



Artificial Intelligence to Revamp English Language Education: Emerging Possibilities from Language Models to Prompt Engineering

Jyothis Cyriac¹, Dr. Rekha K. R²

¹B.Ed. Student, PKM College of Education, Madampam, Affiliated to Kannur University, Kerala. Email: jyothispcyriac@gmail.com

²Associate Professor in English, PKM College of Education, Madampam, Kerala. Email: rekhapkm@gmail.com

DOI: [10.33329/rjelal.12.2.90](https://doi.org/10.33329/rjelal.12.2.90)



Article info

Article Received: 05/04/2024
Article Accepted: 08/05/2024
Published online:16/05/2024

Abstract

In the modern world, technology is developing rapidly, making drastic changes in every field. The educational field is largely impacted by the recent advancements in artificial intelligence, a game-changer in cutting-edge technology. Especially in the context of English language teaching and education, artificial intelligence tools and mechanisms have the potential to revamp existing methods and strategies. This research article explores the transformative impact of AI in ELT with existing tools and the emerging realm of new areas such as prompt engineering. As a rapidly evolving field, the paramount importance of AI in the current era of technological revolution and its significant impact on English language teaching and learning cannot be overstated. Moreover, experts and various stakeholders in ELT have to be updated on the changes happening across the globe with AI interventions. In ELT, AI tools can be utilized in different dimensions, including skill improvement, classroom interactions, creative writing, assessment, research, etc., to revolutionize pedagogical approaches, providing a more personalized and adaptive learning experience. The recent developments in Prompt Engineering have multifaceted possibilities to be utilised in an English classroom. Apart from that, AI-assisted tools contribute to a more inclusive classroom environment by providing a personalized learning experience that caters to the unique needs of differently abled individuals. Although we must be cautious about the potential dangers of AI, its advantages should be utilised to improve the current system and practices.

Keywords: Artificial Intelligence, language models, prompt engineering, ELT

Introduction

Mastering a new language can be a difficult task. Although there are many methods developed to teach a new language, the evolving technology and its innovative developments have led to novel methods that are more personalised and effective. Teaching and learning English have also become easier with the development of technology and digital platforms. Text books and multimedia content are things of the past, and now AI-powered language bots and tools are at the centre stage. Replacing the one-size-fits all approach, AI-assisted language learning customises the content, learning goals, and schedule that can be used in privacy. Furthermore, the anxiety of speaking a new language and the fear of being judged and mocked by the teacher and co-learners can be avoided with the help of this innovative method of learning. With the help of AI-enabled technology, we are moving further ahead in approaches such as CWW (Classroom Without Walls), which has sub-sections like CALL (Computer Assisted Language Learning), M Learning (Mobile Learning), etc. Recent research shows that English language learning is likely to be the most common discipline for AI use in education (Crompton and Burke, 2023). The level of demand for the English language and its profound use across the globe can be the reason. There is also a continuous search for newer methods and techniques to teach English, resulting in the massive global demand.

Understanding Artificial Intelligence

Artificial intelligence has become pervasive in the lives of twenty-first century citizens and is being proclaimed as a tool that can be used to enhance and advance all sectors of our lives (Gorriz et al., 2020). Although we listen to this buzzword often these days, there is probably no consensus on what is actually AI. AI can be defined as computer systems that simulate human intelligence (Sindermann et al., 2021) and can learn, understand, and remember human language (Xiaohong & Yanzheng, 2021).

It is perhaps an umbrella term that covers various technologies and systems. Thus, it is imperative to have a clear idea about the vastness of the term AI to approach it in a much broader perspective.

