Online teaching and learning at Australian Catholic University

Environmental scan and SWOT analysis report

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Executive Summary

In response to a request from the Pro-Vice-Chancellor (Academic Affairs) and the Deans of the Faculties of Arts and Science, Education and Health Sciences, the Australian Catholic University (ACU National) Online Advisers undertook an environmental scan and SWOT analysis during the three months from mid March till mid June, 2007, in order to identify issues which are having actual or potential impact on the provision of online teaching and learning (OTL) at ACU National. Given the time constraints, this report is not intended to represent an exhaustive coverage of all the issues, but to be of sufficient depth to assist the university in its decision making with respect to online teaching and learning. It should be noted that some of the issues raised in this report are currently being addressed to some extent within the university.

The research addressed two broad questions:

1. What are the external and internal factors which are having an actual or potential impact on ACU National’s achievement of its vision for online teaching and learning?

2. What does the result of this environmental scan say to the university in terms of the strengths, weaknesses, opportunities and threats in relation to achieving this vision for online teaching and learning?

The framework adopted for the environmental scan and the SWOT analysis used the four targeted outcomes for online teaching and learning outlined in the ACU National Strategic Plan for Online Teaching and Learning 2007 - 2009, p. 3. Drawn from the ACODE Benchmarks for learning and teaching technologies, these targeted outcomes enabled the Online Advisers to examine issues relating to:

- the policy, procedures and planning frameworks for OTL;
- the pedagogy of flexible and online teaching and learning;
- the training and support of students’ use of the online teaching and learning environment; and
- the professional development and ongoing support of staff.

The report’s findings are based on data gathering techniques that have accessed key personnel and other data sources within the University, and source documents identified in the reference list, including the websites of ACU National and other Australian tertiary and government institutions.

The findings give some insight into the issues currently shaping OTL within the broader community. These issues include:

- the effects of globalisation on education policy and practice;
- the development of more flexible approaches to learning in higher education; and
- the impact of rapid technological and social change on students and staff.

This is the complex environment within which ACU National is operating.

The findings highlight a number of areas in which ACU National has significant strengths and potential opportunities for further development. The findings also reveal
weaknesses and potential threats that need to be addressed if ACU National is to achieve its vision of providing sustainable, quality OTL:

- ACU National has an established policy framework and specific roles directed towards achievement of the university’s goals in this area. However, there is a need to monitor the effectiveness and implementation of current policies, procedures and associated strategies to ensure that they do support an integrated dynamic, flexible and effective response to the demands of the constantly changing context of OTL.

- There is a broad acceptance within the ACU National community of the current developments in OTL. There is recognition of the need for a sound pedagogical base and associated quality assurance procedures for OTL. While quality assurance procedures have been established for the technical aspects of fully online units, further work in this area is needed for web-enhanced units. Comprehensive and consistent quality assurance mechanisms are needed for the pedagogical aspects of both fully online and web-enhanced units.

- ACU National staff have a strong commitment to supporting their students in the OTL environment. However, both within and beyond ACU National, there is a lack of understanding of the students’ perspective about learning in an online environment. This issue requires evaluation and offers opportunities for research that will enhance teaching and learning.

- ACU National has established regular and ongoing professional development programs and technical support opportunities for staff. The availability of effective and accessible pedagogical and technical support is valued by staff. The main concerns relate to the time involved in development and delivery of online and web-enhanced units and associated workload issues. Related to this is the need for timely allocation of staff to teaching fully online or web-enhanced units. Further data would enable the university to determine the specific needs of both staff and faculties and to develop its capacity to sustain and enhance pedagogically sound OTL. This may also lead to better recognition of ACU National’s potential to contribute to research directed towards the enhancement of OTL.

It is hoped that this document will be of value to the range of audiences within the University involved in planning for, and administration of, effective provision of online teaching and learning at ACU National.
Preamble
This report presents the results of an environmental scan and SWOT analysis of online teaching and learning at ACU National. The environmental scan identifies general trends and specific issues within the university and its broader context which are having, or may potentially have, an influence on online teaching and learning at ACU National. It is a scan and as such does not provide a comprehensive, in-depth discussion of the factors identified. However, it aims to provide sufficient detail to reflect the complex external and internal environment within which ACU National operates. The SWOT analysis highlights particular strengths, weaknesses, opportunities and threats which characterise the university’s current provision of online teaching and learning (OTL).

The report has been prepared by the ACU National Online Advisers (OAs), over a three month period from mid-March to mid-June 2007, in consultation with the Institute for the Advancement of Teaching and Learning (IATL). It has its origins in three related sources:

- ACU National’s submission for the Carrick Leadership project, proposing that the OAs would “work with the Educational Designers, the Online Teaching and Learning Coordinator, Faculties, Schools and discipline networks to assess needs and prepare customised plans and strategies to address these needs (Semester I, 2007)”;
- the ACU National Strategic Plan for Online Teaching and Learning 2007 - 2009, which identifies the following strategy: “An environmental scan (internal and external) and SWOT analysis are conducted to inform the development and coherence of action plans in relevant organisational units” and
- a decision by the Pro-Vice-Chancellor (Academic Affairs) and the Faculty Deans that the OAs, in consultation with the Associate Deans (Teaching, Learning and International), should undertake the environmental scan and SWOT analysis, as defined in the strategic plan.

The purpose of this document is to provide a starting point for discussion regarding the achievement of the objectives in the ACU National Strategic Plan for Online Teaching and Learning 2007 - 2009. It is meant to inform planning for OTL and to identify areas of further data collection that will assist such planning.
1. Introduction

This report describes the external and internal environments, relating to online teaching and learning, in which ACU National seeks to develop and maintain ways of making “a specific contribution to its local, national and international communities” through “fostering and advancing knowledge in education, health, commerce, the humanities, the sciences and technologies, and the creative arts” (Australian Catholic University, 1998). The Mission Statement goes on to describe ACU National’s primary responsibility to “provide excellent higher education for its entire diversified and dispersed student body”, a body that is increasingly connected to ACU National via the Internet.

ACU National has recently developed a Strategic Plan for Online Teaching and Learning 2007-2009. This plan guides the development of OTL at ACU National by “identifying goals for online teaching and learning and mechanisms for their realization” (Australian Catholic University, 2007, p. 1). Having referred to its contextualisation within the ACU National policy, procedural and planning framework, the Strategic Plan for Online Teaching and Learning 2007-2009 draws on the ACODE Benchmarks for Learning and Teaching Technologies to identify four Targeted Outcomes for OTL:

i) ACU National’s policy, procedures and planning framework supports quality OTL

ii) Online learning environments are flexible and dynamic, and demonstrate high standards of pedagogy

iii) Ongoing support and training are provided to students for both current and emerging technologies

iv) Appropriate staff development and support are provided for OTL.

It also establishes broad objectives as a basis for the more specific Faculty Strategic Plans.

There is no doubt that OTL presents a challenge to universities, particularly as it has the capacity to

turn an institution upside down. For a start, it blurs the distinction between those two groups of staff (teaching and support). It can invert the control mechanisms in teaching and learning, putting decisions more in the hands of the student than the teacher. … It can abolish timetables, exams and all the other familiar maps and milestones of institutional topography. It changes roles; it demands new skills and attitudes; it threatens vested interests; it clashes with developed norms for measuring workload or allocation finance, and with established administrative practices. In two words, it can be disruptive and revolutionary (McNay, 1987, in Johnson, 1990, p. 21).

