

Role of Artificial Intelligence in English Language Teaching

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ABSTRACT

The integration of Artificial Intelligence systems (AI) into English language teaching represents a significant shift in educational methodologies. This emerging technology offers English teachers a myriad of opportunities to enhance their teaching strategies, making the learning process more engaging, personalized and effective. In this blog post, we will explore practical tips on how AI can aid English language teaching and empower both educators and learners. One noteworthy reference highlighting AI's impact on education is the report by the Organisation for Economic Co-operation and Development (OECD), 'Digital Education Outlook 2023'. This comprehensive study outlines how AI technologies, assists administrative and assessment aspects of teaching but also revolutionizes the way students learn. AI tools are paving the way for a more adaptable and learner-centric approach in English language teaching by offering bespoke, adaptive learning pathways and instant feedback.

Keywords: AI, Assessment, Digital, English, Language, Methodology, Teaching, Tools

INTRODUCTION

AI can be described as computer systems that mimic human intelligence and can understand human language. However, AI means different things to different people and clear definitions are needed. AI technologies can be: 1) used by pupils to learn, 2) used by teachers to help in teaching activities e.g., grading, and 3) used by admin staff to manage learner data. Artificial Intelligence (AI) is transforming English Language Teaching (ELT) by offering personalized learning experiences, enhancing communication skills, and providing tools for efficient teaching and assessment. AI-powered tools personalize learning paths, provide instant feedback, and simulate real-world conversations, while also assisting teachers with lesson planning, assessment, and administrative tasks.

Currently, Educational Institutions are just beginning to harness the power of AI to enhance English language learning in several innovative ways. One notable application of educational technology is the use of intelligent tutoring systems, which provide students with personalized feedback and learning paths tailored to their individual needs and proficiency levels. Additionally, AI-driven language learning apps and platforms have become increasingly popular, offering interactive and immersive learning experiences through natural language processing and machine learning technologies. These platforms can simulate conversation practice, offer pronunciation correction, and even adapt the content in real-time to challenge students appropriately. Furthermore, AI is also being used for administrative tasks, such as grading and assessing students' work, allowing teachers more time to focus on curriculum development and one-on-one student interaction. This integration of AI into English language teaching is enhancing the efficiency of learning processes and actively contributing to a more engaging and dynamic educational environment.

AI CAN ENHANCE ENGLISH LANGUAGE TEACHING

Personalization at scale

AI systems can analyze individual student learning styles and preferences, allowing for personalized lesson plans that cater to the unique needs of every student. By customizing content, pacing and learning activities, AI ensures that students remain engaged and receive targeted support, significantly improving learning outcomes.

Interactive Learning Experiences

AI-powered applications, educational games and tools can create immersive and interactive language learning experiences. From chatbots that simulate conversation, to platforms that offer real-time feedback on pronunciation, these tools can help students to practice speaking and listening skills in a controlled and safe environment outside the traditional classroom setting.

Autonomous Learning Support

With the assistance of AI, students can self-study more effectively. AI tutoring systems can provide instant feedback on written work, ensuring learners can progress even when a teacher isn't immediately available to teach. These systems offer consistent, unbiased support, which is invaluable for building students' confidence.

Enhanced Assessment Capabilities

Assessment is a crucial part of the learning process. AI can take on the laborious task of grading and provide detailed insights into a student's performance. Teachers can then use this data to identify areas where students struggle and tailor future instruction to address these gaps.

Expanding the Creative Horizons

AI's applications extend into creative writing, offering students prompts and suggestions to overcome writer's block and develop storylines. This enhances creativity and motivation in students by providing them with a springboard for their writing skills.

Improving your own material

It is beneficial to utilize tools to refine your writing by adjusting tone, style, and paraphrasing. These tools are particularly useful for crafting model answers and providing feedback to students. You can also make that material more visually appealing with generated images.

Utilizing ChatGPT in Language Teaching

ChatGPT, an AI language model, can aid and save time on the way language lessons are conducted by creating a highly interactive and responsive environment for students. Teachers can harness this technology to simulate real-life conversations, enabling students to practice their language skills in a dynamic setting. Students can also be encouraged to use it to start first drafts and use their critical thinking.