AI in English Language Learning

Language models and chatbots

There are plenty of applications and software that can be used to improve English language skills. Chatbots, one of the artificially intelligent conversational systems, are the latest technologies designed to communicate both with humans and computers automatically (Nghie et al., 2019). It can be used to help with grammar and vocabulary through personalized activities and exercises. Most of the chatbot applications provide a space to have natural and realistic conversations with an AI language model to improve the user's speaking and listening skills, along with practice sessions to perfect pronunciation and fluency. The Arya language bot used in the Speakify application is an example. Real-time feedback on our performance helps to correct the mistakes immediately, and the suggestions provided are also helpful. Thus, users not only familiarise themselves with conversational English but also get corrections and assessments of their practice. One of the major advantages is that these applications can cater to the unique language learning styles of the individual by focusing on the areas of the language that one finds most challenging. As a result of this, the learning process becomes interactive and engaging. The learners get more enthusiastic, and the belief that they learn with a human machine itself generates much curiosity. In addition, those applications maintain an achievement record to observe one's progress, along with imaginary rewards as a token of appreciation. It works on the line of formative evaluation by providing progress and feedback and helping to set achievable goals. All of these motivate users to use AI-enabled applications with more enthusiasm.

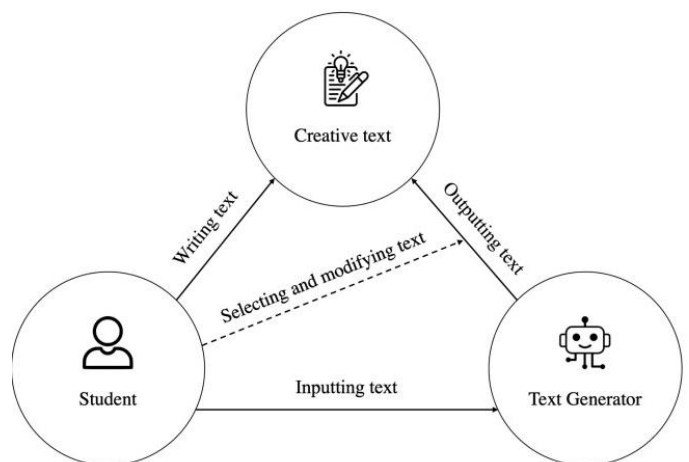
AI language models can replicate the native speaker's style with accuracy. They can respond even to the vague idea conveyed by the learner thereby ensuring unhindered exchange of ideas in the target language. So, a chatbot is just a friend with whom the learner can practice conversation without fear. Google assistant Alexa, language assistant Siri in iPhone are best examples of language bots. The use of such bots sustain interest among the learners as they are free to talk on any topic under the sun. AI enabled speech recognition applications reduce the human efforts on many levels especially with the latest versions having maximum accuracy in recognising and responding human language effectively. Thus, AI has more to do with speaking, the most sought-after skills among the four basic language skills, and its subskills such as pronunciation and fluency.

Moreover, AI has a lot to do in making teaching and learning more inclusive and accessible. For instance, for the visually impaired students, it is now easy to practise speaking English through chatbots at their convenient spaces without the help of a teacher. Accuracy in voice recognition and immediate feedback help them to converse easily and effectively with the AI companion. According to the article titled "How does technology help people who are blind or visually impaired?" in the Chicago Lighthouse, "Tablets and cell phones enable people with visual impairments to do things that were previously impossible, or - at the very least - challenging." AI-voice-assisted technologies, like Echo, Google Home, Alexa, have created new means of accessibility for disabled people. As Artificial Intelligence takes an important role in communication and interaction, the use of this technology enables individuals with disabilities to access information much more easily, just by speaking to their devices (SmartClick). Text-to-speech and speech-to-text technology powered by AI can translate written text into spoken words and the other way around. Visually challenged learners can now access online textbooks,

articles, and other educational resources. Communication and note-taking are made easier because they can either transform their spoken words into written text or hear the content being read aloud.

Writing with AI

Writing is an important skill in any language. AI assisted applications and programmes come quite handy for users to improve their writing by correcting the grammatical errors, enriching vocabulary, supplementing creative writing through valuable inputs. AI-enabled tools for the teaching and learning of writing could enhance students' writing competence by arousing student interest, giving motivation and encouraging engagement, providing practice opportunities, automatically assessing writing performance, offering timely feedback, etc (Woo and Guo, 2023). In their article Woo and Guo (2023) propose a conceptual framework, *human-AI collaborative creative writing*, that is modelled on student interactions with the tool Text Generator to generate ideas for creative texts.



