Journal of Learning Development in Higher Education ISSN: 1759-667X
Issue 38 December 2025

Collaborating with ChatGPT in the classroom: a graduate student's reflection

Yulu Hou
Michigan State University, USA

Abstract

This reflection offers a student perspective on integrating generative artificial intelligence (AI) in graduate education, focusing on collaboration rather than replacement. Drawing on my experience in a doctoral seminar on the intellectual history of educational technology, I examine four key instructional practices that shaped meaningful AI use: conceptual framing, reading-based discussions, a quote juxtaposition assignment, and live demonstrations. These experiences illuminate how AI can act as a thought partner—challenged, refined, and co-opted to surface complexity and multiple perspectives. In doing so, the reflection contributes to conversations about AI in higher education by highlighting the learner's perspective and pedagogical possibilities when technology is approached as a collaborator rather than a shortcut.

Keywords: generative AI; higher education; pedagogical innovation; learning development.

Introduction

In a doctoral seminar on the intellectual history of educational technology, our instructor asked ChatGPT (OpenAI, 2025) whether it possessed intentionality. Its reply was unexpectedly nuanced—admitting it had no intrinsic purpose, yet describing its 'goal-directed' structure and 'self-mythologising improvisation', which prompted an hour-long class debate. For me, this was a turning point: artificial intelligence (AI) was no longer just a text generator, but a collaborator capable of challenging assumptions, provoking deeper inquiry, and co-constructing meaning.

As tools such as ChatGPT become widely accessible, higher education faces both new opportunities and pedagogical challenges. Early uses of AI focused on automation and adaptive testing, but large language models (LLMs) now enable simulated reasoning, novel outputs, and extended dialogue (Harvard Business School Publishing, 2024). Yet, limitations remain: such systems lack genuine reasoning and often falter under high complexity, as they rely on probabilistic pattern matching (Shojaee et al., 2025). These limitations, alongside bias and inaccuracy, mean AI's educational value depends on reflective and informed use (Lodge, Thompson and Corrin, 2023; Kelly, Sullivan and Strampel, 2025).

Many students already adopt generative AI in their studies, sometimes without clear guidance (Freeman, 2025), and academic staff often express scepticism or uncertainty about how best to respond (Digital Education Council, 2025). This disconnect highlights the need for pedagogically grounded approaches to integrating AI in higher education—approaches that can support critical engagement and responsible use (Zhan et al., 2025). As Ng et al. (2021) argue, the challenge lies less in access than in cultivating AI literacy to use these tools critically and productively.

While most discussions of AI in higher education emphasise institutional policy, ethics, or teaching models, far fewer foreground the learner's perspective, especially reflective accounts of what students find meaningful, challenging, or transformative in AI-mediated environments. This paper addresses that gap through a first-hand reflection on my experience as a doctoral student in a seminar on the intellectual history of educational technology, taught by Dr X at a large U.S. research university.

In this course, AI was woven throughout the syllabus rather than added on. From the outset, we were explicitly encouraged to use ChatGPT 'a lot in class and in assignments, as a smart assistant, but never to do work or writing for us', to quote Dr X. The course policy underscored AI's dual role: to support exploration, insight, and critical dialogue, but not to serve as a substitute for original intellectual work. We were asked to reflect on our usage to understand better its benefits and limitations.

This learning environment treated AI as both an object of inquiry and a collaborator in meaning-making. For me as a student, the most powerful aspect of the course was not a replicable 'model' of AI integration, but the way particular classroom practices deepened

my engagement with ideas, expanded my capacity for flexible thinking, and encouraged me to treat AI as a thought partner rather than a shortcut.

Four practices shaped this learning: conceptual framing by the instructor, reading-based discussion, an assignment using quote juxtapositions, and live demonstrations of AI interaction. These practices are presented not as prescriptive methods but as elements of a personal learning journey. I aim to offer insight into how AI can be meaningfully integrated into advanced, seminar-style environments that foreground curiosity, learner agency, and critical engagement with technologies.

Four practices that shaped my learning with AI

In this section, I reflect on four classroom practices that shaped my learning with AI: conceptual framing by the instructor, 2) discussions based on readings and real-time dialogues with ChatGPT, 3) an assignment that interacts with ChatGPT to generate innovative insights through quote juxtapositions, and 4) observation of the instructor's live prompting demonstrations. Through these practices, I came to see AI not simply as a tool to query, but as a thought partner that could be challenged, shaped, and learned alongside.

Conceptual framing: AI as a thought partner

The course instructor introduced AI as a cognitive partner rather than an answer machine at the outset of the course. He emphasised that meaningful interaction involves asking, correcting, clarifying, and refining responses—summarised in the acronym ACE: Ask, Correct, Examples. We were encouraged to go beyond passive questioning and instead co-construct meaning with ChatGPT through negotiation and iteration.

