

# AI in Language Teaching, Learning, and Assessment: Navigating Complexity in the Age of Generative AI

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## Abstract

This review examines Pan's (2024) edited volume “*AI in Language Teaching, Learning, and Assessment*”, which explores the transformative yet contested role of generative artificial intelligence in language education. The book adopts “complexity as a method” and is divided into three parts - technical possibilities, stakeholder perspectives and situated practices. It contains a total of 15 chapters, but does not impose a unified theoretical framework. The reviewer highlights the volume's strength in capturing global diversity and ethical complexity, while pointing out that there is a productive tension between its fragmented research methods and Pan's vision of human-computer symbiosis. In general, this book draws a valuable topographic map of the impact of AI in the field of education, but its rejection of theoretical closure makes the issue of how to negotiate the redistribution of power necessary for AI at the political level remain pending.

## Keywords

generative AI, language education, human-AI collaboration, academic integrity

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## 1. Introduction

The rapid rise of ChatGPT and other generative artificial intelligence tools has sparked unprecedented discussions in the global academic community, with fierce debates about their transformation potential and existential risks to education. In recent years, artificial intelligence and cutting-edge technology have been integrated into the education system, and the teaching and learning methods of various disciplines have been changed [1]. Against this backdrop of technological disruption and pedagogical uncertainty, Pan's [2] “*AI in Language Teaching, Learning, and Assessment*” marks a key exploration of the dynamic impact of AI in the field of language education. This exploration focuses on the core ambivalence toward ChatGPT in language education: educators are fascinated by the tool's vast potential, yet deeply concerned about academic misconduct and the possible replacement of language teachers. This tension constitutes the central dilemma in education: how to engage with a technology that brings considerable educational benefits while weakening teachers' professional autonomy.

## 2. Overview of the Volume's Structure

In response to this destructive atmosphere of uncertainty, Professor Pan at the London School of Economics and Political Science assembled a volume, a collection of fifteen chapters by scholars from ten

countries. The book is not in a hurry to make a judgment between praising the potential of AI and rejecting its risks. Instead, it adopts the strategy of “complexity as a method” — an intentional juxtaposition strategy to keep the question of “how to deal with AI” always being explored. The book aims to “explore how AI can be effectively supervised, ensuring academic integrity while bolstering its role in teaching, learning, and assessment.”

The triple structure of the book reflects this exploratory feature: Section 1 (“Preview: AI and Language Education”) begins with technical possibilities and exposes the inherent dialectical tension in AI and language education. It contrasts the optimistic overview of ChatGPT integration (Chapter 1) with the critical analysis of “artificial reality” (Chapter 3), showing that the technical rationality of AI tools is questioned by educational ethics around integrity. Section 2 (“Perspectives: What People Say About AI”) shifts perspectives from object to subject and from unity to division, following a hierarchy-shifting logic across in-service teachers (Chapters 4–5), pre-service teachers (Chapter 6), institutional discourse (Chapter 7), and students’ pragmatic responses (Chapter 8). As a structural hub, Chapter 7 links macro-policy debates with individual experiences, while the student-centered chapter offers a silent response to the anxieties of adult stakeholders. Section 3 (“Practice: Use of AI in Language Education”) uses a deliberate fragmentation strategy to reject a universal model, covering diverse cases across cultural contexts, technical frameworks, languages, and teaching goals. By presenting these varied practices side by side, it makes clear that AI’s educational impact cannot be examined in the abstract, but only within specific linguistic, cultural, and institutional backgrounds.

### 3. Critical Analysis

The core turning point through the whole book is that when Section 2 presents the pluralistic differences of stakeholders, the author does not try to reconcile these contradictions, but in Section 3 validates these differences as situational specificity. The book refuses to integrate the contents of these fifteen chapters into a unified theoretical framework or normative model, so what this work presents is not a coherent argument, but a collection of arguments. Readers are guided to explore the balance between the prospects and risks, innovation and anxiety, universal ideas and local reality of AI. As a result, this work explains what it cannot be completely reduced to theory: that is, in language education, AI is not a problem to be solved, but a situation that needs to be negotiated continuously.

