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Advancements in English Language Teaching: Harnessing the Power of Artificial Intelligence

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Abstract

The integration of Artificial Intelligence (AI) in English Language Teaching (ELT) represents a transformative shift in language education, offering innovative tools and approaches to enhance learning outcomes and experiences. This study explores the various AI technologies and applications employed in ELT, including personalized learning platforms, intelligent tutoring systems, automated writing evaluation tools, and language learning apps. Through a comprehensive review of existing literature, theoretical frameworks, and empirical studies, this paper examines the effectiveness, pedagogical implications, ethical considerations, and future directions of AI integration in ELT. Key findings reveal that AI-driven tools provide personalized, adaptive, and interactive learning experiences tailored to individual learners' needs, promoting student engagement, autonomy, and proficiency development. While AI technologies offer numerous benefits for language instruction, including improved learning outcomes, teacher efficiency, and accessibility, they also raise ethical and social considerations, such as data privacy, algorithmic bias, and equity issues. Addressing these challenges requires collaborative efforts among educators, policymakers, researchers, and technology developers to ensure responsible and equitable AI use in language education. Looking ahead, future directions include advancing AI technology, integrating AI and pedagogy, promoting ethical and responsible AI use, providing teacher training and professional development, fostering collaborative research and evaluation, innovating in assessment and evaluation, and promoting global collaboration and knowledge sharing in ELT. By embracing innovation, collaboration, and ethical practice, educators can harness the transformative power of AI technologies to create dynamic, inclusive, and effective language learning environments that empower learners to succeed in today's interconnected world

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INTRODUCTION

AI refers to the simulation of human intelligence in machines, enabling them to perform tasks that typically require human intelligence, such as learning, problem-solving, understanding natural language, and recognizing patterns (Rusmiyanto et al., 2023). AI encompasses various subfields, including machine learning, natural language processing, computer vision, and robotics. Machine learning is a subset of AI that focuses on the development of algorithms and statistical models that enable computers to learn from and make predictions or decisions based on data, without being explicitly programmed for each task (Jagdale et al., 2022; Soori et al., 2023). Machine learning algorithms can analyze large datasets, identify patterns, and adapt their behavior accordingly. There are

different types of machines learning approaches, including supervised learning, unsupervised learning, and reinforcement learning.

Natural language processing is a branch of AI that deals with the interaction between computers and human language (Khensous et al., 2023; Lauriola et al., 2022; Mah et al., 2022). It enables computers to understand, interpret, and generate human language in a way that is both meaningful and contextually relevant. NLP algorithms can perform tasks such as language translation, sentiment analysis, text summarization, and speech recognition. They rely on techniques such as tokenization, part-of-speech tagging, syntactic analysis, and semantic understanding to process and analyze text data.

Neural networks are a type of machine learning algorithm inspired by the structure and function of the human brain (Grosan & Abraham, 2011; Montesinos López et al., 2022; Taherdoost, 2023). They consist of interconnected nodes, or neurons, organized in layers. Each neuron receives input signals, performs a computation, and generates an output signal, which is passed on to the next layer of neurons. Neural networks can learn complex patterns and relationships in data by adjusting the weights of connections between neurons through a process called training. Deep learning, a subset of neural networks, involves training large, multi-layered neural networks called deep neural networks, which have shown remarkable performance in tasks such as image recognition, speech recognition, and natural language processing.

Understanding these basic concepts provides a foundation for exploring the applications of AI in various domains, including education, where AI-powered technologies are increasingly being used to enhance teaching and learning experiences, including in English Language Teaching. AI has been increasingly integrated into English Language Teaching (ELT) to enhance various aspects of language learning and instruction. Here are some key ways AI is transforming ELT (Cox, 2021; Ghafar et al., 2023): Personalized Learning, Language Learning Apps, Intelligent Tutoring Systems (ITS), Automated Writing Evaluation, Language Assessment and Testing, Language Translation and Interpretation, Virtual Reality (VR) and Augmented Reality (AR). Overall, the integration of AI in ELT holds great promise for improving the efficiency, effectiveness, and accessibility of language learning and instruction, enabling learners to develop their language skills more rapidly and autonomously in diverse educational settings.

English language teaching (ELT) holds significant importance in today's globalized world, and its potential enhancement through AI offers numerous benefits (Akbarani, 2023; Edmett et al., 2023). English is the lingua franca of the modern world, serving as a common means of communication across cultures, industries, and academic disciplines. Proficiency in English opens doors to a wide range of educational, professional, and personal opportunities, including higher education, international travel, career advancement, and cultural exchange.

In many industries and sectors, proficiency in English is considered a valuable asset and often a prerequisite for employment. AI-enhanced ELT can help learners develop the language skills needed to succeed in today's globalized workforce, including effective communication, critical thinking, collaboration, and problem-solving (Grassini, 2023; Mahato, 2023). The vast majority of online resources, educational materials, research publications, and digital content are available in English. By improving their English language proficiency, learners can access a wealth of information and resources on a wide range of topics, from academic journals and e-books to online courses and multimedia content.

