

The Reality of Higher Education in Algeria in the Digital Age

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Introduction:

In light of the rapid technological advancements and digital transformations that are shaping various aspects of life, the world today is living in what is known as the digital age. This era witnesses significant changes in how interaction, communication, and information retrieval occur, and its impact on higher education cannot be denied. The digital age has profoundly altered the approach to education and its practice, offering opportunities to develop teaching and learning methods and expanding access to knowledge.

Globally, higher education is undergoing a fundamental transformation driven by technology and digital shifts. Many universities and educational institutions rely on technology and digital platforms to deliver educational content, facilitate communication and collaboration between students and professors, and provide students easy and flexible access to educational resources. It is important to shed light on the impact of these global shifts on the reality of higher education in Algeria.

Regarding Algeria, the higher education system faces significant challenges in keeping up with technological advancements and adapting to the digital age. These challenges encompass the lack of technological infrastructure, the need to train academic staff in using technology, and the development of educational strategies that align with modern digital requirements. Therefore, it is essential to analyse and discuss the reality of higher education in Algeria and identify potential opportunities and challenges in the digital age.

From this standpoint, this discourse will focus on exploring and analysing the reality of higher education in Algeria in the context of digital transformations, its challenges, and opportunities. We will discuss global technological transformations and their general impact on higher education, then transition to the situation of higher education in Algeria and the challenges the educational system faces in adopting modern techniques. Additionally, we will delve into the opportunities presented by the digital age to enhance higher education in the country.

By analysing the state of higher education in Algeria, discussing potential challenges and opportunities in the digital age, we aim to provide recommendations and future steps to enhance the use of

technology in higher education in Algeria. This includes improving infrastructure, training professors in modern techniques, promoting distance learning opportunities, and enhancing virtual communication and collaboration between students and professors.

First: Technological Transformations and Their Impact on Higher Education

1-The Digital Age and the Necessity of E-Learning in Algeria:

In the digital age, higher education has undergone a significant transformation in its approach and practice. To understand the impact of technology, we can look at some figures and statistics related to various universities in Algeria¹.

The establishment and activation of remote learning platforms in Algerian universities were not just an option; they became a necessity driven by social circumstances, particularly health conditions. This was due to the spread of the COVID-19 pandemic, leading to the closure of institutions, including universities, and enforcing quarantine measures. In this context, the continuation of education through remote learning using distance education platforms became essential.

In accordance with Ministerial Correspondence No. 288 dated February 29, 2020, lessons, guided exercises, and practical assignments were prepared and posted on the Moodle platform. This ensured that they were ready for download and accessible to students for reference. Moodle is an open-source learning management system that helps educators create a digital learning environment. It can be used at an individual or institutional level, providing interactive online services that grant learners access to information, tools, and resources to facilitate and manage online learning. It serves as the virtual environment for learning, being a free and widely utilized platform².

¹ Aidi Jamal, Digitization and its Organizational Implications in the Algerian University, *Journal of Economic Studies*, 16 (1), 558–574, 2022, pp 564-565.

² Soualemiya Nourieh, University Professor and Distance Learning Platforms (Algerian University as a Model), *Al-Ressala Journal for Human Studies and Research*, 7 (3), 169–178, 2022, p 172.

During the COVID-19 pandemic, the Ministry of Higher Education and Scientific Research utilized remote learning mechanisms and invested significant resources to ensure the success of the educational process. To offer access to lectures and research across all scientific disciplines and guarantee the minimum completion of academic terms, the ministry activated various electronic platforms such as ASJP, SNDL, and OPU. In the same context, the higher education sector collaborated with the Ministry of Transport to explore the possibility of providing university transportation via railways.³

2-Utilizing Technology and E-Learning Methods:

The application of technology in higher education in Algeria contributes to improving quality and expanding access to education. Here are some methods for leveraging technology in universities:

Remote learning technologies represent a revolution in the realm of education. Learning through email communication proves to be an effective means of rapid message exchange and sharing of web-based documents. It guarantees information dissemination, is cost-effective, easy to use, and is used to update teaching materials in classrooms, making it accessible to students. Online learning, information networks, and social media platforms are among the key technologies of the 20th century. They offer diverse resources like e-books, journals, databases, and educational websites. These technologies facilitate direct audio and video communication through virtual conferences and text messaging.⁴

Educational video learning is an effective method that combines computers and videos to present high-quality visual effects. This allows learners to interact, acquire information, and develop skills according to their personal needs and cognitive abilities. Unlike multimedia, video learning showcases segmented video shots, each on an independent

³ Zouari Ahmed Khalifa & Menassar Nadia, The Algerian Experience in E-learning, Distance Education, and Mechanisms for Quality Assurance of Higher Education in Light of the Corona Pandemic, *Al-Murshid Magazine*, 11 (2), 323–338, 2021, pp 326-327.

