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Challenges and Success Stories in Technology Adoption

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Abstract

The rapid adoption of technology in higher education has had a profound impact on instructional strategies, learning experiences, and administrative procedures. This study examines the challenges and achievements of technology integration in higher education, focusing on organizational, cultural, technological, and skill-related barriers. Comparative studies indicate that although resistance to change, insufficient funding, and inadequate infrastructure present significant challenges, these bar-riers can be transformed into opportunities for development and innovation through proactive measures, institutional support, and strategic leadership. The potential of digital technology to im-prove academic achievement, support flexible learning models, and increase student engagement is demonstrated through case studies of successful implementations, such as Learning Management Systems (LMS), virtual classrooms, and gamification applications. Leadership commitment, contin-uous professional development, student involvement, and regular monitoring and evaluation have been highlighted as critical success factors. The paper also discusses the implications of future tech-nology adoption, including the growing influence of artificial intelligence, hybrid learning models, and the need for student-centered educational approaches. Higher education institutions can build resilient ecosystems that foster innovation and continuous improvement by utilizing data-driven de-cision-making, strategic planning, and stakeholder engagement. This study seeks to advance under-standing of the complex landscape of technology adoption in higher education and provide valuable insights for educators, administrators, and policymakers.

Keywords: Technology Adoption, Higher Education, Learning Management Systems, Student Engagement, Digital Transformation

Introduction

Technology has emerged as a key factor in the current revolution in higher education, radically changing both the way institutions function and the way teachers instruct. Students from a wide range of geographic areas can now participate in learning opportunities that were previously inaccessible due to the incorporation of digital resources. For example, traditional boundaries have been dismantled by online learning platforms, creating a more flexible and inclusive learning environment. In addition to democratizing education, this change meets the diverse demands of today's student group. Furthermore, improved learning experiences have resulted from the use of technology in higher education. Teachers now have access to digital resources that enable personalized and interactive learning, which raises student interest and enhances academic results. For instance, it has been demonstrated that integrating artificial intelligence (AI) into intelligent classrooms enhances the university experience by promoting a more dynamic and responsive learning environment (Ahmed et al., 2021).

Technological developments have greatly simplified administrative procedures in higher education institutions. Digital platforms for communication, grading, and enrollment have improved operational efficiency, freeing up teachers to concentrate more on instruction and meeting the requirements of each student. This effectiveness helps create a more structured and functional educational infrastructure in addition to lowering administrative responsibilities (Alenezi et al., 2023). Bourghani Farahani et al., (2026) provides a validated, structured framework that maps the Industry 4.0 technology acceptance to smart maintenance in the cement sector.

When implementing technology, colleges and universities face a variety of obstacles, such as reluctance to change, a lack of funding, and worries about data security. Because academic decision-making can be delayed and risk-averse, institutional inertia and bureaucratic institutions frequently impede the rapid adoption of new technology (Almahasees et al., 2021).

These problems are made worse by a lack of funding, which prevents many institutions from investing in modern technology, software, and staff and faculty training (Atabek, 2019).

Furthermore, since educational institutions need to safeguard sensitive data from potential breaches, the growing reliance on digital tools creates serious concerns regarding data privacy and security (AVNetwork, 2023).

For higher education to effectively adopt technology, these complex issues call for all-encompassing approaches.

With an emphasis on how technology is transforming teaching, learning, and administrative procedures, this article seeks to examine the various dimensions of technology's impact on higher education. By reviewing recent trends and case studies, it aims to understand how digital tools are reshaping the educational landscape and to identify best practices for their successful integration into higher education institutions.

Objectives of the Study

To explore challenges and success stories in technology adoption within higher education.

Significance of the Study

Technology use in higher education has had a big impact on institutional development, faculty performance, and student involvement. It has been demonstrated that incorporating digital technologies into the classroom improves student engagement by enabling individualized and interactive learning experiences. For example, a more flexible and inclusive learning environment is promoted by the use of Learning Management Systems (LMS) and virtual classrooms, which allow students to access course materials and take part in discussions whenever it is most convenient for them (Bencsik et al., 2021). Additionally, technology enhances instructional efficacy by giving faculty members access to cutting-edge teaching resources and approaches. By using educational technologies, teachers can create a dynamic curriculum that accommodates a range of learning preferences, encouraging pupils to think critically and succeed academically (Buchanan, 2020).