Unsettling though they are, Ian McNay’s words, now 20 years old, ring true. Taken from Richard Johnson’s 1990 discussion paper on Open Learning commissioned jointly by the National Board of Employment, Education and Training and the Department of Employment, Education and Training, these words describe many of the challenges which ACU National and other universities face with respect to OTL. The context is characterized by continuous, sometimes rapid, change in the provision...
of OTL. The management of sustainable change processes in such an environment becomes a key leadership focus.

Applebee, Flowers, Schneider and Kazlauskas (in press) draw on the insights of contemporary writers in the field of sustainability and educational change leadership in their discussion of OTL at ACU National. Hargreaves and Fink (2006) suggest that sustainability addresses “how particular initiatives can be developed without compromising the development of others in the surrounding environment now and in the future” (p. 30). Sustainability is about much more than whether or not an innovation will last. Fullan (2005, p. ix) links sustainability with systems thinking and moral purpose, stating that sustainability is “the capacity of a system to engage in the complexities of continuous improvement consistent with deep values of human purpose.” System leaders need to work purposefully and strategically within their own area(s) while also having an appreciation and understanding of the ‘bigger picture’ within which the organization operates. Fullan et al. (2005, p. 54) argue that leaders need change knowledge, which leads to greater “understanding and insight about the process of change and the key drivers that make for successful change in practice.” As well as an understanding of the change process, Fullan et al. call for engagement with people’s moral purpose, capacity building, development of cultures of learning and evaluation, collaboration between organisational units and coherence making, as well as a focus on leadership for change. For ACU National, commissioning this report is another tangible step forward in addressing the issues of sustainability and change leadership within OTL.

This report comprises six sections, accompanied by references and appendices. The introduction, and a description of the methodology, are followed by findings of the external and internal environmental scans, findings of the SWOT analysis, and the report’s conclusions.
2. Methodology

The report’s findings are based on data gathering techniques that have accessed key personnel and other data sources within the University, and source documents identified in the reference list, including the websites of ACU National and other Australian tertiary and government institutions. The report reference group provided the OAs with critical advice and support throughout the period of the development of this report. This group comprised:

- Associate Professor Paul Chesterton, Director of the IATL
- Ms Ann Applebee, Director of Flexible Teaching and Learning
- Ms Emma Felton, Coordinator Online Teaching and Learning
- Ms Alison Blair, Educational Designer

and periodically

- Dr Karen Flowers, Associate Dean (Teaching, Learning and International), Faculty of Health Sciences
- Associate Professor Marj Horne, Associate Dean (Teaching, Learning and International), Faculty of Education
- Dr Theda Thomas, Associate Dean (Teaching, Learning and International), Faculty of Arts and Sciences

The OAs obtained data for the external and internal environmental scans from:

- Documents and information from relevant websites:
  - Australian government websites
  - University websites
  - Online learning support sites
  - Academic development and professional training sites
  - Online learning consortia and corporate sites
  - Author websites
  - A review of relevant academic literature
  - ACU National staff
  - ACUno online and, through ACUno online, NetSpot (commercial external provider of support for the Learning Management System)
  - ACU National documents as listed in Appendix A.
  - thirty minute semi-structured interview or emailed survey of the Heads of Schools (the emailed survey is in Appendix B)
  - informal discussions with other ACU National academic and Library Staff
  - IATL personnel who also accessed and provided data that the OAs could not access directly.
Specific data sets (and their providers) obtained for this scan included:

- training data and procedures for supporting fully online postgraduate teaching: IATL
- data about WebCT courses, WebCT server data and WebCT HelpDesk support: ACUonline/NetSpot
- course and unit offerings, fully online units and enrolments: Student Systems.

To analyse the complex data that emerged from the data gathering exercise, the OAs first developed a framework based on the Targeted Outcomes in the ACU National’s Strategic Plan for Online Teaching and Learning 2007 – 2009 (pp. 2-3). This was followed by a thematic analysis of data. Statistical techniques were used where appropriate.

To develop the report, the OAs and the reference group engaged in numerous activities as summarised below:

- initial face-to-face meeting in mid-March 2007
- videoconferences and teleconferences of the OAs and the reference group
- interviews with Heads of School and other ACU National staff
- searches of journals and conference proceedings to identify relevant research
- searches of the World Wide Web (WWW) to identify relevant governmental and institutional reports
- email discussion and exchange of written sections of the report
- additional teleconferences of sub-groups and specialised teams.
3. Findings of the External Scan

The global and national context for OTL in higher education is complex, dynamic and diverse and is a part of the broader context of teaching and learning. The online mode, comprised of communications enabled by the WWW, should be recognised as only one part of the broader context of e-learning. The range of technology which shapes our understanding of e-learning should be recognised as creating a dynamic and fluid environment, and new tools will appear which will shift our understanding.

‘Flexible’, as used in Figure 1, is the term which best provides the overarching concept, and this encompasses e-learning, computer managed learning (CML), open learning, web-enhanced, online teaching and learning, and what is seen as the more ‘traditional’ distance education, among others. This definition may be debated, and indeed, the literature reflects such a debate (see, e.g., Ling et al., 2001) but is used here simply to provide the reader with an understanding that online and web-enhanced teaching and learning is one aspect of a much larger field.

The long history of distance education in some institutions in Australia is notable and relevant for this environmental scan as distance education develops a ‘flexible culture’ within a university. Staff are already accustomed to an approach that is more flexible in the time and place of learning, and therefore are more receptive to developing approaches to teaching and learning that recognise the differences of a new delivery mode (DEST, 2003).

Using the framework of the four targeted outcomes, analysis of the rich data resulting from the external environmental scan identified a number of factors as particularly relevant to OTL at ACU National. In the next section, a brief description of each one of these factors precedes an outline of its relevance to ACU National’s situation.
3.1. **Policy, procedures and planning frameworks**

A scan of the literature reveals a diversity of ideas and approaches to higher education matched only, perhaps, by the number of institutions and associated staff therein. Terms such as flexible, online, e-learning and globalisation currently permeate the sector, and serve to demonstrate the complexity of this environment. Technology plays an important and sometimes central role in all of this. Technology has undergone rapid and continuing change in recent years and higher education has seen a corresponding change. Michael Gallagher, as Assistant Secretary for the Higher Education Division of (then) Department of Employment, Training and Youth Affairs (DETYA), commented:

> As is often the case with new growth sectors, online learning has been fertilised with generous doses of hyperbole. Wired and Fast Company enthusiasts would have us believe that online learning is the apocalypse for the university as we know it, with the destruction of the academy to be delivered by the four horsemen of the Internet, media-led conglomerates, corporate providers and the virtual university. At the core of this hyperbole, however, are some key issues confronting those involved in the production, delivery and administration of higher education. (Gallagher, 2001, p.1)

To respond appropriately, an Australian university needs to first understand trends in the sector, particularly in the Australian sector, available resources, and government policies and directions.

3.1.1. **Trends in the sector**

Today the mention of technology would, for most, bring to mind the current proliferation of communication technologies, and in particular computers and the WWW, but it should be remembered that these are only the most recent developments in technology. For example, another major marker is the Industrial Revolution of the 17th and 18th centuries when technology caused a major change in human society.

