Investigating Educational Methods in Learning Using Cultural and Artificial Intelligence

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Abstract

The present study was conducted with the aim of determining the effect of cultural intelligence and artificial intelligence on the learning rate. This article, as the applications of artificial intelligence in education, seeks to explain the concept of artificial intelligence and its history, and the role of these titles and concepts in the mind of the audience and surround them, and then discuss its applications in education. In order to achieve this purpose, definitions of artificial intelligence were first presented and then numerous applications of artificial intelligence in various dimensions, especially in education, were examined. This study seeks to influence and evaluate how artificial intelligence has affected the education system, education and learning, management and the fields of education management. This study specifies that artificial intelligence has strengthened the effectiveness and efficiency in the implementation of administrative tasks in education and has generally improved the effectiveness of education and learning in education. The results showed that the interest and impact of artificial intelligence research in the field of education is constantly increasing. The findings showed that cultural intelligence had a positive and significant relationship with creativity in internal and external learning. Also, cultural intelligence and its two components (metacognitive and motivational) and perception of classroom learning creativity had a negative and significant relationship with demotivation. Finally, it should be said that through strengthening cultural intelligence and using artificial intelligence as a creative, classroom learning environment in students, it is possible to help increase their academic motivation. In educational fields, traditional artificial intelligence technologies, such as natural language processing, have been used more than more advanced techniques.

Keywords: Cultural Intelligence, Artificial Intelligence, Internet, Virtual Education, Learning Process.

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The spread of teacher and student method and face-to-face education in ancient times indicates the most central ways and skills of learning in the past, which we still do not have in the current era. The development of science and technology, followed by significant developments in various fields and the industrial revolution, faced serious challenges to the ideas and thoughts of the ancestors [1-3]. The emergence of information and communication technology has cast a shadow on all aspects of human individual and social life and by collapsing borders and times, it has turned the world into a village. The convenience of using tools instead of human power made thinkers think about how to benefit from technology in teaching and learning. The result of this contemplation and effort was the supply of educational and learning packages through electronic tools, which will later be called electronic and virtual education.

Technology plays a fundamental role in creating and transforming the meaning and concept of knowledge. It should also be noted that virtual technology is uncontrollable in the future and in order to cope with some requirements, technology and virtual space are unavoidable in the components of education. Regarding the concepts, definitions, boundaries and loopholes, knowledge, cultural behavior and practice, a new conceptualization [4] of tolerant ijtihad should take place. On the other hand, instead of a negative attitude towards the effects of technology, although seemingly challenging and unavoidable, we can consider it as a positive opportunity to present new perceptions of education.

In today's society and in the age of information and virtual space, the importance of raising children is very important. Parents and teachers should be good role models for children and teenagers. Teachings emphasize the important role of parents in the education of children. Today, education is trying to respond to the needs of students through its proper educational method and organized system. The wonderful role of education and training in human life is not hidden from any wise person, the flourishing of talents and high values is based on education and training, and the human becoming human and reaching its final perfection is all due to correct education [5, 6].

The institution of education of a country has a fundamental role in the education of the citizens of that society and the education and development of human rights. Although the formation and development of the personality of the people of a society is not necessarily dependent on education [7]; However, it should be acknowledged that a large part of the personal and social development of people is carried out by the official institution of education. In fact, education through official institutions is one of the most important and purposeful parts of human education, whose effects can be seen in a comprehensive manner in the lives of people and in their various intellectual, social, religious, artistic and moral dimensions. , discussed and investigated.

Today, the term artificial intelligence is not unfamiliar to anyone, especially people who are into technology and read the news. Artificial intelligence is a phenomenon that has the ability to change and improve processes, and for this reason, it affects many aspects of our lives. One of the sectors that has been heavily influenced by artificial intelligence is the category of education and learning [8-12]. Perhaps for many people interested in various fields of information technology and those interested in education, the question has arisen that the future of education with Where will artificial intelligence technology end? Artificial intelligence is growing rapidly with the potential to change the face of the education sector. The advancement of technology has caused changes in many industries, and the education industry is no exception. As we know, the emergence of any technology has effects that, as a result, lead to changes in the sciences and the devices used. The

rapid development of computing process has increased the application of AI in education systems [13-18]. AI in education is to the employing the AI including computation information and theories and applications in educational environments to facilitate teaching, learning and education process. With the help of AI, judgment and prediction, computer systems can provide guidance, support or personalized feedback for students, teachers and policy makers in decision making. Of course, we must mention that this technology, like other scientific developments, has positive and negative characteristics that can be used in the best way by observing the balance in it. The advancement of technology has created significant changes in many industries and it can be safely said that artificial intelligence technology has become an integral part of human life and work. One of the systems that will definitely be a suitable field for the growth of this technology and will set a growing trend for its activities is the education system. Although currently artificial intelligence has been widely used in education through the development of computing and information processing techniques in this system, however, this technology will be able to create new opportunities, potentials and challenges in educational practices. In this article, the role of artificial intelligence in education and the implementation of this technology in the educational system will be examined.