Adopting technology innovations helps institutions grow by improving their competitiveness in the global education market, cutting operating expenses, and simplifying administrative procedures (Bencsik et al., 2021).

To fully reap the rewards of technology adoption in higher education, however, issues like the digital divide and gaps in technological literacy must be addressed (Buchanan, 2020).

Literature Review

Theoretical Framework

Technology Adoption Models in Higher Education

Effective technology implementation in higher education requires a clear understanding of the factors influencing technology adoption. To explain this process, several theoretical models have been developed.

The Technology Acceptance Model (TAM), first proposed by Davis (1989), suggests that perceived usefulness and perceived ease of use are the two primary determinants of an individual's acceptance and use of technology (Cabaleiro-Cerviño & Vera, 2020).

The degree to which a person thinks that utilizing a specific system will improve their performance at work is known as perceived usefulness, and the degree to which they think that using the system would be effortless is known as perceived ease of use. Since staff and students' behavioral intentions to use new educational technologies are strongly influenced by their perceptions, TAM is a valuable tool in higher education for forecasting their uptake.

TAM is one of eight well-known models of technology acceptance that are incorporated into the Unified Theory of Acceptance and Use of Technology (UTAUT), which was created by Venkatesh et al. (2003), as cited in California Virtual Campus–Online Education Initiative (2022). Performance expectancy, effort expectancy, social influence, and enabling environments are the four main factors that determine intention and usage. UTAUT has been used in higher education to evaluate the impact of these factors on teacher and student technology uptake. For example, students' intentions to use e-learning platforms are highly impacted by social influence and performance expectancy (Chugh et al., 2023).

Rogers (2003), building upon early foundational frameworks of user acceptance (Davis, 1989), introduced the Diffusion of Innovation Theory, which describes how, why, and how quickly innovative concepts and technology proliferate across cultures. Innovators, early adopters, early majority, late majority, and laggards are the five groups into which adopters are divided. Knowing these categories enables institutions to better customize their approaches to encourage the uptake of innovative teaching practices. Engaging faculty members who are early adopters, for instance, might promote peer influence and wider adoption of innovative instructional strategies and resources. When taken as a whole, these models offer a thorough framework for examining and promoting the adoption of technology in higher education settings, assisting stakeholders in putting into practice sensible plans that take into account social dynamics, user perceptions, and the diffusion of innovation.

Barriers and Enablers in Higher Education Context

A complex interaction of institutional, cultural, and personal factors affects the use of technology in higher education. The efficient integration of new technology is severely hampered by institutional obstacles like antiquated processes, poor infrastructure, and a lack of funding. It is difficult for educational institutions to adopt cutting-edge technological solutions when they lack adequate financial and digital resources. On the other hand, adoption rates are higher for organizations that place a high priority on technological growth by setting aside adequate funds and creating an atmosphere that encourages innovation. The possibility of technology adoption and use in educational settings is further increased by strategic

planning and effective leadership (E School News, 2023). Another important aspect affecting the uptake of technology in higher education is culture.

A typical cultural barrier is resistance to change, which frequently results from cynicism about digital tools and traditional educational methods. A lack of knowledge or comprehension of the possible advantages of instructional technology exacerbates this opposition. Rigid institutional hierarchies and organizational inertia may fuel opposition since administrative and faculty personnel may be reluctant to adopt new procedures. However, technology adoption can be greatly increased by cultivating a culture that values innovation, ongoing learning, and receptivity to new ideas. A technology-friendly culture is also fostered by collaborative platforms and communities of practice among educators, which facilitate peer assistance and information sharing (Chugh et al., 2023). Higher education institutions may successfully traverse obstacles and use technology to improve learning experiences by having a thorough understanding of these institutional and cultural aspects. Colleges and universities can optimize the use of digital resources to enhance learning outcomes and operational efficiency by putting in place supportive policies, strategic leadership, and a forward-thinking culture.

