

JUMPING SHIP WITHOUT DROWNING: MANAGING CHANGE OF AN INSTITUTIONAL LMS

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ABSTRACT

In 2007 -2008 Moodle was piloted and rolled out to all schools and faculties of the University of Waikato. Some institutions have used such change as an overt opportunity to force staff to reappraise their teaching practice. Others have developed tools or resources to transfer courses from an old to a new system. Others have used a phased roll-out to minimise risk. The University of Waikato took an alternative approach.

A full university-wide roll-out was instigated in Summer School 2008. Strategies were put in place to manage the change in ways that were likely to reduce the resistances inherent in any major change process while balancing the need for staff to engage with the new system.

The novel approach to implementation included the commitment to develop functionality comparable to the previous LMS so that there was no loss in experience; the decision to dissuade staff from major pedagogical review until a post-transition stage; and the decision to forego automatic migration of content from the previous LMS but to treat the transition as a positive disruption providing the opportunity to educate staff about the new environment

A key risk factor identified during the project was the lack of adequate support for staff and students in the use of the new system. In response to this threat, the University established a new unit to develop and support eLearning.

Additional success factors were implemented during the project. During the pilot phase, initial buy in from each school was garnered through involving key players. External partnerships were developed to manage technical development and to up-skill in-house expertise. During the roll-out phase, a team of temporary staff were utilised to provide staff with one-to-one support

The benefits of intensive upfront work are now being reaped through increased engagement and satisfaction among staff and learners.

INTRODUCTION

During 2007-2008, the University of Waikato piloted and rolled out Moodle to all faculties/schools of the University as its replacement Learning Management System (LMS). This process involved the transition of all staff and students from the legacy system to Moodle. During the implementation process a number of critical project decisions were reached that provided unique shape to the implementation approach and contributed to a largely successful implementation. These included the decision to stage the roll-out of the LMS, a commitment to develop where there were gaps in functionality, a key decision to forgo automatic migration of any content and a decision to dissuade teaching staff from reviewing their teaching practice until a later stage. The purpose of this paper is to share the experience of the implementation of Moodle at the University of Waikato, the reasons behind the approach taken, strategies employed to minimize risk and key lessons learned in the process.

BACKGROUND

The University of Waikato has had a fairly long history of involvement in eLearning. In 2002, the University designed and implemented its own learning management system called Classforum, subsequently commercialized as ECTUS Place. At the time of the transition, the environment had around 15,000 users, supported 2,500 courses annually (with some form of online content) and around 800 teaching staff.

The decision and timing to move to a new LMS was largely forced on the University. In 2005, ECTUS was bought out by Tandberg and in 2006 support for the LMS product was stopped. Support continued in-house for a period but it was clear that an alternative solution was necessary not merely because of lack of internal expertise but also because the current implementation was proving unstable and had limited functionality in comparison with alternatives available on the market. There was also a drive within the institution to re-capture the leadership role it once had in the eLearning arena. An upgraded LMS was seen as a step toward achieving this goal.

Following the selection process, in March 2007, a Moodle implementation project was established. The objectives of the project were to deploy Moodle as the University's centrally supported LMS, establish appropriate support structures, develop policies and practices around the management of the system and provide staff and students with adequate training to manage the transition. This initial project lasted a single year. It was followed by a second phase project (March 08-March 09) charged with completing the transition, further enhancing the environment in line with University requirements, increasing the volume and quality of usage and decommissioning the legacy LMS.

IMPLEMENTATION

Changing a centrally supported LMS is not common in universities, although it is becoming more frequent. Risks associated with such transitions have major significance since interruptions to LMS service has direct impact on the quality of the University's core business of teaching and learning. A number of high risk issues associated with the context of the University were identified. These included the risks associated with poor performance, resistance to change, insufficient support, the difficulty of migrating content and reduction in functionality.

Because there had been considerable conflict associated with performance of the legacy system, the University knew that staff would be very unforgiving if the new system was similarly affected. On the other hand, despite these limitations, there was also strong attachment to the in-house built system. One school in particular had transformed its teaching practice in relation to the system and built strong practice around its use. We expected significant resistance to change.

The inability to provision adequate support to staff during the transition was seen as a major issue. Due to the sale of the support unit associated with the previous LMS, the University was short on local eLearning expertise and support. It was recognised that insufficient staffing would almost certainly lead to project failure.

The structure and coding of the legacy system provided significant challenges for migrating content to the new system. It was feared that the non-standard compliant nature of the system as well as the rather different structure of Moodle courses would make this task very challenging. In addition, while Moodle offered significantly more "activities" than Classforum, in some areas there was reduced functionality. Providing a new LMS with less of the functionality that was commonly used would be difficult for staff to accept.

