Sustainable Development of E-Learning Ecosystems: Higher Education in India Post-COVID-19

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Abstract

The education system in India relies very substantially on the traditional system of teacher-centric, face to face learning for imparting education. The cessation of face to face teaching in the wake of COVID-19 pandemic has ushered a transformation in education systems with far ranging significance. Despite trials and chaos, the pandemic has inevitably catapulted our digital competencies and E-learning systems.

However, the progressive transformation, development and integration to the new E-Learning Ecosystem, must be cautiously balanced with the socio-economic reality of our nation. As efforts increasingly scale up towards the more urbane facade of education, we need prudence in building a more stable and sustainable structure which retains the worthy features of the traditional edifice. This research paper discusses the impact of the pandemic on Higher Education System in India and explores a sustainable E-learning environment.

Keywords: Higher Education in India, COVID-19 Pandemic, E-Learning Ecosystem, Sustainable Development in Education
The Higher Education sector has been deeply impacted by the COVID-19 pandemic on a global scale. In India, the University Grants Commission (UGC) issued COVID-19 specific guidelines for Indian Higher Education institutions which lead to the temporarily closure of colleges. The cessation of face to face teaching as well as traditional modes of assessment and evaluation systems led to the disruption of the academic calendar and adversely impacted the education system.

The assessment of the impact further involves long term costs which different educational entities, institutions and the system are yet to ascertain, particularly in the absence of antecedent learning points to draw from and develop.

The pandemic has impacted the formative experience and behaviour pattern of young learners in an unprecedented manner. The situation which the World Economic Forum describes as the “world’s greatest psychological experiment” deters the mind of young learners through manifestations of stress, anxiety, depression and insecurity.

However, with schools and colleges remaining closed, the pandemic catapulted the E-Learning mechanisms, all over the world. With the sudden spurt of E-Learning systems, a natural question remains: How much of this is going to stay?

E-Learning paradigm has been a much debated and a rather overrated trend, which was in vogue much before the pandemic struck. As academicians debated the pro and cons of the emerging paradigm, the pandemic pushed it up with a jolt and triggered the penetration of E-Learning systems, as never before. In the wake of a heightened digital transformation, the Higher Education institutions in India increasingly need an evaluative SWOT analysis.

E-Learning itself is an evolving concept which is in a state of a constant flux, changing along the lines of its ever evolving evolutes - blended learning, virtual learning, learning management systems, massive open online courses (MOOCs), Moodle (Modular Object-Oriented Dynamic Learning Environment) and likewise. The efficacy to E-learning
systems in India and its implementation inevitably involves a considerably significant amount of planning.

The learning ecosystem which involves analysing the interplay of how different components interact within a learning environment needs a thorough assessment. The manner in which various stakeholders perform or adapt, can contribute to, or hinder the success of the learning ecosystem needs a systematic screening and evaluation.

The decisions regarding investments into digital infrastructures, based on predetermined criteria or intended results must be considered before deciding whether to allocate educational funds to support E-Learning rather than on conventional modes of learning. In the context of issues such as financial constraints, benchmark quality standards of courses, gross enrollment ratio, socio-economic profile of students and rapid technological development, the higher education institutions need to address the generation of knowledge and as learning providers. *Is E-Learning a rational practice in the future?* and if so, *will it be sustainable in the Indian learning Eco-system?* - are questions which need to be addressed.

The education system in India relies very substantially on the traditional system of teacher-centric, face to face learning for imparting education. The impediments to E-Learning can essentially be categorized into two board areas. The first concerns ‘hard-barriers’ involving factors such as infrastructure development, with respect to augmenting systems of E-Learning, particularly in the rural and semi-urban pockets.

The national statistical indices indicate that the Internet connections are highly skewed with 24.7 Crore or nearly two-thirds of the internet connections spread in cities. (TRAI Performance Indicator Report, 2018). Though India has added internet connections at a fair pace, mostly through mobile data plans, it cannot be denied that a considerable chunk of these suffer from the handicap of slow speed and poor network.
connectivity, a fundamental requirement of effective online/virtual classes. The digital divide in India is closely linked with the purchasing power disparity of the economically under-developed regions.

