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Language Teaching in a World Where AI is Everywhere: AI-Induced Pedagogical Loss

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- Moorhouse, B.L (In press). Generative AI-induced Pedagogical Loss. In D. Tafazoli (Ed). The Palgrave encyclopedia of computer-assisted language learning. Palgrave.

- Moorhouse, B.L (In press). Are we conscious of what we might be losing when we bring AI into language education? An argument to consider the pedagogical loss of GenAI integration. In Friginal, E., Lopez, R. & Ustuk, O. *AI in Education: Selected Papers and Keynotes from the 1st International AIinLT Summit in Hong Kong*. PolyU Press.

- And an on-going study I'm conducting with Ozgehan Ustuk, Hong Kong Polytechnic University

Generative AI-Induced Pedagogical Loss

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Abstract

This entry introduces the concept of pedagogical loss as an analytical framing for understanding GenAI's impact on language learning and teaching. While CALL scholarship has focused on the pedagogical gains afforded by GenAI tools, pedagogical loss—defined as teaching and learning opportunities, processes, relationships or conditions that are diminished, displaced, or pedagogically consequential reconfigured through GenAI integration—has been under-theorised. Unlike bounded previous CALL technologies, GenAI can simulate a wide range of language and meaning-making tasks, potentially limiting learners' opportunities to learn language. This entry defines pedagogical loss, suggesting it as a counterpart to pedagogical gain, and illustrates potential losses across key aspects of language learning and teaching. It also provides suggestions for how the CALL profession could respond to GenAI-induced pedagogical loss.

Keywords

Generative AI · Pedagogical loss · Computer-assisted language learning (CALL) · Language learning ecology · ChatGPT · Human-computer interaction · Learner agency · Authentic language use · Second language acquisition · Educational technology evaluation

Introduction

Since the release of ChatGPT, the dominant discourse in computer-assisted language learning (CALL) has centred on the potential of Generative AI (GenAI) to support teachers and learners and the pedagogical gains it affords. Researchers and commentators have documented ways GenAI tools can simulate human-like interaction, scaffold learner output, provide individualised feedback, generate teaching materials, and support personalised learning (e.g. Bédi, 2025; Kohnke, 2025; Zou & Wang, 2025). Where risks are acknowledged, they typically focus on issues of bias, homogenisation, academic integrity, and learner over-reliance (Crompton et al., 2024; Mathews & Peer Mohamed, 2026). These are often seen as challenges for language teachers to manage as they integrate GenAI into their practices.

This entry argues that a critical counterpart to *pedagogical gain* has been under-theorised and under-explored in CALL scholarship: the concept of *pedagogical loss*. This entry aims to define

