JEBA Vol.1 No.1 (2025) – 4927 – pp. 10-15

Journal of Entrepreneurship and Business Administration

journal homepage: http://journals.lagh-univ.dz/index.php/jeba

Rethinking Organizations' E-Learning Strategies in the Digital Era of Higher Education

Assia BRAHIMI [a,*]

a. LEREMA Laboratory, Higher School of Management Tlemcen - Algeria

a r t i c l e i n f o

Article history:
Received:
26 August 2025
Accepted:
28 September 2025
Published:
01 October 2025

Keywords:
Higher education
Digital Transformation
E-learning
Quality of Education

JEL Classification:
I23, I29, O33

a b s t r a c t

Through this research paper, we address organizations' higher education in the digital age and the most important challenges facing it, as higher education institutions are rethinking eLearning strategies to enhance education delivery and student engagement. The integration of technology is not just an alternative to traditional teaching but a means of increasing learning experiences, which necessitates a shift in pedagogical methods and course structures to accommodate the diverse needs of learners, and recent literature indicates a significant rise in the adoption of e-learning, driven by factors such as perceived ease of use and learner attitudes, yet there are still challenges in ensuring that these platforms actively engage students rather than serve as repositories of negative content. Furthermore, the role of learners has evolved, as students have increasingly shaped their educational experiences through the strategic use of digital tools, highlighting the need for organizations to adapt to these changing dynamics. In addition, promoting digital literacy through targeted learning strategies is essential to develop competencies that enable students to address ethical challenges in digital environments. Ultimately, the digital transformation of higher education aims to create more inclusive, equitable, and high-quality educational opportunities, reflecting a broader shift toward modernization in educational practices

1. Introduction

The contemporary world is witnessing an unprecedented digital revolution, which represents a major turning point in all sectors, and higher education is one of the areas most affected by this transformation. The rapid development of information and communication technologies, the spread of high-speed internet, and the growth of artificial intelligence capabilities have reshaped the education system in terms of teaching methods, knowledge management systems, and mechanisms for evaluating academic performance. E-learning is no longer just a temporary alternative to traditional education, but has become a long-term strategic option that requires

* Corresponding author.
E-mail addresses: A. BRAHIMI bra.assia@gmail.com
How to cite: BRAHIMI, A. (2025). Rethinking organizations' E-Learning strategies in the digital era of higher education. *Journal of Entrepreneurship and Business Administration, 1*(2), 10-15.
DOI: https://doi.org/10.34118/jeba.v1i2.4927
This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/).
ISSN: 3088 - 8980

universities and academic institutions Rethink its plans, policies, and infrastructure to keep pace with the requirements of this digital age.

Digital transformation in higher education is not limited to the introduction of new technological tools, but also involves rebuilding the entire philosophy of the educational process, ensuring the development of critical thinking skills, self-learning, and adaptation to a changing knowledge environment. With the growing role of digital platforms, blended learning, and virtual classrooms, universities are facing intertwined challenges related to quality assurance, inclusivity, and keeping pace with accelerated educational innovations. Global crises, such as the COVID-19 pandemic, have also revealed the urgent need for more flexible and adaptable educational strategies to adapt. While e-learning offers unlimited opportunities to expand access to education and diversify learning styles, it also raises fundamental questions about how to balance technology and the human dimension of education, and about the ability of universities to craft learning models that meet the demands of a rapidly changing global labor market. In this context, the main problem can be formulated as follows: How can higher education institutions in the digital age rethink E-learning strategies to ensure quality, flexibility, and sustainability in an ever-changing knowledge environment?

1.1. Importance of the study

The importance of this topic lies in the fact that it touches on the future of teaching and learning. Rethinking e-learning strategies is not just an option, but an imperative to ensure the continuity of educational institutions and their ability to produce generations capable of critical thinking, creativity, and problem-solving in a complex environment. Investing in the development of these strategies is an investment in human capital, which is the primary driver of development.

1.2. Study Methodology

To achieve the objectives of this article, a descriptive-analytical approach will be followed, where the current state of e-learning in higher education will be described and the challenges and opportunities will be analyzed, with a focus on reviewing innovative and effective strategies.