Conceptual Model for Analysis

A thorough conceptual model is necessary to direct the evaluation process when examining the difficulties and achievements of technology adoption in higher education. One such approach is the Technology Acceptance Model (TAM), which asserts that the main factors influencing users' acceptance of technology are perceived usefulness and perceived ease of use (Cabaleiro-Cerviño & Vera, 2020). Understanding how instructors and students utilize instructional technology has been made easier thanks to this concept. In order to provide a more comprehensive understanding of technology adoption behaviors, the Unified Theory of Acceptance and Use of Technology (UTAUT) expands on TAM by incorporating other categories like social impact and enabling factors (California Virtual Campus–Online Education Initiative, 2022). This framework helps identify the organizational and social factors that influence the successful adoption of new technologies in educational settings. Additionally, by highlighting the functions of social systems, time, and communication channels, the Diffusion of Innovations Theory sheds light on how technological advancements proliferate inside an organization (Davis, 1989). Understanding the adoption curve and adopters' traits is made easier with the help of this theory, which is essential for developing successful technology integration strategies. Institutions can create a strong conceptual framework that tackles organizational dynamics, social factors, and individual perspectives by combining these concepts. The development of focused initiatives to improve educational results is guided by this integrated approach, which makes it easier to conduct a thorough examination of the factors that both encourage and hinder the adoption of technology.

Methodology

Challenges in Technology Adoption

Cultural and Organizational Barriers

Organizational and cultural hurdles that prevent successful adoption frequently obstruct the integration of technology in higher education. Faculty and staff members' cultural resistance to change stems from their aversion to adopting new approaches and their established teaching methods. This reluctance is often intensified by a lack of knowledge or understanding of the benefits that technological advancements can provide to learning environments (Fischer et al., 2020). Rigid hierarchical structures and a lack of leadership backing can hinder innovation and deter the investigation of new technologies within an organization. Furthermore, institutions may find it difficult to invest in the training programs and technology tools they require due to a lack of funding and poor infrastructure (E School News, 2023). A multimodal strategy is needed to overcome these obstacles, one that involves ensuring that resources are available to support technology advancements, establishing a culture of openness to change, and offering strong leadership support.

Economic and Financial Barriers

Financial and economic constraints have a big influence on how technology is used in universities. The high expense of purchasing and maintaining cutting-edge technological infrastructure, such as hardware, software, and network capabilities, remains one of the main obstacles to sustainable digital deployment (Generation YES, 2020). Budgetary restrictions prevent many organizations, especially those in developing nations, from investing in cutting-edge technology. The financial burden is further increased by the price of ongoing updates, technical assistance, and cybersecurity precautions (Gkrimpizi et al., 2023). The constant expenditure needed for staff and faculty training is another major financial obstacle. Institutions must offer professional development programs, which need significant financial resources, in order to integrate new technology successfully (Generation YES, 2020). Even the most cutting-edge technologies might not be used efficiently without proper training, which could result in poor performance and reluctance to change among teachers. Furthermore, organizations with little funding can put immediate operational requirements ahead of long-term technology investments, which would make it more difficult to include cutting-edge teaching resources and platforms (Gkrimpizi et al., 2023). The problem is made more difficult by the absence of viable funding models. For the implementation of technology projects, many institutions depend on temporary grants or outside finance. Nevertheless, this strategy lacks the financial stability needed for continuing expansions, improvements, and upkeep. Because of this, efforts to implement technology are frequently interrupted or shelved because of a lack of sustainable funding. Higher education institutions need to look into

public-private partnerships, alternative financing sources, and smart financial planning in order to get past these financial and economic obstacles. In order to solve these issues, legislative changes that increase funding for educational technology innovations can also be very important (Gkrimpizi et al., 2023).

Technological Barriers

The implementation of digital technologies in higher education institutions is severely hampered by technological constraints. One of the main obstacles to the smooth integration of technology into academic programs is the absence of proper infrastructure, which includes antiquated hardware, inadequate bandwidth, and erratic internet connectivity (Generation YES, 2020). Furthermore, teachers frequently lack the technical assistance and training they need, which makes it challenging for them to use new technologies efficiently and incorporate them into their lesson plans (Hassan et al., 2024). These difficulties are made worse by worries about data security and privacy, since organizations have to deal with the difficulties of safeguarding private data in a world that is becoming more and more digital (Hollands, 2017). In order to create an atmosphere that is favorable for the adoption of technology in higher education, it is necessary to address these technological barriers through the deployment of strong data security measures, extensive training programs for professors and staff, and strategic infrastructure investment.

