

The VLE as a Trojan Mouse: Policy, Politics and Pragmatism

Mark Brown, Shelley Paewai and Gordon Suddaby
Massey University, Palmerston North, New Zealand

m.e.brown@massey.ac.nz

s.r.paewai@massey.ac.nz

g.t.sudaby@massey.ac.nz

Abstract: This paper argues that selecting a new Learning Management System (LMS) is a strategic decision about the future direction of your institution. However, the development of a robust methodology for the selection of a new LMS is particularly challenging given the fluidity of the elearning environment. This is especially so when both quantitative and qualitative factors are overlaid by institutional requirements involving political considerations. Selecting the technology is only part of the process and the least problematic aspect. The real challenges are embedded in institutional culture. The paper reflects on the tactics, strategies and approval process involved in the decision to adopt Moodle to replace a proprietary system for the delivery of learning in New Zealand's largest university-level distance education provider. Critical to the process was the explication of guiding principles, pedagogical criteria and identification of institutional requirements, along with politically astute alliances and allegiances to inform and endorse the selection process. Those centrally involved in the decision process draw on their experiences and reflect on the type of questions that senior managers need to ask when considering new strategic initiatives in open and distance learning.

Keywords: Moodle, learning management system, policy, leadership, institutional culture

1. Introduction

The choice of a 'next generation' Learning Management System (LMS) or Virtual Learning Environment (VLE) is a critical decision for any university and one which may have a major impact over many years. However, developing a robust methodology for the selection of a new LMS is particularly challenging and both quantitative and qualitative factors need to inform such decisions. This is especially the case when specific organisational requirements are deeply rooted in institutional politics.

In this paper, we reflect on the political tactics, pedagogical strategies and approval processes involved in the decision to select Moodle to replace a proprietary system in New Zealand's largest university-level distance education provider. Critical to the process was the explication of guiding principles, pedagogical criteria and identification of university requirements, along with politically astute alliances and consultations to endorse the selection process.

Selecting the technology was only part of the process; indeed, it was the least problematic aspect of the challenge. The real challenges lay embedded in institutional culture. The need to shift institutional thinking in the absence of formal policies and strategies related to elearning, and the lack of a governance structure and policy framework to mandate the replacement LMS complicated, and at times convoluted, the review process.

This paper draws on the experiences from those centrally involved in the process and discusses the lessons learned and types of strategic questions that senior executives need to ask about the deployment of e-learning. In reflecting on the 'Massey experience', we identify the importance of perseverance, delegated authority and strong leadership and conclude with a number of additional questions that build on a recent framework to help scaffold strategic decisions about open, flexible and distance learning.

2. Institutional context

Massey University is New Zealand's largest university-level distance education provider. Currently the University has over 18,000 distance learners in addition to an equal number of campus-based students. In 2010, Massey University will celebrate 50 years of delivering courses by distance. Distance education and blended learning are defining features of Massey University. In 1998, for example, Massey piloted and later adopted WebCT as one of the first commercially produced LMS. Massey was the first New Zealand university to do so.

A decade or so later the LMS has become a mission critical application that supports a high proportion of the course offerings at the University. In 2008, an online environment supported or was used to enhance over 2200 courses. The LMS has become a key front-of-house point of engagement with many distance students and consequently has a major impact on student retention, achievement and satisfaction. For example, student retention was significantly higher in courses across all disciplines with a strong online presence. However, due to budget constraints and the lack of an academic owner the University's current LMS (WebCT CE4) was nearing obsolescence; and the adoption of a replacement system was essential. Despite the number of course offerings, the selection and implementation of a replacement LMS was also seen as key opportunity to address the patchy and uncoordinated uptake of online learning throughout the University.