However, a productive tension exists between the book’s theoretical stance of “complexity as a method” and Pan’s final vision in the preface. She describes AI integration as “a paradigmatic transformation” — a collaborative alliance between human professional ability and technological power, envisioning an educational future of human–computer symbiosis. This unified, idealized vision is subtly misaligned with her fragmented, decentralized methodology: the former points to a cohesive integration model, while the latter treats AI as an open issue to be constantly negotiated in specific situations. This tension is not a defect, but the book’s most inspiring feature: it acknowledges educators’ desire for certainty (that AI will serve rather than replace human teaching) yet refuses to offer simplistic theoretical satisfaction. This dynamic — between the book’s unified vision and its internal diversity, between expected AI synergy and its demonstrated ambiguity — form the core thread of this review. The discussion below examines how “complexity as a method” functions across the book’s three parts, evaluates its contributions and limits, and raises a key question: Is the book’s rejection of theoretical closure a commendable strength, or a hesitation to be overcome?

#### 3.1 Technical Possibilities and Dialectical Tensions

Section 1 “Preview: AI and Language Education” builds a clear vein from optimism to critical alertness. Chapter 1 (Weiming Liu) explores the advantages of ChatGPT in education — personalized instruction, immediate feedback, adaptive learning — and positions it as an “indispensable educational tool”, which blurs the boundary between auxiliary teaching and main teaching subjects. Chapter 2 (Surjit Singha, Ranjit Singha, and Elizabeth Jasmine) turns to a “collaborative model”, putting forward the cooperative relationship between developers and educators. However, it also mentions that cooperation is a dynamic consultation rather than a stable solution, influenced by the ethical guarantee against prejudice and privacy. Chapter 3 (Teresa Lobalsamo, Dellannia Segreti, Mohammad J. Jamali, and Sylvia Gaspar) ushers in a critical shift,

which explores the threat of AI to “original coursework” and assessment integrity, changing the trend of this section from possibility to problem. This progression — capability, collaboration, crisis — establishes the methodological characteristics of this book: in language education, AI has always been an unresolved problem.

### 3.2 Stakeholder Perspectives

Section 2 “Perspectives: What People Say About AI” decomposes the unified “human-AI collaboration” into concrete, emotional, and controversial forms of consultation. Chapter 4 (Barrios-Beltrán) opens with the optimistic attitude of educators: AI is regarded as a “force of change”, in which curiosity and worry are balanced, and teachers actively match tools with learning goals. In Chapter 5 (Dincer and Bal), the qualitative study of 21 Turkish English-speaking teachers shows that cooperation is not completely negative, but a contradictory compromise. Chapter 7 (Lee and Chen) further rises to institutional polarization: the discourse of Hong Kong newspapers (2018 to 2023) shows that stakeholders are differentiated into political confrontation, and the dialogue is interrupted by competing priorities. Chapter 8 (Ng and Ravana) provides the final redefinition through the instrumentalist perspective of students: Malaysian learners evaluate AI through “usefulness” calculations and maintain a strategic distance. Students “decide what, when, and how to conduct learning” [3], maintaining a kind of intentional alienation, which is also a relationship pattern in itself.

### 3.3 Situated Practices

Section 3 “Practice: Use of AI in Language Education” shows collaboration as an achievement that requires in-depth consideration of specific situations. Chapter 9 (Wang) shows that ChatGPT does not perform well in dealing with the communication strategy of Chinese culture, which forces it to change from a “main resource” to a “reference tool”, where human judgment must make up for the limitations of machines. Chapter 10 (Bengsch) uses the “TalkToMe” prototype to show how design and machine learning can reshape traditional language learning into adaptive, personalized experiences. It emphasizes that this kind of personalization depends on heavy human input and collaborative infrastructure work, instead of being a simple plug-and-play tool. Chapter 12 (Khazaal) moves beyond individual AI tools to a systematic curriculum redesign. The study shows that AI enhances experiential learning and global citizenship reflection, but demands substantial course and activity redesign, leading to institutional educational transformation. In Chapter 13, Li discusses the way of cooperation through moral mediation and applies the ADE model to a ChatGPT academic seminar to help multilingual students use AI effectively, critically, and ethically. It regards AI as a facilitator, continuing the view of AI as a reference tool in Chapter 9, emphasizing the key role of teacher guidance. Unlike previous chapters, this form of cooperation stems from the continuous triangular interaction between teachers, students, and AI, rather than spontaneous formation, design-driven, or inherent in institutions.

