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Reimagining Language Learning: AI-Driven Innovations for Engagement and Growth



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Abstract

Artificial intelligence (AI) is redefining the language education industry, offering innovative solutions that enhance learner engagement, foster autonomy, improve learning outcomes, and more. This special issue explores the transformative impact of AI-driven technologies across diverse educational contexts, focusing on their applications in fostering communicative competence, ethical integration, and multimodal learning. Collectively, the thirteen articles included here also examine how AI tools can help address traditional pedagogical challenges, such as limited access to authentic communication, exam-centric curricula, and disparities in instructional quality. They highlight AI's ability to personalize learning experiences, provide immediate feedback, and augment human interactions while preserving the essential role of educators. Other themes include strategies for tailoring AI tools to diverse linguistic and cultural contexts, fostering digital literacy and agency among learners, and developing robust evaluation frameworks for measuring AI's long-term impact. By synthesizing insights from these contributions, this special issue sets the stage for future research, calling for ethical, inclusive, and adaptable implementations that unlock AI's transformative potential while addressing its inherent challenges.

Keywords: corpus, data-driven learning, language learning, media review, SkELL

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Introduction

The rapid evolution of artificial intelligence (AI) has fundamentally reshaped many aspects of modern education, offering unprecedented opportunities to enhance learning experiences across diverse contexts. Within the realm of Instructed Second Language Acquisition (ISLA), AI tools are transforming traditional pedagogies and enabling dynamic, personalized approaches that were once inconceivable. From fostering communicative competence to addressing ethical challenges, AI's potential extends far beyond simply automating tasks or generating material; it invites educators and learners to reimagine the language-learning process itself in ways that are customized to them.

A growing body of research underscores the expanding role of AI in language education, revealing both its possibilities and limitations. AI-driven technologies have been integrated throughout the entire gamut of instructional settings to enhance learning efficiency, promote engagement, and bridge accessibility gaps. However, the impact of AI on pedagogical best strategies remains a topic of debate, with educators and researchers exploring how best to balance automation with meaningful human interaction to maximize efficacy.

Literature Review

General trends in AI adoption have demonstrated its capacity to revolutionize language education. Much of this transformation stems from its ability to address key challenges in modern classrooms, whether it is to overcome limitations in traditional instruction (e.g., lack of classroom hours, limited student-teacher interaction), or to provide innovative solutions to support learner autonomy and engagement. To better understand AI's growing role in language education, it is useful to examine recent empirical research that evaluates how AI-powered tools have been shaping language learning outcomes.

Kundu and Bej (2025) recently explored the transformative role of artificial intelligence technologies in language education, providing a comprehensive review of global trends and challenges. Their study highlighted the growing adoption of AI-powered tools to address issues such as differentiated instruction, learner engagement, and access to educational resources in diverse learning contexts. By analyzing empirical data from various AI applications, the authors identified both benefits (e.g., the ability to create personalized, adaptive learning experiences) and concerns (e.g., disparities in technological infrastructure across regions, student and teacher literacy/readiness, etc.), though they identified a general trend of improvement among AI users' language proficiency. This work underscored the need for localized solutions tailored to specific educational settings and highlighted the importance of equipping educators with the skills to integrate AI tools effectively. Their findings help inform current research by emphasizing the balance between technological innovation and equitable access, encouraging further exploration into how to bridge the digital divide in AI-driven classrooms.

Macinska and Vinkler's (2024) work focused on the practical applications of generative AI tools in language learning, particularly their roles as tutors, conversation partners, and writing assistants, in an effort to determine their efficacy and impact on the learning process. The authors examined case studies where AI tools were employed to support learners in improving fluency, accuracy, and overall engagement, emphasizing that AI's ability to provide immediate, evidence-based feedback appears to foster motivation and reinforces good learning habits. However, their research highlighted the importance of integrating AI tools within evidence-based pedagogical practices grounded in theory, ensuring that they complement, rather than replace, traditional teaching methods, emphasizing that "the impact of GenAI will not only depend on understanding its strengths and limitations, but on embedding AI tools within the teaching context to identify where they have genuine potential to enhance language learning" (p. 16). The study also brings attention to ethical considerations, such as data privacy and

algorithmic bias, which must be addressed to build trust in these technologies. The authors' work directs current research toward refining AI systems to align with pedagogical goals and promote inclusivity while safeguarding learner autonomy.