3. Strategic drivers

Although the need to invest in new infrastructure and better support staff in the use of new learning technology was widely acknowledged, there was no strong sponsor for change. For historical reasons the LMS was the domain of the central Information Technology Services (ITS) and was largely just another technical service. The first challenge was to wrestle the 'ownership' of the LMS from ITS to the Academic portfolio. Essentially the argument was that pedagogy rather than technology should be the central business driver. In this sense, the selection and implementation of the LMS was not simply about procuring a new platform. It was a strategic opportunity for the University to redefine its delivery modes to support a more engaging and flexible learning environment. Thus, the key strategic drivers were:

- To respond to the challenge of the so-called Google Generation;
- To enhance the quality of teaching and thereby maintain Massey's University pre-eminent status as a flexible learning and distance education provider;
- To introduce a new blended model of teaching that increases the level of student engagement and provides a learning experience relevant to the requirements of today's Knowledge Society.

4. Growing the vision

From an academic perspective, the selection of the LMS was a foundation upon which Massey could define itself as New Zealand's most accessible, engaging and flexible university. It provided the chance to align and operationalise our aspirations with a platform for the University to be a future-maker through new flexible, technology-enabled, learning-centred education delivery. The overall vision was to build a new blended learning environment providing a more flexible, collaborative, interactive and personalised student learning experience. This vision was cultivated in the backdrop of a major new government funding model, which required universities to identify their priority investments for the future (i.e., our Investment Plan). Importantly, as part of this process the University had already identified the following two strategic priorities:

- Improved educational outcomes for learners from strengthening Massey University's elearning capability
- Improved educational success for learners from the continuous improvement of Massey's university-level distance education provision

5. Navigating the political minefield

In many respects, setting these high level priorities with related key performance indicators (KPIs) was relatively easy. There was little or no disagreement over the priorities. The first lesson to take from this aspect of the initiative is that because university funding was tied to achieving the KPIs for elearning and distance education, the money provided a crucial lever for change. Without this type of policy alignment, it would have been much harder to redefine the political landscape. In essence, the LMS was now for the first time part of a much bigger picture aligned with strategic priorities and there was an institutional mandate for the academic portfolio to take a stronger leadership role. Arguably, without the strategic drivers it would have been extremely difficult to remove many of the pre-existing roadblocks.

Having said that, the process that followed was fraught at almost every step of the way. Considerable work and political cunning was required to navigate the political minefield of generating a strong support base from key stakeholders, including the major academic colleges, the Library, the Student Learning Centre and ITS. For this reason, the selection process for a replacement LMS required a

multi-pronged approach. We recognized from the outset the danger of the perception of a centrally driven process and the limitations of applying an overly rigid set of quantitative criteria for the selection of a new system (Uys, 2007). As Weller (2007) points out:

'The important thing to recognize about choosing a VLE is that it is the making of the decision that is the most significant part of the process, not the actual decision itself' (p.43).

To address this point, and to ensure strategic drivers rather than technical considerations drove the process, the selection criteria for the new LMS were based upon clear principles, pedagogical considerations and university-specific requirements. Criteria were made available to all staff and the selection process involved extensive consultation through a variety of mechanisms. Although the process did not strictly follow the six stages proposed by Weller, as there was no authority or mandate to initiate the first stage of the selection process, stakeholder consultation occurred over almost 18 months and involved:

- Working parties, staff surveys, and in-house evaluations
- Meetings with representatives from the Students' Federation
- National and international benchmarking with other institutions and organisations
- Meetings with senior staff from different LMS suppliers

In early 2008, a formal pilot was conducted with two of the preferred options (Moodle and WebCT CE6). A set of guiding principles was developed to firmly anchor and align the evaluation and selection process within strategic priorities. The value of a principled approach is consistent with the advice given by Weller. The principles provided a framework that played a key role in shaping and determining the decisions that would follow. For example, the principle of supporting indigenous Māori and Pasifika students eliminated a number of potential LMS solutions, as they did not contain the relevant language packs.

