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EDITORIAL

Online remedies – risks and realities

The seeds for disruptive technology which potentially pervade and control lives and livelihood were sown several decades ago. Initially they sprouted only here and there, catering more to geeks and the giant enterprises they toiled for. The internet and e-mails worked well for the tech savvy, and then the mobile revolution energized a tectonic shift towards a virtual world embraced even by the hoi poloi. Onset of the COVID-19 pandemic probably drove the final nail in the coffin of what one now calls 'offline mode'. How funny that something 'regular and natural' is replaced by 'offline', illustrating tech-driven linguistic revolution. Here, I briefly comment on two areas – the online avatar of formal education and the work environment, profoundly influencing and altering our everyday life, even thinking.

Most primary and secondary schools in India and perhaps in many other countries are practically shuttered down for over 18 months due to the pandemic. In the first three months, since March 2020, people were busy fire-fighting the onslaught of an unknown viral disease. Lakhs requiring hospitalization, countless deaths and fear of contagion stupefied mankind. There was no time and wherewithal for regular classes at all levels. Beyond the initial confusion and once the containment measures seem to have partly ameliorated the initial onslaught, owners of private educational enterprises pored over how to revive the primary and secondary schools, colleges, including technical and professional ones, and universities, not to speak of the coaching centres. The salaries of the staff, instructors and faculties could not be withheld for an indefinite time. But where is the cash flow? Then came the panacea, go online, ask for fees as usual.

Everyone clamoured for online classes, e-lectures and webinars. Keep the teachers on tenterhooks, give the students a virtual classroom where most of the time teachers confront their own visage, rather than making eye contacts with the pupils. The limited bandwidth hardly allowing real-time interaction with the learners. Not that even in a physical classroom all students have requisite attention to the discourse. The usual student camaraderie, and occasional pranks to annoy and embarrass the teachers are now replaced by stories of surreptitious online chats, and even games. The teacher in virtual mode finds it hard with computer glitches or other network problems, even power outage. Many a home in rural areas and urban slums, do

not have the benefit of owning a computer. A smartphone, if available, may be with the bread-earner. Parents with more than one school-going child struggle to meet the ends and often the girl child is left out in preference to the boy. For very young kids, one of the parents has to be around if anything goes wrong with the connectivity. While there have been attempts to enable the hapless students with a laptop or smartphone this is always too little too late. While the theory classes are to a certain extent manageable online, the practical classes pose another level of difficulty in the virtual mode. All that has been advocated and done even under the most favourable situations is to offer a demonstration through video recording of the teacher/instructor doing the laboratory experiment.

Some schools and/or All-India school boards decided initially to hold alternative online examinations, then amended it for no final school-leaving examination. The ground realities of unequal access to internet connectivity, enormity of ensuring strict COVID-19 protocols for over one million examinees and apprehensions of super-spreader events forced the boards to consider alternative assessment-based grading of the students. The end result is that most Central and State boards have 99–100% pass. Even the states like Karnataka that dared to hold old-fashioned final examination for class 10 declared the results with over 99% pass, compared to about 74% in 2018. The Central Board Secondary Education had pass percentages of 88 and 83 in 2019 and 2018 respectively.

Perhaps in a pandemic year, there is little choice but to take extraordinary decisions in evaluation. In fairness, even the best students with access to a computer, smartphone and uninterrupted internet, and online tutorial, did not have the expected mentoring and day-to-day emotional guidance from school teachers. With the fear of the contagion hanging over their heads like the sword of Damocles, many in the science stream altogether missed their laboratory classes. The not so well-off and those coming from the below poverty level families had the least opportunities, and the decision of no final-exam possibly reflects a strange justice brought on us by a deadly virus.

The scenario is even more doleful in college and higher education institutions. The Calcutta University, recently in the news with high ranking in the Shanghai list, also declared B.A., B.Sc. and B.Com. results, all based on

online evaluation. Again the pass percentage was 99–100%. Not that it was far less in the earlier years. But the rickety online training made the graduates even less job-worthy. How effective is the online mode of formal or informal education? Based on recent surveys in deprived villages and slums, Andre Dreze and co-workers concluded that only 24% of urban children (of mostly Government primary schools) attended online ‘regular’ classes and the figure was 8% for rural areas. At least three-fourths of the parents surveyed mentioned that the reading ability of their children had declined during the closure of the schools. For college education, the anecdotal experience suggests a similar decline. In my view, the online teaching–learning mode in India has to evolve further in order to be effective and egalitarian.