English proficiency is crucial for academic success, particularly for students pursuing higher education in English-speaking countries or studying in international academic programs. AI-driven ELT tools can support students in developing the language skills necessary for academic writing, research, presentation, and participation in classroom discussions (Utami et al., 2023; Zhang et al., 2023; Zulfa et al., 2023). Learning English enables individuals to connect

with people from diverse linguistic and cultural backgrounds, fostering intercultural communication, understanding, and cooperation. AI-enhanced ELT can facilitate cross-cultural exchanges and collaborations by providing opportunities for language practice, cultural immersion, and virtual communication with speakers of English worldwide.

English language proficiency is not only valuable for academic and professional purposes but also for personal enrichment and lifelong learning. AI-powered language learning platforms offer flexible and accessible opportunities for individuals of all ages to improve their English skills at their own pace, anytime and anywhere (Gligorea et al., 2023; Haleem et al., 2022). AI technologies have the potential to make ELT more inclusive and accessible to diverse learners, including those with disabilities, learning differences, or limited access to traditional educational resources. AI-driven tools can customize learning experiences, accommodate individual learning styles and preferences, and provide support for learners with special needs.

Overall, the enhancement of English language teaching through AI has the potential to democratize access to quality language education, empower learners to achieve their academic and professional goals, and promote intercultural understanding and collaboration in an increasingly interconnected world.

METHOD

The comprehensive review of existing literature on the integration of AI in English language teaching (ELT) serves several purposes within the article (Umar et al., 2023). It provides a thorough understanding of the historical development and current state of AI integration in ELT. This helps readers grasp the evolution of AI applications in language education and its significance within the broader educational landscape. By synthesizing theories and frameworks from relevant literature, the review establishes a theoretical foundation for understanding the potential impact of AI on ELT. This might include theories of learning, cognitive psychology, and computer-mediated communication, among others.

Through the review, the article identifies recurring themes, trends, and patterns in existing research on AI in ELT (Umar, 2022). This helps to highlight areas where AI has been most commonly applied, as well as areas that have received less attention or remain underexplored. One of the primary objectives of the literature review is to identify gaps in current research (Umar, 2023). This involves pinpointing areas where further investigation is needed, whether due to limited empirical evidence, theoretical ambiguities, or unexplored aspects of AI integration in ELT.

The review critically evaluates the strengths and limitations of existing studies, methodologies employed, and the validity of findings. This ensures a nuanced understanding of the current state of knowledge and helps readers interpret the significance of research findings within the broader context of AI in ELT. Overall, the comprehensive literature review lays the groundwork for the subsequent sections of the article by providing a solid theoretical and empirical foundation, identifying areas for further research, and guiding the discussion on the implications of AI integration in English language teaching.

RESULTS AND DISCUSSIONS

1. Overview of AI Integration

a. Personalized Learning Platforms

Personal Learning platforms utilize AI algorithms to deliver tailored learning experiences based on individual learners' needs, preferences, and proficiency levels (Das et al., 2023; Rizvi, 2023). They adapt the content, pace, and difficulty of lessons to optimize learning outcomes and engagement. Personalized learning platforms dynamically adjust the content of lessons based on learners' strengths, weaknesses, and learning styles. They provide customized learning pathways

that cater to each learner's unique needs and interests.

Learners can progress through the material at their own pace, allowing for greater flexibility and autonomy in the learning process. Personalized learning platforms offer scaffolding and support as needed, ensuring that learners can master concepts before moving on to more advanced topics. AI algorithms analyze learners' performance data and provide targeted feedback on their progress and areas for improvement. Learners receive real-time feedback on their language skills, allowing them to identify and address weaknesses more effectively.

By offering personalized learning experiences that are relevant and meaningful to each learner, these platforms enhance engagement and motivation. Learners feel more invested in their learning journey when they have control over their learning path and can see tangible progress over time. Personalized learning platforms generate data analytics and insights that help educators and administrators track learners' progress, identify learning trends, and make informed instructional decisions. This data can inform curriculum design, resource allocation, and intervention strategies to support learners' needs effectively.

Overall, personalized learning platforms represent a powerful tool for enhancing English language teaching by providing adaptive, engaging, and effective learning experiences tailored to the individual needs of learners. They empower learners to take ownership of their learning and achieve greater proficiency in English

b. Intelligent Tutoring Systems (ITS)

ITS leverage AI to provide personalized tutoring and guidance to learners, simulating the role of human tutors (Bhushan et al., 2023; Vanlehn, 2011). They diagnose learners' strengths and weaknesses, deliver targeted instruction, offer immediate feedback, and track progress over time. ITS analyze learners' performance data and adapt the instruction to their individual needs, preferences, and proficiency levels. They provide customized learning pathways and instructional strategies tailored to each learner's strengths and weaknesses.