6. Guiding principles

The full set of principles is listed below:

- New initiatives must align and be consistent with the key priorities of Massey University's Investment Plan.
- The selection of a new electronic toolset is a critical strategic decision about the future direction of Massey University.
- A new core electronic toolset is required to support Massey University's aspirations to become a leader in Australasia in the design of elearning, flexible delivery and leading-edge distance education.
- New initiatives in elearning and distance education must support and be consistent with the concept of a one-university identity. There is no benefit in a fragmented approach.
- A new electronic toolset must enhance the 'Massey experience' and more specifically student retention and learning outcomes.
- A blended and more flexible elearning environment is essential to meet the unique needs of all Massey students with a particular emphasis on the needs of distance learners.
- The new core electronic toolset must work and there must be adequate technical support and infrastructure to ensure that the toolset is stable for widespread implementation.
- The success of new initiatives will rely heavily on appropriate training and professional development to ensure a high level of pedagogical uptake by academic staff and students.
- New initiatives must support Massey University in building a stronger network of provision with other education providers and key stakeholders, including Māori and Pasifika students.
- The selection of any new electronic toolset must be driven by contemporary theory and research and related pedagogical criteria aimed at enhancing the quality of teaching and learning at Massey University.

7. Pedagogical criteria

The next step was to establish a Pedagogical Reference Group. The Group served a dual purpose. Firstly, it provided a means to ensure staff with contemporary pedagogical knowledge was centrally involved in the process. Importantly, group members were selected carefully to ensure university-wide representation. The second purpose of the Pedagogical Reference Group was to mitigate and weaken the historical influence of ITS in making decisions about technology provision. Those on the group had a high level of academic credibility, which helped to ensure the trust and support of senior management.

A set of pedagogical criteria was developed to scaffold the selection process and legitimatise the importance of pedagogy driving the outcome. In this regard, the language of pedagogy was a solid defence against those who ‘pushed’ a technical orientation to the selection process, as they were ill equipped to argue on this front. After a brief synthesis of the literature (e.g., Garrison & Vaughan, 2008; McCombs & Vakili, 2005; Milne & Suddaby, 2006) the following ten pedagogical criteria were adopted:

- *Communities of Inquiry* - Learning is a social experience where generative knowledge is embedded within and distributed across communities of practice.
- *Learning-centredness* - The focus is on ‘learning’ where different instructional designs can be employed to support the needs and experiences, and pre-existing knowledge of the learner.
- *Interactive* - Deep and durable learning occurs when there is regular and structured interactivity with blended content and fellow students.
- *Collaboration* - Active and meaningful learning is promoted by collaboration and a strong sense of social presence between students and the teacher.
- *Personalisation* - Teaching needs to be responsive to individual needs and the learner must be able to customise the learning experience to their unique requirements.
- *Rich Tasks* - Understanding is enhanced by rich tasks and productive pedagogies that engage students in critical reflection within authentic contexts.
- *Flexibility* - Learning designs need to support adaptive and flexible learning spaces where students can learn anytime, anywhere and any place.
- *Assessment for Learning* - Learning activities must promote feedback and feed-forward assessment, which helps students to reflect on and improve their learning outcomes.
- *Diverse Learners* - Learning designs need to respect the diverse needs of learners and support learning in socially and culturally appropriate contexts.
- *Innovation and Excellence* - Good teaching occurs in a culture of innovation where teachers are encouraged to continually push boundaries and strive for excellence.

Importantly, the criteria were based on the assumption that there is no one single pedagogy or metaphor of learning (Sfard, 1998). This point is reflected in the concept of learning-centredness as opposed to the traditional binary distinction between learner-centred and teacher-centred approaches. Learning-centredness conveys the view that learning is at the centre of the process and that both *acquisition* and *participation* metaphors have an important role to play in the educative process. The key point is that each metaphor has something to offer; they are not mutually exclusive as neither metaphor fully explains the complexity of learning. By analogy, Roblyer et al. (2003) note:

Like the blind person [sic] trying to describe the elephant each focuses on a different part of the problem and each is correct in limited observations (p. 54).

8. University requirements

Building on the above principles and pedagogical criteria, the third layer to the selection framework was a number of university specific requirements. For example, it was determined that the replacement LMS would:

- Allow a customised Massey “skin” or appearance with consistent institutional branding across all papers and programmes.
- Offer a standardised interface with a set of default ‘core tools’ using Massey specific templates.