Conversely, Yeh (2024) examined the integration of generative AI into English as a Foreign Language (EFL) education, showcasing how tools like ChatGPT can facilitate immersive and authentic learning environments, especially when used in conjunction with other technology tools. Yeh's research demonstrated how generative AI enables learners to engage in real-time dialogues and scenario-based exercises, replicating interactions with native speakers and fostering context-rich language use, in contrast to old-fashioned rote learning pedagogical approaches. The study highlighted the potential of these technologies to cater to individual proficiency levels and learning goals, making language acquisition more accessible and engaging. Yeh also underscored challenges, such as ensuring the cultural appropriateness of AI-generated content and mitigating ethical concerns related to AI reliability and transparency. These findings, together with those from Kundu and Bej (2025) and Macinska and Vinkler (2024), provide valuable context for the discussions in this special issue. Each of these studies lays the groundwork for understanding AI's influence on language learning, offering insight into emerging trends, key benefits, and persistent challenges. With these perspectives in mind, the following articles further examine AI's applications within diverse educational settings, providing empirical evidence and critical reflections on its transformative role in language instruction.

This special issue on *AI Technology in Language Education* examines these possibilities through a series of scholarly contributions, each exploring AI's impact on teaching practices, learner engagement, and linguistic development. The following thirteen articles present independent yet interconnected perspectives on how AI technology is driving innovation in language education. Collectively, they highlight the challenges, opportunities, and ethical considerations of integrating AI into classrooms and beyond.

Summaries of the Articles in the Special Issue

1. *Advancing Communicative Competence in the Digital Age: A Case for AI Tools in Japanese EFL Education*

Busso and Sanchez (2024) critically address the longstanding emphasis on grammar and reading in Japanese English language education, advocating for AI's integration to foster communicative competence. The article highlights AI tools' ability to enhance fluency, lower anxiety, and enable personalized learning. Case studies demonstrate the potential of AI to shift teaching roles toward facilitation and prepare students for global communication. However, systemic barriers and ethical concerns, such as privacy and overreliance, are acknowledged. They argue that integrating AI into Japanese EFL education holds immense promise for better preparing students for global communication.

2. *Augmented Linguistic Analysis Skills: Machine Translation and Generative AI as Pedagogical Aids for Analyzing Complex English Compounds*

Looock and Holt (2024) explore the use of AI tools like ChatGPT and machine translation (MT) to support French learners analyzing complex noun phrases in English. The authors reveal how MT and generative AI can enhance linguistic analysis depending on students' proficiency levels. Experiments conducted with cohorts of undergraduate and master's-level translation students show that MT tools provide meaningful linguistic assistance, though their benefits vary based on proficiency. ChatGPT demonstrated promise in performing morphosyntactic analyses when appropriate prompts are used. The study advocates for developing MT literacy and ChatGPT proficiency to maximize learning benefits.

3. A Case Study on Reducing Language Anxiety and Enhancing Speaking Skills Through Online Conversation Lessons

Tabuchi et al. (2024) investigate the impact of personalized online conversation lessons on beginner-level Japanese EFL learners. In a case study which included eight low-stress sessions, a learner exhibited significant improvements in speaking fluency and reduced anxiety, enabled by corrective feedback in a psychologically safe environment. These findings highlight the potential of computer-mediated communication in addressing the needs of learners with customized needs. The study concludes that online conversation lessons can serve as a low-anxiety, individualized platform to meet the unique needs of lower-proficiency students.

4. Exploring the Potential of AI for Instruction in Pragmatics

Lee and Cook (2024) evaluate ChatGPT's effectiveness in modeling speech acts for pragmatic competence, including apologies, requests, and refusals. Using discourse completion tasks, the study reveals strengths in sociopragmatic behavior but highlights inconsistencies in politeness levels, particularly in apologies, which were both shorter and contained fewer pragmatic strategies than requests and refusals. Quantitative results showed variations in appropriateness, politeness, and linguistic complexity based on speech acts and sociopragmatic conditions. The authors emphasize the need for prompt refinement and careful application to improve pragmatic learning outcomes.

5. Automated Feedback on Fluency and Complexity Measures for L2 Academic Paragraphs: Student Perspectives and Impacts on Human-Rater Scores

MacFarlane and Spring (2024) explore an original automated feedback tool's potential to improve Japanese EFL learners' academic writing, as operationalized by measures of complexity, accuracy, and fluency (CAF) and human ratings. Their tool helped writers enhance their word count, sentence length, and supporting detail markers. Notably, users felt that the vocabulary variety feedback was the most helpful, as opposed to feedback on supporting detail markers. The authors note that improvements correlated strongly with higher human-rater scores, emphasizing the critical impact of word count and vocabulary variety. The authors advocate combining AI and human feedback to maximize learning outcomes.

