

## SMART INFORMATION TECHNOLOGY AND ITS ROLE IN E-LEARNING-AN APPLIED STUDY AT AL-MUSTAQBAL UNIVERSITY COLLEGE

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### Abstract

The aim of the research is to identify the smart information technology and its importance and characteristics and to shed light on e-learning and what are its objectives and the infrastructure that requires its availability, as well as to identify the reality of e-learning in Iraq and its effectiveness and review the obstacles facing the management of the researched organization in the field of smart information technology, and to achieve the objectives of the research were to use the questionnaire by distributing it to a sample of teachers in the different departments (the medical group, the engineering group, the administrative group, as well as the departments of English language, sports education, media and two teachings of the Information Technology Department) in the Al-Mustaqbal University College, and the research reached a number of conclusions, including the Smart information technology is a common denominator in most organizations. Technology has many advantages that it enjoys, foremost among which is reducing the proportion of human intervention in repetitive operations, improving the image of outputs and performance of organizations, and accelerating information exchange over the Internet. E-learning is one of the forms of smart information technology that depends on the use of computers and the Internet in the educational process, which prevents It aims to increase its efficiency and effectiveness and transcend the barriers of time and space.

**Keywords:** smart information technology, E-learning

### Introduction

The end of the last century and the beginning of this century witnessed many challenges, the most prominent of which was the information revolution, which brought about a great revolution in the world of communications and information technology, in addition to the change in the nature of receiving information, whether at the level of the organization, university, college, lecture or circulated knowledge. One of the results of the information and communication revolution, which is defined as a new scientific and technological field that studies the process of information production, collection, storage, transformation, transmission, processing and application on a large scale. And the use of the computer in the field of education began to take many forms, which are increasing day by day and took various forms, including the use of computers in the field of education to the use of the Internet in education. Its importance at the present time derives from its ability to bypass the problem of the knowledge explosion, and the inability of traditional education programs to comprehensively inform the

objective aspects of the various disciplines, due to the difficulty of modernization and the challenges of traditional knowledge and information. Especially at the level of infrastructure availability. The success of e-education depends on the development and selection of the appropriate method of e-learning that meets the requirements of education, such as continuous updating to keep pace with developments and observance of controls and standards in the chosen education system to ensure that the level of education and the development of e-learning has been achieved in the various stages. He played an important role in the process of delivering the material to students during the home ban period. Therefore, we will address in this research the aspects that can contribute to the identification of smart information technology, e-learning and the reality of e-learning in Iraqi universities and reduce the cognitive and technical difference between our society and developed societies. As for the practical side, the Al-Mustaqbal University College was chosen as a sample for research.

### **The first axis is the research methodology**

**First:** The problem of research: In the unstable environmental conditions surrounding the organizations of contemporary societies, especially the university ones, it is required from the administrations of these organizations to search for creative methods that make them more effective, and in a way that guarantees them the ability to adapt and provide the best scientific and educational services. And in light of the widespread use of e-learning in all stages of education, including education in colleges and universities, especially after the spread of the Corona virus and the imposition of home bans and suspension of work, which required the use of advanced technologies based on information technology and Internet networks. It is worth noting that the Al-Mustaqbal University College, as is the case with other Iraqi universities, is facing conditions characterized by rapid change in light of globalization and the spread of communication and information networks, in addition to the spread of the Corona virus. Therefore, it has become important for the college administration to play an important role in this field, in order to understand environmental changes, and how to respond to them, to meet the needs, goals and expectations of the beneficiaries of its services.

### **Second: Research Objectives: The research objectives are embodied in the following**

1. Learn about smart information technology, its importance and characteristics.
2. A statement of e-learning and what are its objectives and the infrastructure that it requires.
3. Knowing the reality of e-learning in Iraq and its effectiveness.
4. Reviewing the obstacles facing the management of the organization in question in the field of smart information technology.

