The Role of the Algerian legislature in Improving the Quality of Higher Education Through E-learning

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Abstract:

This article addresses the role of the Algerian legislator in improving the issue of the quality of higher education as influenced by e learning, particularly given that the latter has become one of the fundamental requirements for keeping pace with the digital revolution and global developments. To achieve this, university institutions must adopt an educational system different from the traditional model, one that is not constrained by temporal or spatial boundaries.

The primary objective of this article is to shed light on a new educational approach that emphasizes the integration of information and communication technologies with the elements of the educational process. This system achieved considerable success in Algerian universities during the COVID 19 pandemic. However, it also encountered numerous obstacles and constraints, including unstable internet connectivity, which constitutes the fundamental basis for the success of this mode of education.

Keywords*: E-learning; teacher; learner; educational material; virtual university.*

Introduction:

Our contemporary era has witnessed remarkable development in the field of information and communication technology across countries worldwide through its integration into various sectors at all levels, including the higher education sector. This has led to a qualitative shift in education, particularly following the emergence of the COVID-19 pandemic. This shift involved moving away from classical education, which relied on the instructor as the focus for delivering knowledge and transmitting information, and replacing it with distance education that primarily depends on the student's own effort.

E-learning is considered one of the most important forms of distance education. The latter has evolved from a relatively marginal method used by only a limited number of universities into a necessary approach adopted by various universities, including Algerian universities. These institutions

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have attempted to implement this form of education by establishing national committees dedicated to defining new models for the educational process that differ from previous ones, thereby providing the largest possible number of learners with diverse knowledge regardless of their circumstances. However, despite the gains of this educational system and the efforts made by the state to promote university-level e-learning, it faces numerous challenges that limit its effectiveness and hinder the achievement of its intended objectives due to weaknesses in its infrastructure. Accordingly, the following research problem is raised: To what extent is e-learning effective in Algerian universities?

To address this problem, the descriptive methodological approach was adopted in order to examine this new educational system by defining the concept of e-learning and its types, identifying the requirements for its implementation, discussing the main obstacles it faces in practice, and finally addressing the applications of Algerian universities in the field of e-learning.

The First Topic: The Concept of E-Learning

This topic is considered one of the requirements of the contemporary era, which seeks to improve the quality of education and keep pace with the age of knowledge. It provides the student with a learning mode entirely different from the traditional pattern whose foundation lies in the interaction between teacher and learner, thereby equipping the learner with various forms of knowledge and skills through other methods related to the Internet. This will be addressed by first defining e-learning, second examining its characteristics, and third identifying its types.

The First Requirement: Definition of E-Learning

Scholars have differed in determining a comprehensive definition of e-learning, as each scholar has focused on a particular aspect of this term, as follows:

"This educational style employs contemporary communication technologies, including computers, networks, multimedia resources such as images and graphics, search tools, electronic libraries, and Internet portals, whether administered remotely or in a classroom setting. The fundamental aspect is the utilisation of technology in many forms to transmit information to the student efficiently, with minimal effort, and maximal advantage.[1]" This definition indicates that e-learning is characterised as an educational technique utilising contemporary means, irrespective of the learner's physical location, whether in a classroom or elsewhere.

"It is an electronic system that employs information technology and

computer networks to enhance and facilitate the educational process through various resources, including computers, the Internet, and electronic programs developed by either ministry professionals or firms.[2]" This definition considers e-learning as a system that primarily relies on the tools and devices through which information is delivered via various electronic programs.

Based on these definitions, it can be said that e-learning is a mechanism that allows the delivery of educational content to the learner without the need for physical movement, solely through the use of all modern communication means connected to the Internet, in line with contemporary technological development.