Often, higher education has been viewed as having a role in taking a critical view at the edge of change; of providing a forum for analysing the worth or otherwise of developments in society. In this vein, it seems appropriate for the higher education sector to be a leader in utilisation of technologies where appropriate. However, it is difficult to discuss the place of technology in higher education without recognition of other general driving forces in higher education which have an impact. These include the structure of education, increased demand, privatisation, changing education needs and job markets, social context, the environment and the economy (UNESCO, 2007). Though beyond the scope of this report, these have been mentioned so that the reader might keep this wider context in mind.

Globally, the need for quality in higher education is being recognised and quality assurance is increasingly becoming international, e.g., the Bologna Process and US Council for Higher Education Accreditation. The blurring of national boundaries in higher education resulting from the use of OTL adds to the complexity of the sector.
Subsequent recognition of the need for quality influences policy development in three main ways:

- direct monitoring by governments of the quality of institutions and programmes
- professional organisations which can self-regulate, and
- market forces driving improvements (UNESCO, 2007).

This points to the need for policies which can “support e-learning at the institutional level” (International Institute for Educational Planning [IIEP], 2004, p.9). The IIEP report goes on to warn:

Perhaps the most difficult situation is the case of a traditional institution that establishes a virtual university or e-learning unit. The existing policy environment in the institution, originally developed as it was to support face to face learning, will not necessarily be appropriate to e-learning. (IIEP, 2004, pp 9-10)

Internationally and in Australia, universities have responded to their changing context in various ways. Some higher education institutions moved into e-learning almost as soon as it became available. In particular, these were the institutions with a history of distance education which have strong established processes for planning, development, staffing and delivery of alternative learning modes (e.g., the Open University, University of New England, Deakin University, and University of Southern Queensland). These institutions were able to integrate e-learning into their teaching and learning structures rapidly as they already had a culture which could be described as ‘non-traditional’.

In Australia, all 39 universities offer fully online courses and/or web-based components in courses/units online. Most have an online teaching and learning unit or centre as well as comprehensive online support systems.

Size
The number of students studying online in these institutions ranges from quite few to up to 25,000. Support for e-learning is provided by a variety of teaching support units, with staff levels from around 10 to over 100. Most are centralised, while others have been devolved to faculties, small units or satellite campuses. A number are formally called Distance Education Centres, which reflects both the historical role of providing print-based material to external students and the more recent expansion to encompass flexible online approaches.

Institutional profiles for e-learning
Some institutions have very well developed and supported models to enhance e-learning. These include processes such as multi-modal training models, online support systems, resource production teams and evaluation units. Institutions with a history of a distance education have strong established processes for e-learning. Other institutions are in earlier stages of implementation of e-learning, these being typically smaller or regional universities. Some institutions, while requiring all subject units to have an online component, recognise the need for a clear pedagogical rationale for the e-learning material to be posted.
As well as intra-institutional approaches to e-learning, inter-institutional approaches have also been adopted. A number of Australian universities have become part of national and global consortia such as The International Network of Universities, Universitas 21, and Open Universities Australia. These strategic alliances are “complex businesses involving new patterns of operations, and demanding new approaches to the management of partner and customer relationships, product and service development, marketing and logistics, and financial risks to reputations” (Nelson, 2002, p.11).

3.1.2. Available resources

There are a range of resources for universities which can be considered ‘external’, and these include technology and infrastructure, staff and knowledge access.

Globally, information and communication technologies (ICT) have enabled connections among institutions. These connections have provided unprecedented access to knowledge resources among libraries, staff and students. As knowledge is the “currency” of education, this means that the very nature of the operations of universities has changed. Library collections from around the world are accessible in an instant, creating an exponential increase in the amount of knowledge available. Contact with experts in a field in another country can be made directly through email, and novel collaborations can and do occur as a result. This is a double edged sword for staff, in providing opportunities not thought of 20 years ago, while also requiring sophisticated information management techniques.

As defined in this report, the technology is defined by the use of ‘online’ and all that that entails. It should be noted that this may include the use of iPods, mobile phones, and other developing forms of technology. These new developments in technology and infrastructure will continue to change how OTL occurs.

While the individual user’s access to technology, in terms of staff and students, will be addressed in the internal section of this scan, the issue of overall access is determined by bandwidth. Currently under debate at governmental levels, the available bandwidth affects the amount of internet traffic and hence the extent and type of OTL that can occur.

There are a number of current commercial Learning Management Systems (LMSs), with some universities developing adaptations of these or creating their own LMS. Students may be familiar with and able to access web resources when they begin higher education studies, but generally they need to learn how to discriminate between reliable and questionable information and sources and how to use their university’s particular LMS. When the whole teaching and learning process occurs online, this adds another layer of complexity. Physical or social isolation can make it even harder for students to discern what is useful.

The pool of staff in the higher education sector already skilled to manage and teach online is fairly small, which means staff generally need professional development and
support in-house. As well, the changing nature of the workforce means there is an increase in part-time and sessional staffing. This too could have an impact on the provision of training. The importance of staff should not be dismissed or allowed to be masked by enthusiasm for technology. Abel noted: “Today, a quality online learning experience still has much more to do with the faculty member teaching the course than anything else. It’s still the teaching, not the technology” (2005, p. 75).

Ryan also addressed this issue when she noted:

We should also distinguish between good content and good pedagogy. Good pedagogy is not simply subject expertise, knowledge or information digitised. It is also the skill to convey that content in ways that enthuse and are meaningful to each student, and to stimulate the motivation and the social learning that a good class group produces. Education is as much a service industry as a knowledge or information industry, where the service is teaching or, if you like, the facilitation of learning. (Ryan, 2001, p.28)

The issue of training will be addressed further in the internal section of the scan.

An increasing number of conferences, workshops, reports and journals are disseminating research, case studies, ideas and cautions for OTL. Professional associations also play a role by providing forums for discussion, including focussed associations such as the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) and the Open and Distance Learning Association of Australia (ODLAA) as well as those generic to higher education such as the Higher Education Research and Development Society of Australasia (HERDSA).

A number of web resources have been established to disseminate information to and about education, including higher education. A seminal example of this is the government supported Education Network Australia (EdNA Online), an education and training website designed to support collaboration and communication in the education and training communities. This website contains online resources and free online forums, chatrooms and discussion lists.

### 3.1.3. Government Policies and Directions

The policies and directions of the government have obvious implications for Australian Universities in terms of establishing and maintaining structures, funding and support. This is another fluid area in the general context of OTL, one which can change rapidly because of the release of a budget, a position paper, or a change of government. That being said, the following snapshot reveals that OTL is currently being addressed by government in various ways within Australia.

Funding is probably one of the first issues which come to mind when considering OTL, and this is not surprising. There is often a misconception that the use of new technology that can create “massification” of education will save money. While he was Vice-Chancellor of Central Queensland University, Lauchlan Chipman noted:

The second sobering point is to do with costs. To return to the University of Phoenix, for example, it pitches its tuition fees for its wholly online product— and it has about 5000 students enrolled; a small minority of its total student body— at a significantly higher level than on-campus delivery of the same product. This is
because its costs are very much higher. The initial software development as well as maintenance costs for genuinely interactive and purpose-designed materials are, to this point, higher than similarly developing and maintaining print-based courseware and the training and retraining of part-time faculty in local delivery. To maintain small groups—student to academic, and student to student online chat groups—costs no less than the comparable activity maintained in a physical site. The only potential for savings is through the globalisation of academic labour. (Chipman, 2001, p. 14)

Many reviews, reports and initiatives address issues which are relevant to OTL in higher education, including many that are referred to throughout this scan. Among others, are those of the Department of Education, Science and Training and subgroups such as the Evaluations and Investigations Programme (EIP), and of the Carrick Institute for Learning and Teaching in Higher Education.