ITS offer immediate feedback on learners' responses, allowing them to correct mistakes and reinforce learning in real time. This timely feedback enhances learning effectiveness and helps learners progress more rapidly. ITS provide scaffolding and support as needed, guiding learners through challenging tasks and providing hints, explanations, and additional resources to support comprehension and mastery of concepts. ITS dynamically adjust the difficulty and complexity of tasks based on learners' performance and progress. They maintain an optimal level of challenge to keep learners engaged and motivated while avoiding frustration or boredom.

ITS generate detailed data analytics and insights on learners' interactions, progress, and learning outcomes. Educators can use this information to monitor learners' performance, identify areas for improvement, and make informed instructional decisions. ITS promote autonomous learning by empowering learners to take control of their learning process. Learners can work at their own pace, access resources independently, and receive personalized support whenever needed. ITS are accessible anytime and anywhere, allowing learners to engage in learning activities at their convenience. This flexibility

accommodates diverse learning schedules and preferences, making learning more accessible and inclusive.

Overall, Intelligent Tutoring Systems represent a valuable tool for enhancing English language teaching by providing personalized, adaptive, and effective tutoring experiences tailored to the individual needs of learners. They support learners' language acquisition and proficiency development by offering targeted instruction, immediate feedback, and ongoing support throughout their learning journey.

c. Automated Writing Evaluation Tools

AI-driven tools analyze learners' writing samples and provide automated feedback on grammar, vocabulary, style, and coherence. They use natural language processing (NLP) algorithms to assess the quality of written texts and offer suggestions for improvement, supporting learners in developing their writing skills independently.

AWE tools analyze learners' written texts using natural language processing (NLP) algorithms to evaluate various aspects of language proficiency, including grammar, vocabulary, coherence, and style (Ranalli & Yamashita, 2022). They provide automated scores and diagnostic feedback on areas for improvement. AWE tools offer immediate feedback on learners' writing, allowing them to identify and correct errors in real time. This timely feedback enhances learning effectiveness and supports language skill development.

AWE tools ensure consistency and reliability in assessment by applying standardized criteria and algorithms to evaluate written texts (Hockly, 2019). They offer objective and unbiased feedback, reducing variability in grading and ensuring fairness for all learners. AWE tools provide targeted feedback on specific linguistic features and errors in learners' writing, helping them understand their strengths and weaknesses. They offer suggestions for improvement and language enhancement strategies tailored to individual learners' needs.

AWE tools enable rapid and scalable assessment of written texts, allowing educators to evaluate large volumes of student work efficiently. They save time and effort compared to manual grading, freeing up educators to focus on other aspects of teaching and learning. AWE tools support formative assessment practices by providing ongoing feedback and opportunities for revision and improvement. Learners can submit multiple drafts of their writing assignments and receive feedback at each stage of the writing process, facilitating iterative learning and skill development.

AWE tools serve as pedagogical tools for language instruction, offering instructional resources, writing prompts, and model texts to support learners' writing development. They scaffold learning and provide learners with the guidance and support they need to become proficient writers. Overall, Automated Writing Evaluation tools represent a valuable resource for English language teaching by providing automated, personalized, and actionable feedback on learners' writing. They support language skill development, promote self-directed learning, and enhance the effectiveness of writing instruction in diverse educational settings.

d. Language Learning Apps

Mobile applications harnessing AI technologies offer interactive language learning experiences through features such as speech recognition, language practice exercises, vocabulary

drills, and real-time feedback. They employ NLP algorithms to understand and evaluate learners' spoken and written language skills, facilitating language acquisition and proficiency development.

Language learning apps provide interactive lessons that engage users through multimedia content, such as videos, audio recordings, and interactive exercises (Karasimos, 2022). These lessons cover various aspects of language learning, including vocabulary, grammar, pronunciation, and comprehension. Apps tailor learning paths to users' proficiency levels, learning goals, and preferences. They use AI algorithms to assess users' language skills and adapt the content and difficulty of lessons accordingly, ensuring a customized learning experience.

Many language learning apps incorporate speech recognition technology to assess users' pronunciation and speaking skills (Abimanto & Sumarsono, 2024). They provide feedback on pronunciation accuracy and offer opportunities for speaking practice through voice exercises and interactive conversations. Apps often employ gamification techniques, such as badges, points, and rewards, to motivate users and enhance engagement. Users can track their progress, compete with friends, and unlock achievements as they advance through the lessons.

Language learning apps offer real-time feedback on users' responses and performance, helping them identify errors and improve their language skills more effectively. Immediate feedback fosters self-directed learning and encourages continuous improvement. Apps are accessible on mobile devices, allowing users to learn anytime and anywhere. Learners can study on the go, during commutes, or in spare moments, making language learning more convenient and flexible.

Language learning apps offer a wide range of content, including vocabulary lists, grammar explanations, cultural insights, and authentic materials, such as articles, videos, and podcasts. Users can explore diverse topics and language contexts to enhance their language proficiency. Some apps feature social networking and collaboration features that enable users to connect with other learners, practice language skills together, and receive peer feedback. Community engagement enhances motivation and provides additional learning opportunities.