The Second Requirement: Characteristics of E-learning[3]

Based on the preceding definitions of e-learning, it is distinguished from other forms of education by a set of characteristics that may be summarized as follows:

- *Flexibility: This refers to the learner's freedom to receive instruction in terms of choosing the place, time, and pace of learning.[4] This is achieved through the facilities provided by e-learning technologies, thereby enabling the adaptation of information according to the student's academic, psychological, and personal capacities. Consequently, it contributes to and enhances learner autonomy in comparison with traditional education.[5]*
- *Interactivity: E-learning provides an interactive environment between teacher and learner, as it does not eliminate the role of the teacher but rather employs technology to diversify interaction methods, such as electronic whiteboards and group lessons delivered through MOOC platforms. On the one hand, this allows for varied modes of engagement, and on the other hand, it enables the teacher to conduct immediate assessment of the learner's responsiveness to the subject matter under discussion through questions or questionnaires. This, in turn, adds an element of enjoyment to the learning process because of using multiple methods, unlike traditional education which relies on teacher-cantered lecturing and learner listening.[6]*
- *Immediacy: This refers to the direct transmission of information to the learner via the Internet without the need for physical movement, using electronic media such as email, computers, and digital videos, thereby ensuring rapid access to information.*
- *Learner-centeredness: The primary focus of e-learning is the learner, who has complete freedom to choose how to receive information according to individual academic ability. However, this does not imply*

the complete elimination of the teacher, since the teacher defines the objectives and boundaries of the educational process based on learner needs, thereby reducing the teacher's burden in comparison with traditional education.[7]

- *Increased educational opportunities: Due to the importance of qualifications in social life, there has been a search for new methods that exploit information and communication technologies to acquire educational content, regardless of the learner's age, gender, or health and social conditions, which previously constituted major barriers to education. Thus, e-learning contributes to expanding educational opportunities and, consequently, to raising societal awareness, in addition to indirectly supporting economic development and the establishment of development programs.*[8]
- *Lower cost: E-learning offers another advantage to learners by reducing educational expenses compared with traditional education, as it primarily relies on the Internet, compact discs, and recorded videos. This spares learners the hardship of travel and the purchase of books and references.*[9]

Finally, it can be said that e-learning has strongly established itself through the importance of these characteristics in comparison with traditional education.

The Third Requirement: Types of E Learning

The types of e-learning have varied from one jurist to another, due to the absence of a unified and comprehensive definition of e learning. Each jurist has classified e-learning according to the adopted criterion. Some relied on the synchronization criterion, which in turn divided it into three types. Another group of scholars relied on the criterion of the extent of technology use, which divided it into two types. A further classification relied on the criterion of general categorizations. This will be clarified as follows:

First section: E-Learning According to the Synchronization Criterion

Scholars adopting this criterion divide e-learning into three types. This criterion is more widespread compared to the other two criteria, and it is represented as follows:

- *Synchronous e learning: This refers to learning that brings together the teacher and the learner at the same time, or learners among themselves, through a computer connected to the internet, whereby information is delivered directly through text or audio while they are assembled. One of the advantages of this type is that the learner receives immediate academic feedback. However, this type can only be*

achieved with the availability of an internet network and communication devices.

- *Asynchronous e learning: This refers to learning that brings together the teacher and the learner through asynchronous electronic communication media such as digital videos and email. The teacher initiates by uploading the academic material, enabling the learner to log in later and review it. Consequently, it does not require the presence of the teacher and learner at the same time as in the previous type.*
- *Blended learning: This refers to learning that combines the two previous forms, namely traditional learning based on face-to-face interaction between teacher and learner, with the use of certain tools such as electronic support systems.*[10]

Accordingly, this type can be considered among the best forms in the educational process due to its reliance on the advantages of both traditional and modern learning.

Second Section: E-Learning According to the Criterion of the Degree of Technology Use

Scholars adopting this criterion divide e-learning into two types:

- *Partial e-learning: This is learning that follows traditional education for a specified portion of instructional time while making use of modern e learning. However, it is observed that partial e learning is approximately the same as blended learning. Therefore, it can be concluded that the latter is agreed upon by both types.*
- *Full e-learning: This type relies entirely on e-learning systems in delivering educational content. One of the advantages of this type is that it facilitates the learner's acquisition of knowledge and consequently improves the quality of the educational process. At the same time, the level of knowledge acquisition varies from one learner to another according to individual effort.*[11]

Third Section: General Classifications of E-learning

Another perspective in the literature holds that e-learning is classified into five types:

- *Learner-directed e-learning: This type of education relies on enhancing the teacher's capabilities to achieve high-quality learning, thereby preparing a specialized experience for each teacher using various media and interactive applications.*
- *Facilitated e-learning: This form of education relies entirely on internet technologies, particularly forums and email. Its purpose is to manage the learning process, but it cannot organize a complete lesson or providing a teacher with whom communication can occur when*

needed.