The Department of Education, Science and Training’s Higher Education Report 2005 (DEST, 2007) gives continued support to the Frameworks for Open Learning Programme (FOLP), and states:

The major component of the FOLP activities during 2005 was the support to education.au limited, a ministerially-owned company, that carried out MCEETYA [Ministerial Council on Education, Employment, Training and Youth Affairs] endorsed long-term collaborative exercises and key government initiatives, including the management of EdNA Online, the Government Education Portal, the Le@rning Federation and myfuture. (p.61)

FOLP was initiated in 1991, and a scan for online references show that online and flexible delivery have been integrated in the directions, policy, and planning of the Australian Government. It should be noted that a discussion of issues arising from a FOLP review (Downes & Gibbons, 1999) identified a number of issues related to online learning, all of which are still current. These include:

- reliable access to technology
- appropriate bandwidth
- compatibility of software and hardware
- obsolescence
- copyright and intellectual property
- occupational health and safety issues
- funding
- professional development and support
- equity, and
- pedagogy.

The Australasian Council on Open, Distance and E-Learning (ACODE) originally arose from a 1993 government sponsored conference on distance and open learning. It is now “an organisation of Australasian universities, whose mission is to enhance policy and practice in open, distance, flexible and e-learning in Australasian higher
education” with a vision for “excellence in teaching and learning in higher education” (ACODE, 2006). A list of members is provided in Appendix D.

ACODE has provided benchmarks covering eight discrete topic areas, each with corresponding general performance indicators, (see Appendix E for a detailed summary) for organisations conducting open, distance, flexible and e-learning programmes, not just online programmes. The ACODE benchmarks are outlined in Table 1.

Table 1: ACODE benchmarks

<table>
<thead>
<tr>
<th>No.</th>
<th>Benchmark</th>
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<tbody>
<tr>
<td>1</td>
<td>Institution policy and governance for technology supported learning and teaching.</td>
</tr>
<tr>
<td>2</td>
<td>Planning for and quality improvement of the integration of technologies for learning and teaching.</td>
</tr>
<tr>
<td>3</td>
<td>Information technology infrastructure to support learning and teaching.</td>
</tr>
<tr>
<td>4</td>
<td>Pedagogical application of information and communication technology.</td>
</tr>
<tr>
<td>5</td>
<td>Professional/staff development for the effective use of technologies for learning and teaching.</td>
</tr>
<tr>
<td>6</td>
<td>Staff support for the use of technologies for learning and teaching.</td>
</tr>
<tr>
<td>7</td>
<td>Student training for the effective use of technologies for learning.</td>
</tr>
<tr>
<td>8</td>
<td>Student support for the use of technologies for learning.</td>
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</tbody>
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The ACODE benchmarks (ACODE, 2006) clearly set out the goals of good practice in OTL. The use of these benchmarks helps to ensure that pedagogy is

- aligned to the institution’s strategy
- informed by good practice and research
- supported adequately
- deployed and promoted effectively
- evaluated from a number of perspectives.

The implications of the preceding material in section 3.1 for ACU National, in terms of its policy, procedures and planning framework, include the need to maintain awareness of ongoing developments in technology, to tap into externally available resources, and to recognise the need to avoid limiting flexible delivery to the current understanding of OTL. It is also important for ACU National to ensure policy is not driven by technology and that there is an ongoing program for staff development to ensure the currency of staff skills and understanding. Given the potential for OTL to affect many aspects of the university, there is need for careful consideration of the implications of major policy changes for all stakeholders.
3.2. Flexible Learning environments and pedagogy

Face to face teaching is becoming less central to the needs of a mass higher education system and is itself becoming transformed through the use of ICT. Learning is a dynamic process dependant on both the individual and their environment and one that involves change. In order to better understand the process of learning we must first understand how individuals’ see themselves as learners. Face-to-face teaching has built on over three decades of research on the theoretical understandings of learning and awareness in higher education (e.g. Marton & Säljö 1976; Säljö 1979; Marton & Booth, 1997). The development of deep, surface and strategic approaches to learning has been well researched in the literature (e.g. Ramsden, 2002; Prosser & Trigwell, 1999; Entwistle, 2003). Awareness of research on flexible approaches to learning is, by comparison, still emerging (eg. Laurillard, 2001, 2002; Boud & Prosser, 2002). As noted earlier, flexible learning is an umbrella term. Australia has adopted OTL with enthusiasm, with some of its educational institutions and industry bodies being early adopters of new learning technologies and methods. The online mode is increasingly used in distance and offshore delivery of units and course in the higher education sector as well as supporting a sophisticated vocational and educational training system.

Australian educators have had to address increasing diversity within the student body resulting from a dynamic mix of cultures and educational expectations. In this milieu, the pedagogy of effective e-learning is still developing. Without the cornerstone of the traditional lecture, the online environment presents as something new in the educational landscape and offers an opportunity to reconsider the pedagogical basis of our teaching and to begin rebuilding from the ground up to achieve the most satisfactory results for e-learning.

The increasing use of e-learning technologies in education also raises a number of issues related to the quality of teaching and learning provided in higher education. Among the concerns is that technology itself may be driving the developments, rather than effective pedagogy which is then enabled by emerging technologies. A brief literature search identifies a variety of factors which counter a surface approach to e-learning and contribute to the provision of student-centred, deep learning approaches in the online environment.

Weigel (2001, p. 5) builds on the earlier understanding of deep learning, and defines it as “learning that promotes the development of conditionalized knowledge and metacognition through communities of enquiry.” A number of other authors (Havard et al., 2005; Chapman et al., 2005) have drawn on this definition in their discussions of the type of environment, aspects of course design and layout which enhance the ability for deep learning to occur in a variety of online teaching and learning contexts.

Cope and Staehr (2005, p. 183) report that deep learning takes time to develop and that students’ perceptions of their workload and the quality of teaching can sometimes affect their ability to engage in deeper learning. “Deep learning approaches have been associated with perceptions of good teaching, clear goals, independence in learning, and timely and appropriate assessment feedback. Surface learning has been associated with perceptions of too high a workload and assessment which is perceived to require
rote learning.” Table 2 provides a helpful outline of the difference between deep learning and surface learning.

Table 2: Comparison of deep and surface learning (Weigel, 2001, p. 6).