Overall, language learning apps play a valuable role in ELT by providing learners with accessible, engaging, and effective tools for improving their English language skills. They leverage AI technologies to deliver personalized learning experiences, interactive content, and real-time feedback, empowering learners to achieve their language learning goals more efficiently and autonomously.

These AI technologies and applications are transforming ELT by providing personalized, adaptive, and interactive learning experiences tailored to individual learners' needs. They offer opportunities for autonomous learning, immediate feedback, and targeted support, contributing to improved language proficiency, engagement, and learning outcomes in diverse educational settings.

2. Effectiveness of AI Tools

The effectiveness of AI tools in English Language Teaching (ELT) can be assessed through various measures, including their impact on learning outcomes, student engagement, and teacher efficiency (Hartono et al., 2023; Nur Fitria, 2021). Studies have shown that AI-driven tools, such as personalized learning platforms, intelligent

tutoring systems, and language learning apps, can lead to improved learning outcomes in language proficiency. These tools provide tailored instruction, immediate feedback, and adaptive learning experiences that cater to individual learners' needs, resulting in enhanced language skills development and performance. AI tools promote student engagement by offering interactive, multimedia-rich learning experiences that captivate learners' interest and motivation. Features such as gamification, real-time feedback, and personalized learning paths encourage active participation and sustained engagement in language learning activities.

AI tools empower learners to take control of their learning process and become more autonomous and self-directed. Learners can study at their own pace, access resources independently, and receive personalized support whenever needed, fostering a sense of ownership and responsibility for their learning journey. AI tools streamline administrative tasks, grading, and assessment processes, allowing teachers to focus their time and energy on more meaningful instructional activities, such as lesson planning, student support, and personalized interventions. This efficient use of teacher time maximizes productivity and enhances the quality of teaching and learning in the classroom.

AI tools generate data analytics and insights that help educators monitor learners' progress, identify learning trends, and make informed instructional decisions. By leveraging data-driven insights, teachers can tailor instruction to meet individual learners' needs, address learning gaps, and optimize teaching strategies for better learning outcomes. AI tools make language learning more accessible and inclusive to diverse learners, including those with disabilities, learning differences, or limited access to traditional educational resources. These tools accommodate individual learning styles, preferences, and needs, ensuring equitable access to high-quality language instruction for all learners.

Overall, the effectiveness of AI tools in ELT lies in their ability to enhance learning outcomes, promote student engagement and autonomy, optimize teacher efficiency, and foster inclusive and equitable language learning environments. By leveraging AI technologies, educators can provide personalized, adaptive, and effective language instruction that meets the diverse needs of learners in today's digital age.

3. Pedagogical Implications

The integration of AI tools in English Language Teaching (ELT) has several pedagogical implications that shape teaching practices, instructional strategies, and learning outcomes (Manire et al., 2023). AI tools support learner-centered approaches to teaching and learning by providing personalized, adaptive, and interactive learning experiences tailored to individual learners' needs, preferences, and proficiency levels. This shift from traditional teacher-centered instruction to learner-centered approaches promotes active engagement, autonomy, and self-directed learning among learners.

AI tools enable teachers to differentiate instruction and address diverse learners' needs effectively (Ng et al., 2023). Teachers can leverage AI-generated data analytics and insights to identify learning gaps, track progress, and adapt instructional strategies to meet individual learners' strengths, weaknesses, and learning styles. AI tools facilitate the integration of language skills, such as reading, writing, speaking, and listening, into cohesive and meaningful language learning experiences. Through interactive activities, authentic materials, and real-world simulations, learners practice and develop multiple language skills simultaneously, enhancing their overall language proficiency.

AI tools support formative assessment practices by providing ongoing feedback and opportunities for reflection, revision, and

improvement. Teachers can use AI-generated feedback to guide learners' language development, address common errors, and scaffold learning effectively throughout the writing process. AI tools promote collaborative learning experiences by enabling learners to connect, communicate, and collaborate with peers, teachers, and experts in virtual learning environments. Through online forums, discussion boards, and collaborative projects, learners engage in meaningful interactions, peer feedback, and knowledge sharing, fostering social and cognitive development.

AI tools cultivate digital literacies and 21st-century skills essential for success in today's digital age. By engaging with AI-driven technologies, learners develop critical thinking, problem-solving, communication, and digital literacy skills, preparing them for academic, professional, and personal success in a technology-rich world. Teachers play a crucial role in promoting the ethical and responsible use of AI technologies in ELT. They must educate learners about digital citizenship, privacy, security, and ethical considerations related to AI use, ensuring that learners engage with technology responsibly and ethically.

Overall, the pedagogical implications of integrating AI tools in ELT emphasize learner-centered approaches, differentiated instruction, formative assessment, collaborative learning, digital literacy development, and ethical use of technology. By leveraging AI technologies strategically, educators can create dynamic and engaging language learning environments that empower learners to achieve their language learning goals effectively and responsibly.