- *Knowledge-directed e-learning: This educational approach relies on the instructor's role in delivering the instructional unit to the student in a virtual environment utilizing contemporary communication technology such as videos, conferences, and analogous tools.*
- *Embedded e-learning: This type of education is delivered on demand and is integrated within a program. An example is the Windows operating system, which contains a help assistant that provides answers to any question posed by any user. It can therefore be considered a program designed to solve the problems presented to it.*
- *E-training: This mode plays a significant role in guiding the learner using communication technologies such as internet-based telephony.*[12]

Finally, after addressing the various types of e-learning according to classifications found in the literature, it can be concluded that the most appropriate classification is the one based on the criterion of synchronicity due to its clarity and wider prevalence compared to others. Nevertheless, the different types were discussed to provide an overview of other classifications despite their ambiguity and limited use.

The second topic:
Requirements for Activating E-learning to Enhance the Quality of Higher Education

E-learning is considered one of the modern approaches to achieving quality[13] *in higher education at the present time compared with traditional education, which depends on the instructor's effort and the student's physical attendance. However, achieving this objective requires the provision of a fundamental foundation consisting of a set of requirements related to the educational process, the teacher, the learner, and administrative staff. E-learning is not merely the transfer of information from a paper-based source to an electronic format. Rather, it involves the integration of a set of requirements, which will be presented as follows:*

The First Requirement: Requirements for Activating E-Learning Related to the Learner[14]

The learner is considered the core of the educational process, and for e-learning to contribute to improving the quality of higher education, the learner must abandon the idea of traditional education. Encouraging and training students to express their opinions and participate in the educational process in the same way as the teacher. Exercising as much control as possible over information and communication technology requirements and possessing, to the greatest extent possible, familiarity with the computer, its accessories, and Internet services in order to obtain important information that plays a role in

developing intelligence and academic skills.

Considering sufficient time when acquiring information, as the learner here seeks to obtain educational content independently, given that the learner will become a fundamental element in the process after previously being merely a receiver of information.

An important point that the learner must adopt is adherence to the ethics of using technology.

Accordingly, it can be said that although most learners Favor this type of education, it does not necessarily lead, in all cases, to the quality of higher education due to differences in learners' individual abilities.

The Second Requirement: Requirements for Activating E-Learning Related to the Teacher[15]

There is no doubt that adopting e-learning in the modern era helps learners enrol in universities by providing an appropriate environment for students, through their control over time and information in accordance with their academic and psychological abilities, thereby achieving the quality of higher education. However, this does not mean dispensing with the teacher, as the latter retains importance in the educational process, although this importance has somewhat diminished compared to traditional education.

Accordingly, the teacher must possess a set of requirements, including the following:

- *The teacher must be aware of the importance of using information technology and therefore must demonstrate a higher level of proficiency in Internet technologies than their students.*
- *Subjecting the teacher to repeated training courses to improve and develop skills, especially when using new patterns, to keep pace with technological and scientific developments.*
- *Considering the content of the curriculum and its suitability for the Internet environment when determining educational objectives.*
- *Diversifying e-learning media when delivering educational content, whether synchronous or asynchronous, such as text, audio, digital videos, discs, email, forums, private chat rooms, and others.*
- *Designing various individual tests for students with the aim of evaluating and classifying them according to their level.*

Continuous follow up of students, responding to their inquiries, and guiding them, through regular monitoring of the computer.

