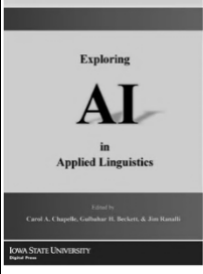


Exploring AI in Applied Linguistics

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Exploring AI in Applied Linguistics			
Author:	Carol A. Chapelle, Gulbahar H. Beckett & Jim Ranalli (Eds.) (2024)		
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Artificial intelligence (AI) has rapidly expanded its presence in applied linguistics, transforming the ways languages are taught, assessed, and researched. The edited volume by Carol Anne Chapelle, Gulbahar Hajira Beckett, and Jim Ranalli (2024) offers a timely and balanced examination of how recent developments in AI—particularly generative AI systems such as large language models (LLMs)—are reshaping both theoretical discussions and practical applications within the field. This collection brings together 15 chapters organized into 4 major sections that address topics such as the historical development of AI in linguistics, AI-enhanced assessment, implications for linguistic research, and directions for future inquiry. Rather than promoting uncritical enthusiasm, the editors encourage thoughtful reflection on the affordances and limitations of AI-driven approaches, emphasizing responsible innovation and pedagogical alignment. The chapters collectively argue that AI reshapes core applied linguistics concerns, including learner agency, teacher roles, and methodological validity, while also questioning ethics and transparency issues in data-driven research.

Following the editors’ overview in Chapter 1, which situates the volume within the broader evolution of AI in applied linguistics and foregrounds the question of how AI can be used effectively and appropriately across educational contexts, the remaining chapters examine AI integration from pedagogical, assessment, and research perspectives. Across the volume, most empirical studies are situated in higher-education contexts and focus primarily on second language learning, particularly English as a second/foreign language. Chapters 2–4 (Part I) focus on learner-facing applications, including translation, writing support, and text generation. Collectively, these chapters highlight AI’s potential to enhance writing fluency and coherence, while also emphasizing the need to develop academic AI literacy so that learners can engage with such tools critically and responsibly. Chapters 5–9 (Part II) shift attention to AI-mediated

assessment, addressing the reliability, fairness, and interpretability of automated scoring. While several studies report encouraging convergence with human judgements, recurring concerns emerge regarding construct validity, ethical transparency, and the difficulty of capturing the quality of oral performance. This section also illustrates practical limitations of AI-generated test materials, such as distractors that lack contextual plausibility, and emphasizes the importance of teachers' AI assessment literacy for interpreting outputs and making principled pedagogical decisions. Chapters 10–12 (Part III) then move toward methodological innovation, showing how prompt design, model configuration, and multimodal environments can shape linguistic accuracy, pragmatic awareness, and learner interaction. Finally, Chapters 13–14 (Part IV) extend the discussion to teacher education, illustrating how AI can support the development of technological pedagogical content knowledge and encourage collaborative practice in immersive learning contexts.

This edited volume makes a timely and substantive contribution to the expanding field of AI-mediated language education. It brings together a range of pioneering studies that collectively examine how LLM-powered AI systems, especially ChatGPT, can be utilized for second language acquisition, teaching, and assessment. By combining theoretical reflection with empirical inquiry, the collection provides readers with both conceptual guidance and practical insights into the pedagogical design of AI-supported tasks. Chapters 2 and 3 illustrate how AI-based writing tools can enhance learners' fluency and coherence while simultaneously raising awareness of ethical and cognitive dimensions in AI-assisted writing. Similarly, Chapter 4 provides authentic classroom data showing how students incorporate AI-generated suggestions into email writing, revealing both improved textual sophistication and a tendency to depend heavily on AI output. Across these studies, a unifying theme is the development of prompt literacy (Tour & Zadorozhnyy, 2025) among students and teachers. Chapter 13 extends this theme by showing how teachers learn to craft prompts, generate course materials with ChatGPT, and critically evaluate AI outputs, illustrating the potential of such practices to enhance pedagogical creativity and teacher agency.