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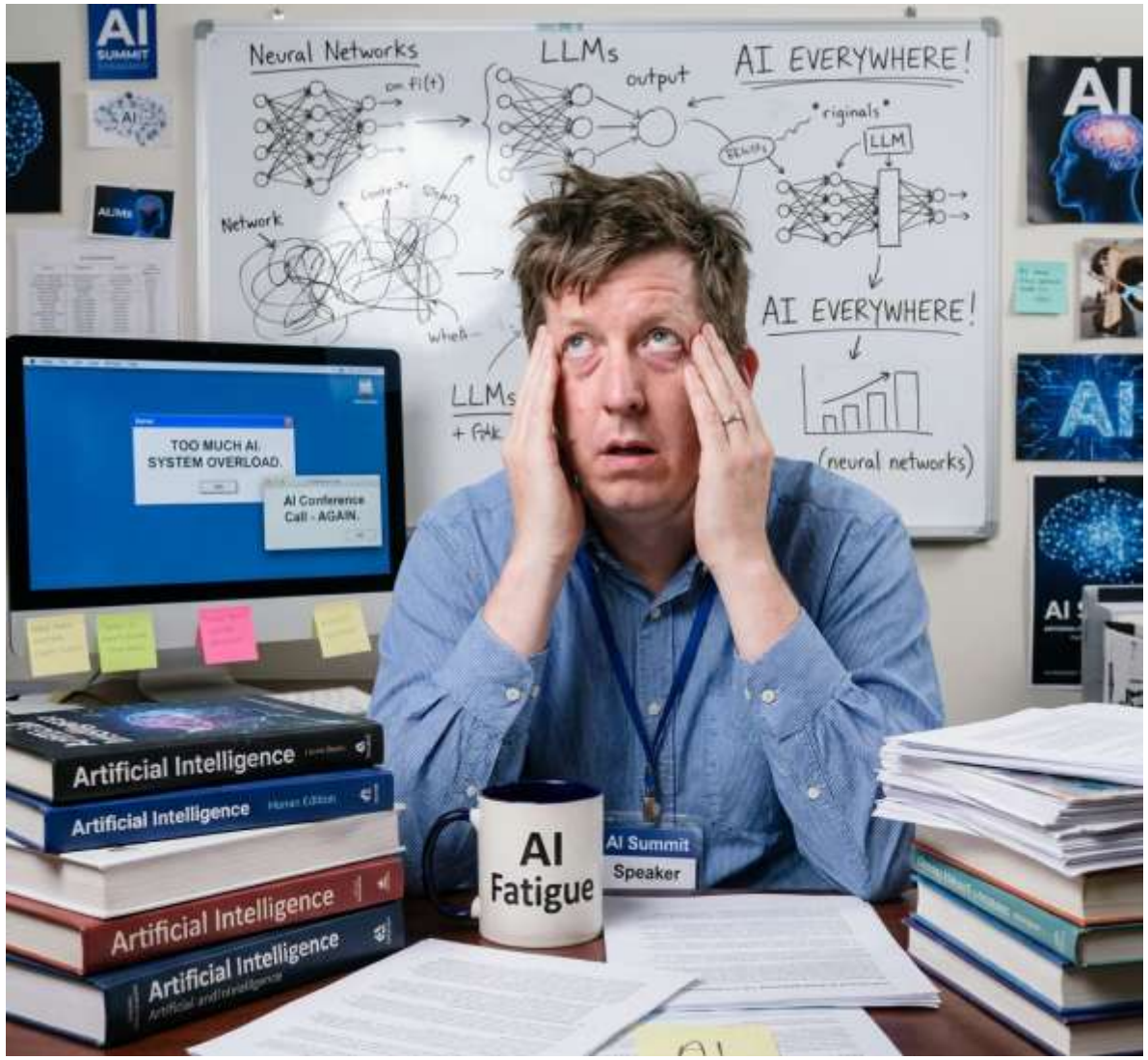
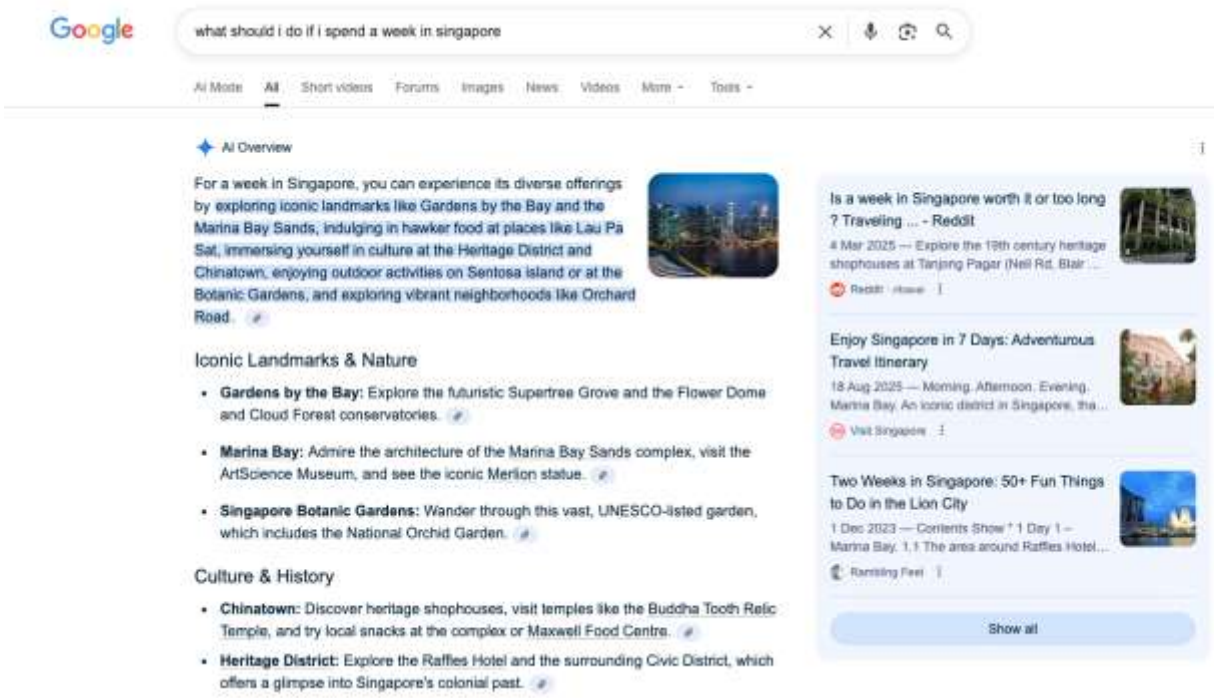