The Third Requirement: Requirements for Activating E-learning Related to Instructional Content

Given that modern education is fundamentally based on delivering

instructional content through electronic means, the instructional material itself requires a set of requirements that may be summarized as follows:

- *Creating a virtual learning environment by presenting objects in a three-dimensional format.*
- *The necessity of integrating multiple electronic media when presenting instructional content so that the approach becomes more interactive compared with the traditional method.*
- *Defining the essential components of instructional content as follows: preparing a main index for the course units, identifying subtopics for each unit, presenting lessons, attaching lessons to supporting electronic tools such as videos and images, and always making course materials available on the Internet.*[16]

The Fourth Requirement: Requirements for Activating E-learning Related to Administrators

The human element that contributes to the success of e-learning does not include the teacher alone but also encompasses the administrative staff. Accordingly, the latter must meet a set of requirements, which may be outlined as follows:

- *The first step undertaken by the administrative staff is registering students and granting them individual electronic accounts.*
- *Organizing learning materials.*
- *Establishing schedules for courses.*
- *To provide immediate feedback from the teacher and facilitate interaction, the administrative staff should divide learners into small groups.*[17]

Finally, it can be stated that the success of any educational process,[18] *including e-learning, and the attainment of a high level of educational service, as well as the achievement of quality in higher education, depend on the combined fulfilment of a set of requirements related to the learner, the teacher, the instructional content, and the administrative staff, each with equal importance.*

The Third Topic:
Obstacles to Electronic Activation and Their Impact on the Quality of Higher Education

Despite the role of information and communication technology in improving university quality through the activation of e-learning, the latter has faced numerous challenges and obstacles that may be classified as follows:

- *Financial obstacles: The financial aspect represents the most significant barrier to e-learning, particularly in developing countries,*

including Algeria, due to the absence of infrastructure for various programs, devices, and high-speed communication networks across national universities. This requires substantial financial allocations,[19] constituting an additional burden that the state must periodically dedicate to the sector.

- *Technical obstacles[20]: Since e-learning is fundamentally based on two essential elements, namely the availability of reliable Internet access and proficiency in using modern technologies, the reality shows frequent interruptions of Internet service, especially in remote provinces. This is partly attributed to the monopoly of service provision by a single operator, Algeria Telecom. In addition, there is a lack of electronic competencies and skills among teachers, learners, and administrative staff alike.*
- *Linguistic barriers[21]: Since most publications on electronic websites are written in English, effective use of the content of these websites requires proficiency in the English language. Given that Algeria is an Arabic speaking country, few participants in the educational process master this language. Consequently, this becomes an obstacle to e-learning in universities.*
- *Barriers related to recognition of qualifications: Another obstacle to e-learning at the university level is the lack of recognition by certain administrative bodies of degrees awarded by electronic universities. An example is the statement of the Minister of Justice rejecting the recognition and admission of learners holding degrees from the University of Continuing Education in Algeria, particularly in the field of law, into the judiciary and the legal profession.[22] This leads to the conclusion that society views e-learning as inferior compared to traditional education.*
- *Barriers related to accuracy and reliability: The internet contains a vast amount of information across various websites, some of which is accurate and some erroneous due to the presence of suspicious sites. However, it is observed that most learners assume the validity of such information, which undermines the quality of e-learning. Therefore, they must carefully verify the sources when using this academic material.[23]*
- *Barriers related to motivation: Since e-learning is learner cantered, the learner is primarily responsible for seeking and acquiring educational content, unlike traditional education which is based on direct interaction between teacher and learners. Consequently, it requires a diligent and patient learner who possesses intrinsic motivation for*

learning. This is rarely found, thereby constituting an obstacle to this form of education.

- *Barriers related to examinations: E-learning in universities is not limited to enrolment or the delivery of educational content but also includes examinations that allow learners to progress from one level to another. This creates a new obstacle to e-learning, as it is common for individuals more experienced than the learner to replace the learner in answering examination questions. As a result, in many cases the grades do not reflect the learner's true level.*

The Fourth Topic:

Applications of Algerian Universities in the Field of E-learning[24]

E-learning in universities represents an important topic, particularly in recent years, including in Algeria. Although Algeria is considered a developing country, it has long sought to adopt e-learning, given that this approach has increasingly imposed itself as a necessity.