4. Student Perceptions and Experiences

Understanding student perceptions and experiences in using AI tools in English Language Teaching (ELT) is crucial for assessing the effectiveness and impact of these technologies on learning outcomes and engagement. Students' attitudes towards AI technologies in ELT can vary depending on factors such as familiarity with technology, previous experiences, and personal preferences (Chan & Hu, 2023; Sol et al., 2024). Some students may embrace AI tools as valuable learning aids that enhance their language learning experience, while others may feel skeptical or apprehensive about relying on technology for language instruction. Students often perceive AI tools in ELT as beneficial for language learning due to their interactive features, personalized feedback, and adaptive learning experiences. They appreciate the convenience, flexibility, and accessibility of AI-driven platforms, which allow them to study anytime and anywhere at their own pace.

Many students report increased engagement and motivation when using AI tools in ELT. Features such as gamification, real-time feedback, and multimedia content captivate learners' interest and encourage active participation in language learning activities. Students recognize the positive impact of AI tools on their language learning outcomes, such as improved language proficiency, comprehension, and confidence. They appreciate the immediate feedback and targeted support provided by AI-driven platforms, which help them identify and address areas for improvement more effectively.

Despite the benefits, students may encounter challenges and frustrations when using AI tools in ELT. Technical issues, usability problems, and algorithmic errors can disrupt the learning experience and undermine students' confidence in the reliability and accuracy of AI-driven platforms. While AI tools offer personalized and adaptive learning experiences, some students express a desire for human interaction and support in their language learning journey. They value the role of teachers and peers in providing emotional support, guidance, and encouragement, which cannot be fully replaced by AI technologies.

Students may have ethical concerns about the use of AI technologies in ELT, such as data privacy, algorithmic bias, and the potential for overreliance on technology. They advocate for transparent and ethical AI practices that prioritize learners' well-being, autonomy, and dignity. Overall, student perceptions and experiences in using AI tools in ELT reflect a complex interplay of attitudes, preferences, and experiences. By listening to students' feedback and addressing their needs and concerns, educators can optimize the design and implementation of AI-driven technologies to enhance the language learning experience and promote student success.

5. Teacher Perspectives and Roles

Teacher perspectives and roles in using AI tools in English Language Teaching (ELT) are critical for understanding the implementation, impact, and effectiveness of these technologies in educational settings. Teachers play a key role in the integration of AI tools into ELT curriculum and instruction (Mavropoulou et al., 2023). They select, customize, and implement AI-driven technologies that align with learning objectives, pedagogical approaches, and learners' needs. Teachers also provide guidance and support to students in using AI tools effectively.

Teachers act as facilitators of learning by leveraging AI tools to create dynamic and interactive learning environments. They design engaging learning activities, provide scaffolding and support, and facilitate meaningful interactions among learners and AI-driven technologies. Teachers use AI tools to provide personalized instruction and support tailored to individual learners' needs, preferences, and proficiency levels. They analyze learners' performance data, interpret AI-generated insights, and adjust instructional strategies to optimize learning outcomes and engagement.

Teachers use AI tools to conduct formative assessment and provide timely, targeted feedback to learners. They interpret AI-generated feedback, identify areas for improvement, and guide learners in revising and refining their language skills throughout the learning process. Teachers engage in ongoing professional development to enhance their proficiency in using AI tools effectively in ELT. They participate in training sessions, workshops, and online courses to develop their knowledge, skills, and confidence in integrating AI-driven technologies into their teaching practice.

Teachers consider ethical considerations related to the use of AI tools in ELT, such as data privacy, algorithmic bias, and the ethical use of technology. They advocate for transparent and responsible AI practices that prioritize learners' well-being, autonomy, and dignity. Teachers collaborate with colleagues, researchers, and technology developers to share best practices, exchange ideas, and co-create innovative solutions for integrating AI tools into ELT. They contribute to the ongoing advancement of the field by sharing insights, lessons learned, and evidence-based practices.

6. Ethical and Social Considerations

Ethical and social considerations in using AI tools in English Language Teaching (ELT) are paramount to ensure responsible and equitable implementation of these technologies in educational settings. Teachers and educational institutions must prioritize the privacy and security of learners' data when using AI tools in ELT (Patty, 2024). They should comply with data protection regulations and implement measures to safeguard sensitive information, such as student records, performance data, and personal details.

AI algorithms used in ELT may exhibit biases based on factors such as race, gender, socioeconomic status, and language proficiency. Teachers should critically evaluate AI-driven technologies for potential biases and ensure that they promote fairness, diversity, and inclusion in language instruction. Teachers should advocate for transparency and accountability in the

design, development, and deployment of AI tools in ELT. They should seek transparency from technology developers regarding the algorithms, data sources, and decision-making processes underlying AI-driven technologies, ensuring that educators and learners can understand and trust the technology.