In order to deal with these challenges, a number of critical project decisions were made during the planning stage of the project that shaped the specific approach taken to implementation. In deciding these approaches, the University considered a number of common approaches. Some institutions have used a phased roll-out to minimize risk of encountering large scale issues. Some have embarked on a slow and measured approach that involves review of current course production and quality assurance processes as part of the transition. Others have developed tools or resources to transfer course *en masse* from an old to a new system. By contrast, the university decided on a staged approach to implementation with a full roll-out of Moodle to all faculties and schools following an initial pilot phase.

1. Staged approach

A number of factors were important in reaching the decision to use a staged approach to implementation. Because the legacy system was having intermittent performance problems, was no longer supported by the parent company and the University lacked sufficient in-house expertise, there was a felt urgency to move to a new system as soon as possible. This effectively ruled out the possibility of a phased approach. The second option, to engage staff in a pedagogical review process along with the technical implementation, was also ruled out, partly because of the time factor but more significantly because of a lack of resources within the University at the time of the transition. The first phase project was consequently scoped as a technical implementation project only.

Because of the challenge of such a large scale change in such a short time frame, the University sort to put a number of strategies in place to minimize the risk. The first of these strategies was to ensure maximum exposure to the Moodle environment for both teaching and IT support staff from the beginning of the project. During April 07, a series of 2 hour sessions were run for interested staff to explore Moodle and to highlight areas of potential difficulty in the transition. Around 75 staff attended these sessions. Apart from the opportunity to raise staff awareness, these sessions were aimed at developing a map of features between classforum and Moodle based on actual teaching practice, gathering requirements for the initial configuration of Moodle for the initial pilot, gathering requirements for possible feature enhancements, and gaining a feel for future training requirements.

Following this process, pilotees were sort from each faculty / school of the university. During B semester 25 pilot papers were run. During this phase, intensive one-to-one assistance was provided by the project team to support staff with using the new system and for the project team to gain a better understanding of the sorts of issues that would be encountered. Additionally student surveys, staff interviews and a research project on the implementation approach were conducted to gain further feedback.

The first stage of the full roll-out to staff was then scheduled for Summer School 2008 (beginning November 07). The small number of Summer School papers made this an ideal initial rollout as any issues would affect a smaller number of people. From semester A, 2008 (beginning March), all online or online supported papers were within Moodle.

2. No loss of functionality

From early in the project, it was recognized that the successful transition would be greatly affected by the differences in functionality between the two environments. Following the initial workshop investigations, a critical decision was reached by the

project team to commit to developing Moodle where there was any loss of functionality. Since the University had limited resources to assist staff, this was seen as a way of alleviating the burden on staff of needing to greatly change their practice. The project committed to completing this development in time for time of the official roll-out in Summer School 08.

At this point a decision was made to contract a third party Moodle partner to do some of the development, to sanity check our hardware and software configuration and to up-skill our local developers. This was a crucial decision that has born good dividends. The balance between the up-skilling and development has meant quick gains in terms of development of functionality but reduced dependence on external support over the longer term. The list of developed items included changes to the way that groups are generated and managed, development of an additional tool to allow course-based one-to-one private dialogue between teachers and students, functional and interface changes to the Forum (Bulletin Board) tool and enhancement to the assignment submissions tools to include assignment receipting and improve download management.

The decision to develop the additional functionality was not without hitch. We quickly realized that we would need to rely on some functionality promised within the roadmap for the next release of Moodle. Since Moodle is an open source product, access to the beta version of the forthcoming version was available. All the development was done on this branch of the environment and completed in a timely fashion. However, the release date for the Moodle version continued to creep. In the end, we were forced to go live with an internally tested version of a beta version of Moodle. This caused a fair bit of nervousness for the institution, but proved to be of minor inconvenience in the end. The final release version was able to be implemented with all developed functionality prior to semester A 2008.

3. No auto-migration of content

Perhaps the riskiest of the critical project decisions was the decision to not auto-migrate any content from the legacy system to Moodle. The reason for this decision was driven to some extent by the difficulty of the task. As indicated earlier, the legacy system did not consistently comply with standards and was quite differently structured. However, it was also recognized that this disruption had a positive benefit in forcing staff to learn the new system. If content was simply migrated, it was felt that incentive for staff to get to grips with the system would be compromised. However, it was also understood that this approach would require significant availability of support for staff.

The lack of available internal support for staff making the transition had been recognized as a major issue from the start of the project and was raised with the

steering committee as a likely cause of failure of the project. As a result of the actions of the steering committee, a new unit was established within the University that came into effect around the time of the Summer School roll-out (although some positions were filled at a later date). Additionally, to militate against this additional burden on staff during the transition, the project employed 5 additional part-time employees to be available to help staff on a small group and one-to-one basis beyond the training workshops. Clear communication to manage staff expectations was vitally important during this phase.