Knowledge and Skill Barriers

The successful implementation of technology in higher education institutions is severely hampered by knowledge and skill gaps. Lack of digital literacy among teachers and students is a common problem that impairs their capacity to make good use of cutting-edge technology tools. This shortcoming frequently results in a lack of self-assurance and a hesitancy to interact with new digital platforms, which restricts the adoption of creative teaching and learning strategies (Hassan et al., 2024). Furthermore, this issue is exacerbated by limited professional development opportunities and insufficient training, which may prevent educators from receiving the support needed to enhance their technological proficiency. The rapid evolution of educational technology further complicates this situation, making it difficult for academics to stay updated with the latest tools and applications relevant to their disciplines (Generation YES, 2020). A systematic approach that incorporates extensive training programs, ongoing professional development, and the development of an academic environment culture that promotes technical competency and creativity is required to address these challenges.

Results

Success Stories in Technology Adoption

Case Study

1: Learning Management Systems (LMS) Adoption

The deployment of a Common Learning Management System (C-LMS) across the California Community Colleges (CCC) system serves as an example of the effective use of LMS in higher education. Recognizing that the diverse LMS platforms used across its 115 colleges created challenges for collaboration and consistency, the CCC system launched the C-LMS initiative to standardize the delivery of online education. By providing a unified platform for managing and delivering courses, the initiative aimed to improve teaching practices and streamline administrative processes.

The implementation of the C-LMS demonstrated that pedagogy should take precedence over technology. Rather than simply introducing a new technological tool, the initiative focused on using the LMS to enhance teaching and learning outcomes. This pedagogical focus encouraged instructors to engage with the LMS in ways that enriched students' educational experiences. The initiative also highlighted the importance of providing comprehensive training and support for faculty and staff to ensure the effective use of LMS features. By prioritizing educational objectives and supplying the necessary resources, the CCC system successfully addressed the challenges of large-scale LMS adoption, thereby improving the quality and accessibility of online education across its colleges (Insight, 2023).

Case Study 2: Online Learning and Virtual Classrooms

Higher education has seen substantial changes as a result of the COVID-19 pandemic's quick transition to online learning and virtual classrooms. King Saud University (KSU) in Saudi Arabia is a noteworthy example, having made the shift from traditional in-person education to online distance learning. KSU's comparative study found that although online learning provided accessibility and flexibility, it also had drawbacks in terms of student performance and engagement. According to the study, online learners typically performed worse than their in-person counterparts, underscoring the need for methods to improve virtual learning environments' efficacy. Research conducted at a university in the United Arab Emirates also looked at how students felt about learning in virtual classrooms during the pandemic. The results showed that although students valued the ease and security of online learning, they also encountered problems like fewer opportunities to communicate with peers and teachers, technological difficulties, and difficulties staying motivated. These observations highlight how crucial it is to address pedagogical and technological issues in order to enhance the online learning environment (Lara-Cabrera et al., 2023). These case studies show that

although virtual classrooms and online learning have many advantages, such as accessibility and flexibility, they also present difficulties that educational institutions must resolve to guarantee successful learning outcomes. The success of online education projects depends on tactics like increasing student participation, offering strong technical support, and creating engaging learning environments

Case Study 3: Student Engagement Tools and Gamification

Higher education has shown great promise in improving learning outcomes and student engagement through the use of gamification techniques. The use of a self-created gamification solution in a management course with the goal of maintaining student interest and involvement is a noteworthy case study. This method used game features like leaderboards, badges, and point systems to foster a cooperative but competitive learning environment. According to the findings, students were more motivated and performed better, attributing their improved learning experience to the gamified course design (McKenzie, 2022). Likewise, studies investigating the application of 3D-printed badges as material incentives in STEM education showed favorable effects on retention rates and student performance. In research with 99 students in a Databases course, the use of both virtual and actual badges resulted in lower dropout rates and better academic results. A sense of accomplishment was fostered, and sustained effort was encouraged by the badges' physical aspect, which acted as a continual reminder of accomplishments (Panicker, 2020). The effectiveness of gamification in creating a dynamic and captivating learning environment is demonstrated by these case studies. Teachers can build dynamic learning environments that inspire students and improve their academic performance by incorporating game-like aspects into the curriculum.

