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INTEGRATING AI INTO ACADEMIC PRACTICE: A DUAL APPROACH TO INSTITUTIONAL RESEARCH AND STUDENT ENGAGEMENT

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INVESTIGATING AI USE AT OTAGO POLYTECHNIC

As a lecturer at the Food Design Institute, Otago Polytechnic, I have found myself both observing and shaping how artificial intelligence (AI) is influencing tertiary education. In late 2024, I led an institutional research project, *Assessing the Utilisation of Large Language Models Among Academic and Support Staff at Otago Polytechnic* (ethics approval number: 1041), exploring how academic and support staff across the polytechnic were engaging with large language models (LLMs), particularly ChatGPT. This work was prompted by increasing staff interest in AI, alongside a lack of formal guidance for its responsible integration into educational practice.

My survey gathered responses from 174 staff members out of approximately 650, representing a cross-section of academic, administrative, and IT roles. The findings showed a significant uptake: around two-thirds had used AI tools in their work, with academic and IT staff reporting the highest levels of use of approximately 80 percent and 100 percent respectively. These staff primarily used AI for content creation, lesson planning, summarising articles, or automating routine communications.

What emerged, however, was not uncritical acceptance. Many participants raised concerns about data privacy, factual accuracy, and ethical ambiguity. About 40 percent cited data privacy as a barrier and were often unsure about whether platforms such as ChatGPT were appropriate for handling student or institutional information. Concerns about "hallucinations," the fabricated or inaccurate outputs of generative AI, were also common, particularly among those working in research and curriculum development (Michel-Villarreal et al., 2023).

A significant portion of the feedback centred on cultural considerations. One-third of respondents reported discomfort with how AI tools handled te reo Māori and Māori knowledge, and 45 percent expressed uncertainty about best practices. These findings revealed an urgent need for culturally responsive AI guidelines, particularly in light of Otago Polytechnic's bicultural commitments under Te Tiriti o Waitangi (Adams et al., 2024).

To support institutional communication and engagement, I used ChatGPT 4.5 to generate an executive summary of the 11,500-word research findings. I provided ChatGPT with the key survey themes and instructed it to organise the findings clearly for a professional but non-specialist audience. I then revised the draft to check for accuracy and cultural appropriateness. Rather than delegating authorship, I treated the AI as a co-drafting tool—one that could assist in distilling complexity but still required my oversight and voice.

EXECUTIVE SUMMARY

Assessing the utilisation of large language models among academic and support staff at Otago Polytechnic

OVERVIEW

This research investigated the present state of AI usage by Otago Polytechnic (OP) staff, examining benefits, possible pitfalls, and future opportunities. One hundred and seventy-four respondents, out of 650 OP staff members, took part, representing a broad mix of academic and professional roles. The findings revealed that the majority had tried AI, often in lesson planning, research, or administrative support, while a smaller portion remained hesitant due to privacy and ethics questions. With staff expressing interest in upskilling, there is an opening to develop targeted learning support and a clear institutional policy on AI.

KEY FINDINGS AND FIGURES

High adoption in academic roles

- Lecturers and researchers reported the greatest use of AI, with around 80 percent citing use of ChatGPT or similar platforms.
- They typically turned to these tools for drafting teaching materials, summarising research articles, and generating ideas for assignments.

Diverse use cases for administration

- About 60 percent of professional and administrative staff indicated using AI for tasks such as email drafting and meeting notes.
- This group identified a particular need for straightforward training on privacy settings and data protection.

Māori knowledge integration

- Thirty-two percent of respondents expressed unease about how AI handles te reo Māori and cultural content.
- Nearly half were uncertain about best practices, underlining the importance of culturally aware AI guidelines.

COMMON CONCERNS

Privacy: Staff worry about sharing sensitive details with third-party AI tools.

Accuracy: Generative AI sometimes produces incorrect or biased results, requiring careful scrutiny.

Ethical use: Risks around plagiarism, referencing, and data handling were raised frequently.

STAFF DEVELOPMENT NEEDS

- Approximately 45 percent of participants mentioned limited time or a lack of technical support as barriers to deeper AI use.
- Many requested short courses focusing on prompt design, critical evaluation of AI outputs, and te reo Māori integration.

SURVEY CAVEATS AND LIMITATIONS

Sampling and self-selection bias: The voluntary nature of the survey may have overrepresented staff who were already interested in or familiar with AI.

Limited response rate: Not all departments had equal participation, so some findings may not fully represent the entire institution.

Personal versus professional usage distinctions: Some respondents may have based answers on personal experimentation rather than workplace use, potentially blurring the data on formal AI integration.

