The Role of the Ruling Dimensions of Artificial Intelligence in Increasing the Efficiency of e-Learning Entrepreneurship

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Abstract:

Purpose: The main purpose of the research is to achieve E-learning in university education through the strategic role of Artificial Intelligence (AI) in order to bring about development of university educational systems and continue to maximize competitiveness at the local, regional and global levels. Practical implications: Universities and specialized ministries seek to adopt leadership in e-learning to achieve the ability to in-depth thinking and data analysis in the light of the Sustainable Development Strategy. Originality/Value: It is necessary to move towards adopting artificial intelligence applications in university education to greatly enhance human capabilities and contributions. E-learning. A research article covering the framework of achieving university E-learning. Results: The dimensions of artificial intelligence have a strategic and pivotal role in building Technological Educational Programs and curricula that achieve the highest performance rates for human resources.

Keywords: Artificial Intelligence, E-Learning, Entrepr-eneurship, University Education.

JEL classification: M1



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1. INTRODUCTION

The international economy has witnessed rapid changes and major challenges as a result of technolo-gical developments and huge rates of innovative and creative thinking. Due to the increasing intensity of competition that threatens many organizations, the trend towards adopting technological entrepreneurship has begun, which is a process of developing existing business through the creation of new products, services and activities, In addition to new competitive situations and independent projects to enhance the spirit of creativity and initiative for employees and enhance the organization's ability to develop, survive and continue in the business world (Elia & Margherita, 2018)...

Artificial intelligence has become an umbrella term for applications that perform complex tasks that in the past required human input such as communicating with customers over the Internet, AI is more about the ability to think critically and analyze data more than it has to do with a particular form or function, the term is often used interchangeably with its sub-domains, which include machine learning and deep learning. However, there are differences. For example, machine learning focuses on creating systems that learn or improve their performance based on the data you consume. It is important to note that although all machine learning is AI, not all AI is machine learning (Oracle, n.d.)

Over time, AI has only been present in science fiction, sometimes highlighting the potential benefits of artificial intelligence to humanity and its human aspects, and at other times highlighting the expected negative aspects of it., In the current years, artificial intelligence has become a reality, not a fantasy, and it no longer occupies a place in the world of popular culture only, but rather a major shift in artificial intelligence.

In the past years, the world has witnessed a scientific revolution and a broad technological renaissance, as organizations in general and higher education organizations in particular face many challenges and changes in the business environment, and with the maximization of the role of the know-ledge and technological economy, organizations began to give great attention to planning goals, which are considered one of the most important factors for the success of organizations (Harrison, 2009).

The main purpose of this research is to discuss the role of artificial intelligence dimensions to achieve E-Learning for the University Education system. Hence, we formulate some sub-questions for this study as follows: (1) what is the concept of Artificial Intelligence? (2) What are the requirements for achieving University E-learning?.

1. Literature Review

In this article, scientific interest is growing in the idea that artificial intelligence (AI) and machine learning can take over traditional people tasks and take on different practical roles in business organizations, while reshaping current organizational processes, Where AI can solve the most difficult challenges in innovation management. Providing higher quality, greater efficiency and

better results from human experts that affect the company's long-term survival and competitiveness development (Haefner et al., 2021)

Within the framework of the higher education sector's adoption of artificial intelligence applications, one of the studies confirmed that the artificial intelligence system has the nature of human intelligence that can provide knowledge and information automatically to create smart applications to facilitate problem solving such as problem solving, speech recognition and learning. Preliminary, observation, data collection (interviews), data verification and conclusion. It has been shown that artificial intelligence in universities has a positive and negative impact on the relationship of intelligence to learning when it is conducted outside traditional learning (Bali et al., 2022).

While another study confirmed the extent to which the dimensions of artificial intelligence are used to address educational and educational issues in a variety of ways, artificial intelligence in education (AIEd) opens new opportunities, possibilities and challenges in educational practices., where AI is used to represent knowledge models and direct cognitive learning, and AI is used to enable learning., it is crucial to stress that AI for education is not just about implementing AI technology; That is, it is an integra-tion of the educational, social, cultural and economic dimensions during the technology application processes (Ouyang & Jiao, 2021).

