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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Centring relationships when using technology in human-centred learning design

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In this symposium, we present a series of case studies examining how digital innovations can support human-centred learning design by strengthening relationships and enrich learning experiences in higher education. From virtual environments to collaborative learning spaces, podcasts, and AI innovations, we argue that technology is a tool to enable meaningful interactions and relationships. Our studies illustrate how human-centred digital environments can address persistent challenges of disengagement and isolation in online and blended learning.

Keywords: connection and belonging, educator-student relationships, relational pedagogy.

James Cook University case studies

Dr Lauren Shaw. Designing connection online: A scoping review of digital learning communities (Co-authors: Emma McDonald, Dr Sam Teague)

While digital technologies have created new opportunities for flexible learning in higher education, concerns about maintaining the human connections that underpin meaningful learning intensified during the COVID-19 pandemic and drove a growing body of research into digitally enhanced learning. We open the symposium by presenting themes from a scoping review on research during the pandemic on fostering community in online higher education. Three themes were identified: 1) meaningful synchronous interactions with staff and peers; 2) a sense of community and pre-professional identity development were mutually reinforcing; and 3) innovative approaches to developing practical skills strengthened connection and belonging. Considered through the Community of Inquiry framework (Garrison, et al., 1999), these findings highlight the importance of social and teaching presence in creating meaningful online learning experiences, and provide the foundation for the case studies presented in our symposium.

Dr Brian Law. Digital environments that support learner interaction (Co-authors: Dr Sam Teague, Dr Madelyn Pardon, Dr Lauren Shaw, Dr Klaire Somoray)

Problem: Traditional online learning tools (e.g., Zoom) are insufficient for fostering spontaneous interaction and community-building, which are necessary to overcome low online student engagement and increased isolation (Abdull Mutalib et al., 2022). **Solution:** To build a learning community which prioritises connections between staff and students, a more interactive virtual platform, GatherTown, was trialled as a Zoom alternative for an academic event. **Evaluation:** A mixed-methods study was conducted to consider student (n = 26) and staff (n = 7) perspectives regarding the usability of GatherTown. **Findings:** Participants rated GatherTown as highly usable and felt that the interactive platform replicated real-life interactions and helped support a learning community. However, the need to learn a new platform was flagged as a barrier to maximising benefits.

Dr Klaire Somoray. Scaffolding relational readiness using an AI voice agent (Co-authors: Dr Denise Turner, Dr Brian Law, Dr Sujin Kim, Dr Natalia Veles, Dr Natalie Lloyd)

Problem: Allied health students entering the workforce are expected to navigate relationally complex client interactions, yet many report feeling underprepared (Healy et al., 2020). Traditional simulation approaches can develop these skills but are resource-intensive and difficult to scale, particularly in regional contexts. **Solution:** Interactive Dialogue Agent (IDA) is a voice-based AI simulation tool that responds dynamically to student input, enabling practice of open-ended and emotionally responsive dialogue. **Evaluation:** Skill performance and self-efficacy for navigating relationally complex client interactions are being assessed at two time points, with Time 2 examining whether practiced micro-skills are retained over time. Data collection is on-going.

Dr Amanda Krause. Can social annotation support assessment clarity and relationships? (Co-authors: Mr Daniel Campbell, Dr Chae Rose)

Problem: In research methods and statistics subjects, where students often experience anxiety, accessible tools and clear assessment expectations are needed (Fielder et al., 2024). **Solution:** Social annotation of assessment guidelines (where users read and mark-up shared texts (Sun et al., 2023)) was trialled in an undergraduate psychology research subject. **Evaluation:** Semi-structured interviews (*n* = 14 students and three staff) examined how social annotation impacted students' learning experiences, confidence and student-instructor-content interactions. **Findings:** Participants valued clarification at the point of inquiry revealing that social annotation makes engaging with peers' ideas visible, resonating with cognitive presence (Garrison et al., 2000).

Dr Alison Sheaves. Using podcasts to connect students with disciplinary communities (Co-authors: Dr Amanda Krause, Dr Daniel Miller, A/Prof Connar McShane)

Problem: As higher education increasingly adopts flexible and digital delivery models, opportunities for informal interaction and relationship-building between students, academics and the broader disciplinary community can be diminished. This may contribute to feelings of isolation, reduced belonging, and weaker professional identity development. **Solution:** We developed a podcast series (featuring conversational discussions about research, career pathways and lived experiences within the discipline) to strengthen students' connection to the discipline and profession. **Evaluation:** Our mixed-methods case study incorporates surveys (*n* = 59) and student interviews (*n* = 6). **Findings:** Preliminary findings suggest that podcasts can function as relational learning spaces, supporting connection, belonging and professional identity development.

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