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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Beyond platform replacement: Rebalancing digital learning through equity, partnership, and inclusive design

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Digital learning environment transformations are often framed as technical projects focused on platforms, scalability, and efficiency. However, they are also cultural and relational systems that shape learner and staff participation, belonging, and engagement. This paper examines the University of Otago's implementation of "Aoroa," New Zealand's first tertiary deployment of the Brightspace learning management system and explores how digital transformation can balance technical delivery with human-centred design. A central feature of the implementation was a relationship-based support model for academic staff. Instructional design and change teams partnered directly with teaching staff to rebuild courses within the new environment. In response to feedback, the project prioritised *kanohi ki te kanohi* (face-to-face) engagement, with staff visiting departments across multiple campuses to build trust, address concerns, and adapt implementation collaboratively. This paper argues that successful digital transformation requires intentional, learner-centred design grounded in ethics of care, meaningful Indigenous partnership, and equitable institutional participation. The Aoroa project team shares how strategic alignment, culturally informed inclusive governance, and relational implementation practices can support wellbeing, boost learner engagement, and hopefully student success.

Keywords: Digital learning environments, learning management systems, Indigenous knowledge, equity and inclusion, accessibility, digital transformation, Te Tiriti o Waitangi, ethics of care, student partnership, culturally responsive design, kanohi ki te kanohi (face-to-face)

Introduction

Across the tertiary education sector, digital transformation initiatives are frequently framed through the language of efficiency, interoperability, cybersecurity, and scalability. While these priorities matter, they often ignore the social and cultural realities of learning technology implementation. Learning management systems (LMSs) are not simply administrative infrastructure; they mediate relationships between institutions, staff, students, and knowledge itself (Wade et al, 2024). The ASCILITE 2026 conference sub theme, *Rebalancing the Algorithm*, invites us to reconsider how digital systems can include compassion, equity, Indigenous knowledges, and human agency within increasingly technologised educational environments. This paper explores these questions through a case study of the University of Otago's LMS project, *Aoroa*.

Aoroa is the University of Otago's new LMS and represents New Zealand's first tertiary implementation of D2L Brightspace. The project is consolidating multiple legacy learning platforms into a single cloud-hosted digital learning environment serving approximately 20,000 students and more than 2,000 teaching staff. Although the implementation involved substantial technical integration and infrastructure modernisation, the project's significance extends beyond technology adoption. Aoroa emerged at the intersection of six institutional strategic commitments, including the University's Strategic Plan (Pae Tata) (University of Otago, 2021), Digital Strategy 2025–2027 (University of Otago, 2025), Learner Success Plan (Te Ara Akitu) (University of Otago, 2024), Disability Action Plan (Te Kōkeka Whakamua) (University of Otago, 2023), and the Māori (University of Otago, 2022a) and Pacific (University of Otago, 2022b) strategic frameworks. This paper presents a reflective institutional case study drawing on implementation artefacts, accessibility reporting, institutional policy documents, and operational delivery reflections gathered during the first implementation phase. The authors write from operational leadership roles within the implementation programme.

Strategic alignment as institutional accountability

Project Aoroa was directly demanded by strategic institutional commitments. Under *Pae Tata*, the University of Otago committed to transforming its digital environment and delivering a contemporary digital student experience. Simultaneously, the University's *Whakamana i Te Tiriti* commitments emphasised the need to support engagement with te ao Māori and embed Te Tiriti principles across institutional practice. The University's Digital Strategy 2025–2027 (University of Otago, 2025) further operationalised these commitments through four pillars: Inclusive, Secure, Future-focused, and Transformational. Importantly, the strategy positioned digital systems not merely as technical assets but as mechanisms for equity, accessibility, and institutional cohesion. The Digital Strategy specifically committed to overcoming barriers to technology access, embedding Te Tiriti principles, and modernising core systems.

