Case Study: Wānanga

E-learning and higher education: understanding and supporting organisational change

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Summary of Case Findings

This case illustrates the significant risks all institutions face when they depend on a single person to lead and enable the use of technology. It provides an example relevant to the situation of many small institutions, which depend on a single innovative leader during the early phases of a shift to e-learning and are consequently unaware of the range of roles that person undertakes and the organisational activities they perform invisibly. The key lesson of this case is the need to plan early for the implications of success and ensure that resilience, robustness and redundancy apply equally to staff and technology infrastructures.

Organisational Context

Wānanga A, established for approximately 30 years, is an education institution of a type unique to New Zealand. Wānanga undertake teaching and research based on āhuatanga Māori in accordance with tikanga Māori that is informed and embodied by mātauranga Māori. Consequently, education happens in a manner consistent with and enabled by Māori culture, language and protocols. Wānanga A offers qualifications at a range of levels throughout New Zealand, primarily by face-to-face instruction. Over the last four years the Wānanga has made a significant investment in information and communication technologies, including the creation of an online learning environment to support student learning. This investment is seen as necessary for the development of staff and student skills and capability as well as supporting teaching and learning throughout New Zealand, while still respecting the wānanga philosophy.

eMM Assessments and Change Projects

Methodology

The e-learning Maturity Model (eMM) assessments were conducted as described in Marshall (2006; 2010). The figure displays a summary of the eMM assessment with dark squares indicating a stronger capability than light as described in the legend. Each of the 35 key processes is described on five dimensions: *Delivery*; *Planning*; *Definition*; *Management*; and *Optimisation*. An eMM assessment conducted in 2010/2011 generated a report for the institution that was used to inform a change workshop and identify change projects for implementation in 2011/2012. This represented a substantial but unavoidable delay in the initial plan, for the reasons discussed below in the case.

Capability Assessment

The capability assessment for Wānanga A is shown in the figure with assessments of other New Zealand providers of comparable size shown for context. Wānanga A's relatively weak assessment reflects the reality that they have only relatively recently committed to the use of technology through the establishment of their Learning Management System (LMS) and associated support unit.

Figure: Wānanga A eMM Assessment shown compared to similar-sized institutions

Looking at the assessment of Wānanga A in the figure, clear strengths are apparent in the *Delivery* dimension of the *Learning* processes, as well as in the student support processes, reflecting the wānanga philosophy's strong focus on the student and the direct experience of learning. The institution provides excellent support services for students built around a model of strong pastoral care integral to the wānanga philosophy. Support for e-learning is provided face to face by tutors and [e-learning support unit] staff during sessions at the start of courses and as required by students. Clearly, however, the teaching emphasis remains on the face-to-face activities. Consequently, the capability seen is predominantly a consequence of overlap between traditional modes of delivery and e-learning, rather than a clearly changed pedagogy taking advantage of the [e-learning support unit] facilities and support.

Wānanga A courses are currently dominated by face-to-face interaction and designed with the expectation that this remains the preferred form of contact and interaction. Such a focus on people and community is something that pervades the way staff describe themselves and their roles in the organisation.

One thing that's close to home is that when I came to [Wānanga A], within 3 years my mother was here, my sister, 2 aunties, 3 cousins, 2 nieces and now I've got a nephew and a daughter. The fact is that if I hadn't of come here, they wouldn't have come. And that's just one family. And I know that the roll-on effect on the community and on the marae about the wānanga is a positive one. We haven't done research, it's just based on the fact that I've observed this. I know it happens in every family. Every family that comes to the wānanga impacts the community in some way. [Academic]

The wānanga staff recognise the need to be flexible in the provision of courses throughout the country to different groups of students.

So I guess that was the key thing but the potential for flexibility of the course for delivery over a broad range of areas. You'd call it the McDonald's principle really, where it's pretty generic, say 25 percent, but when you go through an exercise, that's when you put the local flavour. So you're looking at ecology, for argument's sake, but, say if you're up North, you bring in the ecology of what's up there. So the ability for it to be transportable and also flexible. I mean flexibility in the delivery mode as well − you can do it at night school, you can do it normally or in a block course, or you can do it traditionally. [Academic]

Technology is recognised as potentially supporting this flexibility. A particular challenge facing the institution is ensuring that the use of technology strengthens these cultural and educational strengths of the wānanga by identifying new forms of e-learning pedagogy that extend and enhance existing approaches. Wānanga A has stated a clear strategic direction for e-learning apparent in the institutional strategic and business plans. These are reflected in the assessments for the strategy processes (processes O2 "Institutional learning and teaching policy and strategy explicitly address e-learning" and O9 "E-learning initiatives are guided by institutional strategies and operational plans"). Wānanga A recognises the strategic value of technology in supporting the growth and development of its programmes and qualifications, particularly when delivered to students nationally.