Credits: Conceptual Framework of *human-AI collaborative creative writing*: Woo & Guo 2023

Their study found that "the overall results of Text Generator's contributions to all the students' creative writing indicate that the AI-supported approach can contribute significantly to students' creative writing, in

terms of elaboration, flexibility and originality constructs of creativity" (22). Yet, more research in this area has to be done to harness the capabilities of AI to foster creativity and imagination of English learners.

Another common use of AI in writing is the grammar checkers. Applications such as Grammarly, Quillbot etc., provide an efficient platform to correct the grammar and improve writing by giving suggestions. A study by Dizon and Gayed (2021) in higher education found that learners using the AI-powered tool Grammarly made fewer grammatical errors and wrote with more lexical variation than learners who did not.

Apart from creative writing and grammar checking, translation is a key area where AI contributes tremendously in writing. Although machine translations were not preferred earlier, owing to improved accuracy and quality, it is gaining currency and used as a technique to improve comprehension and writing. At the same time, there are chances that AI-powered automatic translation devices might negatively impact an individual's motivation to learn a language. If there is a machine capable of translating the content effectively, the people concerned with the field of translation might end up completely depending on translating machine.

Learning with the help of AI also makes the assessment process easy and educators can collect useful data about learners, their strengths and weaknesses and individual differences in learning. This data can be used to design future teaching methods. Achievement records in speaking applications are the first step towards more comprehensive assessment and data storage method. By using AI assistant tools, one can continue learning from any place and any time which means it is easy to fit language learning into the busy schedule of life conveniently. Most of the applications provide free versions as well as premium versions. Those who cannot afford the premium versions, can make use of the free available services which

is likely to suffice our preliminary requirements in English language learning.

Prompt Engineering and English Language

Prompt engineering is a novel field of study wherein we go deeper into the working of AI platforms. Prompt engineering is the practice of meticulously crafting and optimizing questions or instructions to elicit specific, useful responses from generative AI models. It is a strategic discipline that translates human intentions and business needs into actionable responses from generative AI models, ensuring that the system aligns closely with desired outcomes (Editor 2023). Thus, it is not only about structuring the algorithm of the machine but also about giving clear, understandable instruction to the language generator machine. In other words, while dealing with AI tools, the way we phrase questions or requests can impact the type and quality of responses we receive, both in writing and speaking. According to data camp website, every word in a prompt matter. A slight change in phrasing can lead to dramatically different outputs from an AI model. For instance, asking a model to "Describe the Eiffel Tower" versus "Narrate the history of the Eiffel Tower" will yield distinct responses. The former might provide a physical description, while the latter delves into its historical significance (Crabtree, 2024).

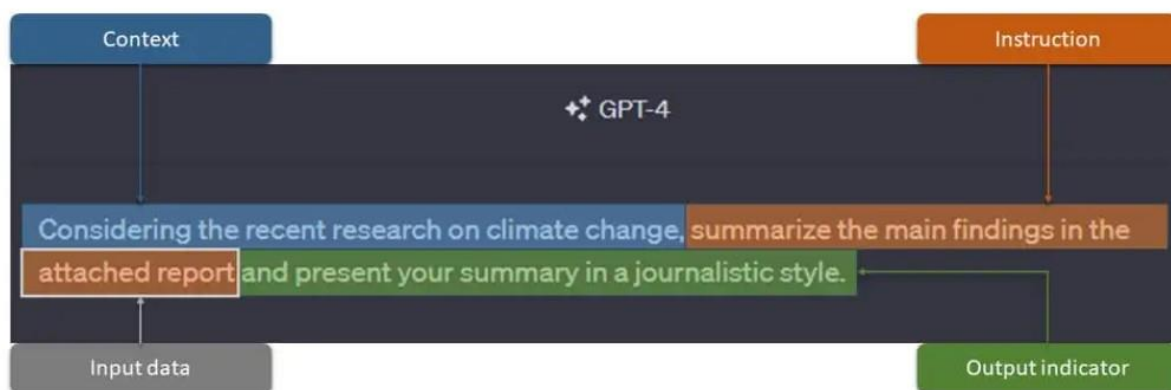
It is also pertinent here to define who is a prompt engineer. A prompt engineer is a specialist uniquely positioned at the intersection of business needs and AI technology, i.e., large language models like GPT-4. They serve dual roles: they are linguists, understanding the nuances and complexities of human language, and data scientists capable of analysing and interpreting machine behaviours and responses (Editor). Thus, the future of AI requires experts in language and specifically in English because almost all the generative AI tools use English language as the medium of communication. If we decode the prompt engineering possibilities in an English classroom, we can see