### **Third: The importance of research**

The higher education and research sector is the scientific is one of the most important scientific and educational sectors, as it deals with a wide range of individuals and organizations. This sector has been greatly affected by scientific and technological developments, especially in the field of smart information technology, which can have a significant impact on improving the quality of e-learning fields if it is used properly. Therefore, the importance of the research is as follows:

1. The current research dealt with two basic variables: smart information technology and e-learning.
2. Contribute to the development of some solutions to the obstacles facing the management of the organization in question in the field of smart information technology.
3. To the knowledge of the researchers, the issue of the relationship between smart information technology and e-learning at the level of the Iraqi environment was not discussed. From this point of view, the current research will provide the Iraqi library with information that benefits the management of the researched organization and students in the field of smart information technology.

#### **Fourth: Research Hypotheses**

- First Hypothesis: The research is based on the following hypotheses:
- The first hypothesis: There is a significant correlation between smart information technology and e-learning.
- The second hypothesis: the existence of a moral correlation of the interaction of faculty members with e-learning.
- The third hypothesis: There are challenges facing e-learning.

#### **Fifth: The research sample**

In recognition of the importance of the role played by the Al-Mustaqbal University College in the field of preparing human cadres in various scientific fields, a sample of the college professors was selected. The number of forms distributed to the research sample reached (74) and the retrieved forms were (70) forms.

#### **The second axis: the theoretical framework**

##### **First: Intelligent Information Technology**

The concept and characteristics of smart information technology: The term information technology emerged at the beginning of the fifties, referring to the use of electronic computers in the field of government and private business alike (Al-Lami, 7: 2013). ) As there have been huge leaps in advanced technology (Hegazy, 448: 2008), and technology in English (technique) which means the development and application of tools and the use of machines, materials and automatic processes in a way that helps to solve human problems resulting from human work, that is, the use of available tools and capabilities To increase human productivity and improve his performance, and there are those who view technology science as a way of thinking and the means that man uses to provide his well-being and adapt nature in his service, as well as the manufacture and application of science to serve man in innovation, finding and developing its means (Al-Asadi and Al-Dulaimi, 2019: 12)

UNESCO defined information technology as the areas of scientific, technical, engineering knowledge and administrative methods used in handling and processing information and its applications, which is the interaction of computers and devices with humans and their participation in social and cultural matters (Al-Dulaimi and Al-Asadi, 2013: 118). For the transmission of information between users using computers, telephones, faxes, and the Internet

(McConnell & Brue, 2008: 312). In the same context, it was known that it is the electronic means of collecting, storing and sharing information, and this technology is designed on the basis of information and digital data stored electronically in the form of ones and zeros (Khasheef, 2017: 17), and (Alves, 2010: 104) explained that “information technology is a wave of development in the field of communications, in which the electronic information system is the important part, which helps to participate and exchange information between all parties, leads the formal cognitive networks, and can strengthen economic relations between partners. As for smart information technology, it is known as a new scientific and technological field that studies the process of information production, collection, storage, transformation, transmission and processing It is widely applied (Zhu, 2021: 2), and in the same context it is known as a technology that uses artificial intelligence, machine learning and big data analysis to provide cognitive awareness of things that were previously considered inanimate [https://rezaid.co.uk/smart-technology -and-its-benefits](https://rezaid.co.uk/smart-technology-and-its-benefits), and one of the most important characteristics of information and smart technology (Asim and Ibrahim, 2013:234):

- A. ICT contributes to achieving economic development through digital development that leads to the creation of new forms of social and economic interaction and the emergence of new societies.
- B. Information and communication technology increases the ability of individuals to communicate with each other and distribute information and knowledge, and this calls for the transformation of the world into a more peaceful, cultured, prosperous and advanced one.
- C. Enabling information and communication technology and the media to reach isolated and marginalized individuals to express their opinion in the global community, regardless of their residence or gender. Thus, it helps equality among individuals on a global level and gives power in decision-making at all local and international levels.