In this paper, and by standing on the general situation of economic, social and educational development, the overall improvement of the level of professional education and the quality of teaching has become an important measure to face the new round of technological revolution and industrial change. The current study confirmed the status of the educational system in Japan and abroad by analyzing the strengths and weaknesses of the main technology of virtual reality and the prevailing devices, identifying the main technology, determining functional requirements, performance requirements, and requirements related to the development and operation of the education platform system, while identifying the concepts of development and operational characteristics. ., Higher professional institutions are thinking innovatively about how to implement teaching reform, many interactive online learning platforms have emerged using multimedia computer technology and network technology (Jiang, 2021).

Another study examined the importance of using organizational learning in building modern informa-tion technology networks capable of developing performance levels in the organization. The study also highlighted that learning as a main source plays a crucial role in developing and strengthening integra-tive relationships between individuals in various departments. One of the most important results of the study is that organizational learning It has a positive impact on organizational performance. The study also showed that learning plays a crucial role in learning networks, as it is a source of knowledge for workers to develop performance (Skerlavaj et al., 2010).

Another study dealt with the strategic role of learning in developing performance rates and enhancing creativity and innovation. The study also aimed to improve and develop the capabilities of workers to achieve the highest levels of progress and ability to continue through reliance on organizational learning. The high level of innovation of employees had an influential role in increasing the competitive-ness of business organizations (Alegre & R.Chiva, 2013).





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The state is currently adopting the development of strategic plans in order to support research organiza-tions and government and private sectors to reach technological leadership, by opening channels of communication between research units in ministries and various sectors to benefit from the outputs of scientific research and preparing a technological infrastructure for the development of technological pioneering projects with the qualification of human resources, with holding international protocols with Japan and China to transfer the experience of Tech-nological Entrepreneurship ("Report of the Ministry of Higher Education and Scientific Research," 2017).

2. International University Models

E-learning presents a modern image that differs from the previous images and methods for the development and development of human resources that lead to increasing the efficiency of entrepreneur-ship and excellence in universities in light of the technological revolution of artificial intelligence applications Hence, the relationship between the dimensions of artificial intelligence and the efficiency of E-learning Entrepreneurship can be analyzed as follows:

The study of the University of Kent aims to use human resources as a plan to ensure the existence of a culture of excellence to achieve the highest levels of the university's entrepreneurial efficiency and to follow a comprehensive approach to developing the organization of human resources to raise the university's technological performance rates., One of the results of the study is the development of the university's organizational units through attention to information systems, strategic planning, excellence management and training for employees with the application of continuous development mechanisms (Strategic Plan of Kent university ,2012).

While the American Harvard University aims to use the latest scientific and technological means in developing teaching methods and scientific research, and the university focused on strengthening scientific research centers to provide educational services. While the most important aspects of entrepreneurship and excellence at the British Brunel University can be clarified, it is the provision of free scholarships of about 6 million pounds annually, the establishment of training programs in the labor market to prepare specialists, and the opening of a center for employment and services for university graduates. The university invests more than 400 million pounds in the field of education and technological development.

3. Methodology

This study was planned with a combination of information, understanding and experience to achieve its objective. This research design is to enhance the university e-learning model. This strategy provides importance to the information as it focuses on previous research and literature review of artificial intelligence applications and e-learning mechanisms. Moreover, this exploration composition addresses the dimensions of artificial intelligence in university education under the sustainable development strategy. In this study, the proposal of a model for artificial intelligence as a tool to achieve E-learning requires a realistic vision. Similarly, since studies on AI applica-tions in the current era are limited, the proposed model for this study can be validated in future research.

And The study also relied on the deductive approach during the theoretical part of the study, which depends on some secondary data related to the topic of the role of the governing dimensions of artificial intelligence in increasing the efficiency of E-learning, and the researcher will obtain this data through the researcher's readings and compilations of books, magazines, local and international scientific periodicals and benefit from the websites The information network of the Internet to collect information on research topics.