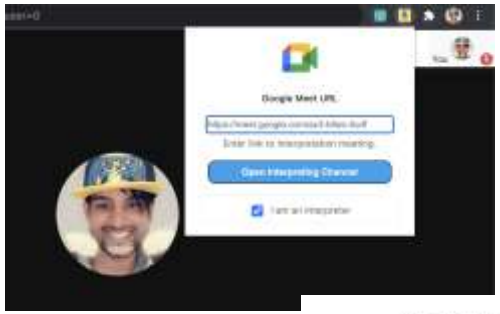
The AI space is getting messy and overwhelming

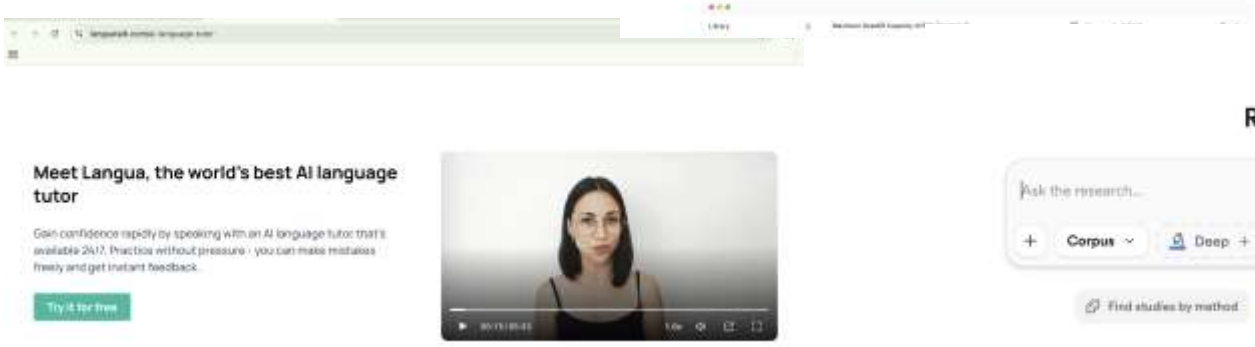
AI seems to be everywhere and be able to do everything



The way we get information, the way we interact, the way we create, are all being shaped by GenAI

In education...





Rose-Tinted View of Technology

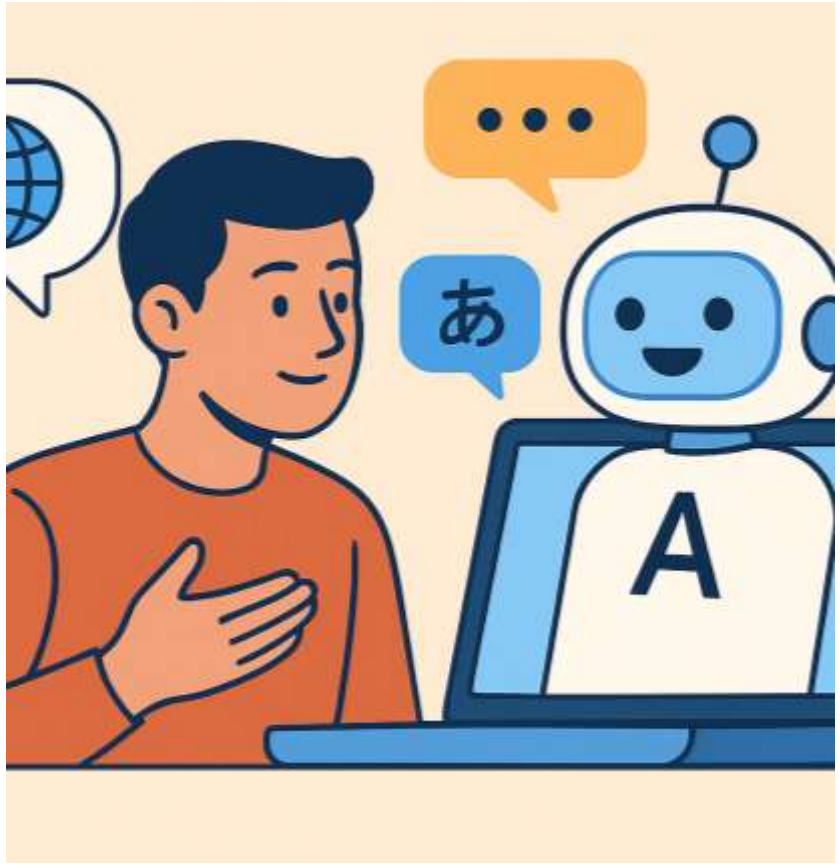
- CALL/Edtech scholarship has largely evaluated technologies through the lens of pedagogical gain;
    - identifying the affordances, effectiveness, and learning benefits of digital technologies for language learning and teaching (e.g. Golonka et al., 2014; Hasumi & Chiu, 2024).