The importance of information technology: the importance of information technology is evident as it represents the vital nerve of the organization’s activity. 46), and the importance of information technology is represented in (Al-Asadi and Al-Dulaimi, 2019: 18-19)

- A. Information technology works to bring about drastic changes in all parts of the organization, its business, products and markets due to the extension of its use in the various activities of the organization.
- B. The organization is pushed to respond and adapt to the requirements of the environment, as the application of information technology methods by organizations keeps them away from the possibility of facing isolation and failure to keep pace with the information age.
- C. Information technology has enabled organizations to increase The ability to coordinate between its departments and between organizations with each other through what modern communication networks provide and linking computers with each other from very important means of communication.
- D. Information technology is an effective tool in reducing the size of organizations, reducing the number of administrative levels and adopting networked organizational structures

- instead of traditional ones. It also helped to adopt modern approaches to planning and organizing work, such as business re-engineering.
- E. Information technology has contributed to reducing the occurrence of crises by providing a Al-Mustaqbal information base.
  - F. Improving the decision-making process by providing accurate and timely information to the decision-maker, as well as providing good communication channels that help increase the flow and exchange of information.
  - G. It helps the organization to build a strategic information base with its superior capabilities in dealing with information, and to provide direct support to the organization's strategy with the information it provides on competition factors to overcome the barriers of time and space, thus gaining the organization a competitive advantage.
  - H. It has an impact in determining the nature of the organization's activities and its strategic direction through the opportunities it provides and the creation of new specializations and areas of work.
  - I. It helped in the emergence of what is known as virtual organizations that depend on information technology to accomplish them
  - J. It helps in developing the skills and knowledge that enrich the intellectual side of the employees, which helps to present creative works and ideas.

## **Second: E-learning**

The importance of e-learning has increased at the present time in particular, due to the urgent need for human development, and such importance comes in the era of globalization and informatics. While universities use electronic educational and training programs via the Internet, the concept of e-learning has been linked to many concepts, including computer-based learning, distance learning, internet-based learning, mobile learning, networked learning, online learning, and resource-based learning. Technology-based learning, web-based learning and more.

### **Definition of E-Learning**

E-learning is defined as an educational system to provide educational or training programs to learners or trainees at anytime and anywhere using interactive information and communication technologies such as the Internet, local channels, e-mail, CDs, computers to provide an environment Interactive multiple sources in a synchronous way in the classroom or asynchronously remotely without committing to a specific place depending on self-education and interaction between the learner and the teacher (Ahmed, 2013: 395), the definition focuses on the fact that e-learning is a system that requires the availability of computer technologies and information network in order to The interaction between the learner and the teacher, and as e-learning is seen as providing educational content with what it contains of explanations, exercises, interaction and follow-up, partially or comprehensively, in the classroom or remotely through advanced programs stored in the computer or via the Internet, and thus it is an “educational system” Uses information technologies and computer networks to support and expand the educational process through a variety of means, including computers, the Internet,

and Electronic programs prepared either by specialists in ministries or companies [www.faculty.ksu.edu.sa](http://www.faculty.ksu.edu.sa), Definition focuses on providing explanations for the study materials and exercises and interacting with them using the computer. Networks, the Internet, electronic libraries and others are all used in the process of transferring and communicating information between the teacher and the learner and prepared for specific and clear educational goals (Amer, 2015: 23). It is clear that the definition focused on the use of computers, software and networks in the e-learning process. Based on the foregoing, it is clear that e-learning is a process associated with the use of both computers and software as basic requirements, as well as providing study materials and related exercises, cases and explanations using both the computer and the Internet.

