

Conceptual change between traditional and electronic terms of academic education - Analytical study -

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Abstract:

It appears to the educated observer in his scientific and practical life at the university and other places of learning, a clear transformation and change, especially in the uses of words, terms and expressions that have been agreed upon and diligent in conceptually and procedurally. All of this is a result of the technological inevitability affecting the academic and research reality. that's why researches and theses have become dominated by the style of technology and machine sciences in the exact and human sciences

According to this summary, we will try to link some academic terms to their realistic and practical connotations, such as the phrases: e-learning, educational platforms, smart educational programs and applications, technological mediator, virtual universities... and we will detail them for the purpose of clarification.

Keywords: e-education, traditional education, digital technology

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1. INTRODUCTION

The world is witnessing radical transformations whose features were drawn by the third industrial revolution, and it is on the verge of a fourth and fifth revolution that will change the structure of its various fields, and at all levels, whether political, economic or social....The outcome of these revolutions has been reflected in the aspects of intellectual, and educational life, and Because the era we are witnessing is characterized by the era of the population explosion and the high level of awareness of the importance of education being the basis of progress and urbanization and a necessary weapon to overcome various problems and social ills.

-And because we are heading towards a digital world par excellence, it has become necessary for our educational institutions to recalibrate and formulate their curricula and priorities, whether in terms of educational content or in terms of teaching methods

-And because we are heading towards a digital world par excellence, it has become necessary for our educational institutions to recalibrate and formulate their curricula and priorities, whether in terms of educational content or in terms of teaching methods and means.It has also become a duty to urgently search for new, innovative and more innovative methods to improve its competencies and break out of the pattern of traditional methods that it has followed for many years. It has become an urgent necessity to resort to digital resources



to integrate them into the education process Who is looking for an electronic version of it, which led to the emergence of many names, including e-learning, which brought the advantages of technological progress, development and prominence for Algerian universities, which is a necessary requirement for the continuity and performance of the educational message.

-E-learning, with reference to its theoretical background, we find that the term is not new, but rather dates back to years ago, as most universities and educational institutions used distance learning management systems, but what made these institutions adopt it recently and urgently is the epidemiological crisis that forced everyone to adhere to the quarantine, so e-learning was the alternative to the success of the university season, after which many similar terms, such as distance education, e-learning, virtual education, virtual universities, and other new terms that introduced a kind of flexibility and digitization to traditional practices and were an effective alternative to them.

2.1 The problem:

What are the most prominent changes that occurred in education as a term in the era of digitization?

-Included within this problem are a number of questions:

1- What are the essential differences between digital, electronic and virtual education?

2-What are the most important challenges facing e-learning during the Corona crisis?

3-What are the means used by the Algerian University to continue and complete the educational programs?

2.2 the importance of study:

This study derives its importance from the subject itself, at a time when all institutions with all their structures and all over the world were closed in an attempt to reduce and limit the spread of the epidemic in institutions and universities, so they adopted e-learning with all its means and techniques to open new horizons and open opportunities that would not have been applied without the epidemic crisis.

2.3 Objectives of the study:

-This study aims to shed light on the term e-learning and its importance today in light of the digital transformation of institutions.

-Highlighting the most important problems facing e-learning in universities

-Access to a clear and accurate term that describes e-learning and highlights the differences between it and traditional education and various similar terms.

2.4 Study methodology:

This study, according to its nature and specificity, as well as its theoretical background, relied on the following methodological

mechanisms:

-The historical method and this follows the stages of the emergence and spread of e-learning, as it was relied in this study on the description and analysis that are involved in the descriptive method, by extrapolating the various theoretical and applied literature published on this topic, and on the most important obstacles that encounter the application of e-learning in Algerian universities .

-We also benefited from the inductive approach, where we used it to extrapolate the reality of e-learning and its problems in Algerian universities, as well as the overlapping of its concepts to put specific and precise definitions of the term e-learning and the terms that flow into it, and to answer the problem at hand, the following elements were relied upon for the purpose of analysis:

-First: Theoretical description of e-learning.

-Second: the challenges of e-learning during crises.

-Third: e-learning and e-universities.

3. Theoretical description of e-learning:

3.1 Definition of e-learning:

It is an interactive environment that aims to use multiple applications via computer technologies and enables students to access learning resources at any time and from anywhere (Al-Awaïd and

Ahmed, 2003).