2. Transformations of the Digital Age and Their Impact on Education

Digital technologies have changed the nature of knowledge itself. Knowledge is no longer limited to books and lectures, but is available to everyone online. This change forces educational institutions to shift from simply transferring knowledge to teaching students how to access, evaluate, and use it effectively.

Recent research suggests that higher education in the digital age requires a thorough rethinking of e-learning strategies, with a focus on effectively integrating technology to enhance the learning experience rather than just providing content. It is essential that universities adopt strong pedagogical foundations when adopting e-learning, so that they keep pace with the needs of students and support their interaction and active participation (Sain et al., 2024; Singh et al., 2024). Digital transformation in higher education also requires the development of educational environments that keep pace with modern technological trends, focusing on the student as the focus of the educational process, encouraging cultural change among faculty members, and adopting strategies such as goal setting, the use of e-wallets, and digital feedback (Manian, 2020;

Shard et al., 2024).

Among the most important digital transformations in higher education, we mention:

- Blended Learning: Combining face-to-face and online learning to provide a flexible learning experience.
- Personalized Learning: Tailoring educational content to the needs of each student using data analytics.
- Mobile Learning: Leverage smartphones and tablets to access content anytime, anywhere.
- Artificial Intelligence in Education: The use of intelligent algorithms in recommending content, scoring tests, and evaluating student progress.

3. Challenges in Current E-Learning Strategies

Educational institutions face many challenges in their current e-learning applications, including:

- Lack of interaction: E-learning is often one-way, lacking interaction between students and lecturers, as well as between students themselves.
- Uneven quality of content: Some digital content lacks the required academic and pedagogical quality, which reduces the effectiveness of learning.
- Digital divide: Lack of adequate infrastructure and internet access for all students is a significant barrier.
- Lack of adaptation to different learning styles: Some online learning platforms do not take into account individual differences in students' learning styles.

Studies show that e-learning can enhance academic achievement, student satisfaction, and collaborative work, but it faces challenges related to infrastructure, teachers' digital skills, and the difficulty of some students interacting with virtual learning environments (Singh et al., 2024; Guri-Rosenblit, 2018). Effective faculty participation, course quality, and ease of use of digital systems play a pivotal role in developing students' digital skills (Carabregu-Vokshi et al., 2023; Anthonysamy et al., 2020). Research recommends the adoption of blended learning strategies that combine traditional and e-learning, as they have the ability to overcome the limitations of both (Ghemawat, 2017). Finally, the evidence emphasizes the importance of promoting self-regulated learning strategies to support students' digital competence and lifelong learning (Erarslan & Şeker, 2021; Anthonysamy et al., 2020)

4. Innovative e-learning strategies in the digital age

To address these challenges, educational institutions must adopt new strategies, including:

- Blended Learning: This model combines the best of traditional education (face-to-face interaction) and e-learning (flexibility and access to resources).
- Adaptive Learning: This strategy uses artificial intelligence algorithms to tailor the content and educational path of each student based on their performance and needs.
- Gamification: Game elements such as points, rewards, and challenges are applied in the educational process to increase student motivation and engagement.
- Simulation and Virtual Reality (VR): These technologies provide immersive learning experiences that allow students to apply knowledge in safe virtual environments.

Massive Open Online Courses (MOOCs): These platforms provide extensive learning opportunities for everyone, and promote lifelong learning.

Educational institutions must adopt strategies for the development of e-learning in higher

education, the most important of which are:

- Digital Infrastructure Development: Providing high-speed internet networks and modern equipment.
- Faculty Training: Empowering professors with digital instructional design skills.
- Adopt Learning Management Systems (LMS): such as Moodle or Blackboard to manage content and track student progress.
- Integrate active learning methods: such as collaborative projects, virtualization, and problem-based learning.
- Intelligent Assessment: Using Educational Analytics and Artificial Intelligence to Develop More Accurate and Flexible Assessment Mechanisms