Similarly, the Learner Success Plan (Te Ara Akitu) (University of Otago, 2024) explicitly identified investment in the digital teaching and learning environment as a strategic action necessary to support student success. The Disability Action Plan (Te Kōkeka Whakamua) (University of Otago, 2023) further required improvement of LMS accessibility for all users. Taken together, these documents reframed the LMS implementation as more than a procurement exercise. The project team also drew on sector guidance including UCISA's VLE review toolkit (Universities and Colleges Information Systems Association, 2016) and contemporary literature on accessibility and learner-centred digital transformation to inform implementation decisions. Using Puentedura's (2006) SAMR model we aimed not to substitute or augment existing online systems and instead build a strong foundation layer for our new LMS and strive towards modification and redefinition; in particular how this relates to transformation for inclusion, learner success, accessibility, and Indigenous partnership. This strategic convergence was significant because it created organisational legitimacy for decisions that prioritised long-term student experience and equity outcomes over narrow short-term operational efficiency.

Rebalancing digital systems through accessibility and equity

Historically, accessibility support within higher education has often depended on disclosure-based accommodation models requiring students to identify themselves as disabled before receiving support. Such approaches can unintentionally reproduce stigma, exclusion, and unequal participation. Within Aoroa we have embedded accessibility tools directly into the core learning environment for all users. Through the Panorama accessibility platform, all students have gained agency to access alternative content formats which can support students with a range of disabilities. An example of one of the formats is the gradient reader which can reduce eye strain and improve focus for students with ADHD, dyslexia or low vision. These formats are available to all students without requiring disclosure to individual staff. This represented a shift from reactive accommodation toward proactive universal design (CAST, 2024). Early indicators are positive. Accessibility ratings increased from approximately 40–50% in the legacy Blackboard environment to approximately 72% in Aoroa during the first undergraduate semester of deployment. More than 13,000 alternative accessible format downloads were recorded during Semester 1, 2026. However, the significance of these changes extends beyond metrics. Embedding accessibility by default reframed digital participation as a collective entitlement rather than an exceptional accommodation. In doing so, the project aligned with ethics-of-care approaches (Persky, 2021; Tang et al, 2024) that recognise dignity, belonging, and participation as central educational concerns. The project also introduced institutionally enforced baseline course standards, aligned to the TELAS Framework (Technology Enhanced Learning Accreditation Standards, 2022), requiring all papers to provide consistent navigation, support information, assessment guidance, and links to Māori, Pacific, and disability support services. Students reported that this consistency created "muscle memory" across courses, reducing cognitive load and uncertainty. Such seemingly small design decisions demonstrate how digital environments can either reinforce institutional fragmentation or actively support student confidence and belonging.

Indigenous knowledge systems and cultural responsibility

A central bias in contemporary educational technology implementation concerns the extent to which digital systems reproduce dominant Western (colonial) assumptions about knowledge acquisition, online participation, and institutional authority to govern IT systems (Dreamson et al., 2017; Koole et al., 2024). The Aoroa project is attempting to challenge this bias by grounding elements of the project within Māori knowledge systems and governance relationships. The name *Aoroa* was gifted by the Office of the Deputy

Vice-Chancellor (Māori) and draws from the Kāi Tahu narrative of Tāwhaki's ascent to retrieve the baskets of knowledge (Tipa, 2026). This naming process positions the platform within a wider cultural narrative rather than treating it as culturally neutral infrastructure. Tāwhaki's pursuit to attain knowledge reflects *te ara ako a ā mātou tauira* – our students' learning journey. This symbolic naming alone is insufficient, and the project is embarking on a continuing programme of culturally responsive design work grounded in purposeful, relationship-based engagement with Indigenous designers around cultural narratives, intended to better align the platform experience with the obligations implied by its name and the *pūrākau* which it honours. Planned initiatives include deepening the initial bilingual navigation, culturally responsive course templates, and visual design informed by *mana whenua* consultation. The project recognises how Indigenous partnership (in the Aotearoa context) should function with inclusive governance over the ecosystem guiding the design principles, representing all students and staff and thus empowering student agency (Barbour & Wenmoth, 2025). In this first phase of our implementation, we focus on that *whakapapa* layer of our digital learning environment – the LMS. Focusing on the basics of the platform first and then through inclusive governance we can navigate future challenges and opportunities including AI and sustainability, working together to shape implementation priorities for today and the future that promote respect.