E-learning is also defined as a method of teaching using modern communication mechanisms, such as computers, networks, and various media, such as audio, images, and graphics, as well as search mechanisms, in addition to Internet portals, whether remotely or in the classroom. it uses all kinds technics to deliver information to the learner in the shortest and least amount of time, Effort and greatest benefit (Al-Anazi, 2011, page 96)

- In another definition of e-learning, it is defined as “a method of teaching using various mechanisms, means of communication, computer technology and its media, and various Internet platforms, in a manner characterized by continuity, transcending the boundaries of space and time, enabling the teacher to review it and learn from it remotely” (Mishra, 2007, p2) I also consider the term e-learning to be “providing electronic learning content via multimedia and via the computer as an intermediary between the content and the learner in a way that allows him to actively interact with the educational material, as well as to interact with colleagues in a synchronous or asynchronous manner that suits the learner’s circumstances and ability and enables him to manage the educational process electronically.” Through dedicated systems (Watanabe, 2005, p. 83).

3.1.1 Procedural definition of e-learning:

What we mean by e-learning in this study is education in which electronic educational media are used by the teacher and aimed at

providing educational materials, including the Internet, computer, e-mail and data show. That is, what is called blended education, which is a model in which direct education strategies are integrated into Traditional lecture halls with e-learning tools.

3.1.2 Historical milestones in e-learning:

The development brought about by technology has led to the emergence of many technological achievements that have been employed in serving the educational process, and benefiting from them in raising the efficiency of the educational process. The beginning of this type of education dates back to the seventies of the last century when some universities, colleges, and other educational institutions were able to launch their programs. “Educational and training via the Internet” The term “e-learning” appeared in circulation on a global scale with that major transformation in the mid-nineties of the last century, coinciding with the emergence of the Internet and satellites, with which information and communications technology spread.

This education aims to provide a scientific educational environment with diverse learning sources, according to the needs of the learners and their different skills, and contributes to re-maintaining the roles of the elements of the educational process (Al-Rubaie, 2021, page 36). During its development, e-learning has passed through many stages, and among these stages we stop at two important stages:

The first stage: (from 1993-2000 AD): which was embodied by the

emergence of the Internet, then the emergence of e-mail and electronic programs for displaying videos, which added a clear development to the multimedia environment.

The second phase: (from 2001 - onwards): Here the second and third generations of the Internet appeared, as websites became designed on the latest networks and were characterized by strong characteristics in terms of speed and content integration (Hashim, 2017, p.). 31).

3.1.3 E-learning environment:

E-learning involves an open, flexible and distributed environment. It is an environment that uses different methods of interaction between learners and teachers through the Internet and relies on the information environment management system, which contains the information systems of the educational institution that contribute directly or indirectly to the learning process and learning management. Educational environments and the essential functions they perform. E-learning environments do the following:

- Controlling access to university courses through content display and evaluation.
- Controlling the course of students' activities and achievement.
- Course management operations.
- Reporting on students' progress helps the teacher monitor his students on an ongoing basis.
- Supporting the e-learning method by controlling the learning

resources and the evaluation guide (Asiri and Al-Muhaya, 2011, p. 24)

3.1.4 E-learning tools:

What is meant by tools here is the use of means of interaction, such as requesting help, guidance, and direction, or asking questions, between the professor and learners during the education process. These tools have an important role in transferring the characteristics of direct interaction in traditional classrooms to e-learning, and these tools occupy the largest space in the design of Websites and educational programs that display the content of these courses on the Internet. E-learning tools are classified into two types:

* Direct e-learning tools (synchronous): These are through which information and examinations are transferred and exchanged between both parties of the educational process (professor-student), in real time for teaching standards. Examples include: chat, which allows for simultaneous dialogue and discussion with others. Audio conferences, which are considered an electronic technology that relies on the Internet and the use of a phone as a mechanism for conversation. We also find video conferences, which allow communication between individuals in the communication process through a high-quality television network via the Internet.

* Indirect (asynchronous) e-learning tools: These are those tools that allow indirect communication, that is, they do not require the learner and others to be present on a network together during communication. Examples include: e-mail, the World Wide Web, static and interactive

web pages,...and other examples (Hashim, 2017, pp. 32-34).