<table>
<thead>
<tr>
<th>Attributes of deep learning</th>
<th>Attributes of surface learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Learners relate ideas to previous knowledge and experience</td>
<td>• Learners treat the course as unrelated bits of knowledge</td>
</tr>
<tr>
<td>• Learners look for patterns and underlying principles</td>
<td>• Learners memorize facts and carry out procedures routinely</td>
</tr>
<tr>
<td>• Learners check evidence and relate it to conclusions</td>
<td>• Learners find difficulty in making sense of new ideas presented</td>
</tr>
<tr>
<td>• Learners examine logic and argument cautiously and critically</td>
<td>• Learners see little value or meaning in either courses or tasks</td>
</tr>
<tr>
<td>• Learners are aware of the understanding that develops while learning</td>
<td>• Learners study without reflecting on either purpose or strategy</td>
</tr>
<tr>
<td>• Learners become actively interested in the course content</td>
<td>• Learners feel undue pressure and worry about work</td>
</tr>
</tbody>
</table>

Chen, Mashhadi, Ang and Harkrider (1999) identify five essential elements of effective student-centred learning environments, namely the psychological, pedagogical, technological, pragmatic and the cultural. Chen et al. state that each element needs to be attended to and is likely to be perceived in a range of ways by students and teachers. These varying perceptions can shape approaches to learning. In student-centred learning environments, technology is seen as an enabler (Neo, 2003), however, consideration needs to be given to the influence of culture (Chen et al., 1999) and gender on student learning (Price, 2006) and their capacity to ‘disable’ learners in the online context. Cope and Staehr (2005) warn of difficulties associated with developing and maintaining a relational view of learning when aspects of the learning environment are outside the control of either the teacher or the student or when learning environments vary between disciplines or units within the same course. In a study of veterinary students in Australia who were engaged in a mix of face to face and technology-enhanced learning experiences, Ellis, Marcus and Taylor (2005, p. 240) identified the importance of integrating these learning experiences so students can see the links and complementarities between them. They suggest that “if care is not taken to ensure alignment between the face-to-face and online contexts … then the students can experience a separation between the two that impedes their ability to engage in holistic, meaningful learning.”

Cope and Staehr (2005, p. 184) pointed to a variety factors supporting deep learning. Some of these originated from the learning environment whilst others from the learning activities themselves. These factors have been summarised in Table 3.
Table 3: Factors supporting deep learning (Cope and Staehr (2005))

<table>
<thead>
<tr>
<th>In the learning environment</th>
<th>The learning activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• the subject is well organized and has clear goals</td>
<td>• are active and experiential</td>
</tr>
<tr>
<td>• teaching approaches support the explicit aims and objectives of the course</td>
<td>• tackle real-world problems that are compatible with the experiences of the students</td>
</tr>
<tr>
<td>• students have responsibility for their own learning, including some control over the</td>
<td>• encourage students to relate their learning to other situations, both within and</td>
</tr>
<tr>
<td>content and approach to learning</td>
<td>outside the educational context</td>
</tr>
<tr>
<td>• the workload is manageable</td>
<td>• encourage students to reflect on the content and the learning process</td>
</tr>
<tr>
<td>• the student is given help in learning within the context of the subject matter</td>
<td>• use group interaction to expose students to variation in the ways other students</td>
</tr>
<tr>
<td>• the teaching makes the relationships explicit between the individual topics, and the</td>
<td>understand the content and approach their learning.</td>
</tr>
<tr>
<td>subject and course as a whole.</td>
<td></td>
</tr>
<tr>
<td>• the teaching identifies and builds on what students already know</td>
<td></td>
</tr>
<tr>
<td>• assessment tasks require the demonstration of conceptual understanding</td>
<td></td>
</tr>
<tr>
<td>• teaching and assessment methods foster active and long-term engagement with learning</td>
<td></td>
</tr>
<tr>
<td>tasks</td>
<td></td>
</tr>
<tr>
<td>• a supportive classroom environment is provided where students feel comfortable to</td>
<td></td>
</tr>
<tr>
<td>openly discuss their conceptions and learning approaches</td>
<td></td>
</tr>
<tr>
<td>• the emphasis is on depth of learning rather than breadth of coverage</td>
<td></td>
</tr>
<tr>
<td>• the teaching is stimulating and demonstrates the lecturer’s personal commitment to the</td>
<td></td>
</tr>
<tr>
<td>subject matter and stresses its meaning and relevance to the students</td>
<td></td>
</tr>
<tr>
<td>• feedback is appropriate and timely</td>
<td></td>
</tr>
<tr>
<td>• are active and experiential</td>
<td></td>
</tr>
<tr>
<td>• tackle real-world problems that are compatible with the experiences of the students</td>
<td></td>
</tr>
<tr>
<td>• encourage students to relate their learning to other situations, both within and outside</td>
<td></td>
</tr>
<tr>
<td>the educational context</td>
<td></td>
</tr>
<tr>
<td>• encourage students to reflect on the content and the learning process</td>
<td></td>
</tr>
<tr>
<td>• use group interaction to expose students to variation in the ways other students</td>
<td></td>
</tr>
<tr>
<td>understand the content and approach their learning.</td>
<td></td>
</tr>
</tbody>
</table>

Johnson and Aragon (2003) suggest that the nature of online learning environments demand that all of the following principles be followed in designing instruction:

- address individual differences
- motivate the student
- avoid information overload
- create a real-life context
- encourage social interaction
- provide hands-on activities, and
- encourage student reflection.

Whilst it can be argued that all of these principles apply equally to face-to-face learning, the face-to-face instructor is able to alter the learning environment and/or activity at the last moment before, and even on-the-spot, if student-instructor interaction demands it. In contrast to this ability to respond to the “moment”, online
Learning materials must be prepared well in advance of the actual student experience. Many examples can be found to illustrate that a learning experience can be created which is “equal but different”, with equally good outcomes for online learning as for face-to-face. (See, eg. ChanLin & Chan, 2004; Newlin, Lavooy and Wang, 2005; Chen & Zimitat, 2004.) In some instances, the outcome may actually be better as it serves to challenge what may be an ingrained approach to teaching and learning in the face-to-face mode (Ladner, Beagle, Steele & Steele, 2004; Oliver, 2004).

In summary, these authors suggest that effective e-learning requires a balanced presence of the lecturer, carefully structured, authentic learning activities that connect the student to the real world, and teamwork enabled by group communication tools.

In a recent review of research into e-learning for the UK Joint Information Systems Committee, Sharpe and Benfield (2005) paint a different picture. They state that current research indicates “the main benefits [of e-learning to students] as being to their overall experience from the provision of course information, administration, and support” (p.3). Sharpe and Benfield also point out that there is a scarcity of studies of e-learners that further research in needed to learn how to promote effective e-learning. They report:

Where e-learning is used in a way which does little to change the established pedagogy, students still report benefits to their wider experience of being a student (i.e. not necessarily improvements in learning), and a minority report needing help in getting started. Where e-learning adopts new or unusual pedagogies, things get more complicated. Here learners report an intensely emotional experience and a major concern with time and time management. It is here that some of the individual differences emerge, particularly in how successfully students are able to adapt to these new learning environments. (p.2)

The findings above from the e-learning literature raise a number of issues for ACU National’s provision for OTL in terms of the content and processes used in formal and informal professional development of staff and students, and of the ways in which ACU National courses and units are developed, resourced, delivered and evaluated. They also open opportunities for further research into online teaching and learning.

3.3. Student Training and support

Often it is assumed that students enter higher education skilled in using technology in learning. However, Conole, deLaat, Dillon and Darby (2006) found that students are not generally academically e-literate, and they lack the necessary skills to make appropriate critical use of information. In examining the framework for online education, Candy (2004) identifies a number of conditions that need to be met for effective online learning. In addition to being connected and competent to access the Internet, learners need to:

- have affordable access to quality information and be able to trust that information,
- have the skills to find the information needed, and
- be confident that security is maintained.
Candy also discusses the factors which distinguish formal education from self-directed learning, namely curriculum, scaffolding, assessment and support (2004). Although institutions have addressed all of these for face-to-face learning, each one needs to be revisited in the move to OTL (Pedagogical issues are discussed in Sections 3.2 and 4.2).

