

## Editorial

[To live is to suffer, to survive is to find some meaning in the suffering.]

- Friedrich Nietzsche

Much water has flown down under the bridge since the previous issue of this journal was published in January, 2020. A marauding tiny virus, which is known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causing illnesses termed as COVID-19, has taken over our lives. If not infected already then most of our attention is to keep the virus away. Except a small group of islands in the northern hemisphere, there is not a single region in the world which has not been affected by the virus. First detected sometimes in December, 2019 in the city of Wuhan in China, it soon spread to the other parts of the world including in India. As I write, more than 16 million people, worldwide, have been infected by SARS-COV-2, out of which 0.6 million people have died due to COVID-19. About 10 million people have recovered already. In India, 1.3 million people have been infected by this virus, causing the death of more than 32 thousand people. India stands at the 3rd position after USA and Brazil in terms of total number of COVID-19 cases and deaths due to COVID-19. India has seen 23 deaths per 1 million populations, while the world average is 83 deaths per 1 million of population. USA has 452 while Brazil has 407 deaths per million of the population. While USA tests 0.16 million people per million of its population, Brazil tests 23 thousand and India tests 12 thousand people per million of their respective population.

It is in this context that schools, colleges and universities have been closed down to prevent the spread of the epidemic. What was initially for a few weeks has now been more than 4 months when schools and other educational institutions have been closed down. There is nothing to suggest that schools and other educational institutions will re-open soon. This is unprecedented. Several studies point to very serious implications for learners. It has impacts on their learning behavior. It has ramifications on their socio-economic well-beings. Students' careers have been impacted. It has the potential to push a large number of children into abject poverty. Once out of schools, the discriminations against the children have exacerbated. Their mid-day meals have stopped. Education of the children with special needs (CWSN) has been impacted negatively. Education of a girl child has suffered serious setbacks. Whatever we achieved through long and arduous struggles in the field of education may again be lost in the backdrop of new realities.

In such a situation, governments and other agencies came forward to see that the learning curves of children don't dip. They started leveraging technology for the best possible learning outcomes of the children in the given situations. In the beginning of the lockdowns, the emphasis was on optimal utilization of already existing Edtech recipes such as SWAYAM, SWAYAM Prabha, ePathshala, NROER and DIKSHA, etc. especially in the context of school education. Online and remote learning became order of the day; both for school education and higher educa-

tion. However, soon we started facing some serious shortcomings in the use of technology for education. One was at the level of technology itself in the sense that technology that was available was not adequate to meet the new challenges of lockdowns & etc. So to get the optimum output from technology, one had to tweak the educational goals, not the vice-versa. The second was at the supply side of the technology. The digital divide was so huge that imparting education with the help of technology did not yield desired results. And the third issue was the stress and the related physical health problems that the excessive use of technology was causing to children.

As the economy opened up, the Government of India announced an ambitious program, called PM e-VIDYA with an objective of taking learning to the doorsteps of children's homes. It entails broadcasting/telecasting/podcasting all kinds of e-Contents (audio/video/interactive/etc.) over all possible media such as radio, TV and internet using state of the art technologies available to us. So, instead of a few TV channels for school education, now there would be 12 TV channels (one each for class 1 to 12). Extensive use of radio for broadcasting audio e-Content is envisaged. Universities have been encouraged to start online courses. Manodarpan, an initiative to provide psycho-social and counselling services to students has been launched recently. A DIKSHA (Digital Infrastructure for Knowledge Sharing) mobile app and portal will host all types of resources including energized textbooks (QR coded), e-Contents, teaching-learning resources, practice items, etc.

However, all such initiatives reinforce our collective learning that howsoever smart technologies might be, it cannot replace schools. They can at the best be used as supplementary to the learning at schools. Schools too should adopt new technologies to face new realities. Technology should be such that it frees us; doesn't enslave us. In the words of Shakespeare, "Old fashions please me best; I am not so nice to change true rules for odd inventions." However, in the times of COVID induced lockdowns, it is the technology which has helped learning to continue unabated.

In this issue, we have ten research articles encompassing various themes of ET and ICT ranging from teachers' training to pedagogy integration of technology, mobile learning, film viewing, gamification and online courses to cyber security. We have one review article titled, Media and Visual Subjectivity: Senses and Mediation and one general article on Sustaining Digital Language Resources and Sign Language. Keeping in view the recent pandemic, we invited special correspondence on the topic 'Coping with COVID 19: teaching-learning with technology'. The response from the academic fraternity was overwhelming and more than 50 articles were received. These were the short communications by practicing teachers of their reflections on using technology for teaching and learning during the lockdowns caused by COVID 19. Out of these, nine articles have been selected for publication after review. We also have a book review of the title, 'The Social Photo: On Photography and Social Media'.

It gives me immense pleasure to take out the fourth issue of the journal on time

despite the pandemic and related difficulties. We are thankful to the reviewers and members of the Editorial Board for taking their precious time out during the 'new normal' and helping in deciding appropriate manuscripts for the Journal. The contributions to the journal under various article types have been even higher than the previous issue. We extend our thanks to all the authors as well. A large number of manuscripts could not be accepted for publication. We hope the journal is able to make a mark as a healthy and productive platform in the academic circle for its content and vigour.

**(ABHAY KUMAR)**  
**Editor**