By inputting specific scenarios or topics, ChatGPT can generate dialogues that challenge and teach students how to use new vocabulary and grammar structures in context, bridging the gap between theoretical learning and practical application. Furthermore, its capacity to provide immediate feedback allows learners to correct their mistakes in real time, fostering a learning atmosphere that is both efficient and encouraging.

The versatility of these kinds of AI chatbots means they can be tailored to suit learners at different proficiency levels, making them an invaluable tool for language teachers aiming to enhance engagement and facilitate deeper learning.

TIPS FOR TEACHERS INTEGRATING AI IN ENGLISH LESSONS

1. **Start with a clear goal:** define what you aim to achieve by incorporating AI into your lessons.
2. **Combine traditional and AI methods:** use AI as a complement, not a substitute, for human interaction.
3. **Prioritize privacy and ethics:** ensure any AI tools used are compliant with privacy laws and ethical standards.
4. **Stay updated:** AI is a fast-evolving field. Attend professional development webinars and workshops to stay current.
5. **Foster a growth mindset:** encourage students to view AI as a tool to aid their own effort and perseverance.
6. **Demystify technology:** explain how AI works, alleviating any concerns or misapprehensions about its use.
7. **Experiment and iterate:** not every AI application will suit your classroom – be prepared to try different tools and approaches.

Artificial Intelligence (AI) is a human intelligence simulation based on computers and designed to function as human beings. AI is one of the drivers of the 4.0 industrial revolution to facilitate education in teaching and learning. This research is to know the role of AI in ELT and to investigate AI technologies in ELT. This is library research. The result shows that AI offers a good learning atmosphere for English learning. It has considerable ability to create a personalized atmosphere in which learners use their senses to concurrently exercise English skills depending on their current level of English, vocational needs, or interests. AI provides a real simulation dialog platform such as spoken English and increases practical skills such as written. It increases the practice of students' capacity and optimizes the teaching impact of English in ELT. Learning English become easier with the development of technology and platforms.

AI's technology offers the opportunity to improve English language skills. The existence of various kinds of learning technology makes it easier for students to understand English.

Many choices of ELT applications are based on AI technology that can be used by the students. These technologies as smart machines that think and behave like people with the ability to simulate intelligence and make decisions identical to human reasoning through a process both computers and cell-phones such as Google Translate, Text to speech (TTS), English Able, Orai, Elsa, Chatbot, Duolingo, Neo platforms, and many more.

Beyond personalized learning, AI enables the creation of immersive language learning environments that simulate authentic linguistic contexts and cultural experiences. Virtual reality (VR) technologies, coupled with AI algorithms, immerse learners in virtual scenarios where they can practice speaking, listening, and interacting in English with simulated native speakers. These immersive experiences not only enhance language comprehension and fluency but also foster cultural awareness and cross-cultural communication skills. Technological advancements in artificial intelligence (AI) have drawn more attention because AI is a form of computational creativity (Cheng and Day, 2014).

Many artificial intelligence technologies have been used to help computers become more creative. Rahman, 2009, p. Artificial intelligence (AI) is defined as the creation of software that performs autonomous tasks like computation and student search (p. 343). Computer systems (online platforms) and computerized machines (robots) are examples of "intelligent" devices that are created using artificial intelligence (AI) that function and respond similarly to the human brain (Karsenti, 2019). Maherotra (2019) notes that machine intelligence (MI) is another name for artificial intelligence. The natural intelligence exhibited by humans is the basis for the machine's prediction of intelligence. Put differently, artificial intelligence (AI) involves imbuing a machine with human intelligence to perform tasks. AI, according to Mehrotra (2019), is a computer science technology that investigates the creation and analysis of intelligent devices and applications.

The science behind making a machine think and act like an intelligent human is called artificial intelligence. As Wang (2019) notes, intelligence is the key to AI technology. Whitby (2009) asserts that artificial intelligence (AI) investigates intelligent behaviors in people, animals, and machines in an effort to discover solutions. The terms artificial intelligence and intelligence are combined to form the word AI (Ahmet, 2018). When something is said to be "artificial," it means that it is not entirely fraudulent, but rather mimicked or unreal. Conversely, since genuine goods have superior qualities in some situations, "intelligence" can take its place. It is difficult to define intelligence. It encompasses a variety of manifestations, including creativity, self-awareness, emotional awareness, reasoning, and awareness. As mentioned on page by Joshi (2019).

