

DIGITIZATION OF EDUCATION: HIGHER EDUCATION INSTITUTIONS' USE OF DIGITAL TECHNOLOGIES

Shivani Dokhoria, Navneet Kumar

Research Scholar, Department of Commerce, Faculty of Commerce and Business, Delhi
School of Economics, University of Delhi, India

Research Assistant, Department of Commerce, Faculty of Commerce and Business, Delhi
School of Economics, University of Delhi, India

Abstract: Digitalisation has significantly transformed the facilitation of learning in higher education. It has established a novel approach to learning and providing education to persons with diverse requirements. Digitalisation has created opportunities for those who previously lacked access to education. This research paper looks at the digitalisation of universities in India through literature review. The literature review is based on a comprehensive assessment of available research papers addressing various elements of educational digitalisation. The research paper provides an overview of digitalisation in higher education. Significant attention is paid to the issues encountered by instructors and students in the digitalisation of college and university in India.

Keywords: Digitization, Higher Education Institutions, Digital Technologies

Introduction

Digital technology has enhanced pedagogy, research, and administration inside educational institutions, transforming the educational landscape. There is an urgent need for robust infrastructure, enhanced internet connectivity, contemporary digital devices, a safe platform, and experts with digital expertise. Information and Communication Technology, cloud computing, intelligent robots, and virtual reality are being integrated into the everyday operations of higher education institutions in India, enhancing competences and facilitating alignment with industry-specific skills. The obstacles associated with implementing the digitisation process in higher educational institutions need more investigation.

Review of Literature

Hashim et.al (2022) determined that a digital transformation plan is a comprehensive, dynamic, and beneficial undertaking that requires extensive modifications to pedagogy, infrastructure, procedures, and values. Consequently, it is essential for digital transformation programs to include the cultivation of abilities that influence both student-centricity and discipline-centricity.

Nesterchuk et.al. (2020) discovered that there was a deficiency in teacher qualifications regarding the utilisation of digital technologies for presenting educational material, fostering student motivation for knowledge acquisition, facilitating interactivity, and leveraging technical capabilities during the pandemic, when the demand for distance learning systems surged significantly. Furthermore, an increase in student cynicism about online learning settings transpired throughout this era.

Rossikhin et.al. (2021) analysis of educational transformation techniques and technologies indicates that digital innovation is crucial for the success of contemporary educational systems. The present time necessitates a transition to a more sophisticated use of digital technology in education. Significant alterations have been implemented in the educational system of contemporary Ukraine.

Telukdarie et.al. said that the rising worldwide demand for access to higher education and climate change present challenges to the existing operational practice and curricular content of higher education institutions. Roles, duties, and required training and education are all evolving as a result of the digitalization of industry, often known as the Fourth Industrial Revolution. Digital technologies are identified in this study that have the potential to significantly alter operational practise in order to meet these issues.

Bogoviz (2022) study's findings validate the working hypothesis and reveal that Russia's digitalisation of the higher education system is nascent (24.8%) and encompasses only select components of this system, while universities persist in employing their conventional (pre-digital) technological methodologies for teaching and research.

Shrivastava et.al. (2022). revealed that Digital technology has enhanced teaching and learning, research, and governance in educational institutions, transforming the educational environment. There is an urgent need for robust infrastructure, enhanced internet accessibility, contemporary digital equipment, a secure platform, and professionals with digital expertise.

Lohar, Sanjok. (2022). In his study India has significantly progressed in education, evolving from the mediaeval "Guru-Shishya" method of learning in the shadow to possessing the second-largest higher education system globally. Information technology has precipitated a substantial transformation in the domains of education, services, employment, and business operations. The integration of Information and Communication Technology (ICT) into the learning process has resolved issues related to access to educational resources, information, and knowledge.

Pashkov et.al. (2022). research that the academic community must take the lead in establishing the operational parameters of these technologies and the educational and ethical principles that should inform their development. Facilitating the development of alternative digital technology education models developed in conjunction with all stakeholders in higher education is essential.

Nesterchuk et.al. (2020) study focusses on the urgent issue of educational digitisation. The digitisation of education differs according to the developmental status of the states. The COVID-19 pandemic has expedited, solidified, and legitimised the distance learning system; however, it has also exposed several challenges, including insufficient technology, a deficiency of appropriate software, unqualified teaching personnel, and students' reluctance to engage with distance learning technologies.

Ruihu et.al. (2022). research reveals three interconnected levels of attitudes towards digitisation in the examined area. The primary level of attitudes include educational and pedagogical perspectives, whilst the secondary level pertains to attitudes about digital platforms, technological utilisation, and resources. The third level encompasses network

attitudes, service attitudes, and developmental attitudes. The analysis of this study's findings indicates that higher education institutions must enhance their utilisation of digital teaching, improve educational quality through innovation, technological advancement, and resource management, and foster development by creating a superior digital platform or environment to effectively promote HESD.