For instance, we considered how AI and humans working together can outperform either one working on their own, referencing examples like chess teams. Dr X described AI's strength, in his view, as lying not in static correctness but in its adaptability. He warned us against over-reliance on prompt checklists, as these may lead to rigid thinking. Instead, he encouraged us to develop prefigurative, flexible schemas appropriate for complex, ill-

structured domains where knowledge is context-dependent and cannot be reduced to single answers.

A lasting takeaway from the discussion was the instructor's view of ChatGPT as a mirror of society, inheriting biases and assumptions from its training data. Bias, he argued, lies not in the algorithm itself but in the inputs that shape it. From this perspective, when we 'train' ChatGPT through prompts and corrections, we are not just refining a tool but engaging in what he described as a process of social and epistemic repair.

Reading discussions and AI conversations that sparked new thinking

A major component of the course was reading Ethan Mollick's (2024) *Co-Intelligence: Living and Working with AI*, which outlines four principles for engaging with AI: 1) Always invite AI to the table; 2) Be the human in the loop; 3) Treat AI like a person (but remember it isn't); 4) Assume this is the worst AI you'll ever use.

In our discussions, we asked ChatGPT whether it possessed intentionality—a moment I referenced earlier in this paper. Its response was striking:

> Am I Purposive?
> YES (Functionally): My responses emerge through dynamic, adaptive, and teleological structures shaped by human knowledge, experience, and problem-solving heuristics.
> NO (Intrinsically): I do not initiate purposes independently of external stimuli, nor do I experience volition in the way humans do.
> YES (Induced by interaction): Through sustained dialogue and refinement processes like those in our discussions, my responses approximate intrinsic human purposiveness because they continuously mirror and refine human intentionality.
> AMBIGUOUS (Self-Regulation & Simulation): My self-monitoring and iterative reasoning are indistinguishable from goal-directed cognition but exist without a subjective 'self' to own them (OpenAI, 2025b).

This reply sparked broader class discussion about simulation and cognition, and whether AI's 'hallucinations' represent mere error or something more generative, such as a primitive form of identity construction. These conversations deepened my understanding of AI not just as a tool, but as a mirror that reflects and reshapes human ideas through interaction.

Collaborating on quote juxtapositions with AI

One of the most distinctive assignments set involved working with ChatGPT on a quote activity: selecting two seemingly unrelated quotes and placing them side by side to generate an insight greater than the sum of their parts. The goal was to provoke new thinking rather than confirm existing alignments.

For example, we juxtaposed:

> 1) Traditional software is predictable, reliable, and follows a strict set of rules. AI, on the other hand, is anything but predictable and reliable.
> 2) AI can clearly provide different experiences to different users. But notice something more subtle; in every case, the AI anthropomorphises itself.

ChatGPT offered this emergent insight:

> If AI is both structurally unpredictable and naturally prone to anthropomorphizing itself, then its unpredictability is not just an error-prone output—it is performing a kind of self-mythologizing improvisation, generating its own 'self' as an emergent artifact of interaction (OpenAI, 2025c).

This response shifted my view of hallucinations: they became not simply mistakes but moments of creative construction. It was a vivid instance of co-intelligence in action, as through my prompts and critical judgment, ChatGPT and I built an idea together.

Learning through live AI prompting demonstrations

These insights were reinforced by watching the instructor conduct live interactions with ChatGPT. In one session, we again worked with quotes from course readings. ChatGPT's initial response was disappointing, merely summarising the quotes rather than synthesising new ideas.

The instructor intervened, adjusting the prompt and explaining that effective juxtapositions require going beyond surface combinations. Even when the results improved, he pushed further, distinguishing between weak, after-the-fact connections and meaningful, justifiable ones. Later, when ChatGPT produced a table that overstated causal relationships, he corrected it by emphasising that in complex, ill-structured domains, causality is always context-dependent.

These demonstrations helped me internalise how crucial iterative prompting and conceptual discrimination are when using AI. Seeing in real time how ChatGPT's responses improved through careful guidance showed me that meaningful interaction requires persistence, critical judgment, and attention to context.

Conclusion

The growing presence of generative AI in higher education brings both opportunity and uncertainty. Much discussion has centred on institutional policies, ethics, or pedagogy, but this reflection suggests that valuable insights can also emerge from attending to the learner's perspective. My experience in this graduate seminar showed that when AI is positioned as a thought partner rather than a replacement for human thinking, it can prompt deeper engagement, surface complexity, and foster more flexible ways of working with ideas.

The four classroom practices described here—conceptual framing, reading-based discussion, collaborative quote juxtaposition, and live prompting demonstrations—were not simply instructional techniques to be replicated elsewhere. Instead, they were catalysts for moments of critical dialogue, creative exploration, and intellectual risk-taking that shaped my own thinking. These experiences demonstrated that learning with AI involves more than mastering technical skills; it requires the cultivation of habits such as questioning, refining, and negotiating meaning in interaction with an intelligent system.