4. The Relationship Between (AI) and E- Learning Entrepreneurship

One of the studies confirmed that entrepreneurship is one of the driving forces behind economic development regionally and internationally, as entrep-reneurship in business organizations is based on the high-tech field in the commercial areas of California (America) and (Britain). A hightech economy in California (America) is more than (Britain), and the extent of the positive impact of technological entrep-reneurship (creating job opportunities / effective uses of market resources / knowledge marketing) in developing entrepreneurship and innovation, which achieves the development of the economy in the dynamic regional environments of companies, has become clear (Qian & Zhao, 2018).

The study (Agulles & Prats, 2011) was concerned with the learning processes for workers in business organizations to achieve professional development, and to identify the modern scientific and practical practices and methods to achieve pioneering excellence, as the results of the study showed that the use of learning processes has a positive impact on developing the behaviors of the culture of individuals in business organizations and that the learning processes lead To increase the knowledge of individuals, which leads to the achievement of techno-logical development.

In the past decades, artificial intelligence (AI) has achieved great success through a set of general techniques for solving real-world software. Employing the latest Artificial Intelligence (AI) technologies in today's e-learning systems can provide personalized, adaptive and intelligent services to both students and teachers (Wen & Lin, 2008).

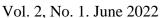
5. A proposed Plan to Increase the Efficiency of E-learning Entrepreneurship in the Light of the Role of (AI)

In light of the theoretical framework and models of international universities, the proposed framework for increasing E-Learning Entrepreneurship can be clarified in light of the role of Artificial Intelligence as shown in Table No. (1) as follows:

Table No. (1) A proposed plan to increase E-Learning Entrepreneurship in the University Education Sector

1	Strategy vision	To transform universities into sustainable smart
		universities whose goal is to spread and enhance
		techno-logical programs in the education sector so
		that they become advanced universities
2	Strategy message	Universities seek to maximize their role in bringing
		about intellectual development among their students
		and researchers, to support the processes of







		POBL
		creativity, Technological Innovation and
		administrative Empowerment of Human Resources.
3	strategy objective	Improving the efficiency of E-Learning
		Entrepreneurship in light of the role of Artificial
		Intelligence and increasing the capacity of human
		resources to face future challenges.
4	Elements of	1- Supportive administrative leaders.
	strategy	2- Flexible organizational structures.
	implementation	3- Modern technological structure.
	and success	4- Specialized and equipped training centres.
		5- Alliances with universities, specialized bodies,
		and international houses of expertise.
		6- A budget earmarked for financing.
5	Strategy	1 - Conducting continuous survey studies to find out
	implementation	what is new about the educational sector.
	procedures	2- Preparing accurate and flexible strategic plans.
		3- The presence of administrative leaders who
		believe in the idea of sustainable development and
		openness to the outside world.
		4- Encouraging teamwork.
		5- Providing the supporting financial and
		technological requirements.
		6- Supporting the necessary techno-logical
		processes and means in the field of technological
		training for human cadres.
		7- Concluding twinning agreements with many
		international universities.
		8- Providing the appropriate organizational climate
		to encourage employees to think pioneering.
		9- At least semi-annual follow-up.
6	Time schedule	The university leaders meet to set a proposed
		timetable for implementing the strategy, provided
		that the capabilities of universities are taken into
		consideration before defining the timetable for
		implementing the strategy to ensure its success.

Source: prepared by the researcher.

In light of the above, the researcher presents some recommendations for increasing the efficiency of E-Learning Entrepreneurship, as follows:

- 1. The administrative leadership's interest in preparing Technological and Entrepreneurial human resources.
- 2. Preparing a complete vision and Technological Strategic plans with an economic and knowledge dimension.

- 3. Establishing Technological Strategic Alliances with the regional and international technological sectors.
- 4. Opening Technological Entrepreneurship training centres to attract human resources.
- 5. The state's adoption of entrepreneurial investment activities.
- 6. Designing a smart integrated curriculum based on Entrepreneurship, Social and Industrial Intelligence.