**Objectives of e-learning: e-learning seeks to achieve a set of objectives represented in (Al-Hadi, 2005: 96)**

- A. Introducing information technology as a means to enhance the student's ability to learn to the maximum extent of his potential.
- B. Providing educational services to those who missed out on educational opportunities.
- C. Spreading the technical culture to help create an electronic society capable of keeping pace with the developments of the times.
- D. Contribute to the eradication of illiteracy and adult education.
- E. E-learning provides women (especially in the Arab world) a great opportunity to complete their education, especially university education, thus overcoming the difficulties of leaving the home and attending university classes, meaning that this education provided the flexibility of education spatially and temporally.
- F. Developing students' skills.
- G. This type of education provides students with a lot of information and knowledge compared to traditional means of education, as this type of (electronic) education provides multiple and different sources of information as well as the possibility of exchanging educational experiences.
- H. E-learning is one of the added educational systems, and it is based on systemic thinking in defining its elements and relationships with them.
- I. This type of education offers two types of distance education where distances help between the institution and the learner and does not require confrontational communication between the parties to the education process to achieve the goals.
- J. This type of education targets multiple categories of learners, and targets large numbers of these learners, but for the individual learner it is an individual education that is linked to The ability to coordinate between its departments and between organizations with each other through what modern communication networks provide and linking computers with each other from very important means of communication.
- K. Information technology is an effective tool in reducing the size of organizations, reducing the number of administrative levels and adopting networked organizational structures instead of traditional ones. It also helped to adopt modern approaches to planning and organizing work, such as business re-engineering.



- L. Information technology has contributed to reducing the occurrence of crises by providing a Al-Mustaqbal information base
- M. Improving the decision-making process by providing accurate and timely information to the decision-maker, as well as providing good communication channels that help increase the flow and exchange of information. It helps the organization to build a strategic information base with its superior capabilities in dealing with information, and to provide direct support to the organization's strategy with the information it provides on competition factors to overcome the barriers of time and space, thus gaining the organization a competitive advantage.
- N. It has an impact in determining the nature of the organization's activities and its strategic direction through the opportunities it provides and the creation of new specializations and areas of work.
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- J. This type of education targets multiple categories of learners, and targets large numbers of these learners, but for the individual learner it is an individual education that is linked to Attention has often focused on converting traditional curricula into electronic books, which makes students and teachers interested in these courses only and use them to develop achievement without taking into account the importance of developing assessment and analysis skills, thinking skills and scientific research skills, which may limit or prevent the ability of e-learning to reach its intended goals. Therefore, educational institutions must adopt comprehensive electronic libraries that contain electronic books and encyclopedias, and work to integrate them directly into e-learning systems.



**Types of e-learning: The types of e-learning are divided into three main types, which are <https://ifpmc.org>:**

- **Simultaneous e-learning:** This is the type that is broadcast live and directly; It requires the presence of all learners in the same context, being present at the same time on the network and in front of computers, as it depends on discussions and conversations between those same learners and their teacher, the director of the education circle. chat.
- **Asynchronous e-learning:** This type differs from the previous one in that it does not require the presence of all educated individuals on the network and in front of devices at the same time, due to the availability of the material at any time.
- **Mixed e-learning:** This type combines the two previous types; Everyone can be present at the same time in front of the network and the computer and actually participate in it.

Third: E -learning in Iraq: The process of education in the last quarter of the last century witnessed a radical transformation in the methods of teaching and education patterns and its fields. This development came as a result of its sentences from the preparations that faced learning and the techniques of learning and the techniques of learning and the most important learning techniques and education. Which must be kept in line, as the old image of the teaching profession has changed and it is no longer acceptable to provide the learner with information only? And these means must be established with the characteristics of the students who live in the world of satellite and advanced technology that require the inclusion of students with the varied experiences that are caused to the abuse of his personality, and among those most important means are educational methods and modern educational techniques, so the educational techniques and educational techniques can The problem of the curriculum, the weakness of the learners and the difficulty of the textbook, as it guides the teacher to the goals that he wants to achieve with the least time and effort (Hassan, 2006: 85). To publish the university lectures that the professors and teaching are given on the site of each university, college and a section to provide the opportunity to review and inform them before the student and the professor in other universities, as three sites and the traditions of the basis of the insight were established, and there are no places in the basis of the basis of Concepts of learning via the Internet through organizing four workshops during the years 2009-2010 (Al-Khazraji and Ali, 2018: 264-265), and the Ministry of Higher Education decided to resort to e-learning as an alternative solution to traditional education, even if temporarily, the first of which appeared in the year 2015. Ministerial Order No. 1205 was issued on 4/5/2015 to form the Higher Committee for E-Learning at the Center The Ministry of Higher Education to develop a strategy for e-learning at the level of Iraqi universities, in addition to the approval of His Excellency the Minister of Higher Education, according to the letter of the Ministry of Higher Education No. (Bt 2/1704 on 3/5/2015) to activate the Center for Scientific and Technological Information in the Iraqi Authority for Computers and Informatics To be a model for e-learning <https://ifpmc.org/>After the Corona epidemic spread in all countries of the world, the central government took a series of measures that would remove the danger of the Corona epidemic from the country, and one of these measures is the imposition of a curfew, which is known as

