

PROF RAMA SHANKER DUBEY

Preparing for the Digitised Education

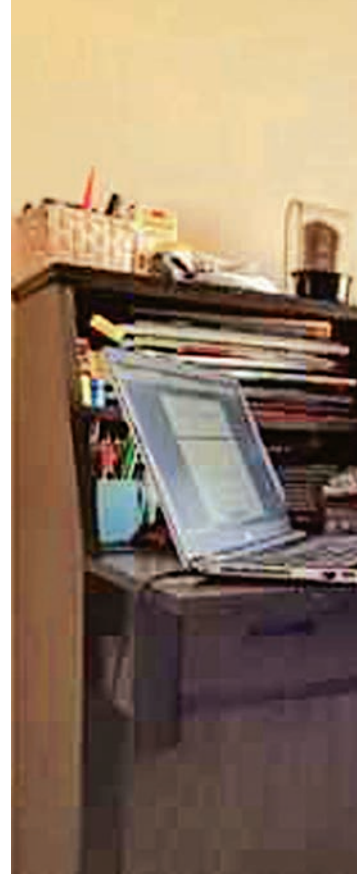
Online education is the need of the day. With the digital revolution keeping pace with the paradigm shift in education, we have to plan for a long-term vision with a more blended teaching-learning experience, incorporating more contents of online learning

Education is a dynamic process that changes and grows with time and responds to the needs of society. COVID-19 pandemic has made a paradigm shift in the teaching-learning process across the country from conventional classroom teaching to digital learning facilitated by a wealth of e-learning resources and digital platforms made available. India has been a knowledge society from many thousands of years and in ancient India, education was imparted in Gurukuls by Gurus to the Shishyas. Students were part of Guru-Shishya families and received education in personality development, character building, meditation, yoga, intellectual and spiritual development, besides learning various scriptures and sciences. Each village had a Gurukul and all students, rich or poor from any social strata of the society, had free access to education following stringent discipline and a sacred mutual bonding with Gurus. Oral teachings, memorising the texts by Shishyas followed by meditation on what was taught

OPINION Education

were routine events in the teaching-learning process. Gurukuls had a great role in maintaining a very high literacy order in ancient Indian society. Many famous higher educational institutions were set up following the concept of Gurukul such as Takshashila, Nalanda, Valabhi, Vikramshila, Odantapuri, Jagaddala, etc. where Vedas, fine arts, medicine, mathematics, astronomy, politics, the art of warfare etc., were taught to the students. The Gurukuls and the subsequent establishment of these higher educational institutions on the lines of Gurukuls and their supreme focus on value and equitable education played a tremendous role not only in educating the people but also brought out the best in the people hence creating a knowledgeable and just society living in peace, certitude and progress. The educational fabrics and institutions of any society determine the nature, structure, peace, progress and promise of that country. The ancient civilisational glory of Bharatvarsha is primarily due to the highly enriched ancient educational system in the form of Gurukuls. Because of our rock-solid civilisational edifice, despite several attacks by the foreigners in the ancient period to the Mughal invaders and British colonisers, we have been able to preserve the essence and ethos of our civilisational glory.

Bharatvarsh had to pay for the white man's burden of the civilising mission. During the British colonial rule, the fabric of the Indian educational





As schools remain shut due to Corona pandemic, e-learning platforms see unprecedented surge in demand

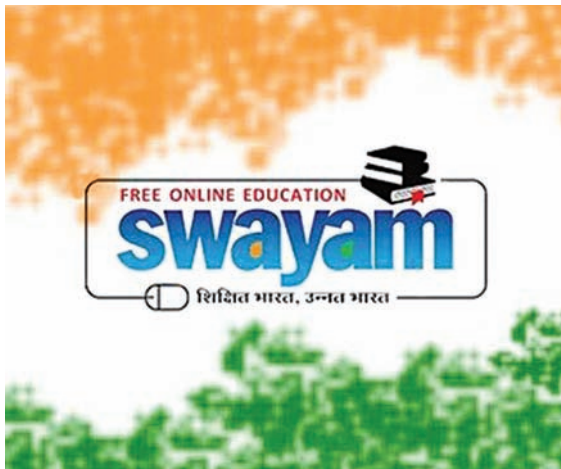
system was destroyed, leading to great disarray and disintegration of the age-old tradition of education. In 1947 when India got Independence, literacy was just 12% and there were 20 universities and 496 colleges as higher educational institutions in the country. By now we have nearly 1000 universities and 45,000 colleges and the literacy according to 2011 census increased to 74%. Universities and colleges across the country primarily rely on the present days on classroom teaching, which is regarded as a conventional mode of face-to-face education. Besides, the open universities provide open and distance learning opportunities and very few universities have so far been awarding degrees in select subjects using full online mode of teaching, learning and examination. With various educational reformative measures taken by central and state governments gross enrolment ratio (GER) in higher education within the age group, 18-13 years has

been 26.3 per cent which is well below the global average of 36.7 per cent. Education is a key contributor to the transformation of Indian society as it produces human resource pool for the developmental process. To regain the status of India as a knowledge society like in ancient times access to education must be provided to all segments of the society, even in far remote places on an equitable basis with a focus of value education.