Key Factors for Successful Adoption

Leadership and Institutional Support

Strong institutional support and capable leadership are essential for the successful integration of technology in higher education. By empowering employees and encouraging innovative approaches to technology integration, university leaders can significantly contribute to the development of an innovative atmosphere. According to a recent study, leaders who believe in and encourage their employees' technology endeavors foster greater creativity and more successful adoption of new tools and techniques (Porter et al., 2016). Furthermore, it is critical that strategic planning be in line with technological developments. Proactively implementing contemporary IT tactics, including incorporating artificial intelligence and quantum computing, puts educational institutions at the forefront of innovation. For instance, Rensselaer Polytechnic Institute's endeavor to house IBM's quantum computer demonstrates how leadership dedication to cutting-edge technology can boost research prospects and academic performance (Reuters, 2025). Furthermore, faculty participation in technology-related decision-making processes increases trust and a sense of ownership, which speeds up

the adoption of educational technologies. Involving teachers in these choices guarantees that the chosen technologies meet real classroom needs and pedagogical objectives, resulting in a more meaningful and successful integration (Reuters, 2025). Therefore, a supporting ecosystem is produced by leadership that empowers employees, integrates faculty into decision-making processes, and aligns institutional strategies with technological breakthroughs. This setting fosters a culture of ongoing innovation and advancement in higher education in addition to making it easier for technology to be successfully adopted.

Training and Professional Development

Successful technology integration in higher education requires professional growth and effective training. As educational institutions increasingly adopt digital tools, it is essential to equip faculty members with the skills and knowledge needed to use these technologies effectively. Studies show that customized professional development initiatives, such as online tutorials, workshops, and peer mentoring, can significantly improve faculty competence and confidence in technology integration (Rogers, 2003). Furthermore, tailored support, such as one-on-one mentorship, has been shown to address specific needs and promote a more individualized learning experience for educators (Scherer et al., 2019). Because educational technologies are developing so quickly, faculty members must have access to ongoing learning opportunities in order to stay up to date on new tools and approaches. According to studies, continuous professional development helps teachers stay up to date with new technology, which improves their instruction and raises student achievement. In addition to facilitating easier transitions to technology-mediated environments, organizations that emphasize and fund extensive training activities also encourage a culture of creativity and adaptability among their employees.

Student Involvement

Active student participation is essential for the successful implementation of technology in higher education. Involving students in the selection, implementation, and evaluation of technology tools improves educational outcomes and ensures that innovations meet their learning preferences and needs. For example, the Generation YES program encourages students to help teachers integrate technology into the classroom, creating a collaborative environment that benefits both educators and students. Additionally, allowing students to participate in technology adoption fosters a sense of accountability and ownership, which increases motivation and engagement. Programs that encourage students to actively participate in technological initiatives have been shown to improve the overall use of technology in educational institutions. Furthermore, studies indicate that student involvement in the development and implementation of educational technologies leads to more user-friendly and effective solutions that better address the actual needs of the student population. Therefore, higher education institutions seeking to enhance technology adoption should

prioritize student involvement and ensure that student perspectives and feedback are integral to the decision-making process.

Continuous Monitoring and Evaluation

For higher education institutions to successfully integrate technology, ongoing monitoring and assessment are crucial. This process involves the systematic collection and analysis of data to evaluate the success of technology initiatives and guide any necessary adjustments. Regular monitoring enables institutions to identify and address issues promptly, ensuring that the technology supports learning outcomes and aligns with educational objectives. For example, the University of Illinois Chicago emphasizes the importance of continuous evaluation and support in its technology adoption process (Venkatesh et al., 2003). Furthermore, incorporating feedback from both teachers and students is essential to this evaluation process. Engaging stakeholders provides valuable insights into user experiences and facilitates data-driven decisions that enhance the learning environment.

According to the University Professional and Continuing Education Association (UPCEA), collecting feedback helps institutions make informed adjustments that continuously improve the learning environment (Rogers, 2003). Continuous monitoring and assessment not only enhance existing procedures but also aid in the strategic development of next technology projects. In order to guide the development and deployment of new technologies that are more appropriate for meeting changing educational demands, institutions can detect trends and areas for improvement by examining performance data and user input. This proactive strategy guarantees that the adoption of technology is a continuous process of improvement and alignment with institutional objectives rather than a one-time occurrence.

