

UNIVERSITY OF SYDNEY

ICT in Teaching and Learning Strategy

1 Introduction

The University of Sydney is mainstreaming support for ICT in teaching and learning across the institution. The purpose of this support is to maintain and improve the quality of the teaching and learning experience where ICT is used and to remove duplication of services through coordination.

The model of coordination underpinning the strategies outlined here is a central/college devolvement of the ICT services requiring a single recurrent budget line complemented with minimal but essential ICT academic administration in faculties.

2 The Management and Evaluation of ICT in Teaching and Learning at the University of Sydney

ICT in teaching and learning at the University of Sydney is most commonly realized as e-learning and learning supported through video-conferencing.

2.1 E-learning

E-learning is an increasingly significant part of the student learning experience at the University of Sydney. There have been substantial increases in the use of the central e-learning platform over the past two calendar years. In 2002, there were approximately 900 unit of study websites on the University learning management system, and two faculty learning management systems. In 2003, this number had grown to approximately 1110 unit of study websites on the University learning management system (LMS), 250 unit of study websites on the Faculty of Economics LMS (Blackboard), and the equivalent of 64 unit of study websites on the Faculty of Medicine LMS which includes 32 unit of study websites supporting Faculty of Dentistry curricula. This represents a growth in e-learning activity between 2002 and 2003 of approximately 58%, a trajectory which does not yet appear to be slowing.

2.2 Video-conferencing

There is also a growing use of video-conferencing in teaching and learning, motivated by institutional initiatives such as the CREO project with the Orange campus as well as established video-conferencing networks with the teaching hospitals. In the 2003 Academic Board report on "ICT in teaching and learning at the University of Sydney", two video-conferencing providers on campus reported approximately 1250 hours of tuition being made possible through their video-conferencing facilities, sometimes servicing up to 7 separate external sites externally. Given the University's strategic commitment to the provision of regional tuition, the demand for video-conferencing facilities is also likely to increase further.

2.3 Quality assurance during development

The introduction of Information and Communication Technologies (ICT) into the student learning experience raises complex quality issues both during the development of ICT-

supported materials, and during the delivery of ICT-supported units of study. These quality issues are led by a concern for the quality of the student experience, which becomes dependent on the stability and robustness of the technology when e-learning is part of the experience. A key strategy in the University of Sydney's approach to E-learning is the Academic Board *Quality Assurance and Online Learning Policy*. The purpose of this policy is to put in place quality assurance processes that address quality issues during development of ICT supported materials and learning experiences supported by ICT.

One of the key quality assurance processes supported by this policy is the Application to Activate. This process moves unit of study websites from a development server to a live server during a trialling period in which quality assurance checks are completed. The main technical and operational quality assurance checks completed in the application to activate processes include:

- trialling the websites from a student perspective
- checking the websites are technically robust and reliable
- checking that a unit of study outline consistent with Academic Board Policy is part of the website
- providing adequate student support once the websites 'go live'
- providing appropriate staff support via phone and email for the development of the websites
- ensuring the access and equity issues related to the websites are complied with
- ensuring copyright issues are adhered to with the help of the library
- overseeing the life-death cycle of the Unit of Study websites as they move from the development server to the live server and then to an archive

The above strategies address basic quality assurance issues raised while trialling the unit of study websites before they go live.

Two other areas of quality assurance related to ICT in teaching and learning are the educational quality assurance of the materials and processes supported by ICT and the quality of the student learning experience. The responsibility for the former lies with faculties and can be achieved through appropriate faculty academic administration of ICT. This will be discussed in sections 4 and 5. The latter is discussed in 3.3.1.

2.3.1 Quality Assurance of Student Learning Experiences supported by ICT

The main quality assurance mechanisms for the quality of ICT-supported student learning experiences are the helpdesk support provided to the students and the evaluation of the learning experience by the students themselves.

The e-learning helpdesk supports students using unit of study websites on the university learning management system, WebCT, during their enrolment. This help ensures that students are able to access their learning materials and resources and that the sites are available whenever the students require them.

The University has a comprehensive summative evaluation system that evaluates the student experience, and in doing so captures the students' experience of using ICT where

it is present. This service can be complemented by questionnaires and other evaluation procedures used by faculties wishing to focus on technological aspects of the experience.

3 Developing the Strategy

In developing the ICT in teaching and learning strategy, the University of Sydney adopts a reflective approach, one that permits institutional learning so that ongoing improvement and a growing understanding of quality standards for ICT in teaching and learning are developed. To ensure a reflective approach, systematic and widespread reporting of the use of ICT in teaching and learning is required at all levels of the institution. By drawing on this feedback from students, teachers, faculties and central services, support given to the use of ICT in teaching and learning will be utilised most efficiently and effectively.

3.1 Central coordination of core ICT services

The central ICT in Teaching and Learning initiative, located in the Office of the PVC (Teaching and Learning) is responsible for the coordination and quality assurance of ICT services surrounding delivery of units of study on the university LMS. This includes coordinating college involvement in the core ICT services such as the helpdesk for staff and students and other key quality assurance tools such as the application to activate.

There are a number of complementary core central services:

- The library provides a digitisation service which oversees copyright issues related to the digitised materials as well as access to thousands of other digitised materials.
- The Institute of Teaching and Learning provides evaluation services, and a range of staff development services in ICT including workshops, lunchtime gatherings, list-serves and graduate study in developing flexible learning environments.
- ITEV provides business and project management consultancy service to faculties on a co-investment basis.