All universities have some form of student support unit, and many of these are expected to fulfil the needs of all modes of enrolment, whether face-to-face, mixed mode, or fully online. Where the issues of concern are common to all students, this is clearly an efficient and effective mechanism for support. However, if there are particular issues for fully online students that are not being addressed, then this becomes a concern. Many of the universities which have evolved online teaching and learning from a distance education tradition have also developed and maintained specialised student support structures for their students.

The student voice is often not present in studies on teaching and learning, and Sharpe, Benfield, Lessner and DeCicco (2005) note that there is a scarcity of studies on the learner experience in e-learning. Students themselves advise that the best way to get the most out of online learning is to develop good time-management strategies, actively participate in the learning, and to continually make links with the learning, as without these their ability to study successfully may be limited or curtailed altogether (Sharpe, Benfield, Lessner & DeCicco, 2005). As noted above, Sharpe and Benfield (2005) comment that “being an e-learner is an emotionally charged experience … [and warn that the] impact of the emotional intensity of online learning in terms of withdrawal or failure is sufficient to warrant its further investigation” (p.4). Sharpe and Benfield later state: “We suspect that course designers and tutors would do well to explain to students their tasks and responsibilities in this kind of detail and work with them to develop the new learning skills that they will require” (p.7). It is of interest to note that this advice is not new, and distance education by correspondence has long recognised these issues.

The fact that these issues have emerged once again suggest that institutions should be developing comprehensive student support mechanisms for online learning that include a particular focus on the student experience. Further exploration is needed to determine whether the same factors are at work in face-to-face, web-enhanced and fully online learning environments.

### 3.4. Staff Development and Support

In a report to DEST, Candy (2004) comments that “for businesses and governments, educational institutions and libraries, interest groups and individuals [the Internet] is a remarkably rich, diverse and versatile way of doing both what they have done before and, to some extent, what they never previously dreamed of or imagined” (p. 290). Salmon (2004), from the Open University in the UK, notes that the “concepts of space and time are changing and how and with whom people can collaborate, discover communities, explore resources and ideas, and learn” (p. vii). Referring particularly to higher education, Salmon talks of “a new way of teaching” and refers to Barker’s call for “new attitudes, knowledge and skills, and ways of operating successfully and happily in the online environment” (p. 9). In the university environment, this necessitates transformation through a technology infrastructure that accommodates
what Putland (2006) describes as the trend to the portable, personal, convergent, well-connected devices supported by reliable, permanent, pervasive, broadband connectivity. Such connectivity underpins the rapid knowledge growth that can no longer be accommodated by our current model of learning.

Putland goes on to call for cultural change with universities, a call that Wise and Quealy (2006, p.899) comment has been made for more than a decade. For academic staff, this call for cultural change translates to changing their ways through revisiting their own philosophy about teaching, and developing new ways of operating in the online environment. Professional development is a key element of this change.

There has been much discussion about how universities can achieve sustainable professional development of and re-visioning by their academic staff. Opinions about the best approach to staff development vary. Dawson and Winslett (2006) from Queensland University of Technology write:

Contention over ‘best’ models of staff development and support are likely to continue for some time. Variables such as the changing academic demographics, new technologies, changing policy and funding models will … continue to impact on the design and implementation of staff development models in higher education and our collective understanding of ‘best practice’. (p. 2)

While Inglis (2006) from Victoria University states that a just-in-time, one-on-one approach works best, Dawson and Winslett suggest that an individual approach is economically unviable. As a result “group workshops supplemented by online ‘how to’ resources and exemplars are common approaches to staff development” (p. 2). Additionally, Dawson and Winslett refer to a variety of alternate approaches including communities of practice, learning circles, and learning communities that bring together the diverse skills and knowledge of staff “to facilitate in-house conversations, and in essence the development of mentor-mentee relationships” (p. 3) around a common theme or interest. Suddaby (2004) describes Massey University’s development of a Certificate in Online Learning and Teaching as reflecting an underlying focus on process, best practice and current theory, relevance, participant involvement and useful outcomes.

Lucas (2006) from the University of London also notes the existence of centralised and decentralised models of support for e-learning in higher education. The former include “‘educational development units’ or specialist ‘e-learning teams’ who … work with individual academics in departments … organize workshops, open days and may run accredited e-learning courses” (p. 480). Decentralised models might include “the appointment of faculty or departmental e-learning advisors … or ‘e-learning champions’ within an institution who promote the utilization of e-learning and might support the development of an e-learning related project or initiative in their school” (p. 480). Sharpe, Benfield and Francis (2006) from the Oxford Brookes University in the UK report on a project they involved the appointment of school-based learning technologists and e-learning champions within a university. The role of these champions was to help schools “to write their own strategies, a pedagogical framework of engaging with e-learning, and curriculum development and evaluation of school-supported projects” (p. 135) as an approach to promoting the effective uptake and sustainable embedding of e-learning in a higher education institution.
National Teaching Fellow, Clive Holtham (2005), describes the advantages of developing a “network of champions…[which] offers the possibility of the ‘whole being greater than the sum of the parts’ “(p. 7) Holtham goes on to state that “champions provide both a counterweight to over-centralised top-down initiatives, and also a route to support implementation of benign top-down initiatives. Holtham also warns that “sustaining a network of champions is by no means a straightforward exercise” (p. 7) because of an unresolved “underlying tension between teaching and research” and “some element of overload on champions” (p. 7).

Stiles and Yorke (2003), from Staffordshire University, state that academic staff not only need training in designing e-learning materials, but also “training AND practice in ‘online tutoring’ … to feel confident in using the technology” (pp. 9-10). Sharpe, Benfield and Francis (2006) make recommendations about the type of support academics need based on a tri-level model for the modes in which academics engage in the delivery of e-learning. The first of these levels, Mode 1, provided an environment in which the lecturer could administer the course, distribute course information and answer student questions. Mode 2 suited a blended learning environment that required significant enhancements to teaching and learning process. Mode 3 was a fully-online environment where modules could be delivered flexibly to allow learners to choose the time and place of their learning. A diagram of Sharpe et al’s model is included in Appendix G. Dawson and Winslett (2006) describe QUT’s alternate approach which uses Learning Design Templates which provide sets of resources that can be “used and re-used for a particular learning and teaching purpose” (p. 4). Such templates aim to “save time and feature a particular pedagogical approach (e.g. groupwork, reflection etc.) and are designed to work within a particular learning environment (eg. large cohort online, small cohort blended mode etc.)” (p. 4).