- Integrate with existing systems and teaching applications and enable the electronic submission, tracking and return of assignments.
- Promote explicit models of instructional design which support differing needs of learners and subject discipline requirements.
- Allow the integration of static and dynamic content within a common template and explicit instructional framework.
- Offer the latest social networking tools to promote collaboration, social presence and a scholarly culture of knowledge production.
- Support a robust system of quality assurance for electronic content that aligns with existing print-based materials submission processes.
- Support Te Reo Māori and initiatives for Pasifika consistent with key university priorities and outcomes in these areas.
- Integrate with an ePortfolio system to provide a more connected life-long and life-wide learning experience.
- Support and easily integrate additional 'plug-ins' and 'mash-ups' within a single overarching framework.
- Have a high level of local support and be a proven solution used by other major tertiary and distance education providers.

Although a weakness of the approach was the failure to establish a separate learner stakeholder group, the student voice was represented within the Pedagogical Reference Group by both learning support and student union representatives.

9. Recommendation

Moodle was the recommendation of the Pedagogical Reference Group. The decision was unanimous. However, this was not surprising as the three-tier framework of principles, criteria and requirements heavily steered the selection process in this direction. Herein lies the second major lesson from this experience. The selection process is not neutral and it is possible to capture the process for certain political and institutional ends—for better and worse.

Opposing political forces, nevertheless, were still at work and those in ITS favouring an 'off the shelf' commercial solution continued to advocate for a different outcome. To provide a definitive recommendation a formal LMS Project Board, with strategically selected university-wide representation, reviewed the options and endorsed the Moodle decision. Ideally, this Board would have been established at the outset of the selection process but there was no recognition by senior management of the need for such a board at the time. Importantly, the Board representation was endorsed by the Vice Chancellor's Executive Committee to ensure the selection process would stand up to close scrutiny by the wider university community. The Moodle recommendation was then further endorsed by:

- The Teaching & Learning Committee
- Distance Students' Association
- University's Senior Leadership Team
- Academic Board

This was the first time for over a decade that discussion around a key teaching platform had occurred at the University's Senate/Academic Board. The importance of Academic Board raises the third major lesson, as this level of discussion was crucial to finally ending outlying debate so the issue could finally move forward. Importantly, the engagement of Academic Board meant that this body had a sense of ownership of the decision which proved to be important in the implementation process. Figure 1 illustrates the key 'bricks in the wall' that contributed to the decision to select Moodle as the new LMS.

In short, Moodle was the preferred LMS for some of the following reasons:

- It clearly signalled the University's intention to move from a more formally structured, content and teacher-centred approach to a blended and flexible learning environment where 'communities of learners' could be supported.