Teachers should consider the digital divide and ensure that AI tools are accessible to all learners, regardless of their socioeconomic background, geographic location, or technological proficiency. They should address barriers to access, such as internet connectivity, device availability, and digital literacy, to promote equitable access to high-quality language instruction. Teachers should use student data collected by AI tools in ELT ethically and responsibly. They should obtain informed consent from learners and their parents or guardians for data collection and use, and ensure that student data is used solely for educational purposes and not shared with third parties without permission.

Teachers should empower learners to make informed decisions about their use of AI tools in language learning. They should educate learners about digital citizenship, privacy rights, and ethical considerations related to technology use, enabling them to navigate digital environments responsibly and autonomously. Teachers should engage in critical reflection and ethical practice when using AI tools in ELT. They should continuously evaluate the ethical implications of technology use, seek diverse perspectives, and prioritize the well-being and dignity of learners in all aspects of language instruction.

By addressing ethical and social considerations in the use of AI tools in ELT, teachers can ensure that technology enhances learning experiences, promotes equity and inclusion, and empowers learners to thrive in today's digital world.

7. Future Directions and Recommendations

Looking ahead, the future of using AI tools in English Language Teaching (ELT) holds great promise for transforming language learning experiences and outcomes (Barad, 2023; The Future of Language Learning, n.d.). Continued advancements in AI technology, such as natural language processing (NLP), machine learning, and neural networks, will lead to the development of more sophisticated and effective AI-driven tools for ELT. Future AI tools may offer enhanced capabilities for personalized learning, adaptive instruction, and real-time feedback, further improving language proficiency development.

Future research and development efforts should focus on integrating AI tools seamlessly into pedagogical practices in ELT. Educators should explore innovative ways to leverage AI technologies to enhance traditional teaching methods, promote active learning, and foster critical thinking and creativity among learners. There is a need for ongoing dialogue and collaboration among educators, researchers, policymakers, and technology developers to address ethical and social considerations in the use of AI tools in ELT. Future initiatives should prioritize transparency, accountability, and equity in AI-driven language instruction, ensuring that technology is used responsibly and ethically to support learners' needs and well-being.

Educators require comprehensive training and professional development opportunities to effectively integrate AI tools into their teaching practice. Future initiatives should provide teachers with the knowledge, skills, and resources needed to leverage AI technologies for language instruction, including training on data privacy, algorithmic bias, and ethical use of technology. Future research should focus on empirically evaluating the effectiveness, impact, and scalability of AI-driven tools in ELT. Collaborative research projects

involving interdisciplinary teams of educators, researchers, and technology developers can generate valuable insights into the benefits, challenges, and best practices associated with AI integration in language learning environments.

AI technologies have the potential to revolutionize language assessment and evaluation practices by offering automated, adaptive, and reliable assessment solutions. Future developments in AI-powered assessment tools should prioritize validity, reliability, and fairness while embracing innovative approaches to measuring language proficiency and performance. Future initiatives should promote global collaboration and knowledge sharing among stakeholders in ELT, including educators, policymakers, researchers, and technology developers. By sharing best practices, resources, and lessons learned, stakeholders can collectively advance the field of AI in language education and maximize its potential to support language learners worldwide.

In summary, the future of using AI tools in ELT holds exciting opportunities for enhancing language learning experiences, promoting equity and inclusion, and empowering learners to achieve their language learning goals. By embracing innovation, collaboration, and ethical practice, educators can harness the transformative power of AI technologies to create dynamic and effective language learning environments for learners of all backgrounds and abilities.

CONCLUSION

In conclusion, the integration of Artificial Intelligence (AI) in English Language Teaching (ELT) represents a significant advancement that holds great promise for transforming language learning experiences and outcomes. Throughout this study, we have explored various AI technologies and applications, including personalized learning platforms, intelligent tutoring systems, automated writing evaluation tools, and language learning apps, and examined their impact on teaching, learning, and educational practice.

The results indicate that AI-driven tools offer personalized, adaptive, and interactive learning experiences tailored to individual learners' needs, preferences, and proficiency levels. These tools have been shown to enhance learning outcomes, promote student engagement and autonomy, optimize teacher efficiency, and foster inclusive and equitable language learning environments. By leveraging AI technologies strategically and responsibly, educators can create dynamic and effective language learning environments that empower learners to achieve their language learning goals effectively and responsibly.

However, it is essential to address ethical and social considerations related to the use of AI in ELT, such as data privacy, algorithmic bias, equity issues, and the digital divide. Educators, policymakers, researchers, and technology developers must collaborate to ensure that AI-driven language instruction prioritizes transparency, accountability, fairness, and inclusivity, while respecting learners' rights, dignity, and autonomy.

Looking ahead, future initiatives should focus on advancing AI technology, integrating AI and pedagogy, promoting ethical and responsible AI use, providing teacher training and professional development, fostering collaborative research and evaluation, innovating in assessment and evaluation, and promoting global collaboration and knowledge sharing in ELT.

REFERENCES

Manuscripts are written by using standard citation application (Mendeley/Endnote/Zotero).

