



## PEDAGOGIC PERSPECTIVE OF DIGITAL TRANSFORMATION IN HIGHER EDUCATIONAL INSTITUTIONS

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### Abstract

*A colonial education system put in place by British control in the early 20th century gave rise to higher education in India. Despite significant advancements in making education accessible to all, an analysis finds several inconsistencies in both delivery and management. The government of India has a bold plan to improve education delivery in India through digital enablement. Humanity has advanced to a new degree of development as a result of digitalization and the shift to a new technical framework. The significance of enhancing the university development model is increased by the evolution of technological structures, industry, and society. Universities frequently have antiquated management systems and infrastructure that prevents them from operating effectively and competitively. Higher education institutions may face a variety of difficulties, from significant changes in funding sources brought on by an extensive economic restructuring that calls for greater accountability at all levels to the pressing need to improve effectiveness and efficiency through the use of modern technology. India is not an exception to the Covid pandemic's enormous challenges for higher education worldwide. The pandemic has dashed the dreams of a huge number of students who were hoping to continue their higher education in prestigious colleges in India and other nations, or in any place where higher education is still not widely available. Online education is not a novel idea in India, but it is increasingly a requirement. The manner that education is transmitted has radically changed during the past few months. Some colleges responded to the change quickly, while others suffered because they lacked the fundamental infrastructure and technical know-how to transition to online instruction.*

### Introduction

The force on students and higher education institutions is very high. Universities and colleges have been closed and exams are postponed due to the pandemic. Classrooms are going virtual and admissions for the upcoming academic years are fraught with confusion. Over 320 million Indian school and university students are affected, says UNESCO. The pandemic has made the world to drastically reinvent ways of coping with the new normal. The transition to digital was an instant and successful solution to the problem that was occurring. The development of powerful digital platforms has become essential in order to provide continuity in learning. Excellent teachers, refreshed curriculum and effective tools will ensure students stay involved a change, it is a remarkable opportunity for India to enhance its capacities and offer quality of education at par and active in the entire learning process. While international institutions might bear the brunt of their global standards.

Technological advancement has made education easy and approachable. The terms "online learning," "open learning," "web-based learning," "computer-mediated learning," "blended learning," and "m-learning" all refer to the same thing: the possibility to learn from anywhere, at any time, and using any method (Geetha, M., Sateesh Kumar, T., et al., 2022 & Banderjith, S., Geetha, M., et al., 2022). This innovation in teaching and learning process along with speedy changes in mode of delivery has highlighted the optimistic approach in education sector. Presently, the real time classrooms and interaction have been replaced by the virtual classrooms, with the help of chatrooms occurring through online channels. The virtual classrooms are being planned using the platform such as video conferencing (Google meet, Google handout, Webinar jam, Microsoft Team, Zoom, Slack, Cisco WebEx) and

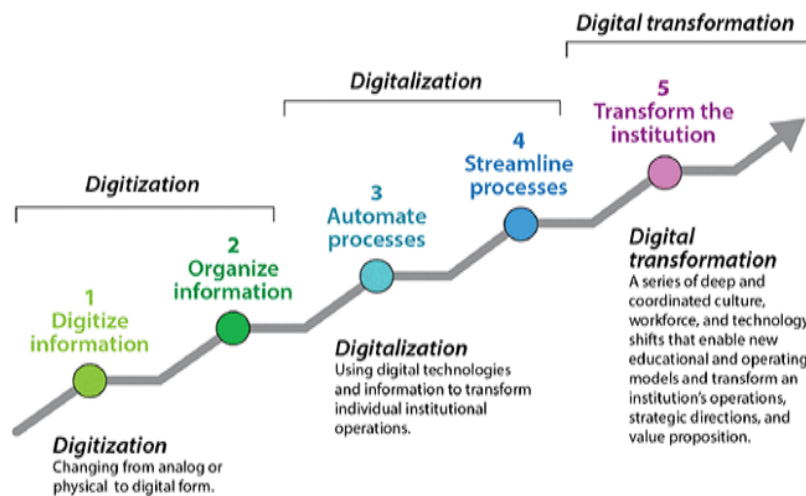
customized cloud-based learning management platform (ELIAS/ MOODLE). The flipped classroom provides online study material, pre-recorded videos and lecture link before the commencement of lectures. Online learning established trust and level of comfort as it provides flexibility for participation and interaction.

### Digital Transformation

Higher education institutions are prioritising digital transformation. Like corporate institutions, it is crucial for industry competitiveness. Several authors have conceptualised digital transition. According to Hess et al. (2020), digital technology improves performance and productivity. In this context, similar to any other industry, if the higher education institutions want to stay relevant to the changing industry scenarios and trends and to remain a significant component of this transition throughout time and not fade away from the scene, they must grow holistically Marks, A.; Al-Ali, M.; Rietsema, K (2016).