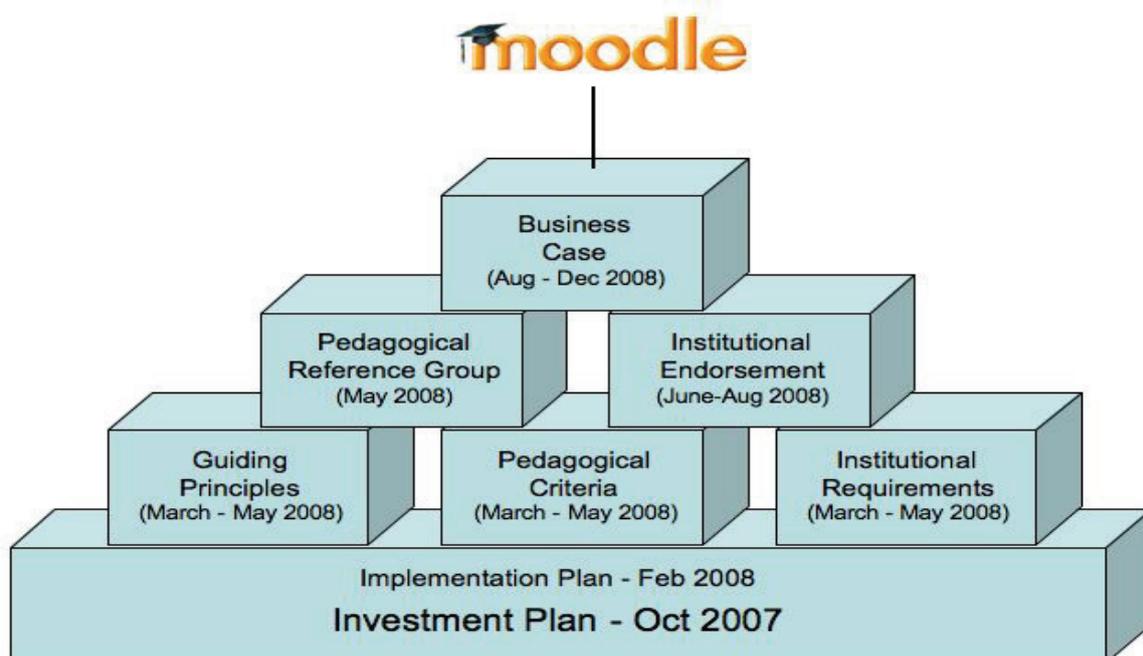


Figure 1: Key 'bricks in the wall' in the LMS selection process

- It provided a consistent style and institutional branding across all courses and programmes, with the flexibility for staff to teach, and students to learn, in different ways.
- It offered instructional design features that could blend together print and electronic content, and a capacity to integrate new electronic tools as they become available.
- It was used by some of the world's leading distance education providers and large multi-national corporations; it also supported the University's aspirations for international delivery.
- Finally, as previously mentioned, Moodle had the capability to support Te Reo Māori and other Pasifika languages.

10. Developing the business case

Having identified our preferred LMS, the next step was to develop a full business case to unlock the financial resources required to implement the recommendation and operationalise the wider strategic vision. This was not an easy step. Those involved needed to learn the language of writing business cases and four drafts were required over six months before the final version of the business case eventually worked its way through internal university decision-making processes. Some of the key questions raised during this process included:

- Is the timeline realistic?
- How it will be phased in?
- What are the workload implications?
- Is there enough money for staff support?
- Is there sufficient time to teach the teachers?
- Have we addressed the pedagogical challenges?
- Have we defined the new media technical roles?
- Is the NPV (depreciation) rate accurate?

After much discussion of these questions and preparation of a supplementary paper, the Senior Leadership Team eventually approved the Business Case with a sizeable budget (\$4.5M NZ). Notably, the budget went well beyond infrastructure and allowed for a fivefold increase in the existing level of pedagogical support. Never before had such a level of resourcing been available to support technology enhanced learning within the University. Approval of the Business Case meant that at the

start of 2009 Massey was ready to embark on a major three-year project of implementing Moodle (rebranded Stream) across the University.

However, one more vital piece needs to be added to the story of the selection and business case process. Approval of the Business Case was not solely the result of a compelling argument for Moodle and the related action points. Indeed, the critical tipping point was when our new Vice Chancellor began formal responsibilities. The Vice Chancellor Designate, previously Minister of Education and number three ranked in Government, was kept informed from an early stage but it was his formal commencement of duties on October 2008 that cut through the doubts and lingering opposition from a handful of senior management. It is fair to say that financial concerns and competing bids for funding by some members of the Senior Membership Team could have derailed any further progress. Without high level intervention and political astuteness of those leading the process, further iterations of the business case would have been evitable with an uncertain outcome. The need for this type of leadership from the highest level of the University is the third major lesson to emerge from the process.

11. Key questions for senior managers

This final section reflects on our experience in the backdrop of a recent framework and planning guide developed by Higgins and Prebble (2008) for senior managers of higher education institutions. Derived from a study of senior managers, the authors identify the following key questions that need to be considered when investing in new learning technology. Under each section, we add some key questions to those already proposed which help to extend the utility of the framework.

11.1 Strategy

- What are the medium and long-term strategic goals and objectives of your institution?
- How are these strategic goals reflected in your institution's Learning and Teaching Plan?
- How are these strategic goals reflected in your institution's more specific plans for e-learning?
- What is the problem that this technology will solve or help us with?
- What sort of priority is it?
- Do our teachers/students wish to teach/study in this way?
- Will we suffer if we simply don't adopt it?