APA (American Psychological Association) the 7th edition, the latest edition, reference style is required. More or less 80% references for literature reviews should be the recent (up to date) journals published in the last 10 years, but the rest of 20% references can be cited from research reports and/or articles.

Cite relevant articles from *English Education Journal.*

Abimanto, D., & Sumarsono, W. (2024). Improving English Pronunciation with AI Speech-Recognition Technology. *Acitya: Journal of Teaching and Education*, *6*, 146–156. https://doi.org/10.30650/ajte.v6i1.3810

Akbarani, R. (2023). The Use Of Artificial Intelligence In English Language Teaching. *International Journal of English Learning and Applied Linguistics (IJELAL)*, *4*(1), Article 1. https://doi.org/10.21111/ijelal.v4i1.10756

Barad, D. (2023). *Enhancing English Language Teaching (ELT) with AI (ChatGPT): A Hands-On Workshop*. https://doi.org/10.13140/RG.2.2.17242.11206

Bhushan, M., Shingate, R., Shah, T., & Vyas, N. (2023). *Intelligent Tutoring System: Personalized Learning Plans With AI*. https://doi.org/10.13140/RG.2.2.36573.59369

Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, *20*(1), 43. https://doi.org/10.1186/s41239-023-00411-8

Cox, A. M. (2021). Exploring the impact of Artificial Intelligence and robots on higher education through literature-based design fictions. *International Journal of Educational Technology in Higher Education*, *18*(1), 3. https://doi.org/10.1186/s41239-020-00237-8

Das, A., Malaviya, S., & Singh, M. (2023). The Impact of AI-Driven Personalization on Learners' Performance. *International Journal of Computer Sciences and Engineering*, *11*, 15–22. https://doi.org/10.26438/ijcse/v11i8.1522

Edmett, A., ichaporia, neenaz, Crompton, H., & Crichton, R. (2023). *Artificial intelligence and English language teaching: Preparing for the future*.

Ghafar, Z., Heshw, Salh, F., Abdulrahim, M., Sayran, Farxha, S., Arf, S., Rubar, & Rahim, I. (2023). The Role of Artificial Intelligence Technology on English Language Learning: A Literature Review. *Canadian Journal of Language and Literature Studies*, *3*, 17–31. https://doi.org/10.53103/cjlls.v3i2.87

Gligorea, I., Cioca, M., Oancea, R., Gorski, A.-T., Gorski, H., & Tudorache, P. (2023). Adaptive Learning Using Artificial Intelligence in e-Learning: A Literature Review. *Education Sciences*, *13*(12), Article 12. https://doi.org/10.3390/educsci13121216

Grassini, S. (2023). Shaping the Future of Education: Exploring the Potential and Consequences of AI and ChatGPT in Educational Settings. *Education Sciences*, *13*(7), Article 7. https://doi.org/10.3390/educsci13070692

Grosan, C., & Abraham, A. (2011). *Artificial Neural Networks*. *17*, 281–323. https://doi.org/10.1007/978-3-642-21004-4_12

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. https://doi.org/10.1016/j.susoc.2022.05.004

Hartono, W. J., Nurfitri, N., Ridwan, R., Kase, E. B. S., Lake, F., & Zebua, R. S. Y. (2023). Artificial Intelligence (AI) Solutions In English Language Teaching: Teachers-Students Perceptions And Experiences. *Journal on Education*, *6*(1), Article 1. https://doi.org/10.31004/joe.v6i1.3101

Hockly, N. (2019). Automated writing evaluation. *ELT Journal*, *73*, 82–88. https://doi.org/10.1093/elt/ccy044

Jagdale, K., Shelke, C., Achary, R., Wankhede, D., & Bhandare, T. (2022). *Artificial Intelligence and its Subsets: Machine Learning and its Algorithms, Deep Learning, and their Future Trends*. *9*, page no.i112-i117.

https://doi.org/10.6084/m9.jetir.JETIR2205914

Karasimos, A. (2022). *The battle of language learning apps: A cross-platform overview (RPLTL12)*. *12*, 150–168.

KHENSOUS, G., Labed, K., & LABED, Z. (2023). Exploring the evolution and applications of natural language processing in education. *Revista Română de Informatică Și Automatică*, *33*, 61–74. https://doi.org/10.33436/v33i2y202305

Lauriola, I., Lavelli, A., & Aiolli, F. (2022). An introduction to Deep Learning in Natural Language Processing: Models, techniques, and tools. *Neurocomputing*, *470*, 443–456. https://doi.org/10.1016/j.neucom.2021.05.103

Mah, P. M., Skalna, I., & Muzam, J. (2022). Natural Language Processing and Artificial Intelligence for Enterprise Management in the Era of Industry 4.0. *Applied Sciences*, *12*(18), Article 18. https://doi.org/10.3390/app12189207

Mahato, R. (2023). *Artificial Intelligence Language Learning and Communication: Exploring the Intersection Of Technology and Education*.

