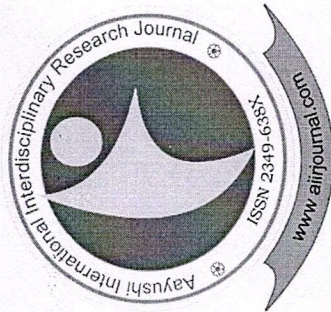


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Impact of chat GPT on Education

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Abstract

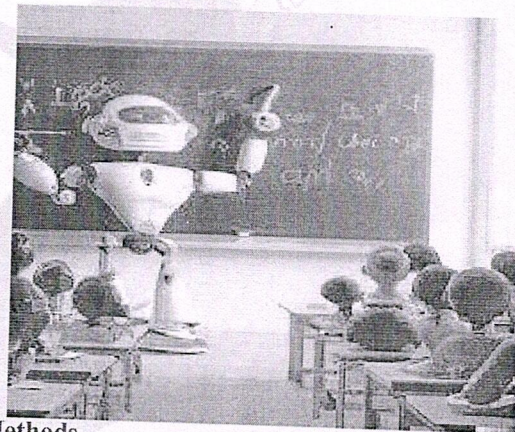
ChatGPT is an AI (Artificial Intelligence) chatbot, developed by OpenAI and launched in November 2022. ChatGPT is made by a large family of language models and has the ability to create and hold conversations on different varieties of topics, help with coding, and other necessities in different areas.

ChatGPT's launch meant setting a new mark for chatbots that involve human-like responses to questions that they're set to answer by users.

Obviously, the popular ChatGPT has undoubtedly had its impact on education and has transparently taken a toll on the ways we are inclined to do assignments and most of our jobs, hence making a change to tech industries and creating a path for future chatbots. Therefore creating a blog or an article that catches the eye of a web user is made easier. Offering such a service gives a certain affinity to the user, on the other hand, it also helps a website gain more visits and widens the audience approach. The writing or content creation becomes slightly easier, that be of course due to its ability to write and create content ideas in a matter of seconds with useful language input. However, the chatbot is still able to recognize and visualize patterns of answers to create simple and easy-to-understand responses. The company has disclaimed that the chatbot is still in the research phase, therefore it is prone to having incorrect and not-so-accurate results. However, it does show potential signs of improvement.

Introduction

ChatGPT can be a valuable tool for language learning, offering translations, grammar explanations, vocabulary practice, and conversation simulations to help students practice and improve their language skills. Also, it can help students to schedule a program for improving their language skills.



Methods

The Rapid Review Approach

As ChatGPT continues to receive great attention and is increasingly used by students, there is a pressing need to understand its impact on education and take immediate action in response to its possible threats. However, a comprehensive systematic review can take several months or even years to conduct, which is not ideal for catching up with the rapidly evolving ChatGPT landscape. Therefore, a rapid review approach was used. According to Tricco et al., "a rapid review is a type of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information in a short period of time" (p. 2). This approach enabled a timely

synthesis and overview of recently published articles and their key findings.

Accordingly, this review could provide valuable insights enabling researchers, practitioners, and policymakers to respond promptly to the influence of ChatGPT on the field of education.

Search Strategies

ChatGPT's most important use is its potential as a **writing assistant**. It allows students and teachers to generate content ideas that inspire them to write essays on any topic. Moreover, they can help create different drafts of the same essay and suggest improvement areas regarding grammar, clarity, or conciseness. Thus, the tool allows users to overcome writer's block and generate new perspectives on their chosen topic. The implications are enormous in business and ethics. Using ChatGPT, content writers might rethink paying huge subscriptions for AI copywriting tools such as Jasper or Copy.ai. AI. Writing assistants such as Grammarly or Quillbox might also face competition. The most significant implication is ethics. According to Stephen Marche from the Atlantic, "The College Essay is Dead" as ChatGPT endangers the existence of the most essential tool in educational assessment: writing essays and its learning implications for skills attainment.

Inclusion and Exclusion Criteria

Technology is simply a tool that needs to be utilized properly. Like any other technology, ChatGPT has all kinds of potential advantages as well as pitfalls. At the end of the day what really matters is how best and judiciously we use these technologies. ChatGPT has the potential to transform our lives impacting jobs and industries. It may take away certain jobs but open up new exciting avenues. It has potential applications in education, healthcare, financial services and other variety of industries including social media, customer service etc. While exploring the benefits of this language model, this tool can write articles, computer codes/programs, make presentations, prepare assignment/summaries and translate text from one language to another.

Content Analysis

ChatGPT can provide **targeted and tailored feedback** as it evaluates learners' output.

That allows students to close educational gaps by identifying strengths and weaknesses that were difficult to spot and address. Some online providers, like Coursera, already use AI to identify frequently made mistakes learners make in their homework. Teachers can also create customized tests and assessments using ChatGPT to generate content. The quasi-free nature of the tool and its versatility might endanger the business model for some companies, such as Chegg or Course.

Performance of ChatGPT in different subject domain

Differing from traditional tools that typically helped make sense of existing data, generative AI tools such as ChatGPT generate new data. Combined with its capability to understand and generate natural language of humans, ChatGPT may mimic humans and play significant roles in business and society. The extent to which ChatGPT outperforms humans in creative thought would be an empirical question, but it is clear that it can synthesize disparate data, summaries overall directions, and produce convincing descriptions (cf. 3.3.4 on good data and training models). Even if ChatGPT may not be accorded the status of a decision-maker within business and society, it seems entirely possible that it can trigger creative thoughts among humans due its ability to present synthesized summaries from different perspectives that humans may not have considered. Perhaps, ChatGPT can play different roles such as champion or devil's advocate in ideation and creation processes.

ChatGPT in Teaching and Learning

Faculty, administrators, staff and students have become increasingly aware of the potential benefits and harms this AI poses in the classroom. At the beginning of the spring 2023 semester, no other technology has garnered as much attention.

CTLA asked ChatGPT to identify the critical issues associated with the technology and the classroom. Here's ChatGPT's verbatim response (with our added bolding of text):

1. **Plagiarism:** ChatGPT can generate high-quality text that may resemble original work, making it difficult for educators to detect plagiarism.
2. **Lack of originality:** ChatGPT can generate

text based on input, which may lead to a lack of originality in student work.

3. **Reduced critical thinking:** ChatGPT can generate text based on input, which may lead to a reduction in critical thinking among students.
4. **Dependence on technology:** ChatGPT may lead to a reliance on technology to generate text, which may reduce students' ability to think critically and independently.
5. **Ethical concerns:** The use of ChatGPT in the classroom may raise ethical concerns about the authenticity of student work and the role of technology in education.
6. **Lack of human interaction:** ChatGPT relies on a machine to generate text, which may lead to a lack of human interaction in the classroom.
7. **Inadequate feedback:** ChatGPT may not be able to provide adequate feedback on student work, which may hinder the learning process.
8. **Privacy concerns:** ChatGPT may be used to collect and analyze student data, which may raise privacy concerns for students and educators.

And when asked how ChatGPT might support learning, the following were outlined:

1. **Generating personalized study materials:** ChatGPT can be trained to generate personalized study materials based on a student's individual learning style and needs.
2. **Providing answers to questions:** ChatGPT can be used as a virtual tutor, providing answers to students' questions and helping them understand difficult concepts.
3. **Enhancing language learning:** ChatGPT can be used to support language learning by generating text in different languages and providing translations.
4. **Generating creative writing prompts:** ChatGPT can be used to generate creative writing prompts, helping students improve their writing skills and creativity.
5. **Supporting research projects:** ChatGPT can be used to generate research proposals, summaries, and literature reviews, helping students with their research projects.

6. **Generating assessments and quizzes:** ChatGPT can be used to generate assessments and quizzes, providing a personalized and adaptive learning experience for students.

Challenges and threats posed by chatGPT in education

The visible face of ChatGPT, raises some red flags about teaching and/or school assignments and their validity. One of the most widespread fears these days is that students will use ChatGPT to complete school assignments and then copy and paste the answers without teachers being able to control this. However, this is based on certain assumptions, such as that teaching is limited to teachers repeating content and students learning to replicate it. If this were the case, ChatGPT would be the best of teachers and, at the same time, the best of students. Far from it, teachers and students may well enhance their capabilities and possibilities with the support of technologies such as AI, just as they once did with calculators for math. Their existence did not neutralize or threaten teaching; considering these risks, alternatives and strategies were sought to incorporate technology and the development of critical thinking and creativity into the teaching and learning processes. On the other hand, like any resource, neither ChatGPT in particular nor artificial intelligence in general will magically solve the sector's problems on their own. Just as they are not a threat, neither are they a solution. They are tools with the potential to be used in education. And, like any others, with their own scope and limitations.

Conclusions

In conclusion, the impact of Chat GPT on the future of education remains a disturbing concern. Especially the thinking skills would be the early victim. At this stage, it may not be feasible to predict exact future complications. However, one thing is sure Chat GPT is not the end of such disrupting technological inventions! Artificial General Intelligence (AGI), Explainable AI (XAI), Deep Reinforcement Learning (DRL), Transfer Learning etc., are even much more advanced technologies likely to hit us very soon. It's essential to establish the sensible application of technology by all

stakeholders, especially in the domain of education, to ensure that it enhances and supports human growth, learning and development. Till then, let us chit chat on GPT and keep experimenting with it.

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