do not have online access to students' data, educational resources and expertise to generate online content. Lack of guidance by the education authorities regarding delivery, assessment and evaluation framework added further to ambiguity.

Teachers: Majority of teaching faculty were not familiar with the technical aspects of online delivery. Lack of technical expertise, scarce infrastructure, unfamiliarity with effective online delivery techniques of educational content became obvious, though many experts came forward to offer training and solutions, the crucial time of teachers is being spent in getting familiarised and learning the online education delivery channels rather than actual online delivery of education. In addition, online teaching is different than traditional face to face teaching. The teachers are yet to discover the required skills and techniques to engage the students by creating supportive online learning environment.

Students: Similar to teachers, majority of students are exposed to online training mode to such a great extent for the first time. Students who were familiar with face to face learning means are missing social contact. They are experiencing low engagement in the online learning mode. When the researcher talked with around 100 school and college students found that lack of appropriate learning atmosphere, low speed of internet, technical hitches and a plenty of other diversions are some of the reasons for this low attainment. Absence of practical hands-on training is adding to the difficulty level of current learning process.

Parents: During this 'learn from home' setting, educational institutions and teachers are expecting contribution from parents to keep learning process on. However, parents worldwide are finding this overburdening. Reasons are many. To name a few - Parents themselves are stressed. They have so many other obligations. They are not educated enough to guide the children. They don't have required skills. Parents observe that being away from their friends and schools and current situation are causing stress among the children and hence they do not want to add to their children's stress level by forcing home schooling. No access to books, school supplies, smart gadgets, Wi-Fi and libraries are limiting the parents – especially the low-income families. Inadequate access mechanism, multiple children and disturbed learning schedule are making the home-schooling experience ineffective. As per Los Angeles Times poll, 89% of parents are concerned about ensuring their children do not fall behind academically during school closures, and 79% are worried about their children's mental well-being while at home (Kohli 2020).

Infrastructure

Educational resources: For online delivery of education, teachers and learners need educational resources like books, journals, reports, etc. Most of the schools, college and universities don't have online content of the required material. A few institutions, which have their own digital repositories offers the access only on the campus due to copyright aspects. Open education resources may not meet the specific requirements of the teaching learning community. Distribution of free PDFs of copyrighted material is making the publishers uncomfortable. Notably a number of publishers responded to the need of the time and made their resources freely available to all for the limited time.

Internet access: Speed of internet access, cost of data transfer and privacy of participants data are issues of concern. An obvious example is Zoom - a video meeting service. It became popular worldwide for educational lectures, business meetings and webinars. Daily meeting participants on the platform surged from 10 million in December to 200 million in March, and 300 million in April. But this

enhanced popularity of zoom attracted hackers and caused privacy risk to users- from built-in attention-tracking features to recent upticks in "Zoom bombing" (in which uninvited attendees break into and disrupt meetings, often with hate-filled or pornographic content). This is an issue of concern, especially for educational institutes where the data of young children who are unaware about digital security aspects is shared (Hodge 2020).

Equipment and learning environment: In a house, there might be more than one learning child, but the household might not have sufficient smart phones or computers for every student. During the lockdown almost all the family members are stuck at home. Daily life problems, financial crunches and uncertainty of future are leading to psychological disturbance in students and parents equally. This is affecting the learning environment.

Guidance and Support

In this time, all the stakeholders need timely, easily accessible guidance and support for their varied doubts. Educational institutions want guidance on how to cope up with changing needs, teachers need to learn about various online teaching learning platforms, students want somebody to answer their queries and solve their problems regarding syllabi and its access mechanism. Parents require tips to keep the students motivated and on education track. Psychological help and solutions for anxiety are required. Some organisations are offering such help mechanisms but the efforts are scattered and hence the degree of quality differs.

Best Practices adopted by various countries

Every country is trying their best to keep learning on during the pandemic. World Bank has compiled the activities carried out by various countries. Here is a summary of some best practices worth imitating by others for the betterment of teaching learning community. It was observed that involvement of Ministry

of Education in broadcasting the coursework, hosting the digital repository and publishing the schedule for students made things much easier for the education stakeholders.

Delivery Mode:

- In Argentina, Ministry of Education and the Secretariat of Media and Public Communication, began broadcasting 14 hours a day of television and 7 hours a day of radio educational content. The television broadcasts premiered on the public channels and are also broadcast by private, provincial, university, cooperative and community channels. Radio broadcasts via National and its 49 subsidiaries throughout the country. For students without access to technology or connectivity, this television and radio programming is supplemented with 'notebooks' packed with learning resources that have been delivered to homes of these students.