Manire, E., Kilag, O. K., Cordova Jr, N., Tan, S., Poligrates, J., & Omaña, E. (2023). *Artificial Intelligence and English Language Learning: A Systematic Review*.

Mavropoulou, E., Koutsoukos, M., & Oikonomou, A. (2023). *Integration of Artificial Intelligence on Teaching the Course of Didactic Methodology: A Case Study*. 2411–9563.

Montesinos López, O. A., Montesinos López, A., & Crossa, J. (2022). Fundamentals of Artificial Neural Networks and Deep Learning. In O. A. Montesinos López, A. Montesinos López, & J. Crossa (Eds.), *Multivariate Statistical Machine Learning Methods for Genomic Prediction* (pp. 379–425). Springer International Publishing. https://doi.org/10.1007/978-3-030-89010-0_10

Ng, D. T. K., Leung, J. K. L., Su, J., Ng, R. C. W., & Chu, S. K. W. (2023). Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Educational Technology Research and Development*, *71*(1), 137–161. https://doi.org/10.1007/s11423-023-10203-6

Nur Fitria, T. (2021). *The Use Technology Based on Artificial Intelligence in English Teaching and Learning*. *6*, 213–223. https://doi.org/10.24235/eltecho.v6i2.9299

Patty, J. (2024). The Use of Ai In Language Learning: What You Need To Know. *Jurnal Review Pendidikan Dan Pengajaran*, *7*, 642–654. https://doi.org/10.31004/jrpp.v7i1.24609

Ranalli, J., & Yamashita, T. (2022). Automated written corrective feedback: Error-correction performance and timing of delivery. *Language, Learning and Technology*, *26*, 1–25.

Rizvi, M. (2023). Investigating AI-Powered Tutoring Systems that Adapt to Individual Student Needs, Providing Personalized Guidance and Assessments. *The Eurasia Proceedings of Educational and Social Sciences*, *31*, 67–73. https://doi.org/10.55549/epess.1381518

Rusmiyanto, R., Huriati, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The Role of Artificial Intelligence (AI) In Developing English Language Learner's Communication Skills. *Journal on Education*, *6*(1), Article 1. https://doi.org/10.31004/joe.v6i1.2990

Sol, K., Heng, K., & Sok, S. (2024). *Using AI in English Language Education: An Exploration of Cambodian EFL University Students' Experiences, Perceptions, and Attitudes*. https://doi.org/10.2139/ssrn.4687461

Soori, M., Arezoo, B., & Dastres, R. (2023). Artificial intelligence, machine learning and deep learning in advanced robotics, a review. *Cognitive Robotics*,

3, 54–70. https://doi.org/10.1016/j.cogr.2023.04.001

Taherdoost, H. (2023). Deep Learning and Neural Networks: Decision-Making Implications. *Symmetry*, *15*(9), Article 9. https://doi.org/10.3390/sym15091723

The Future *of Language Learning: English Teachers, AI, and Technological Advancements*. (n.d.). Retrieved April 13, 2024, from https://www.linkedin.com/pulse/future-language-learning-english-teachers-ai-technological-mkhve

Umar, U. (2022). Teaching English to Children at Mi Tahfidz Nurul Huda Japuralor, CIREBON. *FLIP: Foreign Language Instruction Probe*, *1*(1), 71–79. http://jurnal.stit-buntetpesantren.ac.id/index.php/flip/article/view/116

Umar, U. (2023). Distance Learning: Current Issues and Challenges. *FLIP: Foreign Language Instruction Probe*, *2*(1), Article 1. https://doi.org/10.54213/flip.v2i1.243

Umar, U., Purwanto, M. B., & Firdaus, M. M. A. (2023). Research and Development: As the Primary Alternative to Educational Research Design Frameworks. *JELL (Journal of English Language and Literature) STIBA-IEC Jakarta*, *8*(01), Article 01. https://doi.org/10.37110/jell.v8i01.172

Utami, S., Andayani, A., Winarni, R., & Sumarwati, S. (2023). Utilization of artificial intelligence technology in an academic writing class: How do Indonesian students perceive? *Contemporary Educational Technology*, *15*, ep450. https://doi.org/10.30935/cedtech/13419

Vanlehn, K. (2011). The Relative Effectiveness of Human Tutoring, Intelligent Tutoring Systems, and Other Tutoring Systems. *Educational Psychologist*, *46*, 197–221. https://doi.org/10.1080/00461520.2011.611369

Zhang, X., Sun, J., & Deng, Y. (2023). Design and Application of Intelligent Classroom for English Language and Literature Based on Artificial Intelligence Technology. *Applied Artificial Intelligence*, *37*(1), 2216051. https://doi.org/10.1080/08839514.2023.2216051

Zulfa, S., Dewi, R. S., Hidayat, D. N., Hamid, F., & Defianty, M. (2023). The Use of AI and Technology Tools in Developing Students' English Academic Writing Skills. *International Conference on Education*, 47–63. https://jurnalfaktarbiyah.iainkediri.ac.id/index.php/proceedings/article/view/1811