5. The Future of Higher Education in the Digital Age with Reference to the Case of Algeria

Higher education is moving at an accelerated pace towards a model of smart universities that rely on big data analytics and artificial intelligence technologies to support academic and administrative decision-making, from optimizing curriculum design, to customizing learning pathways for students, to predicting success rates and potential challenges before they happen. At the same time, the sector is witnessing a significant expansion of cross-border education across virtual universities, and dual degree programs that allow students to learn from multiple international institutions without having to commute geographically, creating a more diverse and open global learning environment. Lifelong learning is also emerging as one of the core components of the future of higher education, as individuals need to constantly update their skills and knowledge to keep pace with the rapid changes in the labor market, which is pushing universities to design flexible and short-term educational programs that respond to the renewed needs of society and the economy.

Higher education in Algeria has witnessed a major shift towards e-learning in the digital age, especially after the COVID-19 pandemic, where the adoption of digital technology has become a necessity rather than an option. Studies have highlighted the urgent need for comprehensive training programs to qualify university professors to use e-learning technologies effectively, while emphasizing the role of university administrations in providing the necessary infrastructure and support for the success of these initiatives (Aouissi, 2024; Sana, 2024). Despite the efforts made, there are still challenges related to the weakness of unified planning, multi-platforming, and the absence of a clear information policy, which has led to disparities in the application of e-learning among Algerian universities (Salaa et al., 2020; Chaouki & Ramdane, 2015; Hammad et al., 2020).

Among the recent strategies, the Moodle platform has emerged as a key tool in digital transformation, providing an interactive learning environment and supporting communication between professors and students, but its use requires ongoing awareness and training (Sana, 2024). The research also showed the importance of strengthening cooperation between Algerian, Arab and international universities to exchange experiences and develop joint scientific research electronically (Salaa et al., 2020; Hammad et al., 2020). On the other hand, some researchers have pointed out the need to orient students towards "digital austerity" to reduce the distraction caused by social media during distance learning (Sarnou, 2021). Other studies have confirmed that students often use the same traditional learning strategies in e-learning, which necessitates the development and adaptation of new strategies that are appropriate to the digital environment (Ziani, 2022; Bouguebs, 2024). Overall, the success of higher education in

Algeria's digital age requires policy reconsideration, investment in infrastructure and training, and the promotion of an e-learning culture among all stakeholders.

6. Conclusion

It has become clear that higher education in the digital age is at a critical crossroads, as traditional models of teaching are no longer able to meet the demands of the new reality imposed by the technological revolution. The transition to e-learning is no longer an emergency option or a temporary solution, but rather a profound strategic shift that requires a comprehensive restructuring of the philosophy and tools of education, ensuring that the enormous potential of technology is harnessed to improve the quality of learning, expand access opportunities, and promote academic innovation.

This study showed that successful e-learning strategies depend on the integration of three main elements: a sophisticated digital infrastructure, human competencies capable of effective instructional design, and intelligent assessment systems capable of accurately measuring educational impact. The future of higher education is also moving towards greater openness and globalization through smart universities, cross-border education programs, and the adoption of the concept of lifelong learning as a key path to enable individuals to continuously adapt to the changes of the labor market. Universities are now required to develop clear policies to sustainably embrace digital transformation, ensuring equitable access to digital resources, protecting privacy and data security, and developing innovative learning curricula that take into account the diversity of learning styles. E-learning is not just a response to current challenges, but a long-term investment in human capital, aimed at preparing a generation capable of critical thinking, creativity, and adaptation to a dynamic global environment governed by knowledge and technology.