6. Finding the Human in an Era of Machine Intelligence: A Flat Ontological Analysis of Generative AI and Language Learning

Matthews (2024) adopts a flat ontological framework to explore AI's role in shaping learner agency. The article examines ethical dilemmas, such as biases and overreliance, while highlighting the importance of educator guidance in maximizing AI's benefits and fostering autonomy. By emphasizing both passive and active relational agency, Matthews urges educators to critically assess how socio-technical processes influence learning and explore ways to balance the enabling and limiting effects of AI.

7. EFL Students' and Teachers' Perceptions of the Ethical Uses of AI Tools

Neff et al. (2024) analyze divergent ethical perceptions among Japanese EFL students and teachers regarding AI integration. Three fictional scenarios involving student-use of AI tools in an EFL environment were presented to 543 students and 16 teachers who rated each scenario on their perceived ethicality. Results found that teachers were more critical of AI usage, particularly for academic assignments, whereas students expressed more openness to limited AI tool usage. These findings emphasize the need for standardized classroom guidelines and increased dialogue between students and teachers to clearly define boundaries and expectations in order to navigate ethical complexities effectively.

8. Teaching with ChatGPT as a Linguistically Responsive Tool for Multilingual Learners

Donley (2024) investigates ChatGPT's use in K-12 multilingual learner education in the United States, identifying its strengths in facilitating differentiated content and multimodal literacy. Teachers enrolled in a professional development course used ChatGPT for scaffolding and content differentiation. Donley suggests that despite its alignment with translanguaging pedagogy, assessment gaps and biases underscore the need for tailored strategies to enhance its effectiveness.

9. ChatGPT in Language Education: Centering Learner Voices

Hellmich et al. (2024) explore learners' reservations about AI tools among foreign language learners in the United States, citing such things as ethical concerns, distrust in accuracy, and potential detriment to the process of language learning. Using an ecological lens, the authors advocate for digital literacy interventions and critical reflection to integrate AI in ways that align with learners' values. Their findings reflect the complexity of learner attitudes toward AI and call for centering learner voices in shaping AI integration.

10. AI-enhanced Collaborative Story Writing in the EFL Classroom

Emerson (2024) introduces Collabowrite, an AI-powered collaborative story-writing tool. In this first phase of the tool's development, 52 Japanese university students worked with Collabowrite over the course of a 14-week semester. During this time, the students reported improved perceptions of English writing, collaboration, and tool usage in language learning. The article identifies six design principles for effective AI integration, such as usability prioritization and multimodal tools to boost learner creativity. Emerson identifies remaining challenges such as refining idea generation features for enhanced creative outcomes.

11. Exploring Ethical Dimensions of AI-enhanced Language Education: A Literature Perspective

Mohamed (2024) addresses ethical concerns in AI-assisted language education, such as privacy, bias, and accessibility. The author notes that bias can take many forms (e.g., algorithmic, demographic, cultural, etc.), and fundamental factors such as AI training data and product designs are not transparent enough to allow for the assessment, let alone the addressing, of potential problems. His proposed framework advocates for equitable practices and human-AI collaboration to ensure responsible integration. This study underscores the importance of navigating ethical considerations and promoting fairness in AI applications for language learning.

12. Comparing Peer, ChatGPT, and Teacher Corrective Feedback in EFL Writing: Students' Perceptions and Preferences

Solovey (2024) evaluates students' preferences for peer, AI, and teacher corrective feedback to writing tasks, finding teacher feedback to be the most trusted. While all forms of feedback were appreciated and considered to be effective by participants, students particularly appreciated the immediacy of AI-generated feedback, particularly when combined with teacher input for comprehensive corrections. Solovey emphasizes the importance of ethical considerations and training for critical engagement with AI-generated feedback.

13. Pecha, A Language Practice Peer: Guiding Language Learning Interactions Through Large Language Models

Finally, Lege et al. (2024) report on their development of Pecha, an original application integrating AI into conversational practice sessions. Based on the authors' position that negotiated interaction is

a requisite for language learning, Pecha utilizes advanced LLMs, speech-to-text, and text-to-speech technologies to provide individual scaffolding, real-time feedback, and session summaries in order to maximize the efficacy of interactions. This innovative tool addresses previous technological limitations such as gaps in diarization accuracy and transcription fidelity, emphasizing augmentation rather than replacement of human interaction.

