

The University Of New South Wales Introduces AI Companions For A Less Lonely World

University of New South Wales



According to a 2021 report from Curtin University, loneliness alone costs Australia an estimated \$2.7B annually in healthcare and productivity losses. The University of New South Wales (UNSW) skillful AI-powered companions directly address this challenge by providing accessible, empathetic support that complements human care and reduces the burden on overstretched providers. The solution improves health outcomes, enhances quality of life, and supports safer, more connected communities.

PsychoSocialTech Pty Ltd (PST) is a UNSW spinout delivering emotionally intelligent, AI-powered digital companions that provide 24/7 psychosocial support. Developed by the Big Anxiety Research Centre and AI researchers at the UNSW School of Computer Science and Engineering, PST's skillful companions represent a breakthrough in human-centered AI, using lived experience datasets to train emotionally intelligent digital companions capable of delivering trauma-informed psychosocial support. Unlike reactive chatbots, these AI companions proactively engage users, model

emotional states, and offer therapeutic interactions tailored to individual needs. The innovation emerged from interdisciplinary research at UNSW's Big Anxiety Research Centre and the Felt Experience & Empathy Lab (FEEL), in collaboration with UNSW's School of Computer Science and Engineering.

PST's skillful companions have demonstrated significant societal and economic impact by transforming how psychosocial support is delivered across aged care, youth mental health, and disability services. Its AI-powered digital companions proactively engage users, model emotional states, and offer trauma-informed therapeutic interactions thereby addressing loneliness, anxiety, and cognitive decline in a scalable, stigma-free format.

The UNSW's Industry & Innovation (I&I) team, which oversees technology transfer, played a central role in driving this impact. From project inception, I&I guided IP strategy, securing protection through trade secrets, copyright, and trademarking of proprietary AI models, lived experience datasets, and interface designs. This robust IP framework enabled licensing and investment while safeguarding ethical deployment and data integrity.

PST's strategic market analysis, supported by I&I team, identified high-need sectors and validated demand with \$1M+ in partner commitments. The team structured partnerships with regional care providers, health districts, and government-backed assistive tech programs, ensuring real-world validation and long-term sustainability.

To support commercial success, I&I team helped secure \$1.1M in research and development grants and facilitated the participation of the PST team in UNSW's accelerator programs. These initiatives provided mentoring, infrastructure, and investor access, culminating in customer and corporate commitments. The spinout has attracted national media coverage (ABC, SBS), international interest (EuroNews), and government engagement, positioning it as a flagship Australian innovation in mental health care.

UNSW's I&I team played a central role in establishing and validating the strategic partnerships that underpin PST's AI companion success. From the outset, the PST team, supported by I&I, identified key stakeholders aligned with the project's mission to deliver scalable, trauma-informed psychosocial support through AI. This included early engagement with Southeastern Sydney Local Health District, and the Centre for Healthy Brain Ageing (CHeBA), ensuring the technology was grounded in clinical relevance and community need. A trial with CHeBA in residential aged care demonstrated benefits in reducing loneliness; clients currently include a nursing team at Prince of Wales Hospital.

I&I facilitated PST's introductions to government bodies, aged-care providers, and mental health organizations, enabling real-world testing and co-development. Their efforts extended internationally, supporting interest from a major Japanese corporation exploring AI companionship for elder care and social isolation, which is an area of national concern in Japan. Additionally, PST has an international collaboration with Harvard University and the Jiangsu Industrial Technology Research Institute (JITRI) Nanjing, through which the company is developing bespoke companions for Chinese aged-care settings.

Navigating complex stakeholder landscapes, the team, assisted by I&I, ensured alignment with ethical standards, trauma-informed design principles, and user-centered care models. They supported the negotiation of collaborative agreements, licensing terms, and data-sharing protocols, balancing commercial flexibility with long-term research and societal impact.

I&I's strategic guidance, IP stewardship, and stakeholder engagement were instrumental in translating research into a commercially viable, socially impactful solution. PST's skillful AI companions exemplify how human-centered AI, backed by rigorous research and thoughtful commercialization, can deliver transformative outcomes for individuals, communities, and the broader health system.

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