



Blueprint For The Future: A project to ensure effective, equitable and engaging use of learning technologies

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The issues around engagement, equity and evidence-based decisions posed for exploration at the conference play out at all levels within universities: individual academics working with students; faculties developing programs; and institutional level mechanisms designed to support learning and teaching. This paper takes an institutional level perspective to the issues through the development of a quality enhancement framework for learning technologies at Macquarie University. Developed over three years, the framework is based on a continuous cycle of evidence-based goal setting, planning, managing and reviewing within a governance structure which is representative of key stakeholders across the university. Enhancing the student experience, providing quality learning and teaching and developing sustainable infrastructure are key outcomes. The impetus for developing the framework and the key elements which promote engagement, accessibility and evidence-based practices will be discussed.

Keywords: Quality Enhancement, Benchmarking, Learning Technologies.

Introduction

Macquarie University has a proud history of valuing and fostering innovation in learning and teaching. The exploration and use of emerging technologies has been integral to much of this innovation, playing a pivotal role in responding to the changing needs and expectations of students. Up until several years ago, the use of technologies for learning and teaching across the University was largely confined to core technologies including the learning management system (Blackboard) and iLecture web-based lecture recordings.

The central provision of these core technologies through the University's learning and teaching support units

guarantees an environment, staffed by knowledgeable professionals, that is secure and reliable. Staff and students can use the technologies and services with the understanding that they are readily accessed, secure, regularly maintained, backed up, aligned with other university systems and applications (e.g. student management, HR systems, library services), adhere to University policy and legislative requirements (e.g. records management, privacy, accessibility, copyright) and come with support, training and professional development services when needed.

The technology landscape however, has changed. Technologies are becoming far more sophisticated and there is now a greater range of options available to support learning and teaching which are easy to access, set-up and use. It is now feasible, as opposed to several years ago, for individual academics, departments and faculties to host their own instances of open source software or to make use of freely available Web 2.0 applications such as social networking, virtual worlds, blogs, and wikis. While this opens many opportunities for the enhancement of learning and teaching, it also poses challenges, particularly in the absence of frameworks to guide their use. Without an understanding of the issues, risks and requirements associated with developing and maintaining safe and secure learning environments, the naive use of freely available technologies, despite the best of intentions, can place the university, students and staff at risk.

Web 2.0 technologies have been true to the label of being ‘disruptive’ technologies (Gartner Inc., 2008) with their use impacting the accepted way of doing things. Macquarie, like many other universities, had no institutional policy or guidelines to manage risks and to ensure the quality of the student experience in the changing technology environment. There were no broader institution-level mechanisms within which to embed policy, for example: a vision for learning technologies, backed by goals and strategies; transparent and evidence-based processes for making decisions; or quality frameworks to ensure the robustness of the technologies and their effectiveness in supporting learning and teaching.

Introducing university-wide structures to support a secure and effective environment represented a major change for the University. Fortunately, several of the preconditions for creating change identified by Kotter (1996) were present. There was recognised acceptance of the need for change, and with the appointment of a new Deputy Vice-Chancellor (Provost) with a strong commitment to quality learning and teaching, there was a champion with the power to lead change. Three years later, and after a series of sub-projects involving key stakeholders at all levels of responsibility, the outcome has been a Quality Enhancement Framework for Learning Technologies. Modelled on the University’s Quality Enhancement Policy, it sets the parameters for a systematic, future directed, continuous cycle of goal setting, planning, managing and reviewing, within an appropriate governance framework. It encourages continuous improvement in outcomes, promotes the effectiveness of university structures and activities, and supports the alignment of planning, resources and effort with the achievement of the University’s goals (MQ Quality Enhancement Policy).

The remainder of the paper will discuss key elements of the Framework and how they address the issues embedded in the conference themes of engagement, equity and evidence-based practice.

Learning Technologies Quality Enhancement Framework

Governance

The first element of the Framework to be developed was the governance process. The Management Advisory Committee for Academic Learning Technologies (MACALT) was established to advise the DVC-Provost on the creation of a learning technology environment that supports teaching, learning and research, as well as enriching the student experience. MACALT brings together organisational units and key personnel responsible for the management and use of learning technologies. It is through this Committee that all other elements of the Framework are monitored: policy and planning; management and use of technologies; and evaluation and

reporting to provide evidence-based decision making.

One of the concerns of this Committee is ensuring the ongoing development and effective use of the core mainstream technologies while at the same time fostering innovation. To this end, separate streams of funding have been made available for both purposes. Funding for mainstream technologies, including development and support services comes largely through recurrent budgets for relevant organisational units. Innovation is supported through an Innovation to Integration Strategy, comprised of a four-staged process entailing explorations, small controlled trials, larger scale trials and recommendations for integration into mainstream practice, after which a business plan is developed. An Emerging Technologies Grants Scheme is the primary source for funding the explorations and trials. Evaluation of projects is based on the CICTO Framework (Gosper, Woo, Muir, Dudley & Nakazawa, 2007) which takes a whole of environment approach, assessing educational need, the ability of the technologies to support that need, and the fit with organisational infrastructure, both technical and academic. Decision-making in the evaluation of projects is based on the following principles which enable the University to look to the future, while at the same time building on the successes of the past.

- *Agility and flexibility* to enable the university to stay abreast of change
- *Enablement* to support innovation in learning and teaching
- *Enhancement* of the student learning experience
- *Sustainability* of infrastructure (reliability, security, interoperability) and academic programs
- *Quality* of teaching and learning through supporting staff in their work; and enhancing the learning experience for students
- *Alignment* with the University's strategic directions and priorities
- *Consolidation* through building on existing expertise and successful practice.

