


Chapter 21

Exploring Challenges in Online Higher Education for AI Integration Using MICMAC Analysis


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ABSTRACT

The consequence of Covid-19 has affected the traditional higher education system. Acknowledging the significant role of online education in national development for accessibility and quality education, countries around the world have understood its importance in current digital era. Indian policymakers have been giving due importance to enhancing the education quality, however the progress made by the country in higher education is not adequate. Amidst all the inadequacies of traditional education system, artificial intelligence (AI) technologies are bringing new ray of hope to democratize education system. This chapter is subjected to identify the challenges in online education and suggest specific ways to address each of them. The challenges are categorized into internal and external challenges/barriers. These challenges have been modeled with the expertise of educationalist's opinions and interpretive structural modeling to create a hierarchy of the barriers using MICMAC analysis and categorize these barriers into four clusters.

DOI: 10.4018/979-8-3693-2440-0.ch021

INTRODUCTION

Sudden Digital Transition of higher education system in India was triggered by Covid 19 pandemic it was so abrupt that many of the universities were not prepared to combat such a global pandemic and they had to make substantial changes in their teaching methods while keeping in mind that it should be convenient and approachable to all levels of students in terms of understanding (Carroll & Conboy, 2020), but the change which was imposed on the academia due to abrupt halt in classroom learning owing to nationwide lockdown has emerged as an important game changer for higher education system and has proved to be a critical enabler for democratizing education. However online education sector faces several challenges like limited interaction between students and faculties through video conferencing, connectivity issues, providing study material digitally, concentration span, digital burn out etc.

The pandemic only exacerbated an already burgeoning problem of slow progress towards quality education worldwide, it is being estimated that in India, almost 300 million people will lack basic literacy and numeracy skills by 2030 if concrete measures are not undertaken to improve the situation. The list of seventeen Sustainable Development Goals as laid out by United nations have duly acknowledged the importance of education to achieve many of the SDGs, education has been recognized as a key measure to reduce several inequalities like gender, income etc., it empowers people to break from the cycle of poverty and help them live a healthy and sustainable life, education also enable more tolerant and cohesive societies. SDG Goal No. 4 is Quality Education, it emphasizes the need for higher education financing to make education free and compulsory for all, increase the number of faculties, improve basic infrastructure, and embrace digital transformation. The AI was developed to execute work that needed human intelligence. The AI helps in problem-solving, decision making, understanding and learning the unorganized data. AI tools such as ChatGPT, Quillbot, Cognii, Dall-E etc., are now part of tech landscape. AI is not just a word meant for the techies but its wide application across the world is making life easier and operationally feasible for people. When it comes to education, a spike is noticed in the use of technology after the Covid period. AI can further ease the operations not just for the teachers but also for the students/learners. Apart from operational ease, use of AI can also assist in identifying the need for skill learning of the learners. Education sector in India a growing rapidly and to reach the acme of its potential, blending AI is important (Hiran et al., 2024; Doshi et al., 2023).

At the end of March'20, when Indian government-imposed lockdown across the country, it had a direct impact on economy especially on education sector of developing countries. Especially when large number of migrant workers were left with no choice except to left their work place and went back to their native place without food and money (Maity et al., 2021a)(Maity et al., 2021b). It was a time when everybody had to accept a new way of learning i.e. digital learning or digital platform. From school level to university level, everyone was encountered with the challenge to cope up with this new way of learning. Somehow it compromised with the quality in learning process. In this chaotic situation, Zoom and Google meet played crucial role in classroom sessions. Study reveals that students in both school and university were drained out by the sudden drift into novel digital teaching and learning modes (Maity et al., 2020a).

Digital Transformation as emphasized by SDGs as an important requirement for enhancing and democratizing higher education system, however while replacing conventional teaching methods with digital method several challenges are faced by everyone i.e. from management, teachers, non-teachings staff to the students. It becomes a challenging task for teachers to keep students logged in and to make them attend classes. On the other hand it is a progressive educational environment for everybody, digital

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