Developing a machine with human-like capabilities rather than creating an extraordinarily intelligent computer that can solve every issue is what artificial intelligence may entail. Building hardware or software systems with human-like thought processes or characteristics that are typically associated with human intelligence is the goal of artificial intelligence (Carpesato, 2020). According to computer system theory, artificial intelligence (AI) is capable of carrying out tasks that typically require human intelligence. Artificial intelligence can understand some aspects of human intelligence, such as speech recognition, language awareness, decision-making, and visual perception. Expert systems and solutions to challenging issues like recognition and natural language processing are in need of artificial intelligence (Devi et al. by 2020).

AI is Serving as a Language Tutor

AI provides continuous, personalized instruction in a low-stakes environment where students are more willing to take risks and make mistakes. It also gives students the abundance of feedback and scaffolding activities they need to become fluent. AI's main benefit. Furthermore, AI-driven language learning applications offer unparalleled accessibility and scalability, breaking down barriers to access and reaching learners across geographical boundaries and socio-economic backgrounds. With AI-powered platforms available anytime, anywhere, students have the flexibility to engage with English language materials at their own pace, facilitating continuous learning beyond the confines of the classroom.

KEY ROLES OF 'AI' IN 'ELT'

- **Personalized Learning:**
AI algorithms can analyze learner data to identify strengths and weaknesses, tailoring learning experiences to individual needs and pacing. This includes personalized feedback on pronunciation, grammar, and writing.
- **Enhanced Communication Skills:**
AI-powered chatbots and virtual tutors simulate conversations, providing learners with opportunities to practice speaking and listening in a safe and supportive environment.

- **Improved Pronunciation:**
AI tools can analyze pronunciation patterns and provide visual feedback, such as spectrograms, to help learners improve their pronunciation accuracy.
- **Efficient Teaching and Assessment:**
AI can automate tasks like lesson planning, grading, and generating reports, freeing up teachers to focus on more interactive and personalized instruction.
- **Increased Accessibility and Convenience:**
AI-powered language learning apps and platforms are often accessible 24/7 on various devices, allowing learners to practice at their own pace and convenience.
- **Reduced Anxiety:**
AI-driven tools can help reduce anxiety associated with speaking English by providing a less intimidating environment for practice.
- **Targeted Support:**
AI can identify areas where learners need extra support and provide targeted interventions, such as vocabulary building or grammar practice.

Examples of AI tools in ELT:

- **Duolingo:** A popular language learning app that uses AI to personalize learning paths and provide interactive lessons.
- **ELSA (English Language Speech Assistant):** An AI-powered app that focuses on pronunciation training.
- **Orai:** An AI-powered app that helps users improve their public speaking skills.
- **Chatbots:** AI-powered chatbots can simulate conversations, providing learners with opportunities to practice their speaking and listening skills.
- **Virtual Tutors:** AI-powered virtual tutors can provide personalized instruction, feedback, and support.

Challenges and Considerations:

- **Teacher Training:**
Teachers need to be trained on how to effectively integrate AI tools into their teaching practices.
- **Ethical Concerns:**
There are ethical concerns regarding data privacy and potential biases in AI algorithms.
- **Accessibility:**
Ensuring that all learners have access to the necessary technology and internet connectivity is crucial.
- **Human Interaction:**
While AI can be a valuable tool, it is important to remember that human interaction and personalized guidance from teachers remain essential for effective language learning.

By addressing these challenges and leveraging the potential of AI, educators can create more engaging, personalized, and effective English language learning experiences for all students.

CONCLUSION

The use of educational technologies in English language teaching (ELT) has become widely accepted in the post-pandemic era, and, for better or worse, some of these technologies rely on artificial intelligence (AI). As an area of technological growth and increasing financial investment, we are likely to see more AI-driven technologies in teaching and learning in the post-pandemic ELT world.

We are currently in the stage of 'weak' AI, which typically performs restricted tasks within specific domains relatively well. However, 'strong' AI, equivalent to human intelligence, is the long-term goal, and although this is no more than a theoretical construct at present, we can expect 'stronger' AI to emerge over time.