Research Objective

After going through the literature, the following can be the research objectives for future researches:

General Objective

The general objective of this research work is to have an understanding about the digital adoption at the higher education level that is bringing the transformation in today's world.

Specific Objective

The Major objective of this research is to get an understanding of:

- Use of Digital Technology in Educational Institutions
- Difference between public institutions and the private institutions regarding the usage of digital technology
- Forces which are acting as guiding factor for the usage of the same
- Barriers that prevent educational institutions for digital adoption

Research Questions

Question 1: How widespread is the use of digital technology in Educational Institutions?

Question 2: What sets public institutions apart from private institutions when it comes to their usage of digital technology?

Question 3: What are some of the driving forces behind the transition to digital technology?

Question 4: What are some of the barriers that prevent educational institutions from making transition to digital adoption?

Research Methodology

For future empirical researches the study can be mix of exploratory and descriptive. A mixed method approach can be used to describe and study digital technology in the current context and get a deeper knowledge of the current situation. As part of the study's methodology, phenomenology (the study of subjective experiences) can be included, which will be utilized to identify and explain in detail the common features of the events that have occurred. Scholars who are currently enrolled in the same educational institutions can be included in the research. The researchers can use their own judgement to pick people from the community for sample collection in a method known as purposive sampling.

Conclusion

The current paper focused in the ongoing conceptual understanding of digitisation in the context of education via literature review. The research indicates that while educational institutions in the India are advancing in digitalisation, some factors hinder the process. The institutions depend on external internet providers, leading to inconsistent and unreliable service, as well as incurring expenses associated with building infrastructure and technology procurement. The digitalisation of educational systems may incur significant costs, with money being one of three essential components for effective digitalisation, alongside plans and strategies. The financial problem elucidates why digitalisation is not comprehensive throughout. Consequently, a proposal for tackling this difficulty is for institutions to collaborate with private sector entities to enhance the technical infrastructure. Furthermore, one study indicated that the approach can be used by one institution it may be prudent to include a fee allocation for the supply of technological resources into students' tuition. Our research indicates that Indian higher education institutions have significant progress to make before they can fully incorporate the new opportunities presented by emerging technologies, including artificial intelligence, blockchain, augmented reality, virtual reality, and other advancements in digital technologies. Nonetheless, they persist in modernising and evolving to establish resilient and cohesive systems inside their organisations. Furthermore, the current research paper gives the research questions, suggestive research methodology to the future scholar to be empirically investigated for the purpose of enhanced understanding of the digitalisation in India specifically focusing on the Higher education institutions.

References

1. Telukdarie and M. Munsamy, "Digitization of Higher Education Institutions," 2019 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), 2019, pp. 716-721, doi: 10.1109/IEEM44572.2019.8978701.
2. Bogoviz, Aleksei V., et al. "Digitalization of the Russian education system: Opportunities and perspectives." *Quality-Access to Success* 19.2 (2018): 27-32.
3. Lohar, Sanjok. (2022). Possibilities And Opportunities in Indian Higher Education Through The Digital Shift.
4. Mohamed Hashim, Mohamed Ashmel, Issam Tlemsani, and Robin Matthews. "Higher education strategy in digital transformation." *Education and Information Technologies* 27.3 (2022): 3171-3195.
5. Nesterchuk, O & Grishin, O & Chepurnaya, A. (2020). Digitalization as the "new normal" of higher education. *Journal of Physics: Conference Series*. 1691. 012068. 10.1088/1742-6596/1691/1/012068.
6. Nesterchuk, Olga A., Oleg E. Grishin, and Albina M. Chepurnaya. "Digitalization as the "new normal" of higher education." *Journal of Physics: Conference Series*. Vol. 1691. No. 1.IOP Publishing, 2020.
7. Pashkov, M. & Pashkova, V.. (2022). Problems and Risks of Digitalization in Higher Education. *Vysshee Obrazovanie v Rossii = Higher Education in Russia*. 31. 40-57. 10.31992/0869-3617-2022-31-22-3-40-57.
8. Rossikhin, Vasyl & Rossikhina, Galyna & Radchenko, Lyudmyla & Marenych, Viktoria & Bilenko, Leonida. (2020). DIGITALIZATION OF EDUCATION AS A

DRIVER OF DIGITAL TRANSFORMATION OF UKRAINE. ScienceRise. 3. 66-70. 10.21303/2313-8416.2020.001348.

9. Ruihui Pu, Danai Tanamee and Songyu Jiang (2022). Digitalization and higher education for sustainable development in the context of the Covid-19 pandemic: A content analysis approach. Problems and Perspectives in Management, 20(1), 27-40.
10. Shrivastava, Shailaj & Shrivastava, Chandan. (2022). The Impact of Digitalization in Higher Educational Institutions. International Journal of Soft Computing and Engineering. 11. 10.35940/ijscce. B3536.0111222.