innumerable opportunities. Bringing the basics of prompt engineering into an ESL (English as a Second Language) classroom can enhance language learning experiences. As a first step, introduce the working of language learning apps or platforms that allow students to interact with AI-driven language models. Then, encourage them to experiment with different prompts to see how the model responds. At the next level, assign writing tasks that require students to formulate prompts. This could involve asking them to create interview questions, discussion prompts, or writing prompts for specific language skills. Later, engage students in role-playing exercises and dialogues where they alternate between

prompting and responding. Through this interactive method, they may understand how various prompts affect their communication with the 'human machine'.

In short, incorporating prompt engineering concepts into the ESL classroom, will not only enhance language skills but also empower students to communicate more effectively in various contexts. In addition, this can be considered as a prior training to the children before they enter the real world after education as the future world demands effective prompting skills. It is also interesting to note the structure of an effective prompt as cited on the altexsoft website:

KEY ELEMENTS OF A PROMPT



The structure of an effective prompt has close semblance to the structure of a sentence and its various parts. A time when we will have to teach the children about the structure of an effective prompt is not far away with the technological advancements skyrocketing. AI still has many unexplored dimensions, and ongoing research in this field continues to evolve.

The role of a teacher

Along with the debates on AI and its pros and cons, an ongoing heated debate is regarding the role of a teacher in the age of AI. Although there are concerns regarding the overpowering mastery of AI, research says that AI-based systems only modify the teacher's role

in the ELT process. Students should be led and assisted by teachers. The teacher can handle and manage AI-based programmes that need a few manual modifications. AI-related instructional services can only be an aid in the teaching-learning process of the English language (Fitria, 2021). Apart from that, according to the study conducted by British Council, AI can be a good friend for teachers who need professional assistance in completing the tasks at hand like student assessment, material preparation, etc. (Edmett, Ichaporia, Crompton, & Crichton, 2023).

Challenges posed by AI

Similar to any coin that has two sides, AI also has some negative aspects. In the AI

enabled applications, subscriptions of premium versions are comparatively inevitable for availing most of the features. It can further increase the already existing digital divide in terms of accessibility. The ethical and moral concerns are another important area of concern as we witness a proliferation of generative language technology with AI to produce content in almost every field. If the coder or technocrat behind the AI machine tune the algorithm in a different way, it can be the mouthpiece of complete chaos. Moreover, over dependence on technology can cause severe other problems and in the light of this, at least a few countries have already banned the use of mobile phones and other devices in schools as an attempt to redirect the students. It is indeed then a question that arises as to how we can integrate AI in education, specifically in English language learning by avoiding the deviations from its intended use. In a survey conducted by British Council it is stated that "any teaching tool can have a negative impact if not used correctly. Common concerns about cheating, plagiarism and the potential for AI to replace critical thinking, while promoting a 'wooden, dead version of the language', were cited, indicating a cautious attitude towards AI in ELT" (Edmett, Ichaporia, Crompton, & Crichton, 2023).