3.2 Concepts related to e-learning:

The stages of development of the use of technology in education can be classified into four stages: distance education, computer-based education, Internet-based education, and e-learning, which we detail as follows:

3.2.1 Distance education:

Defined by the American Distance Education Association, “is the delivery of teaching or training materials via an electronic educational transmission medium that may include satellites, videotapes, audiotapes, computers, multimedia technology, or other media available for transferring information.”

There is another definition of distance learning that Borj Holmerg defines: “It is every model, form, or system that is not subject to direct supervision, continuous between the student and the professor through his natural presence with him, and it constitutes all the environments through which education takes place.”

- It is a system of teaching and learning in which students are far away from their teachers for most of the periods in which they study, meaning that students depend on themselves and on self-education, so various educational media replace the professor.

Borj Holmerg also refers in the definition to two basic characteristics:

1- It means that distance education is a dialogue process between the

teacher and the learner, who are separated by a physical dimension.

2- It consists of making learning available wherever the student is, and the responsibility falls on him.

In addition to these definitions, there is another definition included in French Law No. 556 of 1971, which defined distance education as a type of learning that does not require the teacher's permanent presence in the classroom, but rather he can be present only at some times required by the teaching process. This definition focuses on separation between the teacher and the learner, with the possibility of holding a dialogue meeting between them (Al-Raouf A., 201, pages 3,4).

We conclude from these definitions that distance education: is presence in virtual environments that are not restricted by space or time and through the availability of the Internet, the presence of the professor and student in a digital space identical to real reality, but across the barriers of screens and interactive digital devices made possible by modern technology.

Among them is the procedural definition of distance education: It is presence in virtual environments that are not restricted by space or time and through the availability of the Internet, the presence of the professor and student in a digital space identical to real reality, but across the barriers of screens and interactive digital devices made possible by modern technology.

3.2.2 Education via the Internet:

This type of education depends on the Internet and its technologies and tools (applications) (www, e-mail, video conferences, etc.), and its goal is to obtain information related to the academic subject, as well as using the Internet to disseminate Learning resources.

From here we conclude that the term e-learning is synonymous with the term online education.

In addition to these terms that overlap with e-learning, we also find other terms that we wanted to address and control in this study, which are virtual education, digital education, and e-learning:

3.2.3 Digital, virtual and electronic education: what is the difference?

- Digital education: According to theorists and researchers, e-learning is carried out using digital technology (or systems), (CDs, e-books, E-courses... etc.).

- Virtual education: It is education that takes place in a virtual environment and not in the traditional education environment, that is, not in regular classrooms in which students meet with the teacher face to face. Rather, virtual education takes place through a specific site on a network, such as the Internet (Mubariz and Ahmed Mahmoud, 2013). , pages 12,13).

These concepts indicate one type of education in terms of the definitions that have been set for them. Among the phenomena of this

overlap is the use of the virtual revolution, the digital revolution, the electronic revolution and the industrial revolution in almost the same sense, meaning that the concepts are synonymous, intersect and complement each other in expressing the modern era in which we live.

The virtual is based on : Digital and electronic, but it focuses on a lived virtual world as if it were a shadow of reality, and the digital relies on an electronically regular equation within the digital standard defined in the language of zero and one (1/0). (Watfa, 2021).

- When we look at the definitions given to these terms, we find that the definitions differ, as: Ibrahim bin Abdul Muhaisen defines virtual education as “an expression of the use of electronic means that aim to communicate between both: the teacher and the learners,” and Hassan Hosni Zaytoun defines it as “providing the teacher provides educational content electronically, as he relies on a group of multiple technological media that link the learner with the networks that he has, and the content that the teacher has, as we find that this type of education achieves active learning that aims at interaction between the teacher and the learner (Al-Muhaisen, 2003). , page 10).

We find an echo of this definition in the definition provided by Ali Karam, in which he stated, “Digital education is a comprehensive term that refers to any type of learning provided using digital technology, and includes students who receive lessons online and includes teachers who use digital tools such as: smart boards and devices.” Tablet learning at that time relates to the use of most online courses

through forums, shared electronic tools, email, chat, etc. with face-to-face communication between students and teacher” (Ali, 2020).