Tool: Nano-Banana-Pro
Prompt: Educations rose-tinted view of technology

GenAI CALL research to date: Positive framing

- Documented/ researched / speculated
  - Simulated human-like interaction
  - Scaffold learner output
  - Provide personalized / individualised feedback
  - Generate teaching materials
  - Support personalized learning

(e.g., Bédi, 2025; Kohnke, 2025; Zou & Wang, 2025).



GenAI CALL research to date: Positive framing

- When risks are acknowledged:
  - Focus on bias, homogenization, academic integrity, and learner over-reliance (Crompton et al., 2024).
- The challenges are often seen as something the teacher needs to overcome as they integrate GenAI into the classroom
- And teachers can be ‘blamed’ for not being techno-enthusiastic enough!

GPT-Image 2
A teacher being told by her principal to use more technology in the classroom

GenAI is different from previous technologies

- Previous technologies are pedagogical bound:

  - mobile-assisted language learning tools, collaborative writing platforms, quiz and game-based applications, and student response systems each offer **specific functionalities that teachers could adopt strategically** (Ilic, 2025)
  - When deciding whether to use such tools, teachers can **assess these pedagogical gains against potential losses** (reduced oral interaction or diminished opportunities for extended dialogue) and make informed choices about when and how to use them.
  - Crucially, these technologies remain optional
  - They **expand the pedagogical repertoire available to teachers and learners**, but they do not fundamentally affect the broader environment in which language learning occurred.

GenAI is different from previous technologies

- GenAI systems are designed for **efficiency and effortless task completion**
- Many commercial GenAI tools are designed to **make language work easier**.
- However, the **cognitive and communicative friction that GenAI tools aim to reduce, are the processes through which language learning occurs** (Richards & Rogers, 2014).

An Exploratory Study on Pedagogical Loss

- 16 University Language Centre Instructors (6 Hong Kong universities)
- Interviews with narrative inquiry component (40-90 minutes)

- This study is guided by the following research questions:
  - How do university ELT teachers narrate experiences of pedagogical loss associated with GenAI development and integration?
  - What types of pedagogical loss are described across narratives?
  - How do teachers interpret and respond to these perceived losses?
  - What implications do these narratives have for future pedagogical innovation and policy development?
- Provisional analysis – not fully completed

Narrative Inquiry Prompt

I'd like you to think of **one specific moment that might align with the definition of pedagogical loss I just described**. For example, a lesson, an assignment, an interaction with a student where you felt something pedagogically important was being lost, diminished, or changed because of GenAI. Could you tell me that story in as much detail as you can, starting from what led up to it?

- **Narrative probes (use flexibly):**
- *Temporal:* What happened first? What happened next? How did it end?
- *Scene:* Who was involved? What was the task or activity? What did you (or the students) actually do or say?
- *Emotional:* What went through your mind in that moment? How did you feel then — and how do you feel about it now?
- *Meaning:* Why does this moment stand out to you? What did it signify to you as a teacher?
- *Turning point:* Did this experience change anything — your practice, your thinking, your expectations of students?
- Are there other moments like this that come to mind?

Four provisional pedagogical losses

1. Avoiding authentic language processing and productive struggle
2. Loss of linguistic originality, voice and genre awareness
3. Decrease of language-focused feedback and teacher–student dialogue
4. Displacement of spoken interaction and negotiation of meaning

Narrative 1: AI-assisted Translation In and Out of the Classroom

Ester described the loss of authenticity she observed in her students' engagement with learning English.

