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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Keeping humans in the loop: AI-assisted curriculum at program scale

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As universities adopt generative AI for curriculum development, a central risk is that efficiency gains may come at the expense of educational judgement, disciplinary expertise and human connection. Yet the same technology, used selectively, can free academics to focus on how students think and solve problems (Truu, 2026).

This poster presents a programmatic, human-led method for AI-assisted course development used across UNSW College's new Applied Degrees: industry co-designed, work-blended bachelor programs in business and information technology. It addresses two questions: how can generative AI support curriculum development at program scale while preserving human educational judgement; and where must that judgement be structurally embedded? The method is grounded in constructive alignment (Biggs & Tang, 2011) and human-centred AI (Le Dinh et al., 2025), applied at program rather than course level.

The main focus is programmatic coherence. Rather than building courses one at a time, the method applies shared design patterns across an entire program. Even with different subject matter experts (SMEs) and program leads contributing to different courses, these design principles remain consistent from first year to capstone. AI generates content within this architecture, but functions as a structured design assistant rather than an autonomous author. Different workflow stages route to different AI models suited to each context. This preserves checkpoints where human framing and contextual judgement re-enter the process, consistent with calls to keep human control central to AI in education (Alfredo et al., 2024; Bearman et al., 2023; Hau, 2025; Islam, 2026).

The human-led, AI-supported workflow moves from industry and academic SME input and course overview revision through curriculum blueprinting, assessment critique, rubric development, Canvas-ready asynchronous content, workshop planning, and student-facing resources. The assessment-critique stage is especially significant as generative AI reshapes what assessment must do, with recent scoping evidence showing AI is driving a re-examination of assessment design across student, teacher and institutional levels (Chiu et al., 2024).

Human judgement remains decisive throughout: SMEs establish disciplinary intent; program leads review coherence and progression; learning designers evaluate scaffolding, accessibility and learner experience; and final quality assurance confirms alignment before publication. The ASCILITE Technology Enhanced Learning Accreditation Standards (TELAS, 2022) informed the design from the outset and now provide the basis for review, making quality auditable. This matters for Applied Degrees, where quality depends on integrating academic standards, industry relevance, work-integrated learning and inclusive learning design. Outputs are structured for continuous improvement in Canvas, keeping pedagogical authority close to the point of delivery rather than locked inside opaque AI outputs (UNESCO, 2023).

Critically, automating the repetitive build frees human effort for the work most often skipped under time pressure: the programmatic view, gathering student feedback, time with industry to collect current case studies and simulations, and targeted employability development so graduates are work ready. AI can accelerate curriculum production while strengthening human-centred design, provided the architecture and its checkpoints are designed first. The contribution is that architecture. The design patterns, curriculum blueprinting and checkpoints where human judgement re-enters are transferable to other program-scale builds regardless of which AI tools

are used.

Keywords: generative AI, human-centred learning design, work-integrated learning, curriculum design

References

Alfredo, R., Echeverria, V., Jin, Y., Yan, L., Swiecki, Z., Gašević, D., & Martinez-Maldonado, R. (2024). Human-centred learning analytics and AI in education: A systematic literature review. *Computers and Education: Artificial Intelligence, 6*, Article 100215. https://doi.org/10.1016/j.caeai.2024.100215

Bearman, M., Ryan, J., & Ajjawi, R. (2023). Discourses of artificial intelligence in higher education: A critical literature review. *Higher Education, 86*(2), 369–385. https://doi.org/10.1007/s10734-022-00937-2

Chiu, T. K. F., Moorhouse, B. L., Chai, C. S., & Ismailov, M. (2024). A scoping review on how generative artificial intelligence transforms assessment in higher education. *International Journal of Educational Technology in Higher Education, 21*, Article 40. https://doi.org/10.1186/s41239-024-00468-z

Hau, D. (2025). *Beyond the loop: Reclaiming pedagogy in an AI age.* UNESCO. https://www.unesco.org/en/articles/beyond-loop-reclaiming-pedagogy-ai-age

Islam, A. Y. M. A. (2026). Reimagining teacher–AI co-design in learning task design: Trends and perspectives. *Humanities and Social Sciences Communications, 13*(1), Article 757. https://doi.org/10.1057/s41599-026-06981-y

Le Dinh, T., Le, T. D., Uwizeyemungu, S., & Pelletier, C. (2025). Human-centered artificial intelligence in higher education: A framework for systematic literature reviews. *Information*, *16*(3), Article 240. https://doi.org/10.3390/info16030240

Technology Enhanced Learning Accreditation Standards. (2022). *TELAS framework*. Australasian Society for Computers in Learning in Tertiary Education. https://telas.edu.au/framework/

Truu, M. (2026, June 22). AI will "liberate" universities, says UNSW vice chancellor. *The Australian Financial Review*. https://www.afr.com/work-and-careers/education/ai-will-liberate-universities-says-unsw-vice-chancellor-20260610-p605fj

UNESCO. (2023). Guidance for generative AI in education and research. https://doi.org/10.54675/EWZM9535

Frost, S. J. & Peckmezian, T. (2026). Keeping humans in the loop: AI-assisted curriculum at program scale [Poster]. In Cochrane, T., Narayan, V., Poole, T., Lai, P., Lake, P., Moore, O., & Li, L. (Eds.), *The Future is Connection: Collaboration, Creativity and Compassion in a Digital Society*. Proceedings ASCILITE 2026. Brisbane (pp. 20–21). https://doi.org/10.65106/apubs.2026.3161

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