4. Delayed focus on pedagogy

The other critical decision made during the project that contributed to the approach was the decision to not engage staff with a pedagogical review but treat the first phase of implementation as a technical change only. The idea here was to scope down the amount of change required. Staff were provided details of how they could map functionality from the legacy system to Moodle, based on the experience of those in the exploratory workshop and pilots. They were not encouraged to consider changing their current teaching practice.

This decision was predicated on two key convictions. The first was the belief that academic staff can be trusted to approach the improvement of their teaching practice on their own. This is for some a very dangerous assumption. The fact that academics have expertise in areas of research does not necessarily translate to good teaching. However, it was reckoned that much could be gained by exhibiting an attitude of respect for teaching staff, with the expectation that the majority would be diligent to consider how the new system provided affordances to new practice, or they would seek assistance where necessary. With a limited amount of encouragement, a number of departments took the responsibility on themselves to corporately reflect on how they might improve their practice in the new environment.

The second conviction was that too much change all at once would be overwhelming, certainly with the time constraints imposed and limited access to support. Instead we focused on providing the support necessary for staff to continue their current practice during Summer School and the Semester A intake and delayed a second phase focus on teaching review until later in 2008.

The second phase project during 2008-2009 was charged with developing appropriate professional development programmes that could leverage the disruptive experience of the initial semesters under the new system to facilitate a pedagogical review. Elements of the plan that have been implemented to date include: the production of a status report on eLearning practice within the University, development of additional eLearning workshops, sponsoring of staff from all faculties / schools to attend the MoodleMoot

conference, participation by the new eLearning unit staff within department review processes, development of an annual eLearning mini conference for staff to share experiences and the development of an online support website.

LESSONS LEARNED

The result of these strategies has been a largely successful. All online / supported online papers of the University are now run within the Moodle environment. The Waikato Centre for eLearning has become well established with workshops for up-skilling in Moodle capability and eLearning practice being increasingly patronized. There were very few complaints during the implementation process and a good amount of positive feedback. There is still significant work to do in increasing the quality of staff engagement with eLearning but the ground work has been well established.

In reflecting on the lessons learned from the project, the following items seem particularly significant:

Secure quality project members: This goes without saying. The project teams included representation from across the campus, both technical and academic, ensuring broad project ownership. Members were also hand-picked from among staff recognized as effective project members. The quality and commitment of staff had a major factor in the success of the project.

Gain commitment from the top level of the institution: The establishment of a steering committee that included key institutional decisions makers was vital to making necessary changes to institutional structures. Without this, the project would simply have failed.

Provide early and constant exposure for staff to the new system and be responsive to feedback: While the time frame for the transition was necessarily short, the staged approach gave staff, potentially, multiple exposures to the environment before it was officially rolled out. This provided the opportunity for gradual learning. Structuring these early exposures as chances to give feedback to the implementation team and ensuring that the feedback was acted upon, provided staff with a sense of ownership of the system and confidence in the implementation process.

Contract third party support early in the process: Contracting external expertise provided momentum to project progress and confidence to in-house staff around the management and development of the environment.

Control the degree of change required: The decision to remove functional gaps between the systems was vital in easing the transition pain for staff and had the

added benefit of gaining good will from staff, since it was perceived that the project team was responsive to feedback. Additionally, the decision to stage the transition, starting with technical change and subsequent pedagogical change, minimized the complexity of learning at any one stage.

Consider requiring users to migrate content. Deciding not to auto-migrate content provided a compulsory incentive for the staff to learn the new system. While implementing this strategy required some positive spin and good support, the disruption proved invaluable to increasing capability. As noted above however, the extent of learning was minimized by other strategies.

Provide one-to-one support for staff. A research report run during the initial pilot clearly recommended the value of one-to-one support. The commitment to provide this resource during the height of the transition, while resource intensive, was invaluable in developing staff confidence.

Manage expectations and maintain respect. Informing staff early and regularly about the requirement to manually manage the migration of content, was essential to avoiding resistance around the time of go-live. Treating the academic staff with respect by deferring to their leadership in teaching practice enabled a trust to develop and contributed to their willingness to traverse the pain of transition.

CONCLUSION

Implementation of a new LMS within a University is a significant undertaking, not least because of the significance of the risks involved. The shape of implementation necessarily takes place within the unique contexts of a specific institution and the strategies employed to minimize risk must take into account this uniqueness. At the same time, commonalities exist across institutions and the lessons learned can often be transferable. The benefits for Waikato of the project choices it made and strategies it implemented are now being reaped through increased engagement and satisfaction among staff and learners. It is hoped that this paper's reflection on the reasons for the project decisions and lessons learned through the process will benefit other institutions making similar transitions.