AI and the Art of Teaching: Enhancing or Eroding Educational Creativity?

Michael Henderson Monash University Australia michael.henderson@monash.edu

> Punya Mishra Arizona State University United States punya.mishra@asu.edu

Edwin Creely Monash University Australia edwin.creely@monash.edu

Danah Henriksen Arizona State University United State danah.henriksen@asu.edu

Abstract: This panel delves into vital conversation about Generative AI's impact on teaching and teacher education. We invite the audience to actively participate in a debate on how, when and why Generative AI should or could be used in teaching both in schools and in teacher education. The Panelists will lead thoughtful and provocative points and counterpoints to the central tenet of whether AI is enhancing or eroding the creative function of teaching and teacher education — e.g., is AI a catalyst for enhancing creativity in teaching, or does it pose a threat to innovation? Creativity is central to effective teaching, and it involves developing solutions that are not only novel and effective but also holistic and contextually relevant (Henriksen, Mishra & Mehta, 2015). However, the advent of Generative AI introduces new dimensions to this creative landscape. Generative AI is already being used to support the development of materials, activities, assessments and even teacher judgments. Our panelists will explore diverse perspectives on how Generative AI may influence the creative autonomy of educators, authenticity of content, and personalization of learning experiences. We will examine the ethical implications of AI-generated content, the potential biases inherent in AI, and the balance between technological efficiency and human-centric teaching approaches. The panel and audience will ultimately decide if this may lead to a utopian or dystopian educational future.

Keywords: generative AI, GenAI, creativity, teaching, teacher education, teachers, learning, creative learning, designing education, creative teaching

Introduction

This panel questions Generative AI's role and impact on teaching and teacher education. We invite a debate on how, when, and why Generative AI should or could be used in teaching - both in schools and in teacher education. Central to our concern is whether AI is enhancing or eroding the creative function of teaching and teacher education—e.g., is AI a catalyst for enhancing creativity in teaching, or does it pose a threat to the fundamental essence of educational innovation? Creativity is central to effective teaching, and it involves developing solutions that are not only novel and effective but also holistic and contextually relevant (Henriksen, Mishra & Mehta, 2015).

This process is deeply rooted in the integration of technological, pedagogical, and content knowledge, enabling teachers and educators to tailor learning experiences to their unique student populations and contexts (Koehler et al., 2011). However, the advent of Generative AI introduces new dimensions to this creative landscape. As AI tools become increasingly sophisticated in generating educational materials, activities, and assessments, they bring both opportunities and challenges. Generative AI is already being used to support the development of materials, activities, assessments and even teacher judgments.

The panel explores diverse perspectives on how Generative AI may influence the creative autonomy of educators, authenticity of content, and personalization of learning experiences. Ultimately we consider the potential of how this may lead to a utopian or dystopian educational future—considering the future trajectories of education in an AI-augmented world.

Three perspectives (circumspection, enthusiasm and cautious optimism) in relation to the role of GenAI in educational creativity are explored as a way to provoke possibility thinking.

Circumspection: AI is eroding the creative integrity of teachers and teaching

It is perhaps in human nature to hope that someone or something can do our work for us. When we talk of AI collaborating with us in the creative endeavour of teaching and its component tasks, how do we know if that 'collaboration' has integrity. At what point are we handing over too much judgement?

In considering 'integrity' I go back to its latin meaning of 'wholeness'. Teachers, Teacher Educators, and educational institutions, both universities and schools, are all looking to AI for 'short cuts'. This may be in the form of generating or 'assisting' in the creation of curriculum materials, lesson planning, writing student reports, communications and online interactions, activity design, assessment design, grading and the provision of feedback. Take feedback as a key example - it is where we take our expert 'evaluative judgement' (what is good and not good for this task and disciplinary context) and combine it with our pedagogical knowledge to help students move from A to B. Increasingly there are pushes to use AI to create the feedback information. However we simultaneously know that AI is biased, does not know right from wrong, is not a disciplinary specialist (but can pretend to be one), and cannot substantiate its claims.

The push for using Gen AI in educational and especially pedagogical decisions inherently risks the integrity of teachers and teacher educators.

Enthusiasm: Steal like a great artist: On the value of being an intellectual thief.

"Good artists borrow, great artists steal" — Pablo Picasso

Good teachers don't just borrow ideas - they steal them. Shamelessly. As Pablo Picasso famously said, "Good artists copy, great artists steal." When it comes to using AI to enhance education, we should embrace the creative thievery of great artists.

Sure, there are concerns about "integrity" and "wholeness" - stuffed shirt concepts for people afraid of innovation. But real creativity requires audacity, boundary pushing, and even outright plagiarism. We must move past antiquated notions of "ownership" and "originality" in pedagogy. The greatest creators build off the work of others. Everything is a remix.

AI offers astounding opportunities to mash up, recombine, and repurpose the best educational ideas. Let's not limit ourselves to mere "collaboration" - that's timid and incremental. Instead, we should loot AI for all its worth, pillaging shamelessly like high-seas pirates, taking whatever pedagogical booty we can.

We don't need to understand how AI works to exploit its creative juice; any more than songwriters need to understand music theory. Forget "evaluative judgement" - that's just glorified nitpicking. Swashbuckling educators will take what we want from AI and run.

Of course, AI has biases and limitations - so does every teacher! AI doesn't know right from wrong? Neither do most professors! Let's not handicap ourselves with rigid "integrity." The classroom needs creativity, experimentation, and fun.

So, I say we take a tip from the great artists and become intellectual thieves. Use AI with wild abandon. Steal every good idea. Embrace the remix. Only through such shameless plagiarism can education reach new creative heights!

This perspective was entirely generated by Claude. AI in response to the perspective of circumspection. Claude. AI was

given the title and the quote from Picasso and asked to write a funny yet substantive response.

AI as Ally: Redefining Creation in the Posthuman Era

As society and education become increasingly shaped by AI, especially generative AI, it is crucial to transition from apprehension to active and informed engagement with this transformative technology. I propose a perspective shift towards viewing AI from a posthuman standpoint as an entity with agency, one that emphatically is influencing and redefining creative practices. By collaborating actively with AI as an ally, we not only potentially shape its trajectory but also redefine our roles as creators and educators. This dynamic relationship, however, necessitates a pragmatic approach to preserve the human essence within the AI-human synergy, as it is necessary to move with some caution. Drawing on Albert Borgmann's concepts of 'device paradigm' and 'focal practices' (Borgmann, 1984), this presentation suggests pathways for working with AI to augment rather than undermine the human experience. Borgmann's philosophy serves as a framework for leveraging AI to enrich life and society, ensuring that technological advancement aligns with human values and enhances our lived experience. The objective is to cultivate a future where AI is not a corrosive force but a harmonious extension of our creative potential and societal values.

References

Borgmann, A. (1984). *Technology and the character of contemporary life: A philosophical inquiry*. University of Chicago Press.

- Henriksen, D., Mehta, R. & Mishra, P. (2015). Novel, effective, whole: Toward a new framework for evaluations of creative products. *Journal of Technology and Teacher Education*, 23(3), 455-478.
- Koehler, M. J., Mishra, P., Bouck, E. C., DeSchryver, M., Kereluik, K., Shin, T. S., & Wolf, L. G. (2011). Deepplay: Developing TPACK for 21st century teachers. *International Journal of Learning Technology*, 6(2), 146-163.