A review to the Algerian legislator of the Ministry of Higher Education indicates that it adopted this mechanism gradually, in many legal texts beginning with attempts to digitize the sector through Law No. 99-05,[25] *which contains the framework law for higher education. This law considered that scientific and technical information within universities should rely on information and communication technologies. In this context, As well as Executive Decree 13/77 dated January 30, 2013, defining the powers of the Minister of Education and Scientific Research, Article 3 of which stipulates that among his Missions is to ensure the development and promotion of the use of information and communication technologies in management and education*

the National Committee for E-learning was established pursuant to Decision No. 201[26] *dated 9 April 2011, comprising experts and technicians in the field whose mission was to plan the implementation of e-learning.*

To operationalize this educational system, a national project was launched to realize the objectives of this mechanism through its division into three phases:

- *The first phase operates in the short term using technology and video lectures to accommodate the largest possible number of learners.*
- *The second phase operates in the medium term using modern pedagogical technologies, namely online learning, with the aim of improving the quality of education.*
- *The third phase operates in the long term, during which e-learning is formally adopted across all Algerian universities to attract the largest possible number of learners, whether those seeking to expand their*

knowledge or wishing to obtain specialized information.[27]

It can therefore be stated legislator has adopted e-learning in Algerian universities from 2006 to 2016 progressed very slowly. However, its most significant practical implementation occurred in 2020 because of the COVID-19 crisis. The Algerian government, in coordination with the Ministry of Higher Education, imposed a set of measures to preserve educational continuity under exceptional circumstances, despite the enforcement of health lockdowns[28] *and the suspension of in-person instruction at all levels.*

*In this regard, the Minister of Higher Education issued a memorandum Ministerial*288 [29]*, informing university administrators of an initiative involving the establishment of a platform that included electronic systems dedicated to delivering online courses, such as the Moodle platform. This initiative was effectively implemented, and the start of the 2020–2021 academic year was announced on 15 December 2020 through distance learning.*[30]

Despite the end of the health crisis, the Ministry of Higher Education maintained its commitment to this mode of education and further developed it, particularly during the tenure of Minister Kamel Baddari, with the aim of enabling Algerian universities to compete, to some extent, with universities in developed countries ، The latest ministerial decision issued in this regard is Resolution No. 613 dated May 5, 2026, amending Resolution No. 40 dated January 19, 2025, which includes the establishment of a national committee to accompany and follow up on higher education institutions' transition to a fourth-generation university .

Conclusion:

Based on the foregoing, it can be stated that the e-learning system is among the modern systems introduced in Algerian universities, yet it imposed itself forcefully because of the COVID-19 pandemic, although its initial signs existed before the pandemic to a limited extent. In order to achieve its objective, namely improving the quality of higher education and keeping pace with the age of knowledge, rather than merely transferring information from paper to electronic format, it is necessary to provide a fundamental foundation consisting of a set of requirements related to educational content, the teacher, and the learner. This contrasts with traditional education, which relies on the effort of the instructor and the presence of the student. Despite these advantages, e-learning cannot replace traditional education but rather complements it using educational process tools. On this basis, a set of findings is presented:

The adoption of the e-learning system by Algerian universities has

become an inevitable necessity that cannot be ignored, due to the predominance of the knowledge era worldwide.

The use of information and communication technologies constitutes one of the fundamental objectives upon which e-learning is based.

The educational process in e-learning is founded on a set of requirements, the most important of which are educational content, the teacher, and the learner.

The weakness of the infrastructure of university institutions represents one of the most significant obstacles facing e-learning. University digital education shifted from being merely an option to an inevitable necessity in the educational process during the COVID-19 pandemic.

Based on these findings, a set of recommendations can be inferred that the state should take into consideration to improve the quality of higher education:

- *The state should strive to improve the quality of Internet connectivity, given that it constitutes the primary means upon which this form of education depends.*
- *Organizing diverse training courses in information and communication technologies and educational software for both teachers and learners on a mandatory basis. Attempting to generalize e-learning across various higher education institutions.*
- *Issuing legal and regulatory texts to govern the implementation of e-learning within the higher education sector.*
- *Strengthening the digital infrastructure of university institutions.*

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