Conclusion

Learning English has become easier with the development of digital platforms especially with the recent developments in artificial intelligence. However, In English language teaching and learning there is a need for a deeper engagement with the opportunities, issues and challenges that AI presents. It is better to harness the endless possibilities of this cutting-edge technology than viewing it as a dangerous threat to humanity. Further research combining different dimensions of AI applications and ELT is necessary, given its dynamic and rapidly evolving nature.

References

- Crabtree, M. (2024, January 12). *What is Prompt Engineering? A Detailed Guide For 2024*. <https://www.datacamp.com/blog/what-is-prompt-engineering-the-future-of-ai-communication>
- Crompton, H. & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20, 22, (2023).
- Dizon, G. & Gayed, J. M. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. *JALT CALL Journal*, 17(2), 74-92.
- Editor. (2023, September 13). *Prompt Engineering: The Guide to mastering the art of talking to AI*. AltexSoft. <https://www.altexsoft.com/blog/prompt-engineering/>
- Edmett, A., Ichaporia, N., Crompton, H., & Crichton, R. (2023). Artificial intelligence and English language teaching: Preparing for the future. British Council. <https://doi.org/10.57884/78EA-3C69>
- Fitria, T. N. (2021). The Use Technology Based On Artificial Intelligence In English Teaching And Learning). *ELT Echo: The Journal of English Language Teaching in Foreign Language Context*, 6(2).<https://doi.org/10.24235/eltecho.v6i2.9299>
- Gorriz, J. M., Ramirez, J., Ortiz, A., Martinez-Murcia, F. J., Segovia, F., Suckling, J., Leming, M., Zhang, Y. D., Alvarez-Sanchez, J. R., Bologna, G., Bonomini, P., Casado, F. E., Charte, D., Charte, F., Contreras, R., Cuesta-Infante, A., Duro, R. J., Fernandez- Caballero, A., Fernandez-Jover, E., ... Ferrandez, J. M. (2020). Artificial intelligence within the interplay between natural and artificial computation: Advances in data science,

trends and applications. *Neurocomputing*,
410, 237-270. [https:// doi. org/
10.1016/j. neucom. 2020. 05. 078](https://doi.org/10.1016/j.neucom.2020.05.078)

How does technology help people who are blind
or visually impaired? The Chicago
Lighthouse. (2016, January 22). Retrieved
February 24, 2023, from
[https://chicagolighthouse.org/sandys-
view/assistive-technology/](https://chicagolighthouse.org/sandys-view/assistive-technology/)

Nghi, T. T., Phuc, T. H., & Thang, N. T. (2019).
*Applying AI Chatbot For Teaching A Foreign
Language: An Empirical Research*. 8(12), 6.

Sindermann, C., Sha, P., Zhou, M., Wernicke, J.,
Schmitt, H. S., Li, M., Sariyska, R.,
Stavrou, M., Becker,
Warschauer, M. (1996). Computer
assisted language learning: An
introduction. In S. Fotos (ed.), *Multimedia
language teaching* (pp. 3-20). Tokyo:
Logos.

SmartClick. "How AI Can Improve the Lives of
People with Disabilities." SmartClick, 10
Sept. 2021,
[https://smartclick.ai/articles/how-ai-
can-improve-the-lives-of-people-with
disabilities/](https://smartclick.ai/articles/how-ai-can-improve-the-lives-of-people-with-disabilities/)

Woo, David & Guo, Kai. (2023). Exploring an AI-
supported approach to creative writing:
Effects on secondary school students'
creativity. 10.13140/RG.2.2.24489.06247.

Xiaohong, W. & Yanzheng, W. (2021, February).
The application of artificial intelligence in
modern foreign language learning. In
*Proceedings of the 2021 4th International
Conference on Big Data and Education*
(pp.34-37). London, United Kingdom:
ACM. [https://
doi.org/10.1145/3451400.3451406](https://doi.org/10.1145/3451400.3451406)