ELT will not be immune to this development, and it behoves us as language teachers to be familiar with AI's current benefits and challenges, so that we can better prepare for that future.

This article describes how AI is currently used in ELT, and explores some of the opportunities and challenges that AI can provide for learners, teachers and institutions. Ethical issues such as collecting learner data, surveillance and privacy are considered, as well as learner wellbeing and the digital literacies that teachers and learners will need to develop to co-exist in a brave new world of educational AI.

REFERENCES

- [1]. Abioye, S. O., Oyedele, L. O., Akanbi, L., Ajayi, A., Delgado, J. M. D., Bilal, M., ... & Ahmed, A. (2021). Artificial intelligence in the construction industry: A review of present status, opportunities and future challenges. *Journal of Building Engineering*, 44, 103299.
- [2]. Adriansen, H. K., Juul-Wiese, T., Madsen, L. M., Saarinen, T., Spangler, V., & Waters, J. L. (2022). Emplacing English as lingua franca in international higher education: A spatial perspective on linguistic diversity. *Population, Space and Place*, 29(2), e2619.
- [3]. Al-Smadi, O. A., Rashid, R. A., Saad, H., & Zrekat, Y. H. (2023). English language teachers' views of WhatsApp affordances for language learning. *International Journal of English Language and Literature Studies*, 12(3), 226–237.
- [4]. Al-Smadi, O. A., Rashid, R.A., & Altamimi, D.H. (2020). A linguistic ethnography of teacher talk in an English for Medical Purposes Classroom. *International Journal of Arabic-English Studies*, 20(1), 51-66.
- [5]. Bilad, M. R., Yaqin, L. N., & Zubaidah, S. (2023). Recent Progress in the Use of Artificial Intelligence Tools in Education. *Jurnal Penelitian Dan Pengkajian Ilmu Pendidikan: E-Saintika*, 7(3), 279–315.
- [6]. Biletska, I. O., Paladieva, A. F., Avchinnikova, H. D., & Kazak, Y. Y. (2021). The use of modern technologies by foreign language teachers: developing digital skills. *Linguistics and Culture Review*, 5(S2), 16-27.
- [7]. Dreimane, S. & Upenieks, R. (2020). Intersection of Serious Games and Learning Motivation for Medical Education: A Literature Review. *International Journal of Smart Education and Urban Society (IJSEUS)*, 11(3), 42-51.
- [8]. Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994.
- [9]. George, B., & Wooden, O. (2023). Managing the strategic transformation of higher education through artificial intelligence. *Administrative Sciences*, 13(9), 196.
- [10]. Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PloS one*, 15(5), e0232076.
- [11]. Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275-285.
- [12]. Kamalov, F., Santandreu Calonge, D., & Gurrib, I. (2023). New Era of Artificial Intelligence in Education: Towards a Sustainable Multifaceted Revolution. *Sustainability*, 15(16), 12451.
- [13]. Kessler, G. (2018). Technology and the future of language teaching. *Foreign language annals*, 51(1), 205-218.
- [14]. Leahy, S. M., Holland, C., & Ward, F. (2019). The digital frontier: Envisioning future technologies impact on the classroom. *Futures*, 113, 102422.
- [15]. Liao, J., Yang, J., & Zhang, W. (2021). The Student-centered STEM learning model based on artificial intelligence project: A case study on intelligent car. *International Journal of Emerging Technologies in Learning (iJET)*, 16(21), 100-120.
- [16]. Markauskaite, L., Marrone, R., Poquet, O., Knight, S., Martinez-Maldonado, R., Howard, S., & Siemens, G. (2022). Rethinking the entwinement between artificial intelligence and human learning: What capabilities do learners need for a world with AI?. *Computers and Education: Artificial Intelligence*, 3, 100056.
- [17]. Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Wiley.
- [18]. Shemshack, A., Kinshuk, & Spector, J. M. (2021). A comprehensive analysis of personalized learning components. *Journal of Computers in Education*, 8(4), 485-503.
- [19]. Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., ... & Fuso Nerini, F. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. *Nature communications*, 11(1), 1-10.
- [20]. Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, 14, 1261955.