References

Anthonysamy, L., Koo, A., & Hew, S. (2020). Self-regulated learning strategies in higher education: Fostering digital literacy for sustainable lifelong learning. *Education and Information Technologies, 25*, 2393-2414. https://doi.org/10.1007/s10639-020-10201-8

Aouissi, K. (2024). E-learning Realities and Challenges – A Case of Ghardaia University in Algeria. *Filosofija. Sociologija. 35*(2), 227-236. https://doi.org/10.6001/fil-soc.2024.35.2.9

Bouguebs, R. (2024). Implementing Flipped Learning Pedagogy in Algerian Higher Education: From a recommendation to a necessity. *Traduction Et Langues, 23*(1), 256-276. https://doi.org/10.52919/translang.v23i1.982

Carabregu-Vokshi, M., Ogruk-Maz, G., Yıldırım, S., Dedaj, B., & Zeqiri, A. (2023). 21st century digital skills of higher education students during Covid-19 - is it possible to enhance digital skills of higher education students through E-Learning?. *Educ. Inf. Technol, 29*, 103-137. https://doi.org/10.1007/s10639-023-12232-3

Hoadjli, A. C., & Mehiri, R. (2015). The integration of e-learning in the Algerian tertiary level: The case of Biskra University. *Traduction Et Langues, 14*(1), 36-48. https://doi.org/10.52919/translang.v14i1.778

Digitization And Higher Education In Algeria. (2023). *Proceeding Book of 2nd International Conference on Recent Academic Studies ICRAS 2023*. https://doi.org/10.59287/as-proceedings.34

Erarslan, A.,&Şeker, M. (2021). Investigating e-learning motivational strategies of higher education learners against online distractors. *Online Learning, 25*(2), 262-279. https://doi.org/10.24059/olj.v25i2.2252

Ghemawat, P. (2017). Strategies for Higher Education in the Digital Age. *California Management Review, 59*(4), 56-78. https://doi.org/10.1177/0008125617717706

Guri-Rosenblit, S. (2018). E-Teaching in Higher Education: An Essential Prerequisite for E-Learning. *Journal of New Approaches in Educational Research, 7*, 93-97. https://doi.org/10.7821/naer.2018.7.298

Hammad, F., Wassila, B., & Yahya, F. (2020). E-learning in Algeria: between achievement and prospects. *Journal of Distance Learning and Open Learning*, *8*(15), 93-127. https://doi.org/10.21608/jdlol.2020.112966

Shard, K, D., & Koul, S. (2024). Digital transformation in higher education: A comprehensive review of e-learning adoption. *Human Systems Management*, *43*(4), 433-454. https://doi.org/10.3233/hsm-230190

Manian, C. (2020). Designing E-Learning Environments in Higher Education to Match Technological Trends. In B. Adekunle, H. Alharahsheh, & A. Pius (Eds.), *Trends and Issues in International Planning for Businesses* (pp. 152-166). IGI Global Scientific Publishing. https://doi.org/10.4018/978-1-7998-2547-0.ch008

Sain, Z., Baskara, R., & Lama, A. (2024). Rethinking Pedagogy in the Digital Age: Analyzing the Effectiveness of E-Learning Strategies in Higher Education. *Journal of Information Systems and Technology Research, 3*(1), 30-37. https://doi.org/10.55537/jistr.v3i1.772

Salaa, S., Bibi, W., & Hakim, N. (2020). E-learning as a mechanism for developing higher education in Algeria. *Journal of Distance Learning and Open Learning, 8*(15), 63-91. https://doi.org/10.21608/jdlol.2020.112956

Sana, B. (2024). Moodle Platform and Digital Transformation. Full Text Book of Rimar Congress10. https://doi.org/10.47832/rimarcongress10-1

Sarnou, D. (2021). Exploring the Necessity for Students to Exercise Digital Minimalism While Studying Online: Case of 35 Master Students at the Department of English of Abdelhamid Ibn Badis University, Algeria. *Journal of Language Teaching and Research, 12*(3), 370-376. https://doi.org/10.17507/jltr.1203.06

Singh, R., Singh, S., & Mishra, N. (2024). Influence of e-learning on the students of higher education in the digital era: A systematic literature review. *Educ. Inf. Technol., 29*, 20201-20221. https://doi.org/10.1007/s10639-024-12604-3

Ziani, M. (2022). Raising Algerian Master's Students' Self-awareness towards Using Learning Strategies during Online Classes at Abdelhamid Ibn Badis University of Mostaganem. *Arab World English Journal, Special Issue on CALL*, *8*, 166-176. https://dx.doi.org/10.24093/awej/call8.11