- UNICEF Bhutan is working with the education ministry to ensure that education continuity is implemented in the current emergency context,through the national broadcaster.

- Mexico government is using television for education since 1968. It is capitalizing on the existing educational television to provide remote learning opportunities to students.

- Saudi Arabia - the Ministry of Education (MOE) is utilizing TV and social media to broadcast nationally daily lessons for all grades in 112 educational subjects through 19 TV channels (broadcasting). Students are offered five options for virtual learning by the ministry.

Resources for self-learning:

- Argentina makes available a collection of on-demand digital educational

materials and resources organized by educational level and subject area on the ministry of education website. The platform includes self-learning resources, virtual reality educational content, suggestions for families and teachers, films, interviews, educational and communication proposals through social networks and videoconferencing tools, agendas for online events as well as proposals for free time for students.

- A content platform is developed by the Ministry of Education, Austria and hosted on its website. It offers large number of content and free resources by numerous publishers and schoolbooks providers. It also offers learning and exercise material from private providers for students of all school levels to practise at home.

- In Belize, their Caribbean Examinations Council (CXC) has developed an e-Learning Hub for high-quality resources for learners, educators, parents and employers.

- The Ministry of Education and Science of Bulgaria has launched an e-learning system on its website offering free resources by numerous publishers.

- Ministry of Human Resource Development of India also made available e-resources such as e-textbooks for school children and e-content of 87 undergraduate courses. Online courses are made accessible with the help of e portals like SWAYAM, UG/PG MOOCs, and Spoken tutorials. Online lectures for all level of students are provided via e-PG Pathshala and UGC-CEC You tube channel. National Digital Library of India (NDLI), Shodhganga and e-shodhsindhu offers digital repository for academic content, Indian theses and dissertations and e-journals. Virtual Labs (Vlabs), e-Yantra simulation software and FOSSEE (Free/Libre and Open Source Software for Education) project are aiding the academia and research during the lockdown.

- To supplement television programming for students, digital copies of all textbooks across all subjects and levels of education have been made freely available on the Government of Mexico website in text as well as Braille format.

Schedule of Teaching Learning:

- Argentina's "the class of the day", section of education ministry's website provides a comprehensive daily proposal for student learning in combination with the educational television program and a series of printed notebooks.

- The Ministry of Education, Youth, Sports and Culture, Belize hosts detailed daily schedules and resources for students. The resources include video lessons of teachers teaching along with lesson plans, questions for parents to ask children, worksheets, assignments, learning activities for younger students involving their family members, as well as further self-paced interactive videos for older students.

- Ministry of Human Resource Development of India released an alternative academic calendar for school students. It has to be followed by the teachers, students and parents to cover the syllabus during the lockdown. The alternative academic calendar is developed by NCERT to help in keeping the students busy and at the same time maintain continuity of their learning during the lockdown period.

Guidance and Support:

- The Bhutan Ministry of Education presented its 'guidelines for curriculum implementation plan for education in emergency (EiE)' related to the implementation of e-Learning in school education, roles and responsibility of different stakeholders, early childhood care and development and special education needs, non-formal education, reaching the unreached through print media, and volunteer teachers of Bhutan.

- Ministry of Human Resource Development of India started webinars for school teachers especially under Project NISHTHA. It also made available the database of experts in various fields to all. Education minister himself

held a webinar to answer the doubts and queries of parents regarding their wards' future. For psychological support dedicated helplines are provided. Government also launched video tutorials and arogya setu app for health related issues during the COVID 19.

- The Ministry of Education Russia has put out guidelines for the implementation of distance learning technologies across all levels of education. It has launched a hotline to support regional ministries, schools, and tertiary education institutions in organizing distance learning. Guidance has been provided to educational leaders and staff on how to cope with the pandemic at the psychological level. The Ministry holds regular online translation on its YouTube channel and organizes webinars for universities. It has also launched a hotline and a website for universities with methodological support and free online courses on its website. Universities are motivated to share their experience in the educational process online on a dedicated telegram channel. The Ministry is currently piloting a new service for school graduates so that they can apply to the university programs online, using a state portal.

- Belize's CXC Learning Hub enable the teachers to create virtual classrooms where they can interact directly with students, in real time, incorporating content available on the CXC Learning Hub as well as their own content developed to support teaching and learning.

- Mexico uses its television for education system for training and supporting teachers with 'digital education and training' using Massive Open Online Courses (MOOCs), online nano courses and online conferences.

- Bulgaria began "telephone e-education" service to answer questions and provide suggestions related to the education.

Network and Technology:

- Argentina ministry made its education portal zero-rated to ensure equity in access to the learning resources by all students. That means browsing the digital platform will be free of charge, it will not consume data.

