Challenges of AI Technologies Chat GPT in Practicing Education of students in the UAE

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Abstract

Artificial Intelligence (AI) Chat CPT is becoming pervasive. The technology is reaching into so many facets of sectors fundamental element reshaping, particularly education. This caused difficulties and challenges . The research aims to discuss opportunities and challenges that AI in education of children and provide a comprehensive view of these technologies.In this research, the research utilized method The descriptive, analytical and inductive method .the finding of this research that many challenges of education such as security Data privacy,stupidity mind of students.,impede skills such as creativity of children and critical thinking,The research recommended cooperation between Various stakeholders, including government agencies and educational institutions, and educators should push for the utilization of AI's vast applications in the educational sector.

Keywords: *Educational Practice,Artificial intelligence (AI) Chat GPT,educators,students.*

Introduction

In 2015, all United Nations member states adopted the Sustainable Development Goals (SDGs), also known as the Global Goals, Among which is Goal 4, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.".Education is define as a process through which information and knowledge are transferred from the teacher to the learner. The purpose of this process is for the learner to acquire a set of new skills and information that contribute effectively to the development of their intellect, and subsequently, to the advancement of education, nations, and their progress. in same context the Article 26 of the Universal Declaration of Human Rights, adopted in 1948 and signed by all nations, states:

Everyone has the right to education.Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available, and higher education shall be equally accessible to all on the basis of merit.

Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms.

It shall promote understanding, tolerance, and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

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Parents have a prior right to choose the kind of education that shall be given to their children.

Article 27 States:

Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts, and to share in scientific advancement and its benefits.

Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary, or artistic production of which they are the author.(United Nations Educational,Scientific and culture organization ,2006)

Artificial intelligence (AI) is a branch of computer science that emerged and was named during a several-week-long workshop in the summer of 1956 in Dartmouth, Massachusetts, USA. This workshop was attended by leading scientists in the fields of computer science, engineering, communications, and mathematics from around the world at that time. (Grewal, D. S.,2014)

It was during this workshop that the field of artificial intelligence was born. Artificial intelligence (AI) is defined as a branch of computer science concerned with how machines can simulate human behavior. The term "artificial intelligence" was coined by John McCarthy in 1956, defining it as the science of engineering intelligent machines, particularly computer programs.

AI is thus considered a modern science that encompasses various fields, simulating human thought, storing information, and performing specific tasks through the provision of algorithms, applications, and various electronic media to integrate and connect concepts to form a machine resembling an expert human. It involves training computers, applied sciences, humanities, environmental sciences, and logic.(Cordeschi, R,2007)

AI has developed astonishingly, starting from the work of Alan Turing and John McCarthy to modern advancements such as Dall-E2 and ChatGPT-4. The role of big data and machine learning in developing intelligent educational systems has become increasingly significant.

.AI has become an integral part of our daily lives and is used in various ways, providing a computer program with the ability to think and learn on its own.(David Jefferson,2019) Commenting on this, the legendary physicist Stephen Hawking said, "The success in creating effective AI could be the biggest event in the history of our civilization, or the worst. Therefore, we cannot know if AI will help us or destroy us."

The field of artificial intelligence has gained significant attention and widespread fame, to the extent that the UAE now has a Minister of Artificial Intelligence. In the same context,The research problem arises in the challenges in practicing education for students in the United Arab Emirates .

This paper aims to achieve the following important objective:

This study aimed to discuss the opportunities and challenge of education of students in the United Arab Emirates.

The remainder of the paper is organized as follows: section 1 presents Introduction,Section 2 presents the related works based on the latest previous study and presents a comparative analysis based on their proposed method and objective. Section 3 The result and discussion. Finally, the conclusion is discussed in Section 4.

Literature Review

The recent decade has seen much attention paid to Artificial Intelligences Chat GPT .The purpose of this section is to review various literature reviews of Artificial Intelligences Chat GPT .

"A literature review of ten articles and research papers was conducted in order to determine the research gap and ensure that the topic is original".