Today, due to the rapid expansion of virtual environments such as the Internet, mobile phones, social networks, etc. A new educational environment called virtual space has been created, which significantly connects different people, especially children and teenagers, and will have many direct and indirect effects on the education of the audience. Among the challenging features of education in cyberspace are its western origins, unlimited and uncontrollable nature, conflict of cultures in cyberspace, users' privacy at risk, unrecognizability of identity, crimes against modesty and public morals. Enemy's investment in cyberspace front and soft war, bad effects of cyberspace on users' morals. Also, acculturalization of optimal and correct use of virtual space facilities, familiarizing the guardians of education with the dangers of virtual space, production and development of cultural productions in virtual space, monitoring and accompanying children in the use of virtual space, cultural substitution, strengthening of beliefs, giving insight and informing users [19].

One of the innovations that can be considered in the field of education is the use of artificial and cultural intelligence in a virtual space and new communication media. The diverse capability of this media provides the possibility of providing education courses for audiences with different categories, in a comprehensive manner and at a low cost. For this reason, we decided to examine the role of virtual space and the Internet in the education. Many researches have shown that virtual training can be much more effective compared to traditional training if it is produced and managed properly, especially in learning process.

Literature review

In [20] by using the analytical method, while emphasizing the necessity of attention and planning to face the confusions resulting from the existing social, political and especially cultural and educational structures and relations resulting from the continuous growth of technology and virtual spaces, develop a program to take the initiative to develop a regular, scientific and logical procedure to deal with these technologies in the current education system. Therefore, in his research, he instills to the audience the necessity of paying attention to scientific research in the field of electronic education to face the challenges caused by this technological revolution.

- In [21] an article with the theme, the mutual role of prescriptive and virtual education in improving the level of education, first of all, the need to be familiar with the virtual world, and finally, its advantages and disadvantages and to

what extent virtual sciences in the service of teaching education has been paid.

- The findings of [22] in his research on issues caused by the Internet and virtual space indicate that this space has created rapid access for students to revolutionary information, which at first glance seemed great. Nevertheless, with more prevalence of this phenomenon, it will show its inner and hidden effects, the smallest of which is the reduction of moral values. In [23] investigated education through mobile phones in developing Asian countries and finally, it is observed that mobile phones in these areas, in addition to providing the possibility of education in remote areas and other benefits are associated with the decline of moral values among students.

Method

To carry out this research, cultural and artificial intelligence variables were evaluated in the education dimension among high school schools. For this purpose, 14 schools with 720 students and 28 teachers were evaluated. To facilitate the research, available sampling method was used. This sampling was done for 1 month in the schools in question. In the next step, the subjects were referred to while explaining the purpose of the research and assuring them about the ethical issues of the research, such as the confidentiality of information, and asking them to cooperate in conducting this research with their knowledge and consent and to answer the questions carefully and honestly. Answer the questionnaires. After distributing the questionnaires to the subjects and collecting information, the data was analyzed and analyzed with Spss-21 software.

Research objective

1. Examining the opportunities and threats of virtual education in educating students with the artificial and cultural intelligence.

2. Identifying the weaknesses and harms of virtual education in the education of students with the approach of artificial and cultural intelligence.

3. Identifying the opportunities of virtual education in the education of students with the approach of artificial and cultural intelligence.

4. Strengthening the virtual education system.

Research hypothesis

a. The main hypothesis

What are the opportunities and threats of virtual education in educating students with the approach of artificial and cultural intelligence?

b. Sub-hypotheses

1. What are the weaknesses and disadvantages of virtual education?

2. What are the ways to strengthen the virtual education system?

3. What are the opportunities of virtual education?

One of the main reasons for the prosperity of virtual space in the recent era including the ability to be found in the public, reducing costs and saving time compared to traditional education. Virtual education is realized by new communication media.
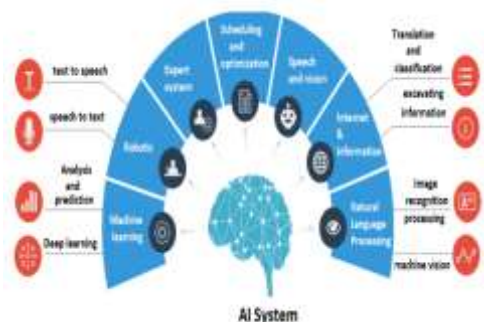