- In China, the Ministry of Education partnered with the Ministry of Industry and Information Technology upgraded the bandwidth of major online education service platforms, especially the capacity of the National Cloud-Platform for Educational Resources and Public Service in serving millions of visitors simultaneously especially for the under-served regions.

- The Paraguay Government signed an agreement with Microsoft to cover the e-learning needs of 60,000 teachers and 1,200,000 students at zero cost.

- Boston, United states has bought 20,000 Chrome books and is creating hotspots around the city where children and families can go to get internet access.

What next?

This pandemic surely disturbed the smooth working of educational institutions, but at the same time it gave a chance to reimagine and redesign the education sector. On a fire fighting level all the stakeholders tried to learn new skills and techniques to keep the teaching learning on-going. Yet it's not over and there is a lot to do and achieve. There are some issues of concern which need to be resolved.

Lack of protocols in education, varied syllabi, and different exam patterns are some of the challenges one needs to deal with. It is essential to develop more open and flexible education systems for the future. There is a need to train the trainers and keep them upgraded continuously to use the latest technology and effective education delivery via various channels. Online accesses to student

and institutional data, digital resources, alternative assessment mechanisms are must to deal with such situations in future.

This situation will further pose issues like how to deal with digital divide, infrastructural and copyright issues. Such conditions may trigger public-private educational partnership in future. But, there is a danger that this may handover concentrated power to big tech having profit as a priority and lack of awareness of requirements of the education sector. All the stakeholders should be trained to protect their own and others privacy and rights. Students should be equipped with ability to process the information. There is a need to concentrate on low tech solutions as alternative educational delivery channels to balance the variable impact on different strata of learners and to reach to maximum student population.

Such global calamity can adversely affect the funding of educational institutions. A recent example is the request made by Education Ministry of US to wealthy educational institutions for rejecting the stimulation funding which is provided for assisting students' travel and living expenses and aiding their transition to online learning. Similar cuts might be common on a global level. Lack of funding may affect the upgradation of educational institutions. In addition, this pandemic may keep foreign students at bay. There are chances of increased dropout rate from financially affected low-income families. The education sector has to pay attention to survival, outcome and dropout of students post COVID19 attack.

Conclusion

Lectures cancelled, exams postponed, practicals are on a standstill, uncertainty about reopening dates of educational institutions and dubiety about the outcomes – this is the current picture of education sector throughout the world. But there is a silver lining – all the education sectors came together to deal with the situation. Teachers are learning new skills to reach out to their students. A never before bonding is being developed among the education stakeholders. A healthy sharing of knowledge and resources is going on. The intellectual community have

got a unified goal to deal and if all come together with positivity then there is no doubt about a better future for education and the entire humankind.

References

Council of Australian University Librarians (CAUL). 2020. "COVID-19 resources from vendors". Accessed April 24, 2020. https://www.caul.edu.au/news/covid-19-resources-vendors.

Hodge, Rae. 2020. "Zoom security issues: Zoombombings continue, include racist language and child abuse". CNET, April 24, 2020. https://www.cnet.com/news/zoom-security-issues-zoombombings-continue-include-racist-language-and-child-abuse/.

Kohli, Sonali. 2020. "Stress levels are high for parents. They worry kids will fall behind in school, survey finds". Los Angeles Times, April 8, 2020. https://www.latimes.com/california/story/2020-04-08/coronavirus-parents-students-school-stress-level-surveyy.

Reville, Paul 2020. "Time to fix American education with race-for-space resolve". Interview by Liz Mineo. Harvard Gazette, April 10, 2020. https://news.harvard.edu/gazette/story/2020/04/the-pandemics-impact-on-education/.

Twinomugisha, Alex. 2019. "The promise and the challenges of virtual schools". Edutech, October 4, 2020. https://blogs.worldbank.org/edutech/promise-and-challenges-virtual-schools

UNESCO1. 2020. "COVID-19 Impact on Education". Accessed April 24, 2020. https://en.unesco.org/covid19/educationresponse.

UNESCO2. 2020. "UNESCO rallies international organizations, civil society and private sector partners in a broad Coalition to ensure #LearningNeverStops". Accessed April 24, 2020. https://en.unesco.org/news/unesco-rallies-international-organizations-civil-society-and-private-sector-partners-broad.

Wikipedia. 2020. "Coronavirus pandemic data". Accessed April 24, 2020. https:// en.wikipedia.org/wiki/Template:2019%E2%80%9320_coronavirus_pandemic_data.

World Bank. 2020. "How countries are using edtech (including online learning, radio, television, texting) to support access to remote learning during the COVID-19 pandemic". Accessed April 24, 2020. https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic.