

THE USE AND IMPACT OF AI-CHATGPT IN THE ENGLISH CLASSROOM-A PRAGMATIC PERSPECTIVE

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Abstract

Artificial Intelligence (AI) has been making significant strides in various fields, and education is no exception. Research has highlighted the role of Big Data and AI in the education sector, leading to a more individualized learning and assessment system powered by personalized education. The use of AI in education has been a topic of discussion among educators, researchers and policy makers. AI in education has the potential to improve student learning outcomes while also leading to improved teacher performance. In this context, it is essential to understand how AI-ChatGPT can be used effectively in education to enhance the learning experience of students while also improving teaching methods. Recent developments on using AI-ChatGPT in education to simplify classroom management and increase the productivity of teaching is still being debated. Adopting AI technology in education is essential because it allows educational institutions to keep up with the digital era. AI is an integral part of today's learning process that is set to transform the education sector. It has enabled faster response times while equipping students with the best digital tools for success throughout their academic career and beyond. This research paper is an attempt in examining how researchers, policy makers and academicians perceive ChatGPT in the English classroom.

Keywords - Artificial Intelligence, (AI)-ChatGPT, ESL classroom, learning outcomes.

Introduction

In an article 'ChatGPT: Educational friend or foe?', published by Brookings in March 2023, states that ChatGPT, a conversational bot responsive to users' questions in ways that allows it to search large databases and create well-formed essays, was discussed. The article highlighted the potential benefits of using ChatGPT in the classroom, such as providing students with immediate feedback on their writing. However, some educators expressed concerns that students may become too reliant on ChatGPT and not develop their own writing skills. Another review analyzed the processes, practices, applications, and tools of AI in education. The review suggested that AI systems could be designed and developed in pedagogically rich ways that could scaffold students' efforts to acquire 21st-century competencies and skills. However, there are still questions about how AI could be designed and integrated into classrooms effectively.

Brookings hosted a panel discussion between AI assistants ChatGPT and Claude, and labour economist David Autor, on large language models and cognitive assistants. Anton Korinek, Rubenstein Fellow at Brookings, invited David Autor to discuss the impact of large language models on labor markets. ChatGPT introduced itself as a large language model developed by OpenAI that is designed to assist with language-related tasks such as writing, translation, and conversation.

A study explored the use of AI in English as a foreign language (EFL) classrooms. It found that AI technologies have started to invade EFL classrooms but noted that they can be seen as instrumental companions for students' learning outcomes. The study suggested that AI can provide grammatical feedback on students' writing without the help of a teacher. Teacher perspectives on conversational

intelligence vary depending on how it is used in the classroom. While some educators see potential benefits in using conversational bots like ChatGPT or AI-enhanced scaffolding systems to support student learning and improve their writing skills, others express concerns about over-reliance on these tools. It is important for educators to consider both perspectives when deciding whether or not to incorporate AI into their teaching practices.

Literature review

The term Artificial Intelligence (AI) was first coined by John McCarthy, considered by many as the father of AI, in 1955 when he and his colleagues wrote a proposal for the 1956 Dartmouth Summer Research Project on Artificial Intelligence. In the proposal, they introduced a description of AI as machines that "... use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves" (McCarthy et al., 2006, p. 12).

In language teaching and learning, AI is part of the evolution of the use of computer technology in the language classroom. These practices started around 1960s and gave birth to Computer Assisted Language Learning (CALL). Computer-based training (CBT) and computer-aided instruction (CAI) were the first such systems deployed as an attempt to teach using computers. Woolf (1992) had identified four major components in Artificial Intelligence education as: the student model, the pedagogical module, the domain knowledge module, and the communication module, and in addition, Beck, J, Stern., M., &Haugsjaa., E., (2005) identified a fifth component as the expert model. The functions of these five models have been explained herein.

1. Student Model stores information on every learner in a class such as attendance, assignment marks etc. 2. Pedagogical Module provides a model of the teaching process, such as student review dates, suitable moment to give the students a new topic to write, and the best topic for a writing activity etc. More importantly, this model can communicate with the student module and assess the proficiency level of every student to choose the best teaching process to assure the quality of the class. 3. Knowledge Domain stores all the information, in ESL situation, grammar, vocabulary, reading comprehension skills and listening skills and all the lessons and activities the teacher has prepared to do in the class. This was considered as the most important component as, without it, there would be nothing to teach the student. 4. Communications Module carries out interactions with the learners in the class including verbal communication, email handling and the screen layouts. 5. Expert Model is similar to the domain knowledge since it must contain the information being taught to the learner. However, it is more than just a representation of the data; it is a model of how someone skilled in a particular domain represents the knowledge and is capable of solving problems in the domain, and this model can compare its solution to a problem with the learner's solution and pinpoint the places where the learner has to improve. In ESL context, the expert model can compare its grammar with the learner's grammar and point the areas they should reconsider.

The following diagram shows how these five models interact with each other. (Beck, J, Stern, M., &Haugsjaa., E., 2005, P2).

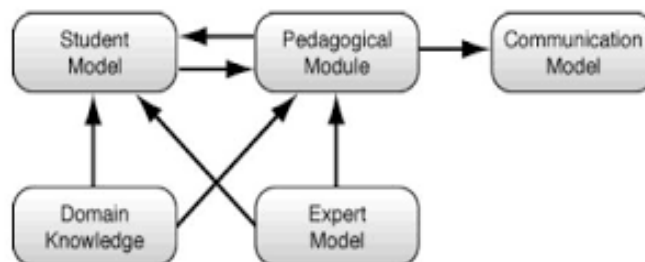


Figure 1: Interactions of components in an intelligent tutoring system.

About a decade later, the rising of AI applications further extended CALL studies into Intelligent CALL, or ICALL (Lu, 2018). The first recognised publication on ICALL was the article by Weischedel et al. (1978) who developed an AI German tutor. The initial developments are about systems that ‘care’ for the learners; adapting to the needs of the learners. At the turn of the new millennium, as computer technologies enhanced, AI begins to show its significance in working with big data that deals with the data of learners’ language (Godwin-Jones, 2017).

Implications of using AI-ChatGPT in the English classroom- A Few Voices

The latest challenge to the creative human intellect was introduced on November 30th, 2022 by OpenAI- ChatGPT which is a conversational bot responsive to users’ questions in ways that allows it to search large databases and to create well-formed essays, legal briefs, poetry, computer code, or lyrics to name a few.

Here are a few excerpts from academicians, writers, educators, managers and students.

- New York Times writer Kevin Roose commented, “ChatGPT is, quite simply, the best artificial intelligence chatbots ever released to the general public.”
- Zak Cohen is a school principal, consultant, and blogger, specializing in personalized learning and educational leadership. He states that students tend to approach new technologies through a lens of play and experimentation, seeking to uncover capabilities and limitations through trial and error. Despite the notion of students as "digital natives," it is important to recognize that students do not inherently understand how to use tools like ChatGPT for academic purposes. It is from this perspective that ChatGPT opens opportunities for educators to teach students about these tools—to have important conversations with students about the powers, limitations, and ethical uses of advanced technological tools in education contexts.
- De George Wilson, Academic Manager, British Council, France, iterates that “the rapid advances in Artificial Intelligence of the past few months are likely to transform the ELT industry and revolutionise the way in which languages are taught and learnt more generally. George Wilson, is also in charge of the Teacher Training Department, and he reflects on some of the changes we may see in the coming days, months and years.” It therefore seems like an opportune moment to reflect on how different industries will adapt to this new reality, and important to imagine the implications of AI for our own ELT sector.
- Vishnu Karthik, Director of Heritage Group of Schools believes that the use of internet tools in school education is not new. “For years, students have used online resources to cut corners as they complete homework assignments. In response, educators have had to adapt to these challenges and design assessments that can bypass the use of such tools. ChatGPT is just an advanced version of these tools which cuts short the search time. Instead of seeking a curb on its use, we should guide students to use it in a productive manner.”
- India Today’s Web Desk: writes that ChatGPT is a large-scale language model that can produce text that reads as though it was written by a human in response to an input or environment. It is capable of performing the vast majority of text-generating jobs, including those that demand the use of natural language for expression. Examples of such activities include text completion (such as email and report writing), paraphrasing, summarising, machine translation, and question answering. Applications based on conversational artificial intelligence, such as chatbots and virtual assistants, can also benefit from its utilisation in the right context. As an additional perk, ChatGPT has demonstrated that it has potential as a code writer.
- Central Board of Secondary Education (CBSE) prohibited its’ use in the upcoming class 10 and 12 board exams. The use of ChatGPT will amount to using unfair means in the exam, the board officials said. “The app can also hamper the creative thinking and research skills of students,” is what several experts are arguing. However, not all educators believe that ChatGPT (Chat Generative Pre-trained Transformer) threatens student creativity and observation skills

Educators and ChatGPT

ChatGPT can help teachers design lessons in a way that provide students with a more engaging and rewarding educational experience. ChatGPT can guide educators how to make innovative lesson plans, respond to student queries, and offer immediate feedback on student's assignments, projects, presentations etc.

Teachers can use this tool, to build interactive quizzes, language and grammar games, speaking, listening, reading and writing activities and enhance their teaching approaches and methodologies. Teachers can use ChatGPT to automate routine processes like evaluating and giving feedback to students individually. Teachers can then use their free time to research and publish papers.

Teachers most importantly, should learn to integrate this AI tool with ease in the ESL classrooms. However before implementing ChatGPT in classrooms, teachers should ensure they have a firm grasp of the technology's fundamentals and outcomes. They should also impress on the students that ChatGPT is only one of the technological tools and it should be used in consonance with CALL and other computer- aided language tools.

One great advantage of using ChatGPT is that teachers can cater to students with special needs, for instance, those suffering with Autism spectrum disorder or other related medical challenges. My thought is that ChatGPT can enable teachers design courses, programs, lessons and creative activities to help them learn on their own without much intervention from the teacher. They can learn at their own pace depending on their retrieval levels.

Teachers must educate the students that overuse of ChatGPT can result in their work being turned down on grounds of plagiarism and originality. They should instruct their students on the need for ethical learning practices when using ChatGPT.

Chatbots and ChatGPT – is there a difference?

Chatbots are becoming increasingly popular in the education sector in India. Educational chatbots provide a one-stop solution to all the problems faced by educational institutions, making it easier for students to learn and participate in all activities available to them during their studies.

Educational chatbots that are used in India are listed herein:

1. Tally's Intelligent Virtual Assistant
2. MyGov Corona Helpdesk WhatsApp Chatbots by Government of India
3. India's First-ever WhatsApp Commerce Solution by JioMart
4. Aakash Institute's AI-based learning app
5. BYJU'S - The Learning App

These chatbots help with course queries, fee structures, personalized learning, and providing instant solutions to students' doubts. They also assist teachers with tasks such as tracking student attendance, scoring tests, and sending reminders. Some chatbots can even analyze student sentiments to help teachers modify and improve their teaching practices. Chatbots are revolutionizing the way schools communicate with their pupils and are expected to play a significant role in the future of education in India.

Although both ChatGPT and Bing AI use generative pre-trained transformer (GPT) language models, they're different platforms. ChatGPT is a multipurpose chatbot. It scans the vast yet limited resources from which it was trained. This includes academic journals, business websites, publications, and Wikipedia. Meanwhile, Bing's version of the chatbot is essentially an AI-powered search engine. The platform has more sophisticated indexing and scanning, plus the integrated AI chat feature. It acts as both a search engine and a chatbot.

However, ChatGPT is not ideal for jobs that necessitate reasoning, expertise, or fresh data. ChatGPT has difficulty with arithmetic computations or complex mathematical calculations, suggesting that such models do not fully acquire logic. Moreover, we cannot easily replace or update entities in these massive language models in the same way we do with knowledge bases. Most of the training material in the current model comes from publicly available data before 2021, which means that such algorithms cannot produce reliable information promptly.

The ChatGPT platform has many potential uses for generating text, but users should exercise caution when acting on the platform's outputs because they may be based on inaccurate or obsolete data or information.

Conclusion

Fortune Magazine quipped, “Is Chat GPT the end of trust? Will the college essay survive?” On January 3, 2023, the New York City Department of Education took the dramatic step of responding to these fears by blocking access to ChatGPT on all department devices and networks. A department spokesperson justified the decision due to “...concerns about negative impacts on student learning, and concerns regarding the safety and accuracy of content.” She further questioned the educational value of the technology, stating: “While the tool may be able to provide quick and easy answers to questions, it does not build critical-thinking and problem-solving skills, which are essential for academic and lifelong success.”

In its current state, educators and students perceive the chatbots as a novelty rather than a legitimate language-learning tool. It certainly lacks the richness of interaction that they seek from their teachers and peers. Whether AI-ChatGPT should be introduced in the language classroom or not is a matter of debate but it is critical to understand it's far-reaching consequences. Moreover, the academicians should themselves research and understand the working of this tool which is still in the experimental stage. In fact there are no research articles yet on this topic so a lot of the voices mentioned here are opinion pieces.

References

Annelies Goger, Allyson Parco, Rohan Carter-Rau, Jessa Henderson, Kazumi Homma, Ani Meliksetyan, and Natalie Milman Monday, December 19, 2022

Digital tools for real-time data collection in education- Emily Gustafsson-Wright, Sarah Osborne, and Muskan Aggarwal Wednesday, November 2, 2022

De George Wilson, Academic Manager, British Council, France in “Shaping the Future: Artificial Intelligence and the English Language Teaching Industry”