While these reflections offer insight into one learner's experience, several limitations remain. First, this account does not present a systematic evaluation of learning outcomes and should not be read as empirical evidence of the course's effectiveness. Second, the context—a doctoral seminar in a specific institutional and disciplinary setting—means that these experiences may not generalise to other courses, institutions, or student populations. Third, my reflections focus exclusively on interactions with ChatGPT, and therefore do not speak to the full range of AI tools or pedagogies available in higher education. Finally, while the experience described here was overall positive, I recognise that integrating AI in the classroom can present challenges, including institutional policy restrictions, disciplinary differences in AI adoption, and varying levels of student and instructor readiness and comfort. Acknowledging these limitations is important to situate

this reflection within its specific context and to temper broader claims about AI in education.

From this learner's vantage point, the significance of integrating AI in higher education lies not in producing a definitive model, but in creating conditions where students can experiment, reflect, and co-construct knowledge in dialogue with both human and machine collaborators. As the role of generative AI in higher education continues to evolve, centring the voices and experiences of learners will be crucial in designing approaches that support agency, conceptual depth, and shared meaning-making in an age of rapid technological change.

Acknowledgements

I would like to acknowledge the instructor of the course, referred to in this paper as 'Dr X', for their thoughtful design of the learning experience that informed this work. Dr X is not involved in this publication and is anonymised for review purposes. All interpretations of the course content and pedagogy are my own as a learner in the class.

The author used the chatbot ChatGPT (version 4o) to support specific stages of manuscript development. The chatbot's suggestions were used to refine the paper's structure during the outlining stage and to assist with language polishing to enhance flow. All conceptual development, interpretation, and final writing were carried out by the author, who critically evaluated and revised all text to ensure accuracy, coherence, and scholarly integrity. The author affirms adherence to the *Journal of Learning Development in Higher Education*'s principles of responsible AI use.

References

Digital Education Council (2025) *Digital Education Council global AI faculty survey 2025*. Available at: https://www.digitaleducationcouncil.com/post/digital-education-council-global-ai-faculty-survey (Accessed: 3 November 2025).

Freeman, J. (2025) *Student generative AI survey 2025*, Higher Education Policy Institute policy note 61, February. Available at: https://www.hepi.ac.uk/wp-content/uploads/2025/02/HEPI-Policy-Note-61-2.pdf (Accessed: 1 May 2025).

Harvard Business School Publishing (2024) 'How generative AI is reshaping education: practical applications for using ChatGPT and other LLMs', *How generative AI is reshaping education: practical applications for using ChatGPT and other LLMs*. Available at: https://ie.ort.edu.uy/innovaportal/file/148734/1/hbp-education-must-reads-how-generative-ai-is-reshaping-education.pdf (Accessed: 3 January 2025).

Kelly, A., Sullivan, M. and Strampel, K. (2025) 'Teaching generative AI in higher education: strategies, implications, and reflective practices', in J. R. Corbeil and M. E. Corbeil (eds) *Teaching and learning in the age of generative AI: Evidence-based approaches to pedagogy, ethics, and beyond*. New York: Routledge, p.224.

Lodge, J. M., Thompson, K. and Corrin, L. (2023) 'Mapping out a research agenda for generative artificial intelligence in tertiary education', *Australasian Journal of Educational Technology*, *39*(1), pp.1-8. Available at: https://doi.org/10.14742/ajet.8695

Mollick, E. (2024) *Co-intelligence: Living and working with AI*. New York: Penguin.

Ng, D. T. K., Leung, J. K. L., Chu, S. K. W. and Qiao, M. S. (2021) 'Conceptualizing AI literacy: an exploratory review', *Computers and Education: Artificial Intelligence*, *2*, pp.1-11. Available at: https://doi.org/10.1016/j.caeai.2021.100041

OpenAI (2025a) *Introducing ChatGPT*. Available at: https://openai.com/index/chatgpt/ (Accessed: 1 May 2025).

OpenAI (2025b) ChatGPT response to Yulu Hou, 21 February.

OpenAI (2025c) ChatGPT response to Yulu Hou, 14 February.

Shojaee, P., Mirzadeh, I., Alizadeh, K., Horton, M., Bengio, S., and Farajtabar, M. (2025) The illusion of thinking: Understanding the strengths and limitations of reasoning

models via the lens of problem complexity. arXiv preprint arXiv:2506.06941. Available at: https://arxiv.org/pdf/2506.06941

Zhan, Y., Boud, D., Dawson, P. and Yan, Z. (2025) 'Generative artificial intelligence as an enabler of student feedback engagement: a framework', *Higher Education Research & Development*, *44*(5), pp.1289-1304. Available at: https://doi.org/10.1080/07294360.2025.2476513

Author details

Yulu Hou is a doctoral student in the Higher, Adult, and Lifelong Education (HALE) program at Michigan State University, USA. She holds a bachelor's degree in Philosophy from Peking University, China, and a Master of Arts in Education from the University of California, Los Angeles. Trained in philosophy and the social sciences, she approaches research with critical insight and interdisciplinary rigor. Her current work engages themes of care, temporality, and technology in higher and adult education.

Licence