These writers concentrate on professional development and engage little with the contribution of educational technology services to supporting high quality online teaching and learning environments. Dengate (2006) reports the rapidity of change in the online environment in universities using the tangible measures of download volume and wireless users in the increasingly online environment in Australian universities (see examples from Griffith University in Figure 2 and Figure 3). Dengate stresses the need for the IT Director and those involved in introducing and managing learning and teaching technologies to work together towards the successful and sustainable integration of current and emerging technologies into the university learning environment.
Figure 2: Internet download volume at Griffith University, 2000-2005

Wireless@Griffith Cumulative Users

Figure 3: Increasing use of wireless technology at Griffith University, Jan, 2004 - March, 2006

Stiles and Yorke (2003) stress the need for an integrated support infrastructure for e-learning. They state that the infrastructure for e-learning “needs to include the type of support traditionally offered by support services (e.g. IT or library) as well as academic support” (p. 10). The authors go on to point out that

The coordination that this demands is made difficult by the fact that very often support services within [Higher Education] institutions are not joined up. There are usually few mechanisms to enable the coordination of support offered by the different support services, nor mechanisms for the reporting of problems. Similarly, these mechanisms fail to exist between academic staff and the support services. Very often also, there can be communication failures between the institution-facing and student-facing parts of the same service leading to known problems not being
communicated to the learner help desks for example. These issues need to be
addressed at an institutional level (p. 10).

There are many areas of convergence in the evolving context of online teaching and
learning. For example there are crossovers between flexible learning, library work and
information technology professionals, with new skills, new occupational mixes and
new career paths opening up (NCODE, 2002). Leigh (2006) from the University of
Melbourne focuses on the role of libraries, computing and communication facilities
and a range of information and education services, systems and technologies,
describing it as that of supporting the University's vision of world-class teaching,
learning and research through leadership, innovation and quality in information and
education services, systems and technologies. With this in mind, Leigh describes the
University of Melbourne’s plans for the Melbourne Institute of Technology’s
iCampus and upgrades of their on-campus teaching spaces, collaborative learning
spaces, networks (including wireless networks), as well as to introduce learning hubs
which enable learners to “attain a balance between their social needs and access to
information, learning resources and technology … [by supporting] collaborative and
blended learning, and provide students with access to Information Communication
Technology (ICT) and Information Literacy (IL) skills training” (Blanchard and
Emerson, 2005, p. 90). Sandra Wills (2006), of the University of Wollongong,
illustrated this concept concisely in her presentation at ACODE 42 with the pictures
displayed in Figure 4 and other examples of new types of learning spaces. Such
design moves learners beyond the teaching spaces of the past and into those of the 21st
century.

![Classroom for 54 students BEFORE](image1)

![Classroom for 54 students AFTER](image2)

**Figure 4: Use of design to support new learning (Wills, 2006)**
Uys and Campbell (2005) remark upon the complexity of providing educational technology support in higher education and warn that lack of flexible structures could result in a lack of sustainability of services in a dynamic environment. In particular Uys and Campbell see the organizational location of educational technology leadership and support within inflexible, bureaucratic university structures as posing a “significant challenge for sustainability” (p. 690). Their examination of the structures of 39 Australian universities, led Uys and Campbell to the finding that Australian universities tended to adopt a centralized approach to operations of educational technology leadership and support. Uys and Campbell call for a shift to more distributed and networked approaches that will allow “greater knowledge, flexibility, speed, power, and learning ability to better confront the shifting needs of a new environment” (p. 699) in a sustainable manner.

In summary, OTL presents a fundamental challenge to existing staff development and support structures and approaches of universities. The response of universities to this challenge has been diverse and is an ongoing one, pointing to the difficulty of grappling with a dynamic situation that is much more than “plug and play”. Traditional approaches to professional development no longer work in this environment where the new tools for learning and teaching are always evolving. The development of and adoption by various groups of university staff of new attitudes to, understanding of and ways of working together offers offer a way for operating successfully in this increasingly complex milieu. This has implications for the approach to professional development of academic staff at ACU National.
4. Findings of the Internal Scan

The material presented in this section addresses the internal factors identified as having an actual or potential impact on online teaching and learning at ACU National. The four targeted outcomes identified in the *Strategic Plan for Online Teaching and Learning 2007-2009* are used to frame the internal scan. Each factor is briefly outlined and some comment is made regarding the impact of this factor on ACU National’s current situation.

### 4.1. Policy, procedures and planning frameworks

The place of OTL in an institution is guided by the policy, planning and procedures for that institution. OTL is imbedded in a range of general and specific policies, planning and procedures at ACU National. Links to the ACU National documents mentioned herein can be found in Appendix A.

#### 4.1.1. Policy

Among the key priorities for ACU National, *The Strategic Plan (Revised) for the Period 1999-2008* mentions the learning mission to off-campus audiences and distance learning, and states that the institution is “committed to a policy of flexible multi-mode delivery and is motivated to employ technology in innovative ways” and “needs to provide alternative learning technologies and explore best practice ways to harness technology in order to promote student learning” (5.1). The *Policy on Quality Teaching and Learning* outlines the need for innovative teaching and learning which “makes appropriate use of information and communication technologies.” In addition, the *Assessment Policies and Procedures* recognise a difference between on-campus and online units, reflected by the specific mention in the “Guidelines for Reference Lists” which addresses these differences.

The emphasis on quality expressed in the *Policy on Quality Teaching and Learning* has been carried into the online environment through the *Policy on Quality Online Teaching and Learning*, which applies to fully online as well as web-enhanced units. The policy notes that there is a substantial cost involved in developing wholly online courses, while providing flexibility by recognising that the use of OTL will vary across the university. All units in award courses are expected to have a basic and current online component by Semester 1, 2007.

#### 4.1.2. Planning

Careful planning is required to translate the policy and mission statements into achievable outcomes. In line with this, the previously mentioned *Strategic Plan (Revised) for the Period 1999-2008* develops the commitment to flexible learning. Flexible pathways are highlighted specifically at postgraduate level to cater for small enrolments at different locations (6.2.5). With reference to generating funds for ACU National, “online education provides the University with further opportunities to build on an already developed electronic infrastructure” (8.2.1). Future directions envisaged include distance and online education being “used more effectively to facilitate program-sharing across regions, states (and countries)” (10.3).
In addition to the *Strategic Plan (Revised) for the Period 1999-2008*, a specific plan addresses OTL. The *Strategic Plan for Online Teaching and Learning 2007 – 2009* acknowledges earlier and current initiatives within the University and sets the objective of increasing the number of units with flexible and online components to respond to student needs, within the framework of appropriate pedagogy and economic sustainability. The *Teaching and Learning Plan 2006-2008* specifies a “commitment to the actualisation of quality online teaching and learning outcomes for all students”.

One of the key strategies in the *Strategic Plan for Online Teaching and Learning 2007 – 2009* is for Faculty Strategic Plans and Teaching and Learning Plans to be reviewed and developed to reflect University policies relevant to OTL. Each of the three Faculties has indicated that this task has commenced. This plan also establishes broad objectives as a basis for the more specific Faculty Strategic Plans.

The ACU National *Strategic Plan for Online Teaching and Learning 2007 – 2009* addresses the on-going development necessary to support the commitment outlined in the previously-mentioned policies.

### 4.1.3. Procedures

The translation of policy and planning into the procedures used is vital to a successful teaching and learning experience. In some cases, policy and planning within ACU National gives clear direction as to how this will be done, while in other cases it is implied. A brief coverage of the current procedures and resources to enable effective teaching and learning follows.

**Translation of policy and planning**

The targeted outcomes in the strategic plan state that faculties are to “develop a plan to put into operation the *University Policy on Quality Online Teaching and Learning*” (p.8), and academic staff are to “provide online resources and examples of good practice” (p.22). The *Framework for Online Pedagogical Development: Principles and Guidelines* addresses the difference between on-campus and OTL and gives guidance for lecturers developing online materials. General policies such as those concerning teaching and learning, assessment, and evaluation, also apply to OTL, and will need to be reflected procedurally in the OTL planning documents being developed by the faculties.