In our experience, the additional questions that need to be asked are: how do you know what you do not know? How much is enough to know before you can make a decision? In today's globally enmeshed digital world, how do you set your own strategic direction? To what extent should you be following what other institutions are doing as opposed to going your way?

11.2 Decision making

- Who makes the decisions about which courses and programmes will use e-learning and how they will do so?

In our experience, the additional questions that need to be asked are: How do you manage the politics? What is the right balance between the competing and coexisting pedagogical, technical and student-focused interest groups? Which group should have the greatest weight in the selection process?

11.3 Structure

- How should you organise and manage for e-learning?
- More specifically, who should be responsible for what and how should their various efforts be integrated and led?

In our experience, the additional questions that need to be asked are: Whose interests do the current structures serve? Where are the tensions and pressure points in our structures and what can we do about them? How do you go about making strategic decisions with immature structures?

11.4 Resourcing

- How should e-learning be resourced within your organisation?
- What will it cost?
- Is it a cost-effective solution in terms of capital and recurrent costs?
- How do the anticipated costs compare with current technologies?
- Will it displace any current services and associated costs?
- Can we control and/or anticipate future costs?
- What are the implications for staff workload? Can this be managed?
- Can our teachers use and manage this technology themselves or will they be dependent on support personnel?
- What are the implications for staff development?

In our experience, the additional questions that need to be asked are what is the cost of doing nothing? Can we afford to do nothing? Do we have a choice? How do you provide resourcing for sustainable innovation with a long-term outlook?

11.5 Selecting technologies

- Is it a robust technical solution?
- Is this technology readily scalable?
- Can we support this technology ourselves?
- What infrastructure will be needed to support this system?
- What level of disruption will this technology bring to our operations?
- How dependent will this technology make us on outside providers?
- To what risks are we exposed?
- Have we an exit strategy for this technology?

In our experience, the additional questions that need to be asked are does this technology support the type of pedagogy and curriculum we want to promote? Do we know what type of learning experiences we want to offer our students? Have we asked them?

12. Conclusion

The basic premise of this paper is that the selection of a new LMS is a strategic decision about the future direction of the institution. Although the selection process requires extensive consultation and strong policy framework with clearly identified drivers, a degree of pragmatism and political cunning is necessary to navigate around the maze of road blocks of institutional culture. A set of key questions related to strategy, structure, decision-making, and so on, is helpful for senior managers, but the most important ingredient is the leadership and support at the highest level. Without this leadership, the above questions can become a tool for senior managers to delay and stifle attempts at transforming the learning spaces and places of a large organization. It remains to be seen whether the investment in blended learning and distance education will reap tangible benefits, but there are already signs that the implementation of Moodle has begun to deeply infiltrate our institutional culture. In this respect Moodle is like a Trojan Mouse as the shift to an open source environment will be difficult to reverse from both an IT and pedagogical perspective. Arguably, the selection of Moodle is likely to lead to inevitable and fundamental changes to the ways of teaching and learning at Massey. Whatever the outcome, the University has certainly entered a new period in its long history of innovation in the provision of open and flexible education for all.

References

- Garrison, R., and Vaughan, N. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco: Jossey-Bass.
- Higgins, A., and Prebble, T. (2008). *Taking the lead: Strategic management of elearning*. Report produced for Ako Aotearoa. Retrieved 1 December 2008 from <http://ako.aotearoa.ac.nz/project/>
- McCombs, B., and Vakili, D. (2005). A learner-centred framework for E-learning. *Teachers College Record*, 107 (5), 1582-1600.

- Milne, J., and Suddaby, G. (2006). *New Zealand e-Learning quality standards, framework and guidelines*. eCDF Project. Massey University.
- Roblyer, M., Edwards, J., & Havriluk, M. (2003). *Integrating educational technology into teaching (2nd ed.)*. New Jersey: Prentice Hall.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27 (2), 4-13.
- Uys, P. (2007). *Change management in the introduction of Sakai at Charles Sturt University*. Paper presented at the AuSakai Conference, 5th November, Canberra, Australia.
- Weller, M. (2007). *Virtual learning environments: Using, choosing and developing your VLE*. London: Routledge.