⁴ Ben Harzallah Murad, E-learning at the Algerian University, Reality and Challenges, *Journal of Distance Education and Open Education: A peer-reviewed scientific journal*, 9 (16), 73–91, 2021, p 87.

screen. It encourages self-directed learning by providing opportunities for interaction.⁵

E-learning methods encompass various options such as live or recorded streaming, CDs, audio and visual applications for visual and auditory learning, and written texts for textual learning. These methods include interactive websites that engage with educational systems and teaching methods. Modern platforms like WhatsApp, Google Meet, YouTube, Zoom, and other online educational websites support laptops, smartphones, and their various applications. These tools facilitate efficient and rapid communication between teachers and students.⁶

secondly: The Reality of Higher Education in Algeria:

1- Challenges Faced by the Educational System in Algeria in Adapting to Modern Technologies:

In the era of digitization, the educational system in Algeria faces several challenges in adapting to modern technologies. Here are some examples and statistics that illustrate the state of higher education in Algeria:⁷

- According to a report from the Arab Organization for Education, Culture and Science, Algeria encounters technological challenges related to providing the necessary infrastructure for information and communication technologies in universities. Statistics indicate that the percentage of Algerian universities equipped with state-of-the-art computer labs is limited.

⁵ Shala Ibrahim & Bouchikhi Ali, Strategies for the success of e-learning and their role in raising the effectiveness of job performance in Algerian universities in light of the outbreak of the Covid-19 crisis, *Journal of Law and Human Sciences*, 15 (1), 165–186, 2022, p 172.

⁶ Ben Yato Houria, Didactics of Distance Education in Algerian Higher Education, University of Relizane as a Model. *Linguistics and Translation*, 2(3), 104–121, 2022, pp 106-107

⁷ Zinat Asmaa, The reality of distance e-learning in Algerian university institutions between the imperative of orientation and the challenges of reality, *Al-Adawi Journal of Customary Linguistics and Teaching Languages*, 2 (2), 56–67, 2022, pp 36-64.

- Furthermore, challenges exist in providing the necessary training for academic staff to effectively utilize modern technologies in teaching and learning. A report from the International Association of Universities emphasizes the urgent need to develop training programs and workshops to equip faculty members to work efficiently with modern technologies.
- Statistics reveal challenges in providing high-speed internet connectivity in Algerian universities, which affects the feasibility of distance education and access to online educational resources. A report from the Arab Telecommunications Union highlights that the percentage of high-speed internet connectivity in Algeria is comparatively low according to international standards.
- Difficulties in managing Algerian university websites and the absence of suitable systems and regulations on electronic platforms.
- The presence of a segment of students who lack access to the internet and computers.

These challenges underscore the need for Algeria's educational system to address infrastructure limitations, faculty training, and digital accessibility issues in order to effectively harness the potential of modern technologies in higher education.⁸

2-Potential Issues such as Technological Infrastructure Deficiency and Faculty Training:

- **Technological Infrastructure Deficiency:** Algerian universities suffer from a lack of the necessary technological infrastructure to support higher education in the digital age. This infrastructure encompasses wireless networks, computer hardware, equipped laboratories, virtual platforms, and other necessary technological tools and facilities to provide a modern and advanced educational experience.
- **Faculty Training:** The educational system in Algeria faces challenges in training academic staff to use modern

⁸ Zinat Asmaa, The previous reference, pp 63-64.

technologies and information and communication technology. Equipping faculty members to utilize technology in teaching and learning is an essential component of enhancing the quality of higher education in Algeria.⁹

Despite these challenges and potential issues, there are significant opportunities to enhance higher education in Algeria by investing in technology, developing technological infrastructure, and providing faculty training in the use of modern technologies.

Third: Opportunities Provided by the Digital Age for Higher Education in Algeria:

1-Online and Self-Learning Opportunities using Digital Platforms:

The digital age presents extensive opportunities for higher education in Algeria to develop remote learning systems and enhance self-learning through digital platforms. Utilizing modern technology, universities can offer online courses, enroll students, provide study materials, recorded lectures, exercises, and online assessments. This allows students to learn according to their own schedules and personal preferences, increasing the flexibility of the educational system.

New information and communication technologies have become crucial in modifying educational systems adopted by universities worldwide. As a result, some universities have begun to provide electronic and remote education and training opportunities in various fields, using advanced information and communication technologies that facilitate delivering course content and interaction between professors and students in organizing and grading assessments. This empowers students to ask questions and receive direct answers from professors.

Digital libraries can play a significant role in this area by providing information about universities, higher education and training

⁹ Shala Ibrahim & Bouchikhi Ali, The previous reference, p 175.

institutions that offer remote education, available specializations, and granted certificates.¹⁰

Distance learning offers greater opportunities for learning and helps overcome various barriers that might hinder individuals from accessing appropriate education, such as limitations of time, place, social, economic, and political circumstances. This type of education relies on the flexibility of its methods and curriculum and emphasizes the learner's self-reliance and individuality, making it suitable for a wide range of individuals in society, including women, seniors, working individuals, and others. They find in this model a safe haven to achieve their dreams of studying and learning.¹¹

2-Enhancing Communication and Collaboration between Students and Professors using Social Media and Virtual Platforms:

Technology in the digital age provides effective means to enhance communication and collaboration between students and professors in Algeria. By utilizing social media platforms such as email, online forums, and instant messaging applications, students can easily communicate with their professors and receive assistance and guidance in a timely manner.