Several research studies proposed and discussed new skill sets that are needed in the next decade (Mahlow, C.; Hediger, A., 2019). These skills are not limited to technical skills like programming. Rather they include skills and competencies in terms of creative thinking, problem-solving, agile working, cognitive abilities, critical thinking, cross-cultural competencies etc. Thus, these skills or competencies are not limited to any particular technology.

Digitization, digitalization, and digital transformation are used interchangeably in digital transformation. All pertain to distinct conceptualizations. Digitization involves digitising analogue tools. Digital data improves. Digital transformation, on the other hand, disrupts and transforms an organisation using digital technologies (B. Nagarjuna & Mohd Aarif, 2022). Digital abilities and competencies required for successful digital transformation are not really relevant to digitization and digitalization. They are more concerned with the two primary capacities of abstraction and contextualization.



Source: 1. Quoted in reference

How does higher education change due to digital skills and transformation? Digital learning offers higher education a chance to improve their pedagogy (Ashtikar & Geetha Manoharan (2022). E-learning was originally chosen to improve learning quality by employing online technologies and facilitating remote collaboration and information access (Keegan, D. 2002). E-Learning should be a catch-all phrase

for any form of learning that uses or benefits from electronic communication and cutting-edge technology (Johnson, R.D.; Brown, K.G., 2017).

The use of terms such as digital learning and digitally transformed learning allows for discussion of teaching and learning processes emphasizing common practices. Scalable customized learning is possible with digitally transformed learning. In this sense, digital approaches to higher education might expand beyond the use of technology gadgets and toward new learning experiences made possible by technological advancements.

### **Digital Transformation in Higher Education**

Digital technology integration is difficult for all organisations. Due to decreased enrolment, rising operational costs, and changing pedagogical expectations, digital transformation in higher education is more difficult. Such trends make replacing IT infrastructure and applications with digitally-optimized higher education technologies more likely.

Digital transformation goes beyond modern digital technology. Higher education institutions must adapt their teaching and learning approaches to survive and remain competitive. These goals are to promote student learning, operational efficiency, cutting-edge research computer power, and education innovation. Higher education institutions must rethink their teaching and learning practises by integrating digital technologies into their systems, complementing their traditional pedagogical techniques and education system with sophisticated education delivery tools. 2019 (Jackson, NC). However, up till now, in higher education, technology has been viewed as a means for incremental changes in terms of improvement in the existing learning approaches. Technology has been largely ignored as a means for disruptive and evolutionary changes (Branch, J.W.; Burgos, D et al., 2020). Moreover, the digital transformation in higher education must also extend beyond the innovation driven by the instructor for improving pedagogical approaches. It must also incorporate digitization skills rather than just focusing on supporting the learning processes with technology (Hildebrandt, C.K., 2019).

Higher education institutions use all available digital technology and tools to improve education delivery and student experience to stay competitive and reputable. Technology can help students engage, track, and anticipate achievement. Digital student journey solutions can also attract, retain, and improve digital education.



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It is also worth noting that in the present times, digital-native students are the major drivers for the evolution of education delivery. Students have started to consider the digital experience as an essential part of their college experience. In some cases, it might be an important factor in selecting their institution. Digital maturity will help higher education institutions adapt to shifting demands, preferences, and challenges.

### **Objectives of the research:**

- To study the digital transformation perspective in Higher Educational Institutions.
- To review the digital strategies in Higher Educational Institutions in India.

### **Literature Review:**

Mamdouh Alenezi (2021) Digital transformation is accelerating. New technologies are changing higher education institutions' methods, business structures, and processes. Digital transformation in higher education involves creating new, more efficient ways and processes to achieve the purpose. This study links digital revolution to higher education. The study examines higher education digital transformation models. The study also discusses higher education's digital transformation challenges.

Chaudhary, P., & Sharma, K. K. (2021) The higher education in India grew out of a colonial education system established by the British rule in the early 20th century. An appraisal shows that while there has been an impressive progress in taking education to the masses, yet many aberrations have crept into the delivery and management. Government has an ambitious strategy to bring in digital enablement in India's education delivery space. However, implementation of these strategies lacks pace and reach. The study looked at the digital initiatives in Organization for Economic Cooperation and Development, Chinese and Australian institutions. This provided some solutions for implementation of digital strategies. Study was carried out through inputs from various stakeholders. Results show institutes lack technology vision, readiness, and commitment. Control and monitoring methods might be added to the study to achieve the strategic objective of digital universities and a greater gross enrolment ratio with excellent education.

S. Shukla and L. Jacob (2022) Online learning has been present since the 1960s and has risen in popularity over time. World-class universities have been using online teaching-learning methodologies to fulfill the needs of students who reside far away from academic institutions for more than a decade. When the COVID-19 pandemic broke out, educational institutions began to explore digital ways to keep students studying even when they couldn't be together in person as governments enacted legislation prohibiting large groups of people from gathering for any reason, including education (Mahender, K., Manish Kumar, J., et al, 2022). The future of such a transition looks promising. However, transitioning from one mode of education to another is not easy. Historically, when educators adopt new tools, learning still continues in the conventional manner. Based on the responses of 176 students, this paper studies the challenges of Digital transformation in the Education sector. The research is extremely beneficial in evaluating the scope of societal opposition to change.