Comparative Analysis of Challenges and Success Stories

Higher education technology integration is a complicated field with several notable triumphs as well as major obstacles. A comparative study shows that although barriers like bureaucratic slowness, reluctance to change, and a lack of funding frequently prevent the adoption of new technologies, these issues may be successfully turned into chances for innovation with the help of strategic initiatives and strong leadership. One major issue is the bureaucratic framework that many educational institutions have, which can impede the quick adoption of new technology and slow down decision-making. As a result of this administrative inertia and the dynamic nature of technological advancement, there is often a disconnect between available innovations and their practical implementation in educational settings (Rogers, 2003). The implementation of educational technologies is further complicated by faculty and staff resistance to change, limited funding, and a shortage of qualified personnel (WGU Labs, 2023).

Despite these obstacles, several organizations have used proactive tactics to successfully integrate technology. To standardize the delivery of online education among its 115 colleges, the California Community Colleges system, for example, adopted a Common Learning Management System (C-LMS). By offering a single platform for course management, this project improved educational methods in addition to streamlining administrative procedures (2023). Similarly, in an effort to promote scientific and technological innovation in education and propel future economic growth, Chinese institutions have lately started offering courses on Deep Seek, an AI breakthrough firm (Wright, 2014).

These achievements highlight how crucial institutional support and leadership are in removing obstacles to the adoption of new technologies. Institutions can successfully negotiate the challenges of technological integration by cultivating an innovative culture, offering thorough training, and coordinating technical activities with learning goals. Further ensuring that these technologies successfully improve learning outcomes and adjust to changing educational needs is ongoing monitoring and evaluation.

Implications for Future Technology Adoption

Future developments in artificial intelligence (AI) and the growing need for adaptable learning models will have a big impact on how technology is adopted in higher education. AI-powered tools are being gradually included by institutions to improve learning outcomes. For example, OpenAI is implementing an education-specific version of ChatGPT on all 23 campuses of California State University with the goal of improving teaching and learning by offering individualized tutoring and streamlining administrative duties. At the same time, conventional educational paradigms are changing due to the move towards hybrid and online learning methods. In order to meet the varied demands of its students and take advantage of technological improvements, universities are implementing flexible approaches like blended learning and micro-credentialing. In addition to expanding educational opportunities, this shift calls for ongoing assessment and monitoring to guarantee the efficacy and caliber of these novel modalities. Nevertheless, there are difficulties in integrating these technologies, such as guaranteeing fair access, upholding academic integrity, and offering sufficient assistance to both teachers and students. Comprehensive approaches that include strong infrastructure development, well-defined policy frameworks, and continual professional development are needed to address these problems. The future of learning will be greatly influenced by higher education institutions' capacity to adjust to technological advancements while maintaining academic standards as they traverse this changing environment.

Conclusion

Technology adoption in higher education has affected teaching strategies, student experiences, and institutional operations in a way that has been both revolutionary and difficult. This study examined the complex field of technology integration, emphasizing the difficulties associated with organizational and cultural obstacles, financial limitations, technological restrictions, and gaps in knowledge and expertise. Comparative studies showed that although these issues present formidable barriers, they may also be transformed into chances for development and innovation with the help of proactive measures, institutional support, and strategic leadership. Successful implementation case studies of gamification tools, virtual classrooms, and learning management systems showed how digital technology may boost academic achievement, encourage flexible learning methods, and increase student engagement. Leadership commitment, continual professional development, student involvement, and regular monitoring and assessment have been highlighted as critical success elements. In addition to facilitating successful adoption, these components encourage an innovative and flexible culture in educational establishments. In order to optimize learning results and institutional progress, the analysis also emphasized the significance of strategically aligning technological initiatives with educational objectives.

Future ramifications of technology's ongoing development emphasize the necessity of adaptable, student-centered teaching strategies, hybrid learning models, and artificial intelligence's expanding impact. Higher education institutions must take a comprehensive approach to navigating this changing environment, embracing technology innovations while tackling issues of accessibility, equity, and digital literacy. Educational institutions may build robust ecosystems that foster innovation and ongoing development by utilizing data-driven decision-making, stakeholder interaction, and strategic planning. In summary, adopting technology in higher education involves more than just putting digital tools into place; it also entails changing pedagogical approaches, improving student learning, and fostering institutional development. Realizing the full potential of technology-enhanced education will need proactive tactics and teamwork as higher education continues to change in the digital era.

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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