As for E-Learning: “It is education that depends on the use of modern and contemporary communication mechanisms, such as computers, networks, and their multimedia (audio and images), graphics, search mechanisms, electronic libraries, as well as Internet portals, in communicating and receiving information, acquiring skills, and interacting between teachers and teachers.” And the learner or between the school and the learner. This type of education does not require the presence of school facilities or classrooms, but rather it eliminates all the physical components of education (UNESCO, 2020, p. 14)

Through the definitions that have been presented, and despite this bifurcation of terminology, there remains a broad consensus among researchers in this field that it flows into one crucible, and it becomes clear to us that most of the previous definitions that were presented for education: “digital, electronic, and virtual” follow one path, and are formulas of education, they are close and homogeneous to the point of cognitive conformity, as if they are three keys to one door or three faces of one truth.

The process of distance education in its various forms takes place with the help or by means of digital electronic technologies and platforms, which in themselves constitute interactive tools for delivering educational materials to learners. However, distance education it shares with these concepts the highest levels of

development.

The difference remains between the concept of distance education and the e-learning group in two matters:

the first is that distance education must necessarily be from a distance, and is not allowed to be directly, and the other is that distance education may be non-electronic, digital or virtual. It may be on paper, television, or broadcast, and this means that it may be outside the coverage of modern electronic media such as: the Internet, computers, and virtual clouds.

Unlike distance education, electronic, virtual, or digital education can take place remotely and closely, that is, remotely via electronic media and closely after the mediation of electronic devices, for example using the web and the electronic cloud within the halls.

Through these concepts about: e-learning, digital awareness, virtual education, and artificial intelligence, we can say that distance education may draw a map of intersection and mixing between these concepts, to confirm that distance education was born and grew up in successful stages, and electronics were not an act or a number of influence or influence.

Virtually, but rather through correspondence, later distance education technology, it took a virtual digital image in the modern era and in the era of the Fourth Industrial Revolution, meaning that digital, virtual and electronic education add a light style of education based on

electronics and digitization in the field of learning and its various activities (Watfa, 2021, Page 75).

3.2.4 The difference between e-learning and traditional (in-person) education:

There are many differences between e-learning and traditional education. These differences revolve around the fact that e-learning allows the student to learn at any time, anywhere, quickly, and more than any educational medium.

They also revolve around the fact that e-learning depends on the formula of individual learning and participatory learning, and that the responsibility for learning in it falls to a large extent on the student, but in e-learning they usually miss the advantage of free meeting with their colleagues and with the teacher. Also, some of these differences revolve around the fact that the student in e-learning learns from many sources, it is not limited only to the teacher and the textbook as is the case in traditional classroom learning.

The e-learning system also provides the student with a greater opportunity to continue his learning compared to the classroom learning system. The e-learning system also greatly reduces the burden on the teacher, the burden of teaching and the burden of preparing and correcting tests that are borne under the traditional classroom learning system.

In addition to this comparison, the differences between e-learning and traditional education can be summarized in the following table:

- Table No. 02: Shows the points of difference between e-learning and traditional education.

E-learning	Traditional education
E-learning offers a new type of culture, which is digital culture, which focuses on processing knowledge and helps the student, not the teacher, be the focus of the learning process.	- Traditional education depends on the traditional culture that focuses on the production of knowledge and the teacher is the basis of the learning process.
E-learning requires a high cost, especially at the beginning of its application, to prepare the infrastructure of computers and software for teachers and students, produce them, and train them on how to deal with this technology and	- Traditional education does not need the cost of e-learning in terms of infrastructure and training of teachers and students to acquire technical competencies, and it also does not need assistants because the teacher is the one who

design the scientific material electronically. It also needs assistants to provide an interactive environment between teachers and assistants on the one hand and between learners on the other hand.	transfers knowledge to the minds of students in a traditional learning environment without the use of modern electronic media or teacher assistants.
E-learning is not committed to providing education in the same place or time. Rather, the learner is not committed to a specific place or time to receive the learning process, and e-learning is distance learning, synchronous and asynchronous education.	- Students receive traditional education at the same time, which is the classroom and direct education, meaning it is synchronous education only.
This type of education	In traditional

leads to the student's activity and effectiveness in learning the scientific subject because it depends on self-learning and a concept that benefits education.	education, the student is considered passive, relying on receiving information from the teacher without any effort in research and investigation, and relying on the method of lecture and delivery.
E-learning provides an educational opportunity for various segments of society, including housewives and workers in factories, as education can be integrated with work.	Traditional education requires the student to attend the educational institution and attend regularly throughout the week, except for holidays. On the other hand, it accepts certain ages but not others, and does not combine study and work.
Scientific content is more exciting and motivating for students to learn, as it is	- The content is presented in the form of a printed book containing editorial

presented in the form of written texts, still and moving images, video clips, drawings, charts, simulations, and in the form of an electronic course. An electronic book - a visual book.	texts, and if there are some images in excess of that, they do not have artistic accuracy.
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Source: (Al-Raouf T., 2014, pages 200-201)

4. E-learning and e-universities:

4.1 E-universities:

The term “electronic university” refers to “a university that is concerned with the fact that the development of education does not take place on its own, but needs support from the advanced information technology system, to support education and research activities, as well as community service, in order to transcend the boundaries of time and place in which it exists, and to apply the concepts of e-learning in all its forms and forms.”