Human relationships in large-scale digital transformation

Large institutional technology projects can prioritise communication volume over relational engagement. Early in the Aoroa project, project leaders recognised that conventional approaches involving mass emails, newsletters, and SharePoint updates were failing to meaningfully engage academic departments. In response, project staff adopted a *kanohi ki te kanohi* (face-to-face) engagement strategy, travelling across multiple departments and campuses to meet directly with academic staff. Although resource-intensive, this approach became one of the project's most successful change management strategies. It reinforced trust, enabled contextual problem-solving, and positioned implementation as a collaborative institutional process rather than a centrally imposed technical rollout. Similarly, the project's instructional design work avoided a purely transactional migration model. Rather than simply transferring content between systems, instructional designers and the project trainer worked alongside academic staff to rebuild papers within the new environment and support adoption of digitally enabled pedagogies. This relationship-based approach recognised that digital capability development occurs socially rather than solely through documentation or compliance processes. The project also embeds substantial student participation within governance structures. Student representatives sat on both steering and control groups alongside senior institutional leaders. Large scale surveys in the United Kingdom and the United States shows that students can be highly engaged in voicing their opinions on the digital learning services their institution provides (Educause, 2022; Joint Information Systems Committee, 2025). For our context in a small sector, our additional student consultation activities included pilots, orientation week engagement, paid reference groups, and co-designed student-facing media. This emphasis on co-creation reflected both the University Digital Strategy's commitment to user-centred design and sector research that shows the benefit of end-user co-creation.

Discussion

The Aoroa project illustrates several broader implications for higher education digital transformation. First, digital systems should be understood as socio-cultural environments rather than purely technical infrastructure. Decisions regarding accessibility, Indigenous governance and representation, standardisation, and communication directly shape educational participation and belonging. Second, strategic alignment matters most when it functions as institutional accountability rather than branding language. In this case, existing strategic commitments relating to equity, accessibility, and Indigenous engagement created organisational conditions that enabled more human-centred implementation choices. Third, projects seeking to "rebalance the algorithm" must resist technological determinism. While automation, interoperability, and cloud-hosted platforms provide important operational benefits, these alone do not produce equitable educational environments. Equity emerges through governance structures, cultural partnership, relationship-based implementation, and intentional design However, the project also highlights a bias that remains somewhat unresolved within Aoroa and certainly unresolved beyond it. The demands of large-scale enterprise delivery routinely override culturally responsive processes that deserve time, consultation, and Indigenous seats at the governance table. Similarly, accessibility tools alone cannot address the structural inequities that

continue to affect student participation. Nevertheless, the Aoroa project demonstrates that when these biases are recognised and actively contested, digital transformation projects can move beyond narrow technical modernisation and contribute to more inclusive and culturally responsive institutional futures.

Conclusion

The implementation of Aoroa represented more than the replacement of legacy learning systems. It became a mechanism through which the University of Otago operationalised commitments relating to learner success, accessibility, Te Tiriti partnership, and equitable digital participation. In the context of ASCILITE 2026's sub theme, *Rebalancing the Algorithm*, the project offers an example of how higher education institutions can re-centre human relationships, Indigenous knowledge, and ethics of care within digital transformation initiatives. The project's significance lies not only in its technological outcomes but in the institutional choices underpinning its implementation: universal accessibility support without disclosure barriers, culturally grounded governance, student co-design, relationship-based engagement, and strategic commitments treated as obligations rather than aspirations. As universities continue to adopt increasingly complex digital ecosystems, the challenge is not simply to build more advanced platforms. It is to ensure that digital environments reflect the values of the institution. In this sense, rebalancing the algorithm is less about resisting technology itself and more about reshaping implementation practices around equity, care, participation, and cultural responsibility.

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