THE JOURNEY AHEAD

The Ministry of Education is ready for India to establish itself as a knowledge superpower, with the ambitious NEP set to significantly transform digital education and support edtech.

India passed its ambitious and wide-ranging education reform in July 2020. What is your vision for the role of technology for this reform, both in implementing NEP and as a focus of NEP itself?

Technology has become an integral part of the Ministry of Education. With regards to NEP 2020, the Education Ministry embarked on a digital consultative process throughout the country, with over INR2.75 lakh direct consultations, both online and offline. As proposed in NEP, technology will play an important role in education processes and outcomes. An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, and so on, both for school and higher education. Furthermore, a rich variety of educational software will be developed and made available for students and teachers at all levels. All such software will be available in all major Indian languages and will be accessible to a wide range of users including students in remote areas and Divyang students. NEP also recommends key initiatives such as conducting pilot studies for online education; the creation of open, interoperable, and adaptable public digital infrastructure; a concentrated focus on content creation, a digital repository, and dissemination; providing training and incentives for teachers; and online assessment and examinations, among others. Existing platforms and ongoing ICT-based educational initiatives such as SWAYAM, Diksha, and the National Repository of Open Educational Resources (NROER) will be optimized and expanded. The future of education is a blended mode of education. The ministry has already started various initiatives in the same vein, be it PRAGYATA guidelines, Learning Enhancement Guidelines, or the education learning apps as mentioned above.

How would you describe the current ecosystem for Indian start-ups in the edtech sector and the level of collaboration between the private edtech sector and the relevant public authorities?

NEP proposes major transformation for digital education and supports edtech. An autonomous body

NETF will provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, and so on, both for school and higher education. The aim of NETF is to facilitate decision making on the induction, deployment, and use of technology by providing to the leadership of education institutions, state, and central governments, and other stakeholders the latest knowledge and research as well as the opportunity to consult and share best practices. In a recent development, CBSE Skill Education and Training partnered with Google to enable 1 million teachers in 22,000 schools to deliver a blended learning experience, namely a combination of online learning and classroom approach. CBSE also partnered with Facebook to launch a certified curriculum on digital safety and Augmented Reality (AR) for students and educators across India. To make e-learning more constructive, NCERT and Rotary India also digitally signed an MoU for e-learning content telecast for class 1-12 overall NCERT TV channels. In other initiatives, the government of India also launched a national program VidyaDaan 2.0 to invite e-learning content contributions. Steps have been undertaken to ensure quality, accessible, and inclusive education for all. This is just the start; India will definitely establish itself as a knowledge superpower.

The ministry is also administering the new Academic Bank of Credit (ABC), which, among many other things, should greatly enhance the access and viability of online education. What is your outlook on the long-term impact of the ABC?

During COVID-19, forecasting the needs of the future, we have already shifted to enable massive open online course of SWAYAM for credit transfers while ensuring the three cardinal principles of the NEP—access, equity, and quality. The courses delivered through SWAYAM are interactive, prepared by more than 1,000 specially chosen faculty and teachers in the country and are accessible to any learner free of cost. Upon successful completion, the grades secured in this proctored examination can be transferred to the students' academic record from the host institute. The University Grants Commission has issued Regulation 2016 advising universities to identify courses where credits can be transferred to the academic records of students for courses done on SWAYAM. The step is in line with the recommendation of NEP to establish ABC to digitally accumulate the academic credits earned from various recognized HEIs so that degrees from an HEI can be awarded taking into account the credits earned.

Starting from Class 6, coding as a subject has been added to the national curriculum. What impact do you foresee this having for India's human capital and general competitiveness?

As mentioned in NEP, math and mathematical thinking will be extremely important for India's future and its leadership role in the numerous upcoming fields and professions that will involve AI, machine learning, data science, and so on. Thus, math and computational thinking will be given increased emphasis throughout the school years, starting with the foundational stage, and activities involving coding will be introduced in the middle stage, upskilling students as per the needs and demands of the 21st century.