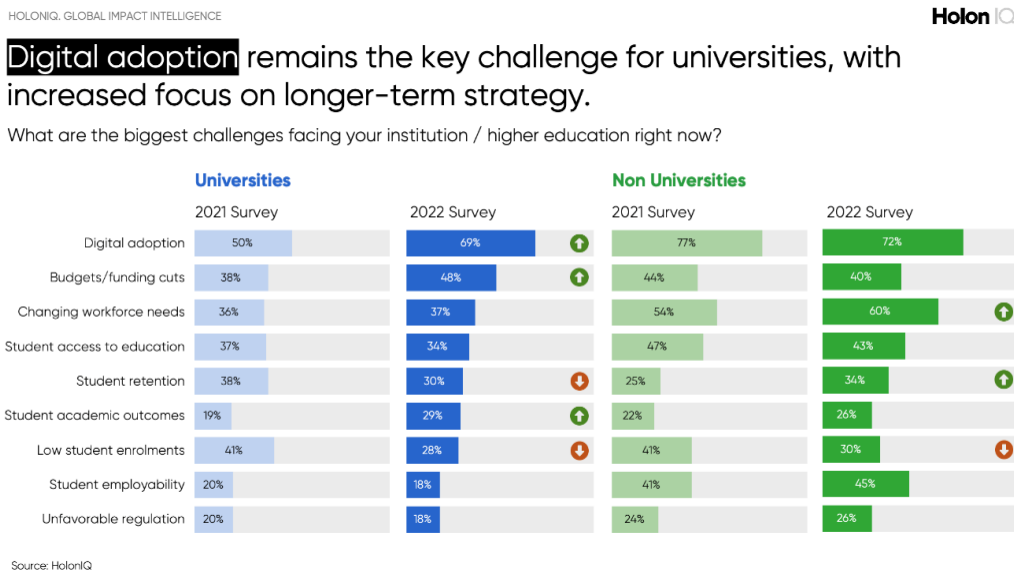
Arbind, K.J. (2020) COVID-19 pandemic has impacted all aspects of human life including higher education. With the advent of digitalization of educational contents and its surging acceptability in the society of today, there is a tremendous scope to expand education to every nook and corner of the country. The Government of India has taken decisive digital initiatives to carry out large-scale digital reforms in higher education. This paper sincerely depicts and analyses the detailed descriptions of all the major initiatives taken by the Government of India in the field of higher education in a critical

perspective keeping in mind the pertinent digital questions in terms of its divide, access, equity, and pedagogy. It also depicts some measures to be taken, purely from the digital pedagogic perspective as pedagogy has not yet become the core of higher education affairs in India, to materialize the knowledge construction virtually or digitally in higher education institutions.

Gafurov, I. R., Safiullin, M. R. et al. (2020) Digitalization and technological change advance humanity. The university development model must evolve as technology, industry, and society advance. Universities' outmoded management and infrastructure can hinder their competitiveness and efficiency. Hence, the need to improve the processes of using the university infrastructure through digital technology. The purpose of this work is to reveal the principles and requirements for improving the university infrastructure using digital technology. The methodology is based on modelling the university management system, with the concept of infrastructure logic as a core, meant to include new elements in the university management infrastructure: university stakeholders, cultural values, investments and translation. Infrastructure management becomes infrastructure logic management in the management model change. The digital network platform with infrastructure facility status information will manage user access to university resources. The recommendations formulated to improve the university infrastructure using digital technology will make higher education more effective.

### Discussions

In today's modern emerging world, digital transformation plays a pivotal role in the transition of higher educational institutions. Digital platforms have created different technologies for teaching and learning which serve as a tool for digital technology. Digital teaching emphasized on innovative pedagogical methodologies focusing on academic and curricular activities. Moreover, different digital trends have focussed globally on the sustainable development of higher educational institutions. Due to digitization, the current management related to higher educational institutions are inculcating changes in the infrastructure facilities in order to gain more effectiveness.



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Additionally, as found in a survey digital transformation in higher educational institutions remains the key challenge for universities that have a clear vision to focus on long term strategies and overcome the challenges posed by the digital techniques.

## Conclusions

The paper attempted to contextualize the digital transformation in the context of higher educational institutions. In conclusion, it has been discovered that in the modern era, just like other sectors of the economy and business organisations, the educational institutions of higher learning also need to undergo a digital transformation in order to continue to be relevant to the shifting industry scenarios and trends. The digital transformation can be used to many different aspects of the higher education system, such as the teaching, pedagogy, learning, and curriculum, as well as the infrastructural, administrative, advertising (Geetha, M., & Santosh N.M., 2021) and managerial processes with the help of artificial intelligence approaches (Geetha, M., Harish, P., et al., 2022). It has also been discovered that despite the fact that there is a significant requirement for digital transformation, higher education institutes have been falling behind other industries and business organisations due to the many difficulties they face.

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