(home stone), which is represented by disrupting the working hours of students in schools, universities, and government and private institutes in A step to not mix any infected or contact with others who are not infected, and after the cessation of work in universities, schools and institutes and the registration of injuries and in all Iraqi governorates, the Ministry of Higher Education and Scientific Research and the Ministry of Education launched several platforms to complete the prescribed curricula and not stop studying through the application of the new educational system, which was followed by countries Several during the curfew period to limit and control the spread of the epidemic.

**E-learning in Iraq faced many obstacles, the most important of which are (Al-Shbul and Rebhi, 2014: 302)**

- A. Weak information technology infrastructure in Iraq: There is a direct correlation between the spread and strength of the means of communication with the Internet and electronic content in general. That is why we note the weak spread of rapid communication technologies and their lack of efficiency in comparison to advanced means and the lack of them in Western countries. The e-learning platform is in the Arabic language and leads to the weak spread of many applications that increase the volume of Arabic content dedicated to e-learning.
- B. Lack of e-learning requirements Sufficient, including computers, electronic display aids, Internet communication, a network of communications between universities and research centers, databases, halls, appropriate furnishing, and maintenance of technical means for cadres.
- C. Administrative obstacles sometimes represented by university leaders who are unconscious and not enthusiastic about development, routine administrative procedures and rigid regulations that hinder development and do not allow flexibility in work, and the problem of frequent power cuts is a major obstacle to the application of e-learning.
- D. The weak English language proficiency of most students and a large proportion of teachers, which puts obstacles in the way of the demand for e-learning, as most of the software and information is written in English.
- E. The issue of approved standards. If we look at some educational curricula and courses in universities or schools, we will find that they need to make many modifications and updates as a result of different developments every year, and even every month sometimes. CD-ROMs, you will find that they are unable to modify anything in them unless these books and CDs are rewritable, which is a complicated matter even if it was possible. Which requires many modifications and updates in electronic courses.
- F. Compensatory regulations and incentives: One of the requirements that motivates and encourages students to e-learning is one of the obstacles that e-learning in Iraq suffers from the lack of clarity in the regulations, methods, and methods of education. hinder the effectiveness of e-learning.
- G. Privacy and confidentiality (attack and piracy on the main sites on the Internet) that could affect the electronic courses and exams.
- H. Students' resistance to this new learning style and their failure to interact with it.

- I. Guaranteed and effective delivery of the educational environment and refers to: the lack of support and cooperation provided for the effective nature of education, the lack of standards for setting and running an effective and independent program, and the lack of incentives to develop contents
- J. The negative attitude of some faculty members against e-learning.
- K. The lack of sufficient awareness of the community members of this type of learning.
- L. Providing a wide area of the available space on the Internet and expanding the field of wireless communication.
- M. The continuing need to train and support learners and teachers on how to learn and teach using the Internet.
- N. The need to publish electronic courses at a high level of quality, as competition is high.

### **The third axis: the practical aspect**

First: About the research sample (University College of the Future): The college was established in 2010 according to Cabinet Resolution 427 of 2009, when the Council of Ministers decided in its regular 45 session held on 12/12/2009 to approve granting the founding license to the college after fulfilling the basic requirements stipulated in Article (6/Item First) of the amended Law of Private Colleges and Universities No. 13 of 1996 The college obtained the recognition of the Ministry of Higher Education and Scientific Research under the book No. C H/3989 on 08/31/2010, which includes the Ministry's approval to accept students in the college in its two departments, Engineering and Technologies Computer and engineering refrigeration and air-conditioning techniques The college is located in the province of Babil, starting from the 2010-2011 academic year, accepting students in the two departments above. The college includes (22) academic departments in medical, engineering, legal, administrative, media, English, physical education and sports sciences. It has laboratories for various disciplines that are world-class, and provides a comfortable university environment, including classrooms and large green spaces. And a high-level student club. The college entered international rankings, and ranked first in the Iraqi national classification over private colleges, and ranked first in publishing scientific research in Scopus containers.

