

Editorial

मन एव मनुष्याणां कारणं बन्धमोक्षयोः ।

(The mind is the cause of bondage and emancipation for humans)

(*Brahmabindu Upanishad*)

The avowed goals of NEP 2020 are to increase access to educational opportunities, enhance the quality of the education offered to millions of students, bring equity into the educational systems given the existence of vast diversities in the population, make education more affordable, and create an accountable educational system. The use and integration of technology in education, too, have similar concerns regarding access, quality, equity, affordability, and accountability. In India, the scale at which we are functioning is staggering. We have more than 334 million students studying in more than 900 universities, 17000 teacher education institutions and 1.5 million schools, of which nearly 1 million are government schools. Continuous professional development (CPD) of 10 million teachers and imparting skill development to youth comprising two-thirds of India's population remain challenging tasks before us. As per ASER (2021) report, 67.6% of all enrolled children have at least one smartphone available at home, but 26% have no access. The 75th round of the Household Social Consumption survey by NSSO (2020) revealed that nearly 4% of rural households and 23% of urban households only possessed computers, and almost 24% of the households in the country had internet access in the survey year, 2017-18. The proportions were 15% among rural and 42% among urban households. Across India, only one in ten households had a computer — whether a desktop, laptop or tablet. Moreover, having computers or the internet had no guarantee that one use them also, as only a small percentage of Indians above the age of 5 years (20 %) had the basic digital literacy to use digital devices or access the internet. Given the context in which we operate, the use and integration of technology in education have to do with children's learning more than the technology itself.

There is a tendency to consider technology a panacea for all the ills of the country's educational system, and each time a new technology emerges, one starts believing that the miracle is around the corner. Miracles have not happened despite using technology in a big way. We have yet to achieve 100 % literacy rates; quality education has remained elusive to the vast majority of students; technology has failed to empower students to overcome the discriminations and challenges faced by children with special needs (CWSN) or children belonging to marginalised sections. Therefore, the use and integration of technology in education cannot be seen bereft of the socio-economic context. Many studies have pointed to the lack of adequate infrastructure and teachers' training as the key barriers to effective technology integration in diverse educational settings like India. Teachers' fear of being replaced by technology too impedes the use and integration of technology. Addressing these challenges requires coordinated and collaborative interventions from various quarters at various levels.

Recently, we have seen similar expectations for using artificial intelligence in education (AIED). AIED has immense opportunities to offer. One area in which it can help is overcoming the central contradictions (that we provide uniform instructions to a class of diverse learners) that exist in any classroom. AIED makes personalised adaptive learning (PAL) a possibility. As teachers have to work increasingly in

artificial intelligence (AI) rich environments, their training on various aspects of AI, such as data mining, algorithms, and machine learning, as well as their ethical and human use, is paramount. An algorithm, which is the keystone of AI, can be biased, reflecting the mindset of the developers or data on which the algorithm is based can be specious. Therefore, responsible use of AI is sine qua non for its application in education. It must be remembered that it can solve many of our educational problems, but not all of them. Technology is best served if we lead them, not vice-versa.

In November 2024, the Union Cabinet approved an ambitious One Nation One Subscription (ONOS) scheme, which seeks to provide the best international scholarly articles, papers and journals to all the stakeholders, viz., students, researchers, teachers, faculty members, scientists of all disciplines, including those in tier 2 and tier 3 cities, etc. A total of ₹ 6,000 crore has been allocated for this initiative, from 1 January 2025 to 31 December 2027. The funding will cover the subscription charges for all participating institutions across the three years. Access to journals is being provided through a national subscription coordinated by the Information and Library Network (INFLIBNET) Centre, an autonomous inter-university centre of the University Grants Commission (UGC), Gandhinagar, Gujarat. One can access the journals through a unified portal, "One Nation One Subscription" (<https://www.onos.gov.in/>). This is a crucial scheme, especially for institutions that face a resource crunch in subscribing to quality and costly international journals. Moreover, different institutions paid a hefty amount as subscription charges for the same journals, thus indulging in wasteful expenditure of the public money.

This edition brings together a diverse collection of research articles, review articles, general articles, communication and book review exploring critical themes in digital and blended learning. These articles delve into the teacher's attitude towards blended learning, the impact of SWAYAM MOOCs, and the effectiveness of online and offline internship training. Our authors examine blogging as a form of action research, the use of branching programming learning materials in economics, and the role of revised Bloom's Taxonomy in AI-driven digital learning environments. Additionally, they explore the mental health effects of social media on educated individuals, the potential of augmented reality in mathematics education, and the rise of augmented podcasts and YouTube educational videos as transformative tools. This compilation not only contributes to academic discourse but also offers valuable insights to educators, researchers and policymakers navigating the digital educational era.

(ABHAY KUMAR)

Editor