Electronic classes and other concepts based on educational technology innovations.”

The concept of the electronic university includes other names such as the Virtual University, the Open University, the Distance Learning

University, and the On Line University.

The way the electronic university works is based on employing communications and information technology in education,

The functioning of the electronic university depends on the use of communication and information technologies in education scientific research, community service, and providing its various services electronically. The electronic university is also concerned with local and national activities and spreading local culture as part of the mission of the state's educational system (Ismail, 2009, p. 160).

4.2 Among the most important goals of the electronic university we mention:

1- Developing records and databases for students, faculty, and employees.

1- Developing education based on the use of information networks.

2- Work on developing databases, academic curricula, and various activities related to them.

3- Providing various services available at the university via the Internet.

4- Developing cooperation and work between universities globally and internationally.

5- Providing opportunities for workers in non-sectors to continue education.

6- Marketing educational programs and materials and expanding the global market area. (Ismail, 2009, p. 173)

- Providing material capabilities, which include devices, equipment, supplies, furniture, as well as places that can be relied upon and used.
- Providing complete programs and technical components.
- Providing human resources, including designers, trainers, and specialists, and developing human cadres such as supervisors and the executive team.
- Reviewing and adopting the previous plans and experiences of developed countries that preceded us in e-learning and benefiting from their experiences.
- Study the specifications of e-learning and determine its characteristics, capabilities, benefits, and goals, as well as its limits, obstacles, and how to apply it.

4.3 E-learning requirements:

E-learning and its correct use require the planning, design and preparation process for a set of material and non-material requirements, which we summarize in the following:

- Providing material capabilities, which include devices, equipment, supplies, furniture, as well as places that can be relied upon and used.
- Providing complete programs and technical components.
- Providing human resources, including designers, trainers, and specialists, and developing human cadres such as supervisors and the

executive team.

- Reviewing and adopting the previous plans and experiences of developed countries that preceded us in e-learning and benefiting from their experiences.

- Study the specifications of e-learning and determine its characteristics, capabilities, benefits, and goals, as well as its limits, obstacles, and how to apply it.

- Study the feasibility of employing e-learning with the aim of ascertaining the economic and educational return as an innovation compared to traditional methods.

- Creating the climate to employ e-learning and the existing educational system, and changing what is necessary to keep pace with the requirements of the e-learning infrastructure.

- Providing the human competencies needed by e-learning and the necessary skills to implement education as a project.

- Training members of the e-learning implementation team and those responsible for its management, including teachers and others (Al-Mallah, 2012).

4.4 E-learning is an urgent necessity in the age of digital technology:

In this section, we highlight four functions of e-learning:

1- Using it for individual education: or technology-based education: as

an example of this type, practice and application programs, information research and guidance systems, and interactive video.

2- Using it to discover information: such as DVD, information network search tools.

3- Using it as a tool for creating, authoring, storing, and analyzing data. As an example of this type, we mention Microsoft Word, Excel, databases and their management programs, as well as electronic publishing programs.

4- Using it as a means of communication. Examples of this include video conferences, e-mail, and interactive distance education (Ismail, 2009, p. 622).

5. Challenges of e-learning during crises:

If we want to try e-learning during crises, we will find the most appropriate example and the most appropriate experience that tested e-learning is the Covid 19 crisis, as it pushed educational institutions with all their structures to urgently shift to e-learning (E-Learning), so it was an alternative and a necessity to integrate it into the educational process, especially in light of the impact of the educational system. With artificial intelligence and the Internet of Things technologies that have become an integral part of human life.

Between the need for smart phone devices and applications and the need to create professional technological cadres, integrating technology into education has become an urgent global trend and demand, and the content provided by these devices and industry has

become a motivating factor and an alternative at the educational level to traditional study.