For example, virtual learning platforms can be used to create discussion forums and virtual study groups, where students can discuss study topics and exchange knowledge and opinions. Professors can also use these platforms to share additional materials and engage in interactive discussions with students.¹²

According to a study conducted at the University of Algeria 2, 80% of students regularly use social media. This growing interest in social media can be harnessed to enhance communication and collaboration between students and professors in the context of higher education. Remote education contributes to the exchange of

¹⁰ Zangoufi Fawzia, Challenges of the University and Scientific Research - Training in the Digital Age, International Forum "The University and Openness to the External Environment, Expectations and Stakes", 2018, p 19.

¹¹ Laslaj Nawal, The future of distance education in Algerian universities after the Corona pandemic. *Revue Algérienne des Sciences Juridiques et Politiques*, 59(1), 166–205, 2022, p 174.

¹² Aidi Jamal, The previous reference, p 567.

experiences, knowledge, opinions, and experiences among learners by providing communication channels through specific websites that gather them in virtual rooms, regardless of the distances separating them. Remote education also contributes to the development of critical thinking and enriches the learning process at any time and place, according to the learner's comprehension abilities. It enhances the effectiveness of teachers and increases their expertise in preparing educational materials. It also helps students achieve independence and motivates them to rely on themselves.¹³

3- Preparing Academic Staff for Effective Technology Use:

According to statistics from the Ministry of Higher Education and Scientific Research, more than 5,000 faculty members in Algerian universities have been trained to use technology in the educational process, indicating increased efforts to qualify academic staff.

According to a UNESCO report, the percentage of Algerian professors using technology in teaching has risen to 72%, compared to 40% in 2015.¹⁴

These examples and statistics reflect the efforts made in Algeria to capitalize on the opportunities presented by the digital age in higher education and improve the quality of education and student access.

4-Recommendations and Future Steps:

Integration of Technology in Algerian Higher Education: The Algerian government should lead efforts to promote the integration of technology in higher education and encourage universities and educational institutions to adopt modern technological tools and platforms.

Improvement of Infrastructure and Provision of Necessary Technological Resources: Adequate technological infrastructure, including stable and high-speed internet connectivity, modern

¹³ Soualemiya Nourieh, The previous reference, pp 170-171.

¹⁴ Mansouri Hawari, the problem of ensuring the quality of higher education in the light of e-learning, *Journal of Management and Organizations Strategy*, 3(1), 48–59, 2021, p 56.

classroom equipment, and advanced technological systems, should be provided in Algerian universities.

Training Professors in Modern Technologies: Training programs and workshops should be provided for faculty members to enhance their skills in using technology for teaching and engage them with modern technological tools.

Expansion of Remote Learning Opportunities and Virtual Collaboration: Remote learning should be enhanced, and digital platforms should be provided to enable students to access course materials and educational resources online.

Communication and collaboration between students and professors can be fostered through the use of social media platforms and virtual spaces for knowledge exchange and academic participation.

Encouragement of Research and Innovation in Educational Technology: Research and innovation in educational technology should be supported through funding and resources for researchers and innovators in the field.

Collaboration with International Institutions and Tech Companies: Collaboration and partnerships with international institutions and tech companies specialized in higher education can contribute to the provision of modern equipment, technologies, specialized training, and support.

By implementing these recommendations and future steps, higher education in Algeria can be enhanced, making full use of the opportunities presented by the digital age to improve education quality and expand student access.

Conclusion:

In conclusion, our discussion underscores the significance of the digital technology revolution in Algerian higher education. These transformations represent pivotal opportunities to enhance the quality of education and broaden student access. However, we have also recognized the challenges that require earnest addressing, such as the deficiency in technological infrastructure and the imperative for faculty training.

For this reason, we strongly recommend the full integration of technology into higher education in Algeria, along with the provision of necessary technological resources and infrastructure enhancement. Equally important is the establishment of equitable opportunities for remote learning and the promotion of virtual communication and collaboration between students and educators.

Furthermore, emphasis must be placed on adequately training faculty members in utilizing modern technologies and fostering research and innovation in educational technology. Collaborations with international institutions and technology companies can play a pivotal role in bolstering these efforts and providing essential support.

By implementing these recommendations and future steps, tangible improvements can be achieved in Algerian higher education, offering equal educational opportunities for all to access high-quality learning and develop skills to confront future challenges.

Ultimately, the adoption of technology in Algerian higher education stands as a foundational step toward building a knowledge society and achieving progress and prosperity. We hope that this vision will be realized through collaborative efforts and shared commitment from all within the educational and technological communities.

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