Figure 1: research model of the intelligent learning

Culture and virtual education

The culture of virtual education is one of the areas of professional cultures, because: a profession means having knowledge, skill and ability, and it seems that education can be considered a profession in this sense. Professional cultures refers to relational behavior

patterns based on respecting the rights of others and moral responsibilities towards the environment. Talking about education does not make us free from moral issues, because negation in negation is proof, but proof is not negation. Although the mission and goal of education is the growth and prosperity of humans and their evolution along with the production of science and innovation, but the increasing spread of cultural issues and the emergence of various fields for opportunism and abuse are unethical. It also shows the need for education, especially in electronic and virtual education, due to the free flow and wide scope of electronic communication. It should be noted that cultures has a single universal concept, although some have taken a one-dimensional approach to it.

So, the generalization of the definition of professional cultures to the field of educational cultures is also a matter of delivery. The researcher is required to compile and regulate cultural codes in the field of education to explain values and contradictions in a clear and transparent manner and to express moral responsibility towards cultural norms that require accurate conceptualization. However, although moral principles and values are sometimes general and universal, such as trustworthiness, truthfulness, preserving personal privacy, original and inherent dignity, respect for freedom, avoiding deception, etc., but each of these concepts may have examples in different fields which are varied from other fields. For example, trustworthiness in trading is not the same as trustworthiness in the field of education, fraud in the field of banking and bank's organizational culture is different from fraud in the field of virtual education. What can be discussed and examined in the epistemological field of cultures of education are issues, examples, cultural conflicts and cultural responsibilities of the organization in the field of virtual education, but before conceptualizing the cultures of virtual education, it is necessary to say some points about this education and related cultural issues.

Figure 2: structural of proposed model (integrated cultural and Artificial Intelligence)

Conceptualizing the cultures of virtual education

In conceptualizing the cultures of virtual education, the meaning of cultures and virtual education, as well as the determination of the internal and external environment of the educational organization in order to design their rights and duties and cultural policies of the organization towards them, should be taken into account in the process of this conceptualization.

Sociology regarding cultures, virtual education and the elements of the internal and external environment of the organization opens the way for the precise formulation of the concept of cultures of virtual education. Cultures should be defined from the field of psychological knowledge and science based on respecting the rights of oneself and others in intrapersonal, extra personal and interpersonal interactions. In addition, neglecting the social life of the organization as a legal personality in expressing its moral responsibilities will be reductionist.

Results

Descriptive indicators of cultural and artificial intelligence dimensions were evaluated in the learning process. The skewness and skewness of these variables were reported, and considering that it was in the range of +1, it indicates that the distribution is relatively normal. According to the results of Table 4, in the sample of the present study, the average of total subjective intelligence, total cultural intelligence and its metacognitive, cognitive,

motivational and behavioral dimensions were obtained respectively. Also, the skewness and kurtosis of these variables were mentioned, which, considering that it was in the range of +1, indicates that the distribution is relatively normal.

Table 1: Descriptive indicators of cultural-artificial intelligence

Variable	AVE	SD	P-value
Metacognition	14	2.84	0.001
Awareness	18	3.53	0.001
Motivation	17	2.64	0.001
Behavior	18	5.78	0.002
Cultural Intelligence	21	3.55	0.000
Artificial Intelligence	22	3.46	0.001

There is a positive relationship between cultural intelligence and academic motivation of students. This hypothesis of the current research was confirmed and the findings showed that cultural intelligence - all four dimensions of metacognition - motivation, cognition and behavior have a significant positive relationship with learning motivation. Also, the results showed that artificial intelligence along with cultural intelligence can significantly improve the learning motivation for the young generation who grow with technology, and the second hypothesis of the research about the effect of artificial intelligence on learning in education was confirmed. In fact, the increase of cultural and artificial intelligence and each of their elements, including metacognition, cognition, motivation and cultural behavior, will be accompanied by an increase in the amount of learning. Because cultural intelligence causes a person to use characteristics and skills in an interpersonal situation that leads to adjusting his behavior according to the cultural values and attitudes of the other person, it can improve student interactions with school officials, teachers, and classmates. With the use of artificial intelligence, when teachers and students use this technology in the discussion of education, when such a situation occurs, it causes the student to receive reinforcement from these

people present in the educational environment, and the educational environment becomes a rewarding environment for him. Be part and satisfactory. The satisfaction of the learning environment and its interaction with technology for the people present in the learning environment increases the motivation and the amount of learning and the easier transfer of information from the teacher to the student.