ChatGPT is relatively new, there are very few academic papers that have tested the Challenges of AI Technologies Chat GPT in online Education of children. After searching the literature, we found only the following three: articles that discussed ChatGPT in a structured and academic format . Table 01

These 3 cited research papers discuss the effects of chat GPT on student behavior, Artificial intelligence in education,Chat-GPT in Educating Retailer

However, this research discovered that the absence of research papers are examining the Lack of research on the difficulties and challenges of artificial intelligence in the education of the United Arab Emirates' children."This is the research gap filled by this study. Determining whether Chat GPT is beneficial or harmful to students' learning abilities is the main goal of the study" .

Authors & Year	Proposed Method	Problem Statement	Objective
(Allam, H.,et al.,2023)	The research method in this research paper is not clear and was not included in this research paper. Rather, it was sufficient to mention a sentence. We put ChatGPT to the test and used it inside the classroom with a CIS course and see students' feedback There is no specification or information on	There is a complete absence of defining the research problem, but rather a narration was provided in the introduction.	to cover the use of AI in education and examples of its current use educators. Further, the article tackles Chat-PT in terms of its capabilities and pitfalls

	the number of students and the search method.		
Ammar, A. (2024).	the research use both quantitative and qualitative methods, taking a multipronged approach". effects on students, we will use surveys, interviews, and behavioral analysis". "We will also examine the methods and approaches that can optimize Chat GPT's educational advantages while minimizing any potential downsides" Probability sampling employs probability theory to randomly select individuals, ensuring equal chances for all in the target population. It includes: a. Simple Random Sampling: Randomly selecting participants from the entire	The problem of the study was not mentioned, and only the research questions were presented RQ1: To what extend has learning been affected by Chat GPT? RQ2: How is the attitude of students influenced by Chat GPT? RQ3: Does chat GPT influence students towards excessive usage? RQ4: Do you think there is any effect of Chat GPT on Students' behavioral? C	An evaluation of various ML models for fraud detection using real-world credit card data. The project's objective is to provide a comprehensive analysis of these dynamics while promoting effective and moral teaching strategies, The recommendation gives the decision-maker the opportunity to make appropriate strategic decisions.

	population.		
	b. Stratified Random Sampling: Dividing the population into subgroups (strata), then taking random samples from each subgroup to ensure representation.		
	c. Cluster Sampling: Dividing the population into clusters, randomly selecting clusters, and including all members within those clusters in the sample.		
	d. Systematic Sampling: Selecting every 'kth' individual from a list after a random starting point, such as choosing every 5th person from a list after a random start.		
	The study sample and research method were used		

		appropriately	
(Shwedeh, F.et al,2024).	This study examines if the adoption of Chat GPT in educating retailers (AER) is affected by the three independent variables. Based on these assumptions,	A cross-sectional design was used in this descriptive-analytical study as a deductive strategy The data collection instrument used in the study was an online questionnaire that used a self-administrated strategy to collect data from various retail managers in the United Arab Emirates (UAE) [68]. "This examination study was led at large retail stores across UAE whereby seven large Retail stores and 160 retail staff participated in the study	, this study aims to investigate the acceptance of using the Chat GPT Model for retailers' education purposes. This study will help in analyzing and testing the 392 F. Shwedeh et al. prediction of retailer's intention to use Chat-GPT in their education. This research will close the gap mentioned above

Table 1: Research Literature Summary

Methodology

In this paper, In this research, The descriptive, analytical and inductive method was utilized .This method plays a role to identify comprehension overview of AI and education and challenges the United Arab Emirates.

4.Result and Discussion:

Education in United Arab Emirates:

Education in the United Arab Emirates holds great importance and has always been a priority

since the establishment of the Union by the late Sheikh Zayed bin Sultan Al Nahyan, may his soul rest in peace. His belief in the fundamental role of education in achieving the country's future goals led to significant advancements in education during his era. Sheikh Zayed ensured that the education sector kept pace with scientific developments at the time, attracting experts from the region and the world to advance this sector.The wise leadership, headed by His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE, has continued on this path, expanding the education sector to become the driving force behind the country's development. This includes adopting the best global systems for both school and university education. The UAE has also established educational institutions focused on scientific research, recognizing its importance in continuing sustainable development and achieving the country's vision for progress and prosperity.

The UAE recognizes the importance of integrating technology into the educational process and considers it an effective means to achieve equity and reduce the educational gap among students. By providing online learning platforms and advanced educational applications, students can access diverse educational resources and live lectures from experts in various fields, helping them develop their skills and achieve better results. The UAE has introduced many tools to stimulate passion and desire for learning among students by providing a stimulating educational environment filled with innovative opportunities. UAE schools now use modern technology in education, applying techniques such as artificial intelligence, virtual reality, and self-learning. They have provided strong infrastructure and advanced technological resources in schools and universities, enhancing the educational experience and helping students acquire modern digital skills needed in the rapidly changing job market.

One of the most notable efforts in this regard is the education strategy developed by the Ministry of Education, which has made the student its focus. The strategy emphasizes the quality of educational and pedagogical performance in schools. It includes restructuring secondary education and enhancing the curriculum to align with the requirements of higher education in the country and abroad, as well as the labor market. It also involves developing the system for selecting educational staff and balancing the components of knowledge and content in science, mathematics, and English.

The educational development policies adopted by the UAE have achieved significant accomplishments in this field. There are many objective indicators of this, perhaps the most important of which are the advanced ranks the country holds in the quality of education according to various international indicators. Additionally, the UAE encourages innovation and has ventured into fields that were, until very recently, exclusive to a few countries, such as the space sector, which the country heavily relies on as one of the key sectors driving sustainable development and future progress.

Main Applications of AI in Education:

● **Adaptation:** AI helps tailor education to meet the needs of each student, making learning more effective. AI-based solutions can adapt to students' learning levels, speed, and current educational goals. AI-powered applications can analyze students' previous learning history, identify weak areas, and offer courses based on this information.

● **Integration:** AI solutions can be integrated with other IT initiatives to provide appropriate solutions for teaching students.

● **AI-Based Analysis:**AI helps in identifying key trends and providing useful information

to teachers to improve classrooms. As a result, AI and its applications offer various options based on the needs of the student. AI-based solutions can adapt to help students with their weaknesses and provide educational materials tailored to those weaknesses. For example, a student might take a test before using an application; the application would then analyze the results and provide appropriate tasks and courses.

● **Automation:**AI can automate simple tasks such as grading assignments and identifying digital resources, allowing teachers more time to interact with students. Automating routine tasks can give teachers more time to focus on their core competencies. Many teachers and faculty members struggle with time management, which is understandable given the number of tasks on their daily to-do lists. While teachers wish to spend more time teaching students face-to-face, delving into research, and continuing their education, they often lack the time. AI can help save teachers' time by automating tasks, analyzing student performance, and bridging educational gapsIt is noted that the power of AI can automate most routine tasks, including administrative work, grading papers, evaluating learning patterns, and answering general questions. According to a Telegraph survey, teachers spend 31% of their time planning lessons, grading tests, and doing administrative tasks.

The benefit Artificial Intelligence and educator:

The educator can benefit from AI applications in the following ways:

1) Identifying Students' Weaknesses to Develop the Curriculum: Various training courses allow for the identification of gaps in students' knowledge.

2) Customizing Educational Courses for the Teaching Staff: By analyzing students' abilities and learning history, AI can provide a clear picture of the subjects and lessons that need to be reassessed. This analysis enables teachers to create the best educational program for all students by analyzing the specific needs of each student. Teachers and professors can adjust their courses to address the most common knowledge gaps or areas of challenge before a student falls too far behind their peers.

3) Better Curriculum Development:Modern technologies such as VR and gamification help engage students in the learning process, making it more interactive and giving them the opportunity to find a good teacher.

4) Answering Students' Frequently Asked Questions:It is well known that many teachers do not have free time for students after spending long hours teaching at school. AI tutors and chatbots are an ideal solution in these circumstances, as a chatbot can provide a personalized learning experience for the student without the need for a teacher to answer questions throughout the day. In fact, an AI-powered chatbot can answer students' questions with a response time of 2.7 seconds. It can also answer frequently asked questions by accessing the school's complete knowledge base. AI-powered chat programs can answer a variety of general and repetitive questions that students usually ask without involving a faculty member. AI allows the teacher more time to focus on lesson planning, curriculum research, or improving student engagement.

Improving Student Engagement:

It is worth noting that during the learning process, students have a variety of questions. While some are very specific and require the teacher's attention, many of these questions are common and general. Faculty members are inundated with questions daily, making it difficult for students to access the necessary information. AI can help students find answers to their questions within

seconds, eliminating the need to waste time trying to contact faculty members or feeling embarrassed about asking questions in front of their peers.

In this era where technology is evolving around the clock, students must be trained in technology-related skills, such as handling AI software, from an early stage in their educational journey, and it wouldn't be an exaggeration to say from elementary school. For example:

Step One:

It is possible to teach students what AI is and let them interact with some games that use this technology so they can feel how to deal with it.

Step Two:

Explain to them simply what AI is and how it works.

Step Three:

Train them to develop simple AI software using programming languages designed for young ages,

with some languages suitable for those under ten.

Step Four: This depends on the student's specialization. The previous three steps end at the preparatory stage, and in high school, the student either goes into scientific or literary specializations. According to the specialization, the student is trained to use AI in their field, whether in literary or scientific subjects, as AI has spread in almost all fields.

These steps could serve as a starting point for introducing AI skills in the school stage and may need refinement and adjustment when applied in reality.

Therefore, using technology in education is as important as teaching technology.Now, AI software like ChatGPT has emerged and can be used by both teachers and students. For example, the teacher can ask students to use it to conduct specific research and then ask them to attach the question they gave to the program and the modifications they made to what the software produced. Teachers can also use this software to create new problems for students or innovate new projects, of course, with reviewing what the software produces as it is still in the experimental stage and some of its outputs may be incomplete or incorrect. In the twenty-first century, critical thinking and the use of technological tools have become more important than quantity. So, are we ready and prepared?

Challenges of AI in education in UAE:

AI faces several challenges and difficulties in education sectors:

Data Governance: Data governance policies must comply with regulatory constraints and privacy laws. Data quality, privacy, and security must be managed.

Technical Difficulties:

Training AI using machine learning consumes enormous resources. For deep learning technologies to perform their functions, a high level of processing power is necessary. A strong computing infrastructure is required to run and train AI applications.

Data Limitations:

To train unbiased AI systems, vast amounts of data need to be input. Storage capacity must be sufficient to handle and process training data. Efficient management and data quality processes are essential to ensure the accuracy of the data used in training.

Ethical concerns:

AI in education caused Ethics refers to systematizing, defending, and recommending concepts of right and wrong behavior In the context of AI, ethical concerns refer to the moral obligations and duties of an AI application and its creators

Harmful or inappropriate content:

Harmful or inappropriate content produced by generative AI includes but is not limited to violent content, the use of offensive language, discriminative content, aAlthough OpenAI has set up a content policy for ChatGPT, harmful or inappropriate content can still appear due to reasons such as algorithmic limitations Which results in incorrect and harmful education.

stupidity mind of students :

Over-reliance The apparent convenience and powerfulness of ChatGPT could result in over-reliance by its users, making them trust the answers provided by ChatGPT without use mind could result stupidity

impede skills such as creativity of students and critical thinking:Over-reliance on IA chat could result to Cousers could get into the habit of adopting the answers without rationalization or verification. Over-reliance on generative AI technology can impede skills

Security Data Privacy:

is another prominent challenge for education AI such as ChatGPT. Privacy relates to sensitive personal information that owners do not want to disclose to others. Data security refers to the practice of protecting information from unauthorized access, corruption.(Luo, X., Tong, S., Fang, Z., & Qu, Z. 2019).

The economic benefits of these applications will be significant. When every student has an AI-powered private tutor, overall educational outcomes will improve, and less fortunate students in lower-quality schools will likely benefit disproportionately. These better-educated students will grow to become more productive, capable of earning higher wages, and will also become wiser citizens, capable of making life prospects better and brighter.We do not exaggerate when we say that digital transformation using AI in educational institutions has become an urgent necessity that is difficult to dispense with. It was not just an experiment for a period coinciding with crisis challenges; rather, developing life skills that rely on technology has become imperative. It is difficult for an individual to obtain a suitable job opportunity without these skills, and traditional education has become unable to keep up with the evolving job market.AI, such as ChatGPT, has become essential for dealing with current challenges and taking advantage of new opportunities in the digital technology era. It improves the quality of education and enables students and teachers to fully benefit from the complete transformation in education and communication with citizens and learners. It can also contribute to expanding educational opportunities, achieving equality in access to education, improving the quality of education and assessment, enhancing interaction and collaboration between teachers and students, and developing self-learning and innovation skills.Through the virtual environment established by AI (ChatGPT), learners can gain diverse learning experiences through intentional activities planned in advance by a skilled

teacher who plays new roles as a guide, mentor, and facilitator of the educational process. This environment keeps students in a state of interaction, cooperation, and collaboration in performing some group tasks, while also providing the opportunity for learning according to individual abilities in the form of individual tasks performed by the learner, thus taking responsibility for learning and considering the individual differences of each learner.AI, such as ChatGPT, brings numerous benefits, including contributing to the development of self-learning skills in learners and enhancing their abilities towards practicing essential skills systematically.

educators can plan and organize their thoughts, adopt procedural scenarios that help them execute tasks, and evaluate their performance to continuously improve and develop it. This fosters independence and scientific curiosity, enabling lifelong learning.AI (ChatGPT) creates a flexible learning environment where learners can gain learning experiences anytime and anywhere according to their abilities, provided they have internet access. This environment promotes a culture of continuous reading and research, and learners acquire various strategies to obtain new information in different educational fields. This is accompanied by a significant growth in the skills of future teachers who can design interactive educational environments rich in renewed learning experiences to keep pace with rapid knowledge acceleration.The digital environment created by AI (ChatGPT) is surrounded by privacy safeguards, including numerous protection measures for digital content and personal data. Additionally, the functional security provided by countries has ensured the safe use of technology in its various forms, making investment in the digital field a high opportunity. Specialized companies can produce essential requirements and needs, whether material components or software and applications related to the digital environment.AI (ChatGPT) in education faces challenges such as equitable access to technology, data protection, and improving teacher training in using digital technologies. However, digital transformation positively impacts the quality of education and learning, expanding opportunities for individuals in the future, and improving efficiency and effectiveness in the educational process.Digital transformation using AI (ChatGPT) opens doors to new and exciting possibilities for the quality of education and provides equal opportunities for all, achieving educational equity and justice. It introduces significant changes in teaching and learning methods, student assessment and evaluation, and prepares future generations to face challenges and opportunities in a rapidly changing world.In light of the above, digital transformation using AI (ChatGPT) has had a significant impact on the future of education, especially Emirati education. Its quality has become dependent on it, and the skills of its graduates have become a condition for their excellence and competence in various scientific, practical, and life fields. Teachers are now required to have more skills and strategies that align with digital environments to be able to prepare a generation that meets the needs and changes of the job market, is capable, entrepreneurial, and competitive in the open space, and contributes strongly and positively to the development, progress, and renaissance of their country.

Conclusion

The use of AI in the educational sector represents a significant opportunity to improve educational processes. At the same time, there are several benefits and obstacles and challenges Exploring these benefits and challenges allows us to understand the immense potential that AI offers in the field of education and how we can optimally utilize it to achieve substantial improvements in the educational process.educators,This is what can be achieved if there is cooperation between Various stakeholders, including government agencies and educational institutions, and educator should push for the utilization of AI's vast applications in the educational sector. They should work on providing funding, technical support, creating a

supportive regulatory and legal environment, and building necessary partnerships among key players in this strategic sector.

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