The development of a coordinated infrastructure for supporting ICT in teaching and learning across the University will improve the efficiency and effectiveness of how the central services support students and staff.

3.2 College coordination of complementary ICT services

College ICT services groups are responsible for the prioritisation of projects which operationalise ICT goals of faculty teaching and learning plans on the university LMS, WebCT.; and the quality assurance issues associated with the production and development of ICT supported materials related to those goals.

As a result of the Academic Board project “ICT in teaching and learning at the University of Sydney” college units are being established to help meet the ICT needs of faculties within their college. With the help of the ICT in teaching and learning initiative in the Office of the PVC (Teaching and Learning) to ensure there is no duplication of core services across the university, such as the helpdesk for staff and students or the application to activate process, the college units will become a key area in the University for ensuring that knowledge about the efficient and effective use of ICT is captured, reflected upon and disseminated.

3.3 Faculty Academic Administration of ICT

Faculties are responsible for integrating ICT in teaching and learning goals into their teaching and learning plans.

In order for faculties to be supported appropriately, faculty-awareness of the number of ICT-supported units of study is necessary, the extent of dependency on ICT that each unit of study has (Mode A, B or C), and the current and future resources required to ensure that the ICT support is sustainable. Such knowledge is required by Faculties and the University if they are to make the most of the developing infrastructure supporting ICT in teaching and learning.

3.4 Leadership and Coordination of ICT

To ensure that the developing infrastructure designed to support students and staff in the appropriate use of ICT in teaching and learning is aligned to the University's overall teaching and learning strategy, leadership and coordination of the governance behind the infrastructure is located in the office of the Pro-Vice-Chancellor (Teaching and Learning). A position of University ICT Coordinator has been established to provide strategic support for the leadership and governance of the University ICT coordination in the Office of the PVC (Teaching and Learning).

4 Delivering the Strategic Goals

This section identifies the goals and development activities related to delivering the ICT in Teaching and Learning Strategy. Allocation of responsibilities and further details of the implementation of these strategies are outlined in the University's "Operational Plan for ICT in Teaching and Learning". Costs of these activities are outlined in the University's "Budget for ICT in Teaching and Learning 2004-2005."

4.1 Identify recurrent funding model for Central/College ICT in teaching and learning support services

4.2 Develop appropriate management and governance structure and infrastructure for sustainable ICT in teaching and learning support

4.3 Implement a coherent and consistent approach to the use of ICT in teaching and learning to support the student experience

4.4 Integrate Quality Assurance mechanisms for ICT in teaching with mainstream academic QA processes

4.5 Provide appropriate staff development for, and evaluation of, ICT in teaching and learning

4.6 Cost Recovery/Profit-making ICT initiatives

5 Managing the risks

The aim of the ICT support services for the University is to not only improve the student experience of learning with ICT, but to also manage the risks brought to learning when ICT is involved.

5.1 Risk Management Strategies

There are a number of risks associated with using ICT in teaching and learning. The following summarises some of the main risks, their likely impact and the associated risk management strategies being established.

<i>Risk</i>	<i>Likely impact</i>	<i>Risk Management Strategies</i>
Unsustainable resource requirements for faculty ICT goals	High	- The proposed reporting mechanisms by the central/college model of ICT services support. - Resource allocation mechanisms for faculty ICT goals dependent on central LMS are located in College ICT service units
Duplication of key services for ICT support	High	- The provision of a central LMS - One centrally coordinated helpdesk for WebCT - Unit of Study Website tracking system,
Use of ICT not led by a focus on learning outcomes	High	- Team-based approach to the development of units of study using ICT - University evaluation service
Wastage of staff time in development of websites	Medium	WebCT helpdesk, Staff development workshops, lunchtime gatherings
Access problems for enrolled students	High	WebCT helpdesk
Poor navigation design for unit of study websites	Medium	Application to Activate
Unsustainable student support required for online learning	High	
Technically unstable websites	High	
Copyright issues	High	Library digitisation service, Application to Activate
Poorly conceived business approaches to ICT innovations in teaching and learning	High	Business case approach

6 Key Institutional Targets for ICT in Teaching and Learning

6.1 Recurrent budget line for ICT support infrastructure established.

- single recurrent budget line established in the 2004 University budget planning processes

6.2 Policy framework established

- revised Management and Evaluation of Teaching Policy
- revised QA and Online Policy

6.3 Management model for ICT support infrastructure incorporating central services and College ICT Service Units

- integration of central/college activities and responsibilities clarified

6.4 Faculty Academic Administration Processes for ICT established

- strategic planning for ICT in Teaching and Learning to be incorporated in faculty teaching and learning plans.

6.5 Flagship P/G award courses established

7 Responsibility

7.1 Location of responsibility

The Office of the DVC (Academic) has overall responsibility for leading the development of the ICT in teaching and learning strategy. The ICT Governance Group, through broad consultation with the university community, will act as the steering group for the communication, development and implementation of the strategy and for the continued mainstreaming of the ICT infrastructure support.

7.2 Related documents

The University Teaching and Learning Plan 2004-2006
Operational Plan for ICT in Teaching and Learning 2004-2007
Academic Board's ICT in Teaching and Learning Report, 2003.