

Editorial: Digital Learning in the Generative AI Moment

Tim Neumann^{ab*} and Eileen Kennedy^{ac*}

^aUCL Institute of Education, University College London, London, UK

^bORCID: 0000-0002-6445-9246

^cORCID: 0000-0002-0963-9041

*tim.neumann@ucl.ac.uk, eileen.kennedy@ucl.ac.uk

Editorial: Digital Learning in the Generative AI Moment

A journal is, at heart, a standing invitation to think together. It is fitting, then, that *Reflecting Digital Learning* should begin at a moment when the questions have so plainly outrun the answers. In a reasonably short timeframe, generative artificial intelligence has moved from novelty to fixture in lecture theatres, seminar rooms and marking queues, arriving faster than the frameworks, the evidence or the settled judgement needed to make sense of it. That gap between what these tools can do and what we yet understand about doing it well is precisely the space this journal exists to occupy.

Launched at University College London as a peer-reviewed, open forum for the work of early-career researchers, *Reflecting Digital Learning* sets out to be an interdisciplinary, international home for evidence-informed discussion about digital learning: online and blended teaching, design-based research, the critical study of learning technologies, and - unavoidably, this year - artificial intelligence in education. Its intended readers are as broad as the field itself: teachers and teacher educators, learning technologists and designers, educational leaders, professional development practitioners and policymakers. This inaugural issue offers all of them the same thing: not a verdict on AI, utopian or dystopian, but a set of careful, grounded investigations into how digital tools actually behave when real students and real educators put them to work.

Seven papers make up the issue, and although they were written independently, they converge on a shared instinct. Across every one, they implicitly ask the question of how artificial intelligence needs to be positioned to earn its place within education. We have loosely grouped the contributions under three headings that trace that positioning outward, from the educator's desk, to the student's preparation, to the institution's responsibilities.

I. Augmenting the educator's craft

The issue opens with two studies of AI as a working assistant to the teacher. **Liqun He and Jiaqi Xu** ask whether a generative model can take on one of educational research's most laborious tasks: the manual coding of tutor-student dialogue. Testing prompts against an open corpus, they find that GPT-4 classifies tutors' dialogue acts with 80% accuracy and substantial agreement with human coders, and, crucially, without the annotation and fine-tuning that older methods demanded. Their conclusion is characteristic of the whole issue: the model works best not as a replacement but as a *co-coder*, and only once its labels are carefully defined and its dialogue given context.

Jiayi Wang and Christina Ioanna Galliou turn from analysis to feedback, examining what happens when Microsoft Copilot is used to augment lecturers' written comments on eight masters-level assignments. AI-augmented feedback reliably improved surface features like clarity, consistency, tone, or motivational language, but unless prompted specifically, drifted towards the generic, summarising work rather than critiquing it. Their practical contribution is a set of task-oriented prompts for educators, and their larger point is one the issue returns to repeatedly: with these tools, quality still needs to be *designed*, it is not a given.

II. Engaging the learner

The second heading shifts from the marker to the student, and from output to dialogue. **Rebecca Mace and Jenny Jung**, drawing on Schön's reflective practice and reading their participatory study through Vygotsky's "More Knowledgeable Other" as well as Bakhtin's dialogics, describe what happens when students are encouraged to treat a chatbot not as an authority but as a fallible study partner during seminar preparation. Repositioned as one voice among many, the chatbot fostered more critical thinking and confidence than when students were merely asked to evaluate its output. The machine's usefulness, they argue, grew in exact proportion to the students' refusal to defer to it.

Yanan Tian stays with the pre-class moment, investigating why international students on interdisciplinary flipped-classroom programmes so often disengage from assigned reading. Through interviews with eleven students and four module leaders, the study identifies four interlocking barriers: cognitive overload, comprehension difficulty, lack of immediate support and unfamiliarity with the pedagogy. It examines how an LLM-based chatbot might ease these barriers across the behavioural, cognitive, emotional and social dimensions of engagement. Students and tutors were cautiously positive, provided the tool was used critically: a recurring insistence that the affective and human sides of learning cannot be automated away.

III. Conditions for responsible use

If the first two headings show AI at work, the third asks what has to be true around it for that work to be legitimate. **Xiaoyan Guo** offers a wide-angle review of ChatGPT's opportunities and challenges in higher education: rapid assessment, feedback and pedagogical innovation on one side; plagiarism, unreliable detection and threats to academic integrity on the other. The author concludes that responsible integration depends on governance, ethical guidelines and the cultivation of AI literacy among staff and students alike.

Yuke Zhang takes the ethical question deeper, tracing AI ethics in Chinese higher education along an arc "from anxiety to innovation." Rather than treating ethical unease as a mere obstacle, Zhang reframes it as a driver of better practice, while warning that transplanting Euro-American ethics frameworks wholesale risks superficial imitation unless they are adapted to local pedagogical traditions and attentive to regional equity. It is a salutary reminder that "responsible AI" is not a single, exportable template.

Peter Neri and Ishani Behl close the issue by asking how institutions might actually build the capabilities the other papers call for. Extending Pretorius and Cahusac de Caux's five-domain model of AI literacy to seven by adding sociocultural and pedagogical dimensions, they compare fifteen universities' literacy programmes and find a telling imbalance: institutions invest heavily in the foundational and conceptual, while the ethical, sociocultural and, above all, *emotional* dimensions of living with AI remain markedly under-served. Their multi-level proposal, spanning institution-wide culture and departmental curricula, is a blueprint for the kind of readiness this moment requires.

What connects this issue

Read together, the seven papers sound three notes in unison: The first is that **the value of these tools is engineered, not intrinsic**. Prompts, label definitions, contextual framing, pedagogical scaffolding and institutional design are what separate a genuine gain from a plausible-sounding mediocrity (He and Xu; Wang and Galliou; Tian; Neri and Behl). The second is that **the human must stay in the loop**, as co-coder, as overseer, as the critical partner who treats the machine's output as provisional rather than settled (present in every contribution, and the explicit thesis of Mace and Jung). The third is that **ethics and literacy are foundations, not afterthoughts**. Questions of consent, privacy, bias, transparency, integrity and equity surface in all seven papers, and Zhang and Neri & Behl together warn against both cultural one-size-fits-all thinking and the neglect of learners' emotional lives.

Two further features of this issue deserve note. One is its methodological range: an API-based classification experiment, a participatory reflective study, qualitative interviewing, comparative web analysis and critical review all sit side by side, which signals the broad-church, evidence-informed ethos this journal hopes to sustain. The other is its provenance: several of these studies grew out of practical UCL initiatives, including the IOE's AI & Assessment Challenge, UCL's Changemakers programme, and postgraduate dissertations, and span cases and collaborators from international authors, many of whom have met by studying at UCL. That early-career researchers, working from real teaching problems, have produced work of this quality is exactly the promise the journal was founded to keep.

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An invitation

A first issue is less a statement than an opening: an argument begun, waiting for reply. If the papers gathered here share a conviction, it is that the arrival of generative AI is best met not with alarm or enthusiasm but with inquiry: patient, empirical, self-critical and humane. That is the conversation *Reflecting Digital Learning* now invites you to join, wherever you are based.

Abbreviations

AI: Artificial Intelligence

API: Application Programming Interface

GPT: Generative pre-trained transformer

IOE: UCL Institute of Education

LLM: Large Language Model

UCL: University College London