### **Second: search procedures**

#### **Research tool**

The questionnaire was relied on as a tool for collecting primary data for the research, and it consisted of four sections:

- The first section: is devoted to collecting personal data, namely gender, diploma, and scientific title.
- Section Two: It contains a smart information technology scale
- Section Three: Measures the e-learning variable.
- Fourth Section: Measures the challenges facing e-learning.

### **Statistical methods used**

To analyze the research data and test its hypotheses, descriptive and analytical statistics were

used based on the SPSS statistical program to analyze the data of the field study. The statistical methods used are:

- A. Cronbach Alpha stability coefficient to show the extent of internal consistency of the statements that make up the scales adopted by the research.
- B. Descriptive statistics measures such as frequencies and percentages to describe the characteristics of the research sample individuals, arithmetic averages and standard deviations to determine the extent of the concentration of answers related to the independent and dependent variables and their dimensions and the extent of dispersion of these answers.
- C. Simple regression analysis to test the role of moral leadership in psychological ownership, and Regression Analysis Stepwise Multiple to arrange the variables according to their importance in the interpretation of the dependent variable.

Validity and stability of the tool: it has been evaluated The validity and reliability exponents of the research variables and table (1) show this:

Table (1) Results of the reliability test and subjective validity of the research variables

self-honesty coefficient	Cronbach's alpha stability coefficient	Variables
0.928	0.862	smart information technology
0.973	0.946	E-Learning

It is clear from the table that the values of the coefficients (Cronbach-Alpha) for the internal consistency of the research variables and the coefficients of self-honesty are high, and thus this scale is true to what was set to measure it, and it has a high degree of stability compared to the acceptable level (0.75), which is the acceptable limit for the stability of any scale in administrative sciences Therefore, it can be relied upon in field application, which makes the questionnaire form acceptable as a tool for collecting the necessary data for the research.

**Analysis scale:** The research scales were based on the five-point Likert Scale to give scores for each answer in the scale, fully agree (5), agree (4), neutral (3), disagree (2), completely disagree (1) , and to determine the level of each variable, each variable whose weighted arithmetic mean (from 1- less than 1.80) was considered very weak, and the variable whose weighted arithmetic mean (from 1.80 - less than 2.60) was considered weak, and whose weighted arithmetic mean (from 2.60 - less than 3.40) average, whose weighted arithmetic mean (from 3.40 - less than 4.20) is high, and whose weighted arithmetic mean (from 4.20 - 5) is very high, and table (2) shows the criterion used to interpret the research questions:

Table (2) the standard used to interpret research questions

4.2 to 5	3.4 to 4.2	2.6 to 3.4	1.8 to 2.6	1 to 1.8	weighted average
very high	high	Average	weak	Very weak	Appreciation

Research community: The research community includes the two teachers at the Al-Mustaqbal

University College, and the community size is (400), which represents the number of teachers in the research sample (Al-Mustaqbal University College). 74), and questionnaire forms were distributed to all elements of the sample, and (70) valid forms for statistical analysis were retrieved, representing (94.6%) of the total distributed forms.