Policy and planning

Policy and planning strategies serve to signal the presence of long-range and worthwhile educational aspirations, important for ensuring transformational change (Draper & Nicol, 2009). Due to space restrictions, a discussion of planning will be restricted to the comment that planning for learning technologies is now well integrated into the University's strategic planning processes. The University's Academic Plan, supported by a cascading set of operational plans, incorporates goals, objectives, strategies and outcomes appropriate to the development of technology-enabled learning environments.

More relevant to the conference themes is the Learning Technologies Policy, the cornerstone for ensuring an engaging and equitable experience for all students. The policy, front-ended with a vision and context for its use, clearly identifies the primacy of students and their learning through the statement:

Learning technologies are provided to enable access and enhance the student learning experience. Their use will take into account the right of students to privacy and the confidentiality of the work they produce as part of their studies. The University aims not to disadvantage students in their learning through lack of access to the technologies or knowledge and skills in their use. (Learning Technology Policy, p.1)

The policy sets out the principles for the management and use of technologies, covering both the core technologies supported on the central platform, the Macquarie Learning Technologies Platform (MLTP), and other technologies controlled through faculties and departments. The accompanying procedures provide the operational details, setting out the roles and responsibilities for all parties. These parties include: MACALT; organisational units and faculties managing technical infrastructure; and individuals /departments /faculties responsible for the use of technologies and the quality of the student experience.

Explicitly addressing the changing Web 2.0 environment is a significant feature of the policy. It is important to strike a balance between providing a secure and safe learning environment for students and allowing freedom to innovate. We were mindful of the warning by Fullan (2003) that when operating at the 'edge of chaos' it is best to resist the temptation to impose too much order; all this does is give the appearance of control. The approach taken was to empower academics to make decisions within a supportive framework. There was recognition that the conditions around the use of learning technologies vary depending on the particular technology and the learning and teaching context in which it is to be used. The solution was to enable faculties and departments to make other technologies available to their staff to support specific learning and teaching requirements on the basis of a demonstrated need that could not be met by the MLTP. A register of these technologies is to be maintained by faculties, with annual reports of activity being monitored through MACALT. Staff are to provide documented evidence that appropriate arrangements have been made for resourcing (including costs to students), compliance with university policy and legislative requirements, risk management, quality assurance, training and support, and appropriate authentication and authorisation of users. Students are to be informed of hosting arrangements and any implications for their learning are to be made transparent. In this way, the interests of the University and the students are protected within a supportive framework that enables innovation.

Management

With the potential for individuals/departments/faculties to make use of a greater range of technologies, came a need for greater transparency of roles and responsibilities. These are defined more fully in the policy and procedures. In summary, the key responsibilities lie with:

- Informatics for providing the University-wide backbone infrastructure upon which learning technologies reside.
- The Learning and Teaching Centre for developing and maintaining the MLTP, hosting core technologies and more specialised technologies to support specific learning and teaching processes. The Centre also provides academic support, training and professional development.
- Faculties and their Departments for the quality of the educational process and for the management of learning technologies, not supported by the MLTP.
- Unit convenors for decisions about the technologies to be used (in accordance with Faculty and Departmental arrangements) and for the learning experiences of students in their units.

Making these responsibilities explicit serves to alert stakeholders to their role in the creation of high quality and sustainable learning environments that ensure the quality of experiences and outcomes for all students.

Evaluation, reviews and reporting

Reflecting on what has been learnt about student engagement through the US-based National Survey of Student Engagement, Kuh (2003) warned against universities making judgments about policies and practices in the absence of student engagement data or some comparable source of information. Further, Fullan and Scott (2009) identify the use of evidence (not anecdotal) to diagnose problems and implement solutions as being characteristic of change-capable universities. This highlights the critical importance of the final element in the Framework - evaluation, review and reporting.

Institutional level reporting of systems and processes is monitored through MACALT. As outlined in the Learning Technologies Policy, reports on the MLTP are to be given at MACALT meetings, with a consolidated report provided annually covering performance of learning technologies, support and training, issues relating to maintenance, development and compliance, and quality enhancement initiatives along with their funding implications. In addition, technologies on the MLTP are to be reviewed every 3-5 years for their fitness for purpose. The first of these reviews was undertaken in 2010 with a review of the University's Learning Management System, leading to a move to Moodle in 2012. At the Faculty level, each faculty reports annually on the technologies for which they are responsible.

Benchmarking exercises and commissioned research projects which shed light on key issues in practice are also reviewed at MACALT for their implications for policy and planning. A recent example is research undertaken to gain a better understanding of students' experiences and expectations of technologies on campus (http://www.mq.edu.au/lrc/projects/student_it_experience/index.htm). This research was commissioned to inform future planning.

Concluding comments

Developing a high quality and sustainable learning environment must reach beyond the efforts of individuals. An integrated multi-faceted approach involving individuals and groups at all levels within an institution is required (Marshall, 2004). Although limited to a brief description, the Learning Technologies Quality Enhancement Framework is an example of how this can be achieved in the context of assuring and enhancing the quality of students' experiences with technologies. The framework is based on a continuous cycle of evidence-based goal setting, planning, managing and reviewing within a governance structure that is representative of key stakeholders across the university.

The development of the Learning Technologies Framework has achieved transparency, clear accountability and consistency across the University in terms of policy and practice in the use of technologies for learning. It is a work in progress and is subject to continuous review and improvement, thus ensuring its responsive to changing circumstances and the changing directions of the University.

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