She felt that she **had not needed to argue for the value of English until the development of translation tools.** Students already knew that fluent speech and writing were tied to "how far or how quickly you rise." She shared cases that described the change:

- A PhD student told her, "I just wrote a paper in Chinese and then I put it through auto-translation and I published it in an English-language journal. I feel like I didn't even need to know the English language."
- In class**, students translated her instructions into Chinese as she spoke**. Eight weeks in, a handful scored zero on a listening test. She described her role: "What I say become something like noise. The background white noise that is filtered out, so the students' focus and attention is on the auto-translated Chinese text."

In the interview, she described how she felt **the struggle she thinks language learning requires had been removed**. Production still looked successful. Stronger students memorised AI scripts while weaker ones read it aloud. Then, "the majority of them draw a blank when I put forward a spontaneous question," and "when you take the script away… they are not able to produce the language that they read out aloud throughout the semester."

Narrative 2: Identical Student Assignments / Misaligned Genres

Andrea, described the loss of linguistic originality, voice, and genre awareness she observed in a business-communication course.

- She described how the business proposals the students were required to write came back **looking like one text**. She said: “They looked identical. There was no uniqueness in their writing… the same structure, the same syntax, extremely formulaic, so it became harder for us to grade.”
- She described how one script was **worse than formulaic**. She showed using the screen share feature the student’s work and read it out: “A driver sits outside a Kwai Chung estate. Very storytelling.” The sentences were one word long.
- She pondered how, after a thirteen weeks of a genre course how the student had not asked whether this was a proposal at all. “**When she was prompting, she did not even try to change it to a professional business proposal**. She’s writing it like a story.” Aditi’s conclusion was not that the model had failed the student. “She thought that AI will do everything for her and she wouldn’t even have to give it a right prompt… she has left even that part of critical thinking aside.”
- Her assumption was that the **student had never read what she submitted**. “We were shocked… We ended up failing her.”

Narrative 3: AI-generated Discussion Forum Posts

Sterling shared a story that suggested **a decrease in student-teacher dialogue** caused by Ai use. He had been using a discussion forum for students to post their analysis of a written text. It was ungraded, and he had valued it because it pushed them past the examples in the notes.

- He shared that, “In the past two, three years, these analyses were basically done by AI.” He could see it in “the format… the word choice… AI sentence structures.”
- **He did not confront them**. He thought he understood the students thinking process. That they faced social pressure to finish a task that they found challenging while AI provided output that “looks great,” that they then just paste into the forum.
- What he observed was that his behavior had changed. “I’ve become less interested in what it has to say.” When the course was officially a no-AI course, the silence hardened: “I basically stopped myself from commenting… because supposedly they should not use AI… I had to put my faith in them not using it. But I know that they were using AI.”

This suggested that while the post were still being posted onto the forum. **The reason to answer it was diminished.** He said: “If you just use AI to generate it, really don’t bother. It’s a waste of your time and my time.”

Narrative 4: Chat with Chatbots not Humans

- Nigel shared an innovation in his teaching where he added a chatbot into a group activity, but then witnessed a change in the spoken interaction and negation of meaning:
  - In the group activity, the aim was for students to label a podcast script with different genre features they observed.
  - Last year he put a chatbot beside the slides, coded so that "**the chatbot won't give them answers, but the chatbot will guide them towards the answer**."
  - He **noticed the talk changed**. He said, "Maybe they could just split up the group… and each of them would just talk to the chatbot."
  - He felt this, "**takes away the social side of meaning negotiation**." He is explained what the chat logs show. Students expect an answer, and after about three minutes find that "this chatbot is not going to give me the answer… So I actually have to think."
  - He felt the activity "**does take away that human-to-human interaction"**. But he was "not sure whether that takes away the negotiation of meaning entirely."

Discussion

- Language teachers do seem to be experiencing AI-Induced Pedagogical Loss which is being exhibited in different ways that are impacting on trust, authenticity, motivation, human interaction, and opportunities to use English
- These losses affect core language learning processes even in low-stakes activities and require teachers to re-design opportunities for output, interaction and noticing.
- Importantly, these losses were not universal across the participants and seem to be impacted by discipline, student proficiency, and courses taught by the interviewees
- The findings are provisional and subject to revision as the dataset is interpreted further

Implications and Suggestions

- While much attention has focused on academic integrity and assessment validity, perhaps, more attention needs to be placed on the effects of AI on pedagogy and how we develop new pedagogical approaches in response to the impacts of AI.