The challenge for administrative policy responses in this regard concerns incurring high expenditure and financial costs for scaling up technical strength, digitalization and hybridization in learning. The complexity of the issue at hand, in this regard is immense, as is inherently linked with the inequitable distribution of electronic resources and accessibility.

Imparting learning through the on-line mode in India, inevitably places the students of rural and semi-urban areas at a disadvantage. Further, the solution of this magnitude can only be addressed in the long-term. The E-Learning systems must be judiciously designed and equitably implemented for the benefit of students belonging to different socio-economic sections.

The diminishing cost and convenience E-Learning appears as a strategic solution for increasing and enhancing the GERs (Gross Enrollment Ratio). Research indicates that the average cost of content creation and delivery in E-Learning courses is consistently on the decline. The advent of tools like cloud infrastructure, peer-to-peer problem solving and open content creation have made it possible to provide courses at competitive prices. The increase in the use of mobiles and rapid growth in internet connectivity are factors which further reinforce E-Learning systems.

The self-paced learning tools have fostered learning at a faster rate and are being increasingly preferred, particularly for offering vocational courses and professional examinations. They can go a long way in solving problems related to limitations of a trainer or a faculty with respect to factors such as specialisation in a particular area or even linguistic dimensions of comprehension.
The rapid popularity of MOOCs (Massive Open Online Courses) in the international landscape is a forecast of its potential in India. On similar lines, corporate training specially induction training for entry-level employees and newcomers is being facilitated internationally through collaborative learning solutions for imparting training on functional skills and cross-domain knowledge.

The potential of E-Learning for strengthening the skills of our human resource thus presents a good case for committed and long-term investments for removing the hard barriers to E-Learning.

The second aspect concerns ‘soft-barriers’ which are inherently associated with academic deliberation and policy formulation as well as skill development on part of both learners as well as trainers. The ambit of activities pertaining to this, would involve designing pedagogical and evaluative systems, transforming the teaching and learning model through innovative solutions and imparting training to the trainers. The ‘soft-barriers’ can clearly be resolved through the intellectual adaptability, effective leadership, policy formulation and implementation.

It follows that the Higher Education system needs to undergo a process of transformation to adapt to the situation. The responsibility of the system in the short-term involves a disaster management response by ensuring ‘safeguards for students’. This would involve ensuring safety and good health of the students by enforcing social-distancing, use of masks and sanitizers as and when the institutions re-open. The academic interests of the students need to be protected at the same time by ensuring that they complete the course they have enrolled for, with customized solutions for different states.

The efficacy of the system involves ‘strengthening trainer capabilities’ through actions such as conducting Training programmes focused on relevant areas
such as – ‘E-learning Skills Development’, ‘Learning Management Systems’ and ‘Role of Teachers as Psychological Counsellors’ with the overall aim of skill enhancement.

The long-term challenge is to reassess disciplines and institutional practices to initiate a development towards amalgamating the different dimensions of sustainability in E-Learning. The implementation of E-Learning practices involves working on the approach as: a strategic pedagogy and in terms of an aggregation of tools to ensure online teaching and learning in a sustainable, adaptable, scalable and innovative manner which ensures effective dissemination of knowledge to the grass-root level.

Long-term planning requires the teaching pedagogy in Indian colleges to undergo screening and revision. The conversion of study material into modules of self-paced help-books and use of learning management application can be useful in this regard. Efforts need to be undertaken for developing technologies for individualized learning. Further, the role of public-private partnership for meeting the benchmarks of expectations and the quality of service delivered particularly in the area infrastructure development and technical support.

Thus, practitioners and academics must find new ways to make the most the rapid development in E-Learning, which accrues in the wake of the COVID-19 pandemic. Systematic and holistic planning is needed for learning environment which is both equitable and sustainable. Though E-Learning has ripened considerably since its initiation, there are still several hurdles particularly blocking the path towards a successful implementing.
References