RECOMMENDATIONS

Structured AI training

- Offer practical sessions that teach prompt writing, validation of AI outputs, and data privacy essentials.
- Provide follow-up modules that build capability for more advanced tasks (for example, coding and analysis).

Data security and privacy measures

- Develop clear policy frameworks that spell out how and when staff should share data with external AI platforms.
- Explore secure institutional AI solutions for sensitive information.

Māori perspectives

- Create guidelines for handling te reo Māori through AI, with input from mana whenua and cultural advisors.
- Encourage staff to consult Māori colleagues early if course content involves Indigenous knowledge.

Ethical guidelines

- Publish concise advice on referencing AI-generated material and acceptable student use.
- Include examples of how to identify and correct potential bias in AI outputs.

Pilot projects and evaluation

- Identify willing departments for AI-based trials (for example, AI-assisted feedback in a specific course).
- Collect feedback from staff and learners to refine practices before scaling.

The final recommendations from the study included a tiered AI literacy programme, guidelines for culturally respectful AI use, and data privacy protocols. I also proposed pilot projects and an AI Steering Committee to oversee institutional development in this space. These recommendations have since informed policy conversations at Otago Polytechnic and sparked further interest in AI-supported professional learning.

This research has affirmed that staff are not resistant to AI, but they are cautious, curious, and in need of guidance that respects both academic integrity and cultural values. By understanding these nuanced positions, we can frame AI not simply as a technical solution, but as part of a broader pedagogical and organisational shift.

AI FOR STUDENT ENGAGEMENT AND MULTISENSORY LEARNING

While institutional policy development is essential, so too is exploring how AI can support inclusive and engaging teaching. I have brought my research findings directly into the classroom by integrating them into a pedagogical tool for my third-year Culinary Arts students. Many of these students, particularly those who are neurodiverse, struggle with the traditional demands of academic reading. Complex sentence structures, abstract language, and dense referencing can create barriers to comprehension and engagement.

To address this, I created a podcast episode based on my AI research: https://share.descript.com/view/KjrXGRApDyK

The format is a two-person, conversational analysis of the study, recorded and edited using Descript AI. The episode runs for approximately 14 minutes and covers all aspects of the research, from methodology and findings to ethical and cultural considerations. I structured the conversation to mirror how I might explain the research in class: clearly, in conversational language, and at a pace to allow students to reflect as they listen.

The initial audio was processed through NotebookLM, which helped outline the research, extract key ideas, and phrase complex material in more accessible terms. Descript added a visual soundbar, captions, and visual prompts to create a multisensory learning experience that combines audio, text, and minimal animation. For students with ADHD or dyslexia, this layered presentation reduces cognitive load, offering more points of entry into the material.

This approach has transformed how students interact with academic sources. They now approach research articles with greater confidence, often referring back to the podcast to scaffold their understanding. In assessments and reflective journals, students have shown increased ability to critique their own work and analyse research in more detail. Several students commented that this was the first time they "really understood what a journal article was saying," a shift not just in comprehension but in academic self-efficacy.

Importantly, I explicitly disclose to students that AI tools were used in producing the podcast. We discuss what this means in terms of authorship, ethics, and the role of technology in supporting learning. This models responsible AI use and invites students to think critically about how these tools might fit into their own professional futures, whether in hospitality management, food media, or culinary education.

This teaching practice does not just make research accessible, it repositions it as part of a living conversation, one in which students can participate actively. It also reflects a broader shift in my teaching: from content delivery to content co-creation, where students have the tools and the confidence to engage with complex material on their own terms.

CONCLUSION: REFRAMING AI AS INSTITUTIONAL PEDAGOGY

These two cases of an institutional research study and a teaching practice rooted in that research represent two ends of the same spectrum. In both, AI functions not as a disruptive force, but as a scaffold: one that supports deeper thinking, wider participation, and more meaningful engagement.

At the institutional level, we must continue to focus on ethical, cultural, and pedagogical considerations as we integrate AI into our practices. For teaching, we must keep adapting our methods to support the diverse needs of our learners. AI tools, used with care and reflection, can help us do both.

Ultimately, my goal is not to champion technology, but to humanise its application. If AI helps more people think more clearly, connect more deeply, and engage more equitably, then it has a place in our classrooms and our policies.

Tony Heptinstall is a senior lecturer in culinary arts at Otago Polytechnic, New Zealand. He teaches final-year undergraduate students, focusing on culinary business development, leadership, and reflective practice. His research interests include AI in education, professional practice, and culturally responsive pedagogy within the hospitality and tertiary education sectors.

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