ASCILITE 2026

The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Bringing the classroom back to life: Multi-touch learning for collaboration, engagement and professional practice

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As universities continue to reconsider the role of face-to-face learning following the rapid expansion of online education during and after COVID-19, educators face an important challenge:

How can technology be used to revitalise the post-pandemic classroom as a vibrant space for collaboration, connection, authentic learning, and active participation?

Collaborative platforms such as Miro, Padlet, and Google Docs have transformed students' ability to co-create knowledge remotely. Large multi-touch interactive displays extend these collaborative affordances into the physical classroom by enabling multiple students to simultaneously manipulate shared digital artefacts, visualise their thinking, and co-construct knowledge through face-to-face interaction.

This presentation showcases interactive multi-touch learning activities developed for large-format HDI displays within a second-year Professional Practice course for RMIT Bachelor of Business students. As preparation for a major assessment, students collaboratively develop five-year Professional Development (PD) plans using interactive resources created in Genially and optimised for multi-touch displays. In the activity, students select from draggable options to determine the skills and resources needed for a persona's professional and career development across five years. Rather than sitting around a table while one student controls a paper-based artefact, and unlike collaborative tools accessed through separate devices, learners using multi-touch displays can gather around a shared digital workspace where they simultaneously contribute, manipulate ideas, debate priorities, and collaboratively construct a highly visual PD plan. In doing so, the classroom is transformed into a collaborative, kinetic environment where students debate priorities and develop professional capabilities together.

The project responds to an opportunity within Technology Enhanced Learning (TEL): to redesign learning around technology's unique pedagogical affordances. Drawing on Dourish's (2001) theory of embodied interaction, the activity positions physical interaction with digital content as part of the learning process, where students "create, manipulate, and share meaning through engaged interaction with artifacts" (p. 126). Multi-touch enables several students to manipulate the PD plan simultaneously, distributing control rather than privileging a single user. Pointing, dragging, and organising content makes thinking visible, while the shared workspace enables students to see, question, and respond to one another's choices, supporting collaborative meaning-making (Soni et al., 2021). Price et al. (2009) similarly identify embodied interaction as creating opportunities for communication, collaboration, and socially mediated learning, while Higgins et al. (2012, p. 1041) highlight the potential of multi-touch environments for concurrent interaction and collaborative participation. These affordances were evident in classroom observations where students negotiated choices, discussed priorities, and jointly refined their PD plans.

Preliminary evidence was gathered through educator observations and post-activity surveys capturing students' self-reported perceptions of engagement, collaboration, and learning value. A formal Educational Design Research study, currently under ethics review, will investigate the relationship between multi-touch affordances, activity design, and student learning experiences, developing transferable design principles for multi-touch learning across higher education.

By demonstrating how multi-touch technologies bring the classroom to life through purposeful, theory-informed design, this presentation contributes to TEL scholarship on embodied interaction, collaborative digital pedagogies, and post-pandemic higher education. It offers a transferable approach to creating engaging, authentic learning experiences that make coming to campus genuinely worthwhile.

Keywords: Technology Enhanced Learning (TEL), multi-touch learning, active learning spaces, embodied

interaction, collaborative learning, professional practice

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Lekakis, N. & Colasante, M. (2026, Nov 29 – Dec 2). Bringing the classroom back to life: Multi-touch learning for collaboration, engagement and professional practice [Pecha Kucha Presentation]. 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.126–127). https://doi.org/10.65106/apubs.2026.3233

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