### Analyzing Research Data

A- Demographic characteristics: Table (3) shows the demographic characteristics of the research sample:

**Table (3)** shows the demographic characteristics of the research sample

%	The ratio	the number	class variable	variable
64,3		45	male	sex
35,7		25	female	
100		70	the total	
28,6		20	PhD	Certificate
71,4		50	Master's	
100		70		
7,2		5	Lecturer	The scientific title
5,7		4	Assistant Professor	
15,7		11	Teacher	
71,4		50	assistant teacher	
100		70	the total	

B- Description of the research variables: the independent variable smart information technology: This part deals with the description of the smart information technology variable, and the arithmetic averages, standard deviations and relative weights of the dimensions of smart information technology among the total members of the research sample, as in Table (4)

Table (4) the results of the answers of the research sample about the use of smart information technology in E-learning at the Al-Mustaqbal University College

percentage	standard deviation	Arithmetic mean	questions	No
85 %	.0681	4.000	College evaluation electronic training indicative courses explaining the mechanism of using the e-learning system for teachers by adopting smart information technology	1
82.2 %	0.573	3.769	The teachers have sufficient skills to design and produce effective electronic content by adopting smart information technology	2
90 %	0.324	4.204	The college administration is constantly evaluating the mechanism of electronic teaching by adopting smart information	3

			technology	
87 %	0.086	3.789	The college provides technical and logistical support to facilitate the employment of smart information technology in e-learning	4
89 %	0.094	3.980	The e-learning system provides direct communication between members of the educational system (administration, teaching, student) by adopting smart information technology	5
80.51 %	0.49833	4.10	total paragraphs	

It is clear from Table (4) that the arithmetic average of the research sample members for the axis of using smart information technology in e-learning at the Al-Mustaqbal University College amounted to (4.10) and represents (80.51%) of the area of (Likert quintuple) used. The above-mentioned percentage falls in the area Agreement (80-61) %. Accordingly, the first research hypothesis was accepted that there is a significant correlation between smart information technology and e-learning. The answers of the research sample can be analyzed according to the questions of the questionnaire and my agencies:

1. The answers of the research sample regarding the evaluation of the college amounted to electronic training indicative courses explaining the mechanism of using the e-learning system for the two teachers to adopt smart information technology by (85%) towards the agreement, and the mean value reached (4.00) and in the same direction at a rate of (82.2%) and an average of (3.769) The sample agreed that the teachers should have sufficient skills to design and produce effective electronic content by adopting smart information technology.
2. The sample members believe that the college administration should carry out a continuous evaluation of the e-teaching mechanism by adopting smart information technology with an agreement rate of (90%) and an arithmetic average (4.204). 87% and an arithmetic average (3.789), and (89%) of the sample members agreed that the e-learning system provides direct communication between members of the educational system (administration, teaching, student) by adopting smart information technology.

As for the second research hypothesis: Table (5) is the results of the answers of the research sample regarding the existence of a significant correlation relationship for the interaction of faculty members with e-learning.



Table (5) the results of the research sample's answers regarding the second hypothesis test for research

percentage	standard deviation	Arithmetic mean	questions	No
84 %	0.7482	4.010	E-learning contributes to attaching the educational material to students easily and conveniently	1
90 %	0.832	4.321	E-learning contributes to easily answering students' inquiries about the scientific material	2
95 %	0.924	4.890	The electronic lectures include exercises and assignments that help deliver the scientific material to students	3
79 %	1.069	3.985	The use of different assessment methods achieves justice among students	4
89 %	1.275	4.152	Continuously assessing students during the e-learning process	5
89%	0.7428	4.57	total paragraphs	

It is clear from Table (5) that the arithmetic mean of the answers of the sample members amounted to (4.57), which represents (89%) of the quintuple Curt scale used. A moral correlation relationship for the interaction of faculty members with e-learning, and accordingly the second research hypothesis is accepted and my agencies:

1. The answers of the research sample regarding e-learning contribute to attaching the educational material to students easily, with a percentage of (84.5%) towards the agreement. Contributes to easily answering students' inquiries about the scientific material.
2. The sample members believe that the electronic lectures should include exercises and assignments that help to deliver the scientific material to the students, with an agreement rate of (95%) and an arithmetic average (4.890), and sample members agreed that the use of different assessment methods achieves justice among students at a rate of (79%) and an arithmetic average (3.985), and (89%) of the sample members agreed that evaluating students continuously during the e-learning process with an arithmetic mean of (4.152)

The third hypothesis: Table (6) shows the results of the answers of the individuals of the research sample regarding the existence of challenges facing e-learning, which states that there are challenges facing e-learning:

Table (6) the results of the answers of the individuals of the research sample regarding the third hypothesis test

percentage	standard deviation	Arithmetic mean	questions	No
79.01 %	0.8428	4.241	Low level of English language among teachers and students	1
84.5 %	0.7428	2.227	Websites exposed to hacking	2
84.1 %	0.6675	4.204	Feelings of mistrust and insecurity of those receiving e-learning	3
80.2 %	0.895	4.312	Poor update of software used in e-learning	4
90.12 %	0.923	4.512	Weakness of smart information technology infrastructure	5
82.7 %	0.79507	4.136	total paragraphs	

It is clear from Table (6) that the arithmetic mean of the answers of the sample members is (82.7%) of the area of the scale used because it is located in the area of complete agreement (100-81%), that there are challenges facing e-learning, and the fifth question in the axis related to the third hypothesis achieved higher A percentage of answers with a percentage of (90.12%) and an arithmetic average (4.512), which indicates that respondents agree with the weak infrastructure of smart information technology, which is almost the most important obstacle. Accordingly, the three main hypotheses are accepted. The challenges facing e-learning can be arranged according to their importance to For the sample members, as shown in Table (6) Table (6), ranking the obstacles that prevent attracting foreign investment, according to their importance

percentage	questions	No
90.12 %	Weakness of smart information technology infrastructure	1
84.5 %	Websites exposed to hacking	2
84.1 %	Feelings of mistrust and insecurity of those receiving e-learning	3
80.2 %	Poor update of software used in e-learning	4
79.01 %	Low level of English language among teachers and students	5

## Conclusions and Recommendations

### Conclusions

1. Intelligent information technology is a common denominator in most organizations. Technology has many advantages that it enjoys, foremost of which is reducing the proportion of human intervention in repetitive operations, improving the image of the output and performance of organizations, and accelerating the exchange of information over the Internet. E-learning is one of the forms of smart information technology. Which depends on

- the use of computers and the Internet in the educational process, which is reflected in an increase in its efficiency and effectiveness and bypassing the barriers of time and space.
2. Technological transformations have greatly contributed to changing individual attitudes towards the use of information and its functions, to materialize its value, to the extent that it has made the human society a society based on the information revolution and the Internet through the arrival of man to the height of technological development.
  3. Internet networks are the cornerstone that supports electronic education and distance learning systems, ensuring their ability to meet their needs and requirements. E-learning in Iraq suffers from the weakness of these networks and the lack of clarity in the systems, methods and methods in which education is carried out, which are clearly among the most important challenges, which is related to e-learning.
  4. The crisis facing the educational sector due to the outbreak of the Corona virus pushed e-learning to the fore, and it became an irreplaceable option.
  5. The results of the research showed that the research sample is conducting training indicative electronic courses that explain the mechanism of using the e-learning system for teachers by adopting smart information technology, in addition to the teachers having sufficient skills to design and produce effective electronic content by adopting smart information technology.
  6. The research sample agreed that the weak infrastructure of smart information technology is almost the most important obstacle.

### **Recommendations**

1. The necessity of linking universities with the local and global community through the adoption of smart information technology and the opening of various programs and specializations that feed the needs of society in its various economic, educational, political and religious sectors.
2. The necessity of adopting the various means and techniques of e-learning in international universities to keep pace with the tremendous knowledge and technical progress and to bridge the gap between Iraqi universities and international universities.
3. Working on holding training courses for teachers and students on the use of smart information technology, communications and educational software, which contributes to the consolidation of e-learning, as well as paying attention to Al-Mustaqbal studies in the field of estimating the needs of teachers in the field of smart information technology, and working to develop their performance through training them and choosing times It is appropriate for the teaching spare time, such as the beginning of the academic year, after the completion of exams or before the beginning of the summer vacation.
4. The need to provide an infrastructure capable of keeping pace with this type of education, as is the case in countries of the world, and to provide tools and computer equipment for all teachers, while providing communication with databases, whether local or global, to encourage teachers to use smart information and communication technology, whether inside universities. or with third parties.

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