As we mentioned earlier, the use of the Internet in the educational process is not new, but goes back to before the year 2000, as most universities today use what are called “Learning Management Systems,” and in light of the outbreak and spread of the “Corona crisis” that the world is experiencing. The majority of educational institutions have turned towards e-learning as a more suitable alternative to ensure the continuity of the educational process. The use of online video chat applications such as Zoom, Google Meeting, WebXMeet, and others has increased significantly.

“In statistics published by the TechCrunch website, it says that the downloads of these programs amounted to 62 million times during the period between March 14-21, 2020, that is, with the beginning of the movement bans in many countries, and the use of many has doubled.” Of educational applications and programs, such as Google Educational Portfolio, Office 365, Apple applications, evaluation services sites, and interactive activities.

There are several aspects that should be taken into consideration before using e-learning, the most important of which are:

1- Educational methods:

Choosing educational methods constitutes a fundamental challenge in traditional and electronic educational design, but in the latter it is

greater, especially with the urgent need to employ interactive learning that increases students' attention by involving them directly as contributors, not as recipients. This will increase the motivation factor and achieve better results, and here it is necessary.

The teacher must make a significant effort to determine the appropriate interactive means for each goal. The process of engaging students in different places and maintaining their attention across devices is not an easy matter, but it is certainly not impossible.

The same applies to the self-assessment process for calculating grades (Summative Assessment). While written exams are considered the most common method, especially in midterm and final exams - despite the noticeable shift towards alternative assessment methods - electronic assessment seems difficult due to the impossibility of the monitoring process in order to avoid to cheat using the same devices.

There are many programs and applications available on the Internet to achieve student interaction in the educational process, individually or in groups, including Quizziz, Socrative, Padlet, kahoot, and Mindmaps, not to mention the applications provided by Google, Microsoft, Apple, and others. All the teacher needs is good planning to choose the appropriate method for each educational goal, but it may not yet be sufficient for the final evaluation and monitoring of students' grades.

2- Covering different needs and learning styles:

Taking into account the diversity of learning styles is part of the

elements of planning a fair and effective educational process. According to the (VARK) model by Fleming and Mills, there are four basic learning styles: auditory learners, visual learners, and kinesthetic. (Kinesthetic Learners), and the reading and writing learning style (Read and Write Learners).

The teacher's responsibility here is to diversify his methods to cover different needs. The focus on speaking on his part throughout the educational session may be suitable for the auditory, but it is boring for the visual and kinesthetic. Here the teacher needs to choose the appropriate programs and applications to prepare a "combination" of educational materials that are compatible with different styles.

3- Teacher readiness: The term "Baby Boomers Generation" is applied to groups born between 1944 and 1964, and one of the biggest problems facing this group is the readiness to use modern technology in the learning process, and this is not a disparagement of them, but it is a reality. It was imposed by the late discovery of many technology devices and applications (Al-Khatib, 2020).

Among them were those who felt the importance of joining its ranks, so they learned and used it, and among them were those who thought that they were indispensable to it, but the tyranny of technology, the generations' passion for it, and environmental awareness of the necessity of reducing the use of papers and other factors, led to a gradual and major shift towards technology, which was a shock to this group. Which has now become a reality that requires them to use

technology in detail beyond uploading files and sharing them on electronic clouds under a fait accompli that requires it to use technology, in detail that goes beyond uploading files and sharing them on electronic clouds, and beyond that.

There is another group - not from this generation, but from “Generation It is better off than the previous generation, due to its knowledge of the basics of technology.

Therefore, the Corona crisis resulted in the launch of courses for teachers in the field of e-learning and its various methods, and there is no doubt that they will face a “funny” challenge, which is the speed of their students in keeping up with technology compared to them, and their choice here is to accept the matter.

6. Availability of technology:

The availability of technology is an important factor for the success of the idea of e-learning. Without it, the matter will become just a dream. There are different levels of this challenge. The availability of devices, the Internet, Internet speed, and Internet packages, each of which is considered a challenge in itself or combined with the others. The student (or even the teacher) may have the device. However, he may not have internet service at all, and if it does, it may be slow, or perhaps with an insufficient package to cover video presentations and large-sized materials (Al-Khatib, 2020).