With COVID-19 pandemic, the world has faced an unprecedented crisis of human health and economic uncertainty. During the lockdown for over two months, all educational institutions across the country had to be shut down, leading to a sudden halt of classroom education. Teachers had to work from home and all the students from universities, colleges and schools had to switchover towards the online mode of education. This was facilitated due to revolution in the tools of information and communication technology coupled with the flamboyant very significant and effective role played by Ministry of Human Resource Development (MHRD), Government of India, which made available a plethora of teaching-learning e-resource materials available to the students of schools, colleges and universities. These materials are freely available and easily accessible on various e-portals of MHRD and UGC. During the last few months, a massive paradigm shift has been witnessed in the scenario of school and higher education due to the gigantic use of these e-learning materials. These e-contents conforming to the curriculum of school and higher education courses have been developed by renowned subject experts of the country. They have been prepared in blended modes which include texts, audio-visuals, live lectures making the lessons interesting and quality intensive. A sudden upsurge in the use of e-resources as learning materials has led to the spread of digital literacy across the country, crossing the barriers of gender divide, economic and social inequalities. The popularity of these e-learning materials has been further compounded with the relentless campaign made during the last few months by Minister of HRD Dr Ramesh Pokhriyal 'Nishank', in his regular interactions with educational administrators, policymakers, teachers and students. With an increase in the number of internet users, greater accessibility to smartphones, a trajectory increases in the number of students opting for online education

is expected which will pave the way for equitable access to quality education for the entire segment of the society. This will ultimately boost an increase in GER in higher education. An un-equity in GER has been witnessed so far amongst various states and social groups.

In future, conventional educational institutions will have to augment traditional campus teaching with online learning. This will be a boon for working people and students who cannot afford to join the campus for classroom learning, but such persons can avail online learning at their place with their own pace. In on-campus learning, after enrolment, all students may not remain physically present in classrooms, and those remaining absent have to miss the class, but online education will provide the opportunity to perpetually listen and re-listen the same content unless the lesson is fully comprehended. The massive upsurge has been noticed recently in the development of UG and PG level digital courses with the initiatives of the MHRD. Swayam platform, which has been developed with MHRD initiatives, has been very popular amongst students and it hosts nearly two



The recent announcement by Union Government of 'Pradhan Mantri e-VIDYA' initiative for digital education will further boost up online education with 12 DTH channels with one each dedicated for classes from 1 to 12. Besides, the top 100 universities of the country under PM e-Vidya programme are likely to take up full online courses

thousand e-learning courses in multiple streams for students from Class 9 to PG levels. The course materials include reading texts, video lectures, self-assessment tests, etc. and are free for any learner and can be accessed online by doing registration on SWAYAM portal. Courses in different languages are also available here. For 87 undergraduate courses, nearly 24,000 e-content modules are available in the form of 'e-content courseware' with Consortium for Educational Communication (CEC), an Inter-University Centre set up by UGC. These courses can be accessed at the website <http://cec.nic.in/>.

Similarly, for nearly 70 Post Graduate disciplines of humanities, arts, social sciences and sciences 23000 modules consisting of e-text and videos are available at the portal of 'e-PG Pathshala'. A group of 32 DTH channels hosted as 'Swayamprabha' telecast high-quality course contents in multiple and diverse disciplines in the form of lectures, videos, etc. A wide range of curriculum-based lectures are available on 'CEC-UGC YouTube channel'. 'National Digital Library' hosts a huge repository of academic contents in diverse disciplines for all academic levels. A digital repository platform as 'Sodhganga' has 2,60,000 PhD theses from Indian scholars available in open access. To cater the research needs in various disciplines' e-Shodh Sindhu' provides archival access to more than 15,000 core and peer-reviewed journals, citations and databases in different disciplines. Besides a database, 'Vidwan' includes details of experts, researchers, peers and collaborators of the country.

The recent announcement by the Union Government of 'Pradhan Mantri e-VIDYA' initiative for digital education will further boost up online education with 12 DTH channels with one each dedicated for classes from 1 to 12. Besides, top 100 universities of the country under PM e-Vidya programme are likely to take up full online courses in select disciplines. In most of the conventional universities where on-campus teaching is performed, during lockdown due to COVID-19 pandemic, the number of students registering on SWAYAM and other e-portals has skyrocketed, but some of the universities with sufficient ICT infrastructure and competent manpower have succeeded in developing their own portal of Learning Management System (LMS). LMS represents a unique in-house digital platform for the

OPINION

Education

students where courses from various sources can be mapped, populated and integrated depending on the requirements of the curriculum.

Online education is the need of the day. With the digital revolution, keeping pace with the paradigm shift in education, we have to plan for a long-term vision with more blended teaching-learning

experience, incorporating more contents of online learning. Our educational institutions need to strengthen ICT infrastructure in a mission mode to develop their own interactive and dynamic e-content and in-house LMS facilities to manage and monitor content delivery and assessment. Conventional universities should be encouraged to go for more and more online courses. Quality parameters can be audited through the academic audit. Besides, we have to maximise the use of MHRD and UGC developed e-content. There is a necessity to ensure that internet facility with sufficient bandwidth is available at the learner's end. The modalities for online mode of examination need to be worked out in detail based on learning outcomes.

Taken together, online teaching-learning appears to have a profound impact in the upsurge of literacy, increasing GER and transformation into a knowledge society.

(The writer is Vice-Chancellor, Central University of Gujarat)

The ancient civilisational glory of Bharat is primarily due to the highly enriched ancient educational system in the form of Gurukuls. Because of our rock-solid civilisational edifice, despite several attacks by the foreigners in the ancient period to the Mughal invaders and British colonisers, we have been able to preserve the essence and ethos of our civilisational glory