ASCILITE 2026

The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Pizza and personas: Student-focused design within LMS implementation

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Universities typically select and implement learning management systems through institutionally driven processes that prioritise technical requirements over the student experience. This concise paper presents a case study of a different approach: the development of Aoroa, a new digital learning environment at the University of Otago, a large research-intensive university in Aotearoa New Zealand. Understanding and centring the student experience was embedded from the outset of the project. When the team, the core of which comprised four instructional design leads, commenced work, they began by immersing themselves in student life: spending time in the spaces students live and study, and building student personas to guide design decisions. This empathy-led foundation informed three interconnected workstreams:

(a) an accessibility-by-design approach that helps to "whakamana" (to uplift and reinforce the "mana," or standing, of) disabled students through baseline standards that are written in to institutional policy;
(b) a rapid pilot in Semester 2, 2025 that prioritised direct student engagement including "kanohi-ki-te-kanohi" (face-to-face) feedback sessions; and,
(c) iterative design decisions driven by what students actually said they needed.

The paper discusses the benefits and challenges of this human-centred approach and its implications for learning ecosystem development.

Keywords: human-centred design, students as partners, accessibility by design, digital learning environment, learning management system, student voice, case study

Introduction

The selection and implementation of a learning management system (LMS) represents one of the most consequential decisions a university can make for its learning and teaching ecosystem. Yet such decisions are frequently driven by procurement processes that put technical specifications, vendor capabilities, and administrative requirements at the foreground, with student perspectives moved to a more peripheral role (Godsk & Møller, 2025). This approach risks producing digital environments that meet institutional needs but fail to support the learning experiences students require.

This paper presents a case study of the development of Aoroa, a new digital learning environment at the University of Otago, a large research-intensive university in Aotearoa New Zealand, powered by D2L Brightspace. Aoroa replaced legacy systems (Blackboard and Moodle) that had been in use across the institution for over a decade. The project adopted a phased migration strategy, beginning with a focused pilot in Semester 2, 2025, followed by undergraduate transition in 2026 and full institutional adoption in 2027.

A companion paper (La Rooy & Gadsby, 2026) examines the same implementation at broader level, addressing strategic alignment, Indigenous partnership and staff engagement. This paper is deliberately narrower, concerning the instructional design team's approach to student experience during the pilot phase.

Distinguishing between the three literatures that helped inform this approach is important. *Human-centred design* treats empathy, prototyping and iteration as methods for understanding use in context (Norman, 2013). *Student voice* describes the mechanisms – surveys, representation, feedback cycles – through which students give feedback on their experience. *Students as partners* describes a relationship in which students share responsibility for decisions about learning and teaching (Healey et al., 2014). These are frequently mixed together, yet they differ in an important respect: who holds decision-making authority (Matthews & Dollinger, 2023).

The Aoroa project established partnership at the governance layer from the outset. Student representatives held seats on the project's steering and control groups, supported by paid student reference groups (La Rooy & Gadsby, 2026). This approach includes partnership at the design layer, where day-to-day decisions about structure, layout and presentation were staged, developing across the pilot rather than preceding it. This paper concerns the second layer, and what we learned as a project when the two were out of step. Phased LMS transition is well established in the literature. Pechenkina and Branigan (2018) evaluate the first phase of an iterative university-wide migration before scaling up into transformation, and Westberry et al. (2014) argue that technological change is successful when participants are scaffolded through transitional stages rather than moved in a single step. Both accounts concern staff rather than students. We tried to push the principle: if capability and trust must be built in stages for academics, the same should hold for partnership with students, and a pilot is the stage at which design-layer partnership can be established at a scale while still remaining relational.

While substantial student consultation occurred during the procurement phase, before the current project team's involvement, this paper focuses on the deliberate, student-centred design approach adopted once the project team was established. Despite significant time pressure caused by procurement delays, the team made a conscious decision to begin not with the technology, but with the students. This paper addresses the ASCILITE 2026 sub-theme of Human-Centred Learning Design by demonstrating how centring students in the design and development of digital learning infrastructure can foster meaningful connection, belonging, and improved learning experiences.

Starting with empathy: Understanding student lives

When the project team commenced, consisting of a project manager and four instructional design leads (IDLs), the four IDLs were entirely new to the university. Rather than diving straight into platform configuration, the team carved out time to build a grounded understanding of who their students are and what their daily experience looks like. This was a deliberate choice, made despite the pressure of a delayed project timeline. The team spent time in the spaces students inhabit every day. They ate lunches in student Halls of Residence. They walked through libraries, study spaces, and social areas. These were not formal research exercises but intentional acts of immersion designed to build genuine empathy for the student experience. As Bovill et al. (2016) argued, meaningful partnership requires moving beyond satisfaction surveys toward sustained engagement with student realities.

From these experiences, the team ran workshops to develop student personas, which were composite profiles representing the diversity of the student population. These personas became reference points throughout the design and migration process, ensuring that instructional design decisions in Brightspace were grounded in an understanding of real student lives rather than institutional assumptions. When questions arose about navigation structures, content presentation, or communication preferences, the team could return to these personas and ask: what would this experience be like for this student?

This empathy-led foundation proved critical. It shifted the team's orientation from building a system that met institutional specifications to designing an environment that worked for the people who would use it every day.