These strategies are owned and actively supported by the senior leadership of the wānanga. This strategic vision is not cast in terms of existing activities, but also with a view to opening up future opportunities.

[The CEO] puts out the right message around telling people that the wānanga's changing, that it has a strong technology factor attached to it but there is opportunity for face-to-face. Obviously it's that he considers that it's our international presence that's going to require the technology. So we can do the [videoconferencing] face to face with our other international indigenous partners. So he pushes that pursuit. It's about him thinking global and acting local. So he's leading that process. He's asking all of us to ensure that we're in that same space. That we're getting to that position. [Manager]

There was also evidence that the senior leadership recognise the need for their own skills and knowledge to develop as part of the changing infrastructure used for teaching.

Our focus is really we actually want the staff to do the resource development. We do the training, provide them the tools and then it's up to them. We had some staff come and say 'Can you put this online?' and even our CEO gave us stuff and asked if we could do this and we said 'No, we'll show you how to do it and you do it yourself'. [Manager]

An issue identified early in the assessment process was that, despite this intention for all staff to be enabled and able to drive the use of technology, there was still a heavy dependence on a single middle manager's leadership. The E-Learning Director was responsible for developing the substance of the e-learning strategies and vision, and was clearly trusted by the senior managers to lead the wānanga's thinking and planning in the e-learning space.

[The E-Learning Director] does lead that, but there is a difference between leadership versus accountability. He can lead it, but how many of these guys are going to take ownership and can be accountable for delivering or pursuing their roles that they own? It's that ownership component. [Manager]

The wisdom of this statement was rather harshly illustrated by the death of the E-Learning Director in the middle of this project. It became rapidly apparent that he drove much of the activity in the e-learning space at the wānanga and performed a number of roles that were not widely or explicitly recognised. He provided both a strategic and an operational vision for the technology to both the wānanga leadership and also the teaching and support staff. He modelled the ways in which the technology could be used through his own teaching and support activities, and he performed a number of key operational tasks (such as making backups). Responding to this tragic loss has taken the wānanga most of the last year and has seen his single role being undertaken by a number of different people, who now recognise that more structured mechanisms are necessary. An unanswered question is how the wānanga will sustain the strategic vision for its use of technology for learning above and beyond the development of the infrastructure.

The wānanga is at a key stage in its engagement with technology, as it moves from being a niche activity to a core component of the teaching and learning model supporting the stated strategic goals. The weakness of the *Planning*, *Definition*, *Management* and *Optimisation* dimensions shown in the capability assessment is a consequence of the informal approach used to take advantage of the [e-learning support unit] and ensure that the technology and associated pedagogical changes are used effectively and consistently across all Wānanga A courses. There is no evidence of formal resources such as standards, example course designs, project templates, quality assurance guidelines or materials illustrating how the [e-learning support unit] facilities could assist in the achievement of particular pedagogical objectives. The weak capability in the *Definition* dimension in particular reflects the need for the

educational use of technology to be integrated into the policies and processes of the institution as a mainstream activity.

The very weak *Management* capability highlights the need for the wānanga to have better information on the impact technology is having on students and staff, as well as the extent to which current systems, processes and procedures are meeting the needs of the institution. A significant weakness is the lack of active review and monitoring of e-learning activities to ensure they are having the expected organisational benefits and positive impact on staff and students.

Despite the strong central control of budgets for course design and materials' development, Wānanga A does not have a formal process for managing access to e-learning resources that are allocated on an 'as available' basis in response to individual staff requests. There do not appear to be any formally stated or explicitly followed criteria for determining priorities for the use of these resources. Decisions about investment in technologies and support seem to be subject to a mix of budget controls, management decisions and individual tutor or support staff interest and availability, rather than a systematic targeting of available resources linked clearly to the strategic and operational objectives of the institution as a whole.

As well as being informally accessed, support is provided by [e-learning support unit] staff on an *ad hoc* basis, which has yet to be developed into a defined set of procedures supported by tools, examples and documentation (process D2 "Course development, design and delivery are guided by e-learning procedures and standards"; process D3 "An explicit plan links e-learning technology, pedagogy and content used in courses"). This support currently has a technological, rather than pedagogical, emphasis (process S5 "Teaching staff are provided with e-learning pedagogical support and professional development").

The wānanga has clearly recognised the value of technology, but has not yet moved beyond seeing it purely in technical terms. In part this represents the state of the infrastructure that has developed rapidly since the appointment of a new IT Director somewhat before the assessment process began. The approach of the new Director has seen a change in the expectations for the pace of technology growth in the wānanga.