6. Conclusion

This article focuses on the most important strategic topics in the current era, which are Artificial Intelligence and its role in achieving the efficiency of E-Learning by applying it to the University Sector.

This article reveals the adoption of the governing dimensions of Artificial Intelligence, which are (Machine Learning / Deep Learning / Data Analysis) and its role in improving the performance of E-Learning systems and programs, with reference to some International Models to benefit from in the future in order to achieve Sustainable Development for Human Resources (HR).

E-learning is one of the means that support the educational process in order to shift from traditional systems to innovative systems based on technology, where the latest methods are used in the fields of technological education based on electronic systems, programs and internet networks. The rapid developments in the field of technology have led to the emergence of new patterns of learning and education, which further consolidated the concept of individual or self-Education, in light of the role of the dimensions of Artificial Intelligence. Educational Entrepreneurship Strategies are based on identifying opportunities and strategic solutions and how to prepare new investment projects and achieve the highest efficiency rates for the performance of Human Resources and Electronic Systems.

References

Agulles, R., & Prats, M. J. (2011). Learning in practice: What organizational and management literature can contribute to professional and occupational development. *IESE Business School*, 938.

Alegre, J., & R.Chiva, R. (2013). Linking Entre Premeurial Orientation and Firm Performance: The Role of Organizational Learning Capability and Innovation Performance. *Journal of Small Business Management, Www.SSRN.Com*, *51*, 491–507.

Artificial Intelligence (AI) from Oracle. (n.d.). Oracle. Retrieved June 17, 2022, from https://www.oracle.com/ae-ar/artificial-intelligence/

Bali, M., Kumalasani, M., & Yunilasari, D. (2022). Artificial Intelligence in Higher Education: Perspicacity Relation between Educators and Students. *Journal of Innovation Educational and Cultural Research*, 3(2).

Elia, G., & Margherita, A. (2018). *Maturity of Crowd venturing for Corporate Entrepreneurship*, *Kelly School of* (pp. 271-283,). Kelly School of Business ,Indiana University . www.sciencedirect.com

Haefner, N., J., W., Parida, V., & Gassmann, O. (2021). Artificial intelligence and innovation management: A review, framework, and research agenda. *International Journal of Technolo-Gical Forecasting & Social Change, Available Online: Www.Elsevier.Com /Locate/Techfore*, 162, 2–10.





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Harrison, R. (2009). Learning Development. In *United Kingdom* (5th ed., p. 67).

Jiang, L. (2021). *Virtual Reality Action Interactive Teaching Artificial Intelligence Education System* (Vols. 2021, ID 5553211, pp. 1–11). https://doi.org/10.1155/2021/5553211

Ouyang, F., & Jiao, P. (2021). Artificial intelligence in education: The three paradigms. *Computers and Education: Artificial Intelligence*, 2, 2–6. https://doi.or

Qian, H., & Zhao, C. (2018). Space-Time Analysis of High Technology Entrepreneur-ship: A Comparison of California and New England. 111–119. www.sciencedirect,com/science/journal/01436228

Report of the Ministry of Higher Education and Scientific Research. (2017). In *Scientific Research and Technology*. http://portal.mohesr.gov.eg

Skerlavaj, M., Dimovski, V., & Desouza, K. (2010). Patterns and Structures of intra - Organizational Learning Network within a knowledge-intensive organization. *Journal of Information Technology, Availabe Online: Www.Ssrn.Com*, 25, 189–204.

University, K. (2012). Divison of Human Resources. Strategic Plan for Culture of Excellenc. In *Kent State University*, *Strategic Plan (2012:2017)*. www.Kent.edu/hr.strategic.plan.

Wen, D., & Lin, F. (2008, July 15). Ways and Means of Employing AI Technology in E-Learning Systems. *IEEE International Conference on Advanced Learning Technologies*. https://doi.org/10.1109