Figure 3: The satisfaction of AI application in education

As shown in Figure 3, about 75% are agree with the application of the AI- in education, and these technologies can improve students' learning experience through the creation of interactive and multimedia environments and the use of gamification. Also, artificial intelligence helps increase student motivation and engagement, reduce dropout rates, and provide personalized support and guidance. The future of artificial intelligence in education is promising, and new developments such as deep learning and augmented reality can play an important role in this. To fully exploit the potential of AI, investment in the necessary infrastructure and further research on the effects, justice in algorithms, privacy and teacher training are necessary.

Challenges facing education systems in virtual social networks

In today's advertising world, this is difficult; because deviant and much more dangerous and complicated methods than in the past are facing the missionaries and the possibility of them falling into the abyss of destruction has increased. There are many elements of propaganda that have started their movement in the beginning with lofty goals in the region and

the world, but unconsciously in the maze of propaganda work, they have slipped into the lap of these challenges. Therefore, just as he should try to plan and implement advertisements, he should also consider the challenges ahead [18].

Internet addiction

Internet addiction is a category that has seriously attracted the attention of experts as a social problem. This addiction is a condition caused by the user's continuous use of the Internet, which gradually causes him to become psychologically dependent on it, to the point where a person, despite not having a necessary need for the Internet, suffers complications such as depression and moodiness if he does not have access to it. Therefore, in order to get rid of this challenge, it is suggested to preachers and users of the Internet, especially virtual social networks, to determine their activity on the Internet according to a schedule limited to specific hours.

- Violation of privacy of individuals

The messenger faces this challenge in such an environment, which usually provides social networks, tools and facilities to their users so that they can put their information, pictures and videos on their personal page. Problems such as creating fake profiles in social networks and not being able to control them due to the high volume of these spams cause people with fake profiles to enter social networks and by entering the private spaces of the people in question, images and information Steal them and distribute their pictures on the Internet [19].

- Depression and staying away from the real environment of society

The virtual society will never replace the real society; rather, it will act as a facilitator of social experiences. Communication facilities allow us to connect globally and remotely in a new way with communities that share common interests. This space may be able to give the missionary a good understanding of the real environment, and the user will be able to establish better social relations with other audiences in the real world, but over time, it will cause the missionaries to

become isolated and stay away from the real environment. It gets used and with the passage of time it can have negative consequences for them.

- Negative behavioral effects and the spread of pornography

Each social network has its own communication culture, that is, it has chosen a special and unique character and speech for itself. By being a member of any social network, a person becomes involved in a special type of communication culture, which includes dealing with, relying on words, special terms, behavior, personality type and appearance, etc. Undoubtedly, a person's level of influence from this environment will not be absolute zero. Therefore, every social network promotes its desired identity. Some of these networks have weakened the social and cultural security in our society by damaging the national identity and replacing it with a global identity and it causes the national identity of young people to be damaged. So he becomes pessimistic about the intellectual boundaries and moral limitations of his own society.

Conclusion

In this article, the conceptualization and how to organize intelligence and cultures policies in the field of virtual education were discussed. Today, the use of virtual space and the facilities provided by the Internet have penetrated into all dimensions of human life, one of which is the field of education. Nevertheless, the nature of this educational environment is such that it will create threats in this field, which, if not paid attention to, can cause irreparable damage to the teachers and the society. Therefore, in the current research, which consisted of two parts, firstly, the concept of education was discussed, and then the possibility of realizing three principles of education - the development of thinking and reasoning, self-esteem, freedom - in virtual space was explained to educators. Moreover, due to the potential limitations of virtual space, which have been discussed in these three axes, it can be concluded that failure to pay attention to them can cause education to face challenges. It can be

concluded that virtual education has the positive and negative effects on education as follows, which by knowing these effects, virtual education can be more effective in the education and cultures development. Considering the results of the present research and according to the existing research literature, it can be said that cultural and artificial intelligence with the perception of the classroom environment leads to motivation and increased learning in several ways:

- Cultural intelligence and perception of educational learning environment through positive perception and internal attitude of the person towards the members and elements of the learning environment increase motivation and learning.

- Placing artificial intelligence in the framework of cultural intelligence can create constructive interaction between students and teachers and improve the speed of learning, transfer of information and understanding of concepts.

- The combination of artificial intelligence and cultural intelligence in the education system, while creating educational innovation and creativity, provides motivation for learning and education for the educational environment and improves the learning process.

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