## 4. Strengths and Limitations

The greatest advantage of this book is its timeliness and global vision. Published shortly after ChatGPT's release, it captures “the dynamic realm of artificial intelligence within the context of language education” — from Canada and Hong Kong to India and Turkey — directly challenging the Anglocentrism that often dominates this field. It reveals how challenges like academic integrity, cultural bias, and teaching adaptability manifest differently across education systems. In addition, the continuous attention to ethics of this series of works is also commendable. Pan clearly states that all chapters “aspire to disseminate best practices within the language teaching community and foster collaboration to navigate potential biases or discriminatory outcomes arising from AI deployment.” This commitment is different from the technological optimism embodied in ChatGPT's early response. The repeated attention to Academic Integrity (Chapter 3), Ethical Awareness (Chapter 13), and Prejudice Mitigation (Chapter 15) reflects the mature understanding that the application of AI in education is essentially a value issue, not just a matter of efficiency. However, these strengths also reveal a key limitation: the lack of theoretical integration across its fifteen chapters. The Preface describes Section 1 as exploring “AI's influence on teaching materials” and “the impact of AI in educational evaluation”, Section 2 as examining “the convergence of AI and applied linguistics” and Section 3 as presenting “pioneering advancements”. Readers encounter isolated discussions: ChatGPT's potential in

Chapter 1, evaluation fairness warnings in Chapter 3, and teacher anxieties in Chapter 5 — each valuable, yet presented as separate examples rather than interconnected arguments. This fragmentation is particularly evident in Chapter 15, where Czerkowski's Learning Experience Design (LXD) framework offers a systematic approach to integrating generative AI into language teaching. Despite its practical value for curriculum design and addressing diverse learner needs, this contribution stands largely independent — neither anticipated by earlier chapters nor woven into the volume's overarching framework.

This hesitation itself may constitute a political choice. The book refuses to integrate its different research results into a normative framework, thus avoiding the universal solutions. However, with the acceleration of the “paradigmatic transformation” of AI, this field may no longer only require complex documents. It may need the “critical intervention” proposed by this comment — from describing how AI makes language education complicated to exploring how this complexity should be negotiated at the political level. The greatest contribution of this book is to establish the necessary prerequisites for this intervention: a detailed topographic map. Its biggest limitation is to stop at the edge of the map and leave this field to others to explore.

## 5. Conclusion

Pan's volume rejects binaries by treating “complexity as a method”, offering an indispensable framework for navigating AI's transformative potential without resorting to simple acceptance or denial. Yet a map is not the territory; as Pan herself acknowledges, the work remains a catalyst for further exploration, not a destination. The field must now move from “complexity as a method” to “complexity as a problem” — from documenting AI's impact to actively negotiating the power redistributions it entails between humans and machines, teachers and platforms, global English and minority languages. This negotiation does not abandon the concept of “autonomous learning theory”, but redefines it: learners now need to take on the additional task of deciding when to make a decision - that is, to determine which supervision functions should be entrusted to AI, and which should be retained. The book's deepest contribution lies precisely in its incompleteness: by presenting AI's complexity rather than prescribing solutions, it demonstrates that the question of “what is to be done” remains genuinely open. Whether that openness proves sufficient depends on whether subsequent scholars accept Pan's invitation — not merely to explore, but to argue; not only to describe, but to decide.

## References

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