    - Teachers may be able to preserve productive struggle by designing tasks that require learners to generate and negotiate language independently before AI assistance is introduced.
    - Human interaction could be maintained by designing communicative tasks with genuine social purposes and real human audiences. This will hopefully ensure that language use remains a social practice.
    - Need to raise awareness of the impacts of GenAI on opportunities for language learning (e.g., translation features in different digital spaces)

Conclusion

- Recognising pedagogical loss does not require rejecting GenAI or denying its affordances.
- Instead, it calls for more ecologically situated evaluation of GenAI that accounts for both what is gained and lost by its integration.
- The concept of pedagogical loss provides CALL researchers and practitioners with a vocabulary for examining the complex trade-offs involved in GenAI integration and for developing pedagogical responses informed by them.

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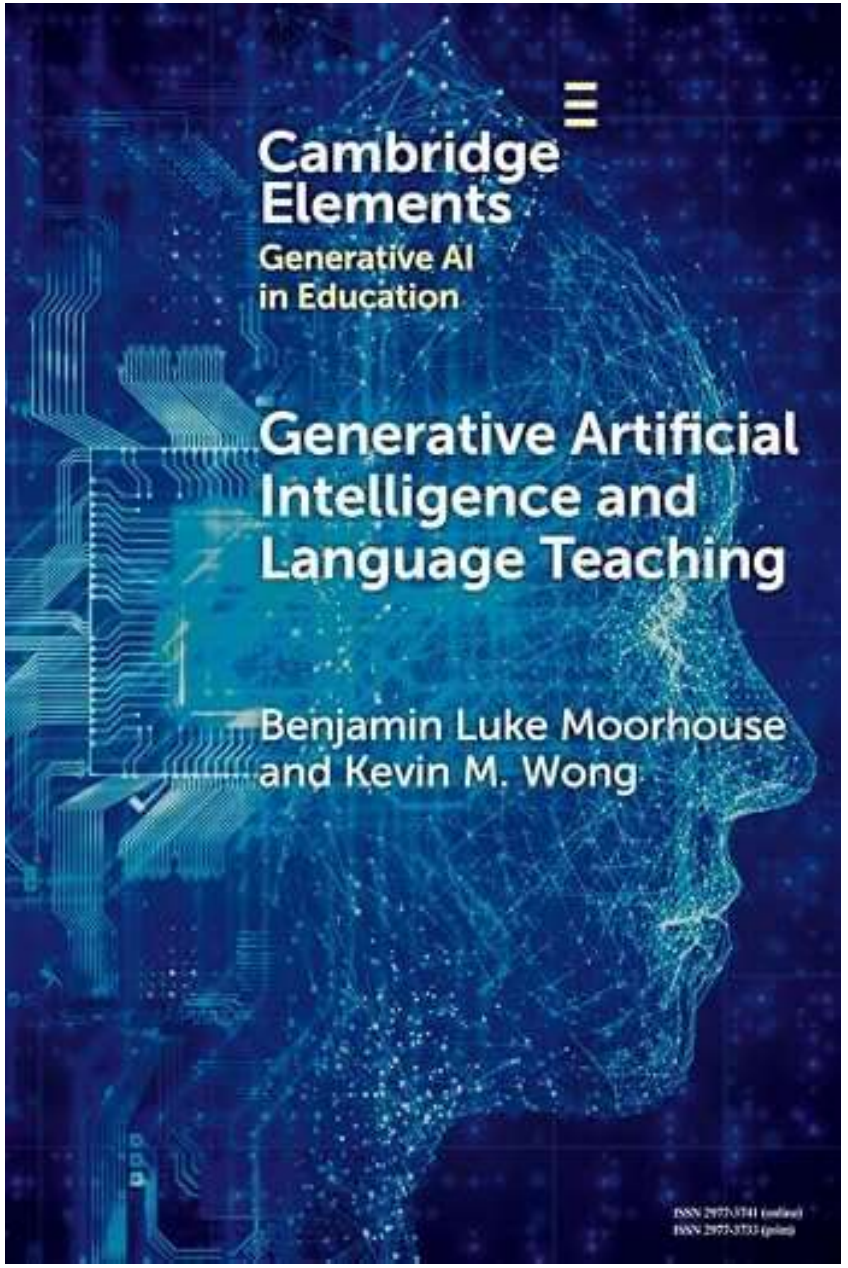
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