The book's strengths lie in its methodological diversity and strong pedagogical grounding. Chapters 5 and 6, for instance, provide empirical evidence that AI-supported assessment can reach levels of scoring consistency comparable to those of human raters, thereby contributing to ongoing debates about validity, fairness, and transparency in automated scoring. Chapter 7 extends this line of inquiry to spoken language testing by comparing deep-learning classifiers with LLM approaches for detecting aberrant oral responses. While the study showcases the sophistication of current AI-based evaluation, it also illustrates the persistent challenge of representing prosody, fluency, and interactional nuance in computational terms. Chapter 8 complements this assessment-focused strand by contrasting human-written multiple-choice items with those generated by ChatGPT 3.5, showing that although AI can reproduce formal item structures, its distractors often lack contextual plausibility and pedagogical subtlety. Chapter 9 broadens the discussion to teachers' AI assessment literacy in China, illustrating the emerging uses of local LLM-powered AI tools, such as ErnieBot, and underscoring the need for institutional support to strengthen educators' evaluative judgment and technological competence. These studies expand the empirical base of AI assessment and further demonstrate that AI-generated inferences need to be interpreted, validated, and pedagogically mediated by teachers in order to inform meaningful assessment decisions. Subsequent chapters push methodological innovation further by examining how prompt design and decoding parameters (e.g., temperature) shape AI performance in evaluating writing and pragmatic appropriateness (Chapters 10 & 11). Alongside Chapter 12, these chapters reinforce a broader message that effective AI integration depends not only on technical affordances but also on pedagogical framing and ethical awareness. Collectively, the studies exemplify an interdisciplinary

approach that brings applied linguistics into dialogue with computational design and situate AI systems within learner-centred and pedagogically responsible practice.

Nevertheless, the collection's empirical scope remains uneven. Most chapters focus on reading, writing, and translation, while speaking-related applications receive comparatively limited attention. Spoken English assessment is addressed explicitly only in Chapter 7, with Chapter 14 offering a brief extension to immersive, speech-enabled environments. This imbalance partly reflects the technological constraints of earlier LLM versions, which centered on text processing. Future research could build on these foundations by leveraging recent multimodal LLMs, capable of integrating speech, image, and text to enable more interactive and authentic language use (Zou & Wang, 2025). Following the editors' concluding remarks in Chapter 15, future research may benefit from diversifying methodological approaches, including longitudinal classroom-based studies as well as qualitative and practice-oriented inquiries, to explore not only linguistic performance but also learners' and teachers' evolving AI literacy and agency.

Overall, *Exploring AI in Applied Linguistics* moves beyond descriptive enthusiasm about AI to offer a reflective, pedagogically oriented examination of its role in language education. The volume makes clear that despite impressive fluency and scalability in language generation and feedback, LLM-driven AI systems still face substantial constraints in scoring consistency, support for learning processes, alignment with instructional contexts, and ethical controllability. Accordingly, AI-based feedback should not be treated as an equivalent substitute for teacher feedback or pedagogical decision-making; rather, it is best understood as a supportive resource that requires teachers' professional judgement and instructional scaffolding. In this light, the book foregrounds methodological rigour, prompt literacy, and ethical reflection, providing a solid theoretical and practical foundation for considering how AI can be used responsibly in applied linguistics research and classroom practice. More specifically, part I will resonate with classroom teachers interested in learner-facing uses of AI; part II will be particularly relevant to language assessment scholars concerned with validity and fairness; part III offers valuable methodological guidance for researchers examining prompt design and model configuration; and part IV holds particular significance for teacher educators and professional development providers.

About the Reviewers

Chenghao Wang is a full-time PhD student in Applied Linguistics at Xi'an Jiaotong-Liverpool University and the University of Liverpool and is supported by a PhD Studentship (Reference No. FOSA2306022). His research interests include computer-assisted language learning (CALL), AI-CALL, AIGC, and VR-enhanced language learning. Email: <dancerluo@outlook.com> ORCID ID: <https://orcid.org/0009-0009-5655-3740>

Bin Zou received his PhD degree in TESOL and Computer Technology from the University of Bristol, UK. He is a Professor and PhD supervisor at the Department of Applied Linguistics, Xi'an Jiaotong-Liverpool University. His research interests include Computer-Assisted Language Learning (CALL), AI, EAP, and ELT. Email: <Bin.Zou@xjtlu.edu.cn> ORCID ID: <https://orcid.org/0000-0002-4863-0998>

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