Some of us are fortunate to keep our jobs during the pandemic year. These are white-collar jobs, mostly in IT, financial sector, service sector and the like, where work from home (WFH) was a viable alternative. Even in the formal education sphere, teachers and instructors adapted quickly to online classes, though in general both the teacher and the learner are unhappy on the outcome. Some even encouraged to follow the middle path, the hybrid mode. The flexi-timing worked well for some, but some single mothers with toddlers or working parents with several school-going children considered WFH to be like walking on a tight rope. The worse of it is a feeling that you are working 24 h with e-mails and WhatsApp messages pinging on your mobile or laptop at odd hours. With no set boundaries between home and WFH, it is a nerve-racking experience to balance work and home.

The blue-collar workers count little in this schematic future of work. They lose wages. Jobs are axed when factory owners themselves are stricken by pandemic-hoisted economic downslide, not to speak of those in the unorganized sector, daily-wage earners, farm labourers, street vendors and the like.

Automation has already displaced both skilled and semi-skilled workers in many different industries. No doubt, over the years skilled workers have been partly re-deployed in other sectors. But the organizational behaviour has undergone a paradigm shift irrespective of whether this is a private enterprise or a governmental edifice. E-governance, e-commerce and e-learning are the buzzwords, which found real-world adaptation only amongst a section of the middle and upper income populace, keeping aside a large section of the economically backward and the poor. However, in our country it is still at best an unstable hybrid mode of governance. The everyday experiences in banks, post offices and other administrative establishments tell us that the queue or waiting time for ordinary customers is none the shorter than it was before the core banking and digital governance system came into existence. This is not to deny the benefits of digitalization in banking and other public sectors, but to highlight the fallibility of even the well-intentioned digital systems.

Enter the world of big data and artificial intelligence (AI). The latter has caught the public eye since the time Deep Blue, the AI system, beat the then world champion Garry Kasparov in a game of chess. More recently, driverless cars, the autonomous cars, seem to be within the reach of outshining the regular motor vehicles on the street.

Frontline AI researchers now focus less on the reactive systems which respond or react to any input or stimulus that is transmitted to it like the Deep Blue, or a multilingual digital translator. The challenge now is for AI systems that have a mind of their own, or systems that have self-awareness. The dream is of a world where an AI system, say a super robot, walks side by side with humans, and is able to read our minds, emotions and translate them into actions like we do in a team work. However, even the expert opinion within the US Government is that such an AI system is at least two decades away from now.

The real challenge is that AI is essentially built on models of human learning through experience and interaction with the real world, and a model representation of the world, including its biological inhabitants. And the average human is still miles away from clearly understanding his/her own mind, and be in control of the same. The world view that is being propagated is at best myopic and biased, often mired in one or other socio-economic doctrine.

The bigger issue with AI is moral and ethical dilemmas. Starting from driverless cars to the more ambitious judicial AI, UNESCO has already flagged potential ethical and moral issues. A UNESCO report succinctly explains with some examples how AI vehicles may or may not resolve a situation as under. Suppose the AI car with sudden break failure encounters head-on a grandmother with a kid. By veering to the left or right, it could at best save one of the two. But whom does the AI choose? Similarly, a sudden break to save a jaywalker may seriously endanger the lives of the passengers on-board. The UNESCO report also flags the gender bias in machine learning. Many similar moral and ethical issues in AI need to be resolved, apart from the question of who decides on whether AI is good for the long-term well-being of our own species, and the social structure we are familiar with, however imperfect that be. UNESCO has given a clarion call that since it involves all human beings, there should be global debate and consultation at the grass-root level before large-scale implementation of AI. No one doubts that the fall-out of burgeoning industrialization has seriously endangered the habitation and climate on our planet. Do we or should we really risk further technology-driven meddling?

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