**Quality Assurance (QA)**

Currently, the only compulsory quality check for online teaching is the technical QA process to which all fully online units are subject. Prior to the commencement of the semester in which fully online units are to be offered, technical checks are conducted by ACUonline project officers which involves checking that all content is in place eg. learning modules, study schedules, unit outlines, electronic readings, lecturer biography and so forth. The QA ensures that appropriate links are in place, formatting is consistent and correct and that dates are correct. ACUonline officers and the Coordinator Online Teaching and Learning work with academic staff to ensure web publishing deadlines are met and support is provided. The Coordinator sample checks...
fully online units during the technical QA and also assists staff on a one-on-one basis. Technical checks may alert the Coordinator to pedagogical issues.

Pedagogical issues are expected to fall under the umbrella of the quality assurance process for all units within a School. Some Schools use teams to develop units, which provides an internal quality assurance (QA) process, but other units are developed by individual staff members without reference to colleagues. Consequently some Schools have established a mechanism to check the pedagogical and technical quality of their units through the use of teams, while units from some Schools are only checked for technical quality.

As already indicated, web-enhanced units are not subject to the formal technical QA processes. The nature and extent of their web-based components depend in large part on academic staff time and ability. This means that the quality of web-enhanced units varies considerably. Depending on staff willingness, time, and expertise, quality checks, of both technical and pedagogical elements, rely on the staff involved seeking feedback from colleagues, whether academic or support staff, or students. There is no established procedure for QA of web-enhanced units. The overall trend to web-enhancement of face-to-face units suggests that this area is one that deserves further consideration by the university.

Resources
The determination of ACU National to place a higher priority on OTL has been reflected in an increase in the resources provided. Some of these comprise adaptations of current resources, while others are additions.

Staffing
The Heads of School survey revealed that staffing of fully online units is dependent upon a variety of factors such as staff interest in online teaching and learning, content expertise, time and availability. Initially in many Schools, staff have self-selected by volunteering to develop and teach online units, but increasingly Schools are selecting staff who have some experience in flexible teaching modes. Where particular expertise is needed, sessional staff are appointed where this expertise is not available within current staffing. This use of sessional staff presents some difficulties as payment is generally not given for time spent training for OTL, and administrative issues such as identifying availability of suitable staff, signing of contracts, etc., can delay the start of development and leave inadequate time for unit development and QA.

The most frequent concern mentioned by the Heads of Schools related to the workloads for OTL. They noted that the development of quality online materials may take two to three times longer, or more, than a face-to-face offering, and accordingly perceived the current workload allowances for preparing fully online units to be inadequate. In addition, the amount of time needed to teach an online unit, especially one with large numbers, was perceived to be greater than is currently recognised by time allowances, as contact with students can and usually does create a large email and telephone workload in addition to assessment marking. With regard to web-enhanced units, staff were reported as accepting that OTL needs to happen but are unhappy that they are expected to develop these without being given any additional recognition for the time demands, thereby adding to their workload. This extra
workload may well help to explain in part the mixed reactions of staff to teaching online units, as reported by the Heads of School.

As mentioned above, web-enhancement is now an expectation of all award course units. Currently there is no workload allowance in the *Interim Policy - Workloads for Academic Staff* for developing web-enhanced components. This is left to the discretion of the Head of School. Given the pressure to conduct research as well as to teach, staff often have little time to develop new skills. Five Heads of School noted that the current pressure to conduct research is a deterrent to staff spending time developing web enhancement of units.

**ICT**

Computer access, an obvious requirement for students and staff involved in OTL, varies within the university. Students studying fully online units need good access with adequate bandwidth, but anecdotal evidence suggests this is not always the case. Many students who study face-to-face units access online and web-enhanced units via the university’s on-campus facilities, and one HOS noted that students often complained that there are not enough computers. A comprehensive survey of when, how and with what resources, students access OTL materials would provide valuable data for the university’s planning in this area.

Staff also need adequate access to computer facilities. Although no comprehensive data are available, it is assumed most staff have reasonable access to computers and the network. This is less certain for sessional staff, and it appears many may have to depend upon their own facilities for unit development and teaching as office space is at a premium on some campuses. Many staff, including full-time, part-time, and sessional staff, use computers and network access from home, as they can work in the evenings, on weekends, or during the day without interruption. This access is a currently unrecognised resource for the university and a potential difficulty if the type of computer equipment or software available to staff is not sufficiently powerful to use some of the LMS tools. This situation also raises the issue of the university’s responsibility in terms of provision of an appropriate working environment and the associated occupational health and safety issues. An investigation of staff computer access and usage off-campus would provide useful information to address this issue.

During the preparation of this report, the outside network link for one campus dropped out for three and a half days, and was a good demonstration of the difficulties that occur when email and LMS services are not available, not to mention any other web based activities. With much of the university’s communication occurring via email, there was an obvious lack of hard copy documentary information, and with no LMS services there could be no teaching in online or web-enhanced units for staff or students using on-campus computers. Staff and students with access from home could access the LMS network, although university email services were still unavailable locally. This reveals some vulnerability with reliance on ICT and OTL.

Currently ACU National relies on WebCT/ Blackboard EC 6 for its major LMS, although there are other forms of presentation for online materials, such as e-reserve, Virtual Health, and purpose-built web pages. Comments from the HOSs indicate that some staff find the current version of the LMS more complex than previous versions,
and would prefer to have a more intuitive system rather than one that takes considerable time to learn.

Staffing infrastructure
ACU National’s staffing infrastructure for OTL is in an evolutionary phase, and has had a number of recent additions to reflect the commitment the university has to OTL. Specialist staff supporting OTL are located within the IATL and ACUonline. A description of the specific roles of these staff is in Appendix F, with the IATL staff involved in the pedagogical aspects of OTL and ACUonline staff involved in the technical aspects. Interestingly, none of these role descriptions make a direct reference to ACU National’s students.

Support
Given the need to respond to requests for technical help, ACU National has engaged NetSpot, an external commercial provider, to provide support to both staff and students. NetSpot provides ACU National students and staff with free telephone and email HelpDesk support between 8am - 10pm AEST on weekdays, and between 9am - 5pm AEST on weekends and public holidays. Information from NetSpot provided an overview of both the volume and nature of requests for support from ACU National’s staff and students. These data are contained in Appendix H. Importantly, large numbers of requests (45%) for support at the beginning of 2007 were classified by NetSpot as relating to enrolment. A significant number of requests were described by NetSpot as ‘Other’ and as a result ACU National has limited knowledge about the nature of these requests, other than they fell outside the existing categories for which records are kept. More specific information from NetSpot and other external providers who may be involved in the future would enable a more detailed overview of issues and trends to be identified and addressed.

Fraynework Multimedia, a non-profit organisation established for the creation of multimedia productions, has worked with the Schools of Theology and Religious Education from December 2006 for the development of a number of fully online units. They have also provided videoclip resources relevant to the Australian context for fully online units offered by the School of Educational Leadership.

Library services have expanded considerably to include additional computer access, delivery of training for students and staff on the library information systems, technical assistance with preparation of online unit materials, the acquisition of eResources such as Ebrary and the expansion of online databases.

Recent moves within ACU National aim to ensure that all students