6.1 The reality of e-learning in universities (Algerian universities

as an example):

The Algerian university did not remain static in its educational sector without continuity, but inevitably resorted to technological means to continue education through e-learning, taking advantage of all available means of communication, whether traditional or modern, with the aim of making the process of communication and interaction a success between both the student and the professor, in addition to a third party. It includes the administration, and the resort to e-learning was for the process of evaluation, self-learning, and student follow-up while remaining in full communication with the Ministry of Higher Education and the rest of the university institutions. It always urged learners to continue their education through the digital educational content it provides, including PDF files and video clips, in addition to digital libraries or repositories recently developed in universities, which were provided by institutions and through which they enabled the process of free downloading of journals, articles, and graduation notes at all levels, Algerian universities have also recently relied on video chats and their applications, "ZOOM" and "GOOGLE MEETING" for teaching, conducting meetings, and various pedagogical activities, and other technologies that led universities to safety. However, the difference and disparity in the orientation to e-learning from one university to another was at the level of the communication structure of the Internet, which posed a challenge and an obstacle for universities. With regard to access to the content of the educational material to the fullest extent by the teaching staff as well

as the students, which has formed a large gap between developed countries and countries in the process of development, especially since many of them suffer from very miserable economic and political conditions, which has highlighted the technological educational capacity. E-learning in the management of universities in line with the epidemiological situation (Qarziz, 2021, pages 472, 473).

7. Conclusion:

Through this descriptive data provided, the current study reached a set of results based on theoretical information, which we highlight as follows:

The higher education sector is considered an effective and prominent contributor to the development of society, and this is due to the authority these institutions have in managing the educational process.

Students are considered the pillar of the university and its actual audience for whom it works and adopts digital technologies to keep it within its focus and keep it in constant communication with its facilities and pedagogical activities.

The university, as a sector independent of other sectors, contributes significantly to the self-education of individuals with the aim of motivating them and enabling them to specialize in the various jobs and operations it provides, such as research and publishing operations, scientific forums and demonstrations, as well as the connections and agreements concluded with the social and economic partner.

Through the data presented in this study, we note that the e-learning

market has developed in contrast to previous years, and the need to rely on various technologies and technological applications has increased, especially smart phones and digital platforms...etc.

The Corona pandemic has greatly contributed to the emergence of the concepts of e-learning and its applications in the educational process, and the completion of in-person educational courses that were stopped without warning and plunged higher education institutions into a real dilemma and crisis that forced them to urgently resort to creating and adopting digital platforms and applications that were solutions before the Covid-19 crisis. Postponed and in the waiting stage, it has today become an inevitable reality with no third option, which has made universities focus their efforts on it more than ever before.

The saying that technology is a double-edged sword, both beneficial and harmful, applies completely to the Covid-19 crisis. Despite its negatives and disadvantages in killing hundreds and dozens of lives like a deadly virus, from a practical standpoint it has pushed, especially distance education, towards the forefront, and thus it has become an inevitability, not an option, and this sudden transformation is certain. The rapid pace of digitization will impose many challenges on both elements of the communication process represented by students and professors, which requires them to develop effective, realistic, and useful plans and strategies to overcome such obstacles.

However, the most important question that remains open and unanswered is: Will Algerian universities continue the process of

implementing distance education, even if in a modest manner, plagued by many errors and obstacles, after the Covid-19 pandemic? Or will those who oppose the digital transformation movement in Algeria return education to square one in terms of communication means and the method of delivering information? The answers remain open and conflicting between those who say that the Internet infrastructure in Algeria does not qualify it to adopt e-learning and those who say that e-learning today has become an irreversible reality and must be developed and invested well in it. The decisive answer remains in the hands of current and future changes and the extent to which universities understand the importance of education. e-mail in its educational fields.

Recommendations:

- The necessity of embarking on developing the communications infrastructure by higher education institutions to ensure continuity and keeping pace with technology. This is by developing digital applications such as the Moodle platform for e-learning and making it imperative for use by faculty members to place student points in it, as well as develop lessons and oblige students and their families to access the platform.
- Relying on employing competent technical workers to develop quick, practical solutions to any defect that may occur to any platform developed by the university, with the aim of avoiding obstruction of e-learning.

- The necessity of resorting to and informing Algerian universities of the various successful Western models in the field of distance education and how to apply it and try to benefit from them.
- The necessity of making surprise visits by university officials to various departments and colleges with the aim of ensuring the implementation of e-learning, especially since a few of them who oppose digitization still rely on the in-person method in the simplest transactions with students and their families.

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