Accessibility by design and baseline standards

We can frame accessibility-related work within higher education in three ways:

1. *Compliance*, a conformance to a technical standard.
2. *Accommodation*, an individual adjustment negotiated after the fact; a deficit model of thinking that locates the problem within the student.
3. *Design*, which follows the social model of disability (Oliver, 2013) and Universal Design for Learning (CAST, 2024). It begins to address inaccessibility at the point of design rather than at the point of request.

A defining commitment of the project was to "whakamana" accessibility for all students, to uplift and honour them, by leading with an accessibility-by-design approach rather than treating accessibility as a compliance afterthought. This commitment was operationalised through the development of baseline standards: a set of minimum requirements specifying the information, structure, and design elements that every course within Aoroa must include.

Critically, these baseline standards were enshrined in institutional policy, giving them teeth. This policy-level commitment aligned the learning environment with the university's obligations under its Disability Action Plan (Te Kōkeka Whakamua; University of Otago, 2023) and Pae Tata, the University's Strategic Plan to 2030 (University of Otago, 2021), moving accessibility from aspiration to enforceable expectation. The baseline standards addressed elements such as consistent navigation structures, predictable content locations, accessible document formatting, and clear communication of key information including assessment details, contact information, and important dates.

This approach reflects what Seale (2014) described as a shift from retrofitting accessibility onto existing systems toward embedding it as a foundational design principle. By establishing these standards before migrating content, the team ensured that accessibility was not negotiated away paper by paper but was instead a non-negotiable feature of every learning space in Aoroa. The standards also addressed ongoing student concern – the inconsistency of online learning spaces across different papers and departments – by creating a predictable, navigable baseline experience regardless of discipline.

The pilot: Learning with students in real time

The pilot in Semester 2, 2025 represented a deliberate choice to test the new environment with real students under real teaching conditions before broader rollout. The timeline was demanding: the team took delivery of the Brightspace platform only five weeks before teaching commenced in the pilot papers. This compressed timeframe required intense focus but also created an urgency that concentrated decision-making and kept the team closely attuned to what was and was not working.

Throughout the pilot, the team invested significant time in direct engagement with pilot students. This included hosting pizza dinners, which were informal face-to-face sessions designed to lower barriers to honest feedback and create space for students to share their genuine experiences with the new platform. These were not tick-box consultation exercises but genuine conversations where design decisions were interrogated and, where necessary, reversed.

One illustrative example involved email notifications for LMS-based announcements. Prior to the pilot, the team had made a deliberate decision to disable email notifications for announcements, based on extensive earlier feedback from students that they received too many emails. When pilot students were asked about their experience, they laughed and responded that they care about those emails from the LMS, what they did not like was that they were often mixed in with other University emails. The team immediately turned email notifications back on.

This example captures something important about human-centred design in practice. Student feedback is not a monolithic data source; preferences are contextual and sometimes contradictory. The generalised complaint about email volume obscured a more nuanced reality: students differentiate between emails they value and those they do not. Only through direct, relational engagement – by sitting with students, sharing a meal, and listening – did this distinction emerge. As per Cook-Sather et al. (2014), genuine partnership requires "a willingness to be open to, affirm, and act on what emerges from dialogue" (p. 6), including outcomes that challenge prior assumptions.

We must highlight two limits that qualify this. Students who attend a pizza dinner are self-selected and likely already engaged; those whose access needs are least well met may be least able or least willing to attend. And responsiveness to a small group who are present is not the same as representativeness. Informal engagement complements structured mechanisms rather than replacing them.

Naming that representation gap does not need to be a criticism of representation at the governance level, but it is an argument that the two layers must be planned and resourced separately (Matthews & Dollinger, 2023).

Discussion and implications

The development of Aoroa demonstrates that centring students in the creation of a digital learning environment is both practically achievable and pedagogically valuable, even under significant time constraints. Several key lessons emerge from this experience.

First, empathy is a design tool and student partnership can come in layers. The decision to begin by immersing the team in student life, rather than starting with platform configuration, shaped every subsequent decision with student representation added to project governance at the beginning. Building student personas from lived observation rather than demographic data created reference points that kept design work grounded in human experience and allowed the project team to continue with design decisions with the students in mind. Research on students as partners consistently emphasises the importance of moving beyond tokenistic consultation toward genuine engagement with the complexity of student lives (Mercer-Mapstone et al., 2017).

Several limitations must underpin these claims. A single institution, a single pilot semester, and an account authored by the project team themselves. The 2026 undergraduate transition will provide the first real test of whether an approach developed across five weeks and a handful of papers holds at institutional scale.

Another piece to highlight is that informal engagement yields insights that formal processes miss. The pizza dinners and face-to-face sessions with pilot students generated the kind of nuanced, contextual feedback that surveys and focus groups often fail to capture. The email notification example illustrates how relational engagement surfaces contradictions in aggregated feedback, enabling more responsive design decisions.

Finally, this work is ongoing. The transition to Aoroa is not a technology implementation project with a defined endpoint but a continuous process of learning, adaptation, and partnership with students. As Matthews (2017) argued, student partnership is impactful as long as it is sustained and embedded within institutional structures, rather than confined to discrete projects.

These findings have implications for other institutions undertaking LMS transitions or digital learning environment development. Centring students requires more than consultation; it requires structural commitment, relational engagement, and a willingness to change course when students articulate needs that challenge prior assumptions.

Acknowledgement

The baseline standards described within this paper were developed by Marj Wright, whose work established the accessibility foundation on which the design approach described here is built upon.

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