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People, Partnerships and Pedagogies

Digital facelift: emerging tools and typologies for educational media

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The rapid development and proliferation of synthetic media and AI-generated avatars present both challenges and opportunities for higher education. Increasingly, educational institutions must navigate complex ethical and pedagogical considerations, as well as adapt to the latest AI technologies (Siemens et al., 2022). Ethical and pedagogical principles to guide AI use are urgently needed in education (Bozkurt et al., 2021).

In this presentation, we share a practical perspective, framed by a specific case-study: the development and implementation of a large-scale, interactive business module featuring AI-generated 'Guest Lecturers'. The AI-generated video content, along with other online activities, were designed to stimulate critical reflection and discussion about the ethical implications of AI in business. Now in its second iteration, the project represents a significant trial and evaluation of synthetic media to present educational concepts in a cohort of over 700 students.

Fundamental ethical and pedagogical questions surfaced during the development and implementation of this learning media. How transparent should educators be about the processes and tools they adopt in producing content, for example (Pataranutaporn et al., 2021)? When does human presence add value in recorded video, be it in a pedagogical or parasocial sense (Beege et al., 2019)? And what forms of learning might benefit (or not) from automating video content (Li et al., 2016)? Based on evaluation data from focus groups and video analytics, we explore these questions and the potential affordances and limitations of synthetic media. We also reflect on the tools and techniques that were used to create the project, and implications for educational institutions as they seek to build capacity for AI content creation within traditional production ecosystems.

An emergent typology for AI in educational media is explored, to help educators design for teaching and learning based on learning purposes and modes of delivery. Finally, we discuss how student feedback might inform the design, production and delivery of learning media, and future directions for student co-creation and agency.

Keywords: avatars, artificial intelligence, synthetic media, multimedia design, video lectures.

References

- Beege, M., Nebel, S., Schneider, S., & Rey, G. D. (2019). Social entities in educational videos: Combining the effects of addressing and professionalism. *Computers in Human Behavior*, 93, 40–52. <https://doi.org/10.1016/j.chb.2018.11.051>
- Bozkurt, A., Karadeniz, A., Baneres, D., Guerrero-Roldán, A. E., & Rodríguez, M. E. (2021). Artificial Intelligence and Reflections from Educational Landscape: A Review of AI Studies in Half a Century. *Sustainability*, 13(2), 800. <https://doi.org/10.3390/su13020800>
- Li, J., Kizilcec, R., Bailenson, J., & Ju, W. (2016). Social robots and virtual agents as lecturers for video instruction. *Computers in Human Behavior*, 55, 1222–1230. <https://doi.org/10.1016/j.chb.2015.04.005>
- Pataranutaporn, P., Danry, V., Leong, J., Punpongsanon, P., Novy, D., Maes, P., & Sra, M. (2021). AI-generated characters for supporting personalized learning and well-being. *Nature Machine Intelligence*, 3(12), 1013–1022. <https://doi.org/10.1038/s42256-021-00417-9>
- Siemens, G., Marmolejo-Ramos, F., Gabriel, F., Medeiros, K., Marrone, R., Joksimovic, S., & De Laat, M. (2022). Human and artificial cognition. *Computers and Education: Artificial Intelligence*, 3, 100107. <https://doi.org/10.1016/j.caeai.2022.100107>

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