The [wānanga] has an Information Services Strategy Plan (ISSP) […] Most ISSPs I've worked with [have] been fairly detailed and granular. This one was light and I can understand why now. Given the nature of the organisation and how it had evolved over time, it had fragmentation of systems for so many places but it hadn't quite unified the conversation in terms of how things, like people talking at the right levels to ensure that everything else done in the systems, is working. So there was a disparate nature of how all that was working. When you look at the ISSP, you'll see there were 14 projects and we thought the intention was that those projects were meant to last five years but now there's only one project left out of all 14 to do. [Manager]

One significant and outstanding weakness identified in the assessment illustrated that, despite this progress, more needed doing. The assessment of process O4 ("Digital information use is guided by an institutional integrity plan") and of the *Development* processes was weakened by the absence of formal verification of the backups of the key systems comprising the LMS, the lack of a formalised risk management strategy and the absence of systems such as service level agreements. This situation arose as a result of the informal way in which the [e-learning support unit] developed and through the ongoing use

of procedures that were adequate for a development pilot, but no longer reflected the operational dependence of the wānanga on these systems.

Change Projects Undertaken Following the eMM Assessment

The most significant change project was undertaken by the wānanga during the period of the eMM assessment in response to the death of the E-Learning Director. Staff in the [e-learning support unit] and in the IT group rapidly took responsibility for a range of operational tasks to ensure the continuity of the learning and teaching done by the wānanga using technology. Meetings and a workshop were held with these staff to review the eMM assessment and to identify priorities for the next one to two years. Four projects were identified and assigned to particular staff to own and facilitate:

- The adoption of a more formal approach to the management of the [e-learning support unit] infrastructure owned by the IT group and administered according to their standard procedures
- The updating of teaching and learning policies, processes and support resources to acknowledge and address systematically the way that technology changes the nature of learning and teaching within the wānanga philosophy
- The communication to students of information on the key technologies they need to be able to use when studying at the wānanga, how the technologies enhance their learning, and where they can get support to maximise the benefits
- A re-engagement with the strategies and plans the wānanga has for technology to ensure that leadership engagement is sustained and clear organisational objectives aligned with the technology plans.

These projects represent a significant refocusing of the wānanga and a change in the organisational structures that will see a more robust and resilient engagement with e-learning in the future.

Lessons for Other Institutions and for the Sector

The early-adopter model of innovation described by Rogers (2003) is widely recognised as guiding higher education's engagement with e-learning, nationally and internationally. Many institutions exploring the use of technology for learning and teaching depend on small pilot initiatives that can, if successful, grow very rapidly into useful and substantial services. Maturity models explicitly recognise the value in this experimentation and innovation, while also identifying the need for organisations to have mechanisms to move from the *ad hoc* to the operational. Organisations with high levels of capability in the eMM have systems in place to recognise growth and change, and to ensure that these are managed in order to generate a sustainable change.

The death of a key leader and early adopter at the wānanga has seen the organisation's plans for e-learning delayed by at least a year, and has forced an awareness of the need to develop explicit systems and assign responsibility for new activities. Many other institutions are similarly at risk of losing key staff, more usually as a result of normal turnover as employees leave. Particularly in smaller institutions, it can be difficult to afford the salaries

of multiple staff. In these cases, existing staff need to be encouraged and empowered to take on additional responsibility and leadership, supporting staff above and below them in the management hierarchy.

The risk of overdependence on a single highly capable person is that an organisation loses not only the known activities undertaken by that staff member when they leave, but also the unrecognised. Rapid change undertaken in an *ad hoc* manner often leads to key staff taking on combinations of responsibilities. This can see staff with multiple roles undertaking key organisational activities 'invisibly'. They can make connections between decisions and outcomes that they are responsible for without even themselves recognising the linkage. These invisible processes are not able to be monitored, measured, improved or changed independently of these key staff and can fail, often in ways that are very visible, when staff are no longer available. An important step in developing capability in e-learning is recognising that it must be treated as a complete system and serviced and resourced accordingly.

The second key lesson is the need for organisations to engage early and in-depth with the implications of success. Establishing a technological infrastructure is no longer a significant problem (Carr, 2003). Being aware of how that infrastructure enables an organisation to become more successful – for students to learn more effectively and efficiently – is much more challenging. The issue is how to recognise when to stop supporting existing mechanisms for learning and teaching once technology provides a more effective alternative, in order to avoid merely adding technology costs to those existing models. The wānanga is at a key stage in its engagement with e-learning, a stage at which many institutions stall and fail to take the next step needed for a greater success.

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