Discussion

The contributions to this special issue highlight the transformative potential of generative artificial intelligence in language education, illustrating its ability to personalize learning, create a safe space for students to explore language at their own pace, enhance overall engagement, and address long-standing challenges of the traditional classroom. Collectively, these studies explore GenAI's applications in fostering language acquisition while also emphasizing complexities such as ethical integration, equitable access, and the balance between human and machine intelligence.

Key themes emerge across the articles, reflecting the broad scope of AI's influence in language education. AI tools are identified as valuable in addressing gaps in traditional pedagogical approaches, particularly in contexts where curricula focus on grammar and reading at the expense of communicative competence (e.g., Busso & Sanchez, 2024). The potential of AI to facilitate authentic, low-anxiety communication practices makes it an essential consideration for contexts that aim to develop global communication skills, particularly those which may have systematic constraints, such as exam-centric practices and limited teacher/student readiness.

Ethical integration is another significant theme that is explored from various viewpoints. Articles such as Neff et al. (2024) highlight contrasting perceptions of AI tools between students and teachers, underscoring the need for institutional policies that address concerns around data privacy, equity, and responsible use, while Mohamed (2024) and Hellmich et al., (2024) approach the issue from a design or cross-cultural viewpoint. While it is beyond the ability of most users to directly address these issues, it is important to at least raise awareness that these challenges exist to avoid entering into the situation blindly. Going forward, it will be essential to navigate these challenges to increase users' trust in the technology and ensuring transparent, ethical implementation of AI in classrooms.

The role of AI as an augmentative tool, rather than a replacement for human interaction, is also a recurring focus. Lege et al. (2024) demonstrate the promise of AI-supported conversational practice systems in enhancing learner autonomy and offering reflective feedback. Similarly, Emerson (2024) explores AI's use in collaborative writing, showing how it can foster creativity and engagement while supporting learners in overcoming challenges in idea generation. While many have postulated that AI tools are a threat to the longevity of the teaching profession, these insights instead point toward the need for instructors to become well-versed in the technology themselves. Mastery of the technology, and its possibilities, will allow teachers to tailor tools to diverse linguistic and cultural contexts, promoting greater adaptability and inclusivity, not exclusivity.

Future Directions

Overall, the studies collected in this special issue can be seen to identify several avenues of potential further study. Generative AI tools, as discussed by Looock and Holt (2024), demonstrated potential to provide customized support and nuanced linguistic analysis. Future research is needed which focuses on refining these systems to dynamically adapt to learners' individual proficiency levels and goals as opposed to a one-size-fits-all solution. Likewise, articles like Hellmich et al. (2024) emphasized the importance of learner-centered approaches in AI integration. Merely providing the tools to students

is insufficient – teachers much ensure that they equip students with the skills to critically evaluate AI-generated outputs. This not only adds a further level of language review, and thus potential for finding teachable moments, but it also fosters learner autonomy as the learner self-monitors and self-corrects the output before claiming them as their own.

Along the lines of expanding multimodal learning environments, the integration of multimodal tools, such as those explored by Emerson (2024), represents a promising direction for creating immersive, engaging educational experiences. Future developments which seek to combine AI with virtual or augmented reality could enhance language learning in innovative ways, particularly for those students for whom physically coming to a classroom is challenging for any number of reasons.

Finally, Mohamed (2024) reminds us of the need for reliable frameworks to measure the impact of AI on communicative competence and pragmatic skills. Developing robust evaluation metrics is essential to ensure that AI technology is not only effective but as free from bias as possible. This is particularly problematic due to both the scope of AI training but also the confidential nature of the development and assessment protocols of the various products available on the market today. However, standardized evaluation tools could provide a clearer understanding of how AI-driven interventions contribute to long-term learning outcomes.

Ultimately, integrating GenAI into ISLA classrooms represents a paradigm shift in how learners and educators approach linguistic development. By addressing ethical concerns, prioritizing inclusivity, and designing adaptive implementations, researchers and practitioners can unlock AI's potential to transform language learning while navigating its inherent challenges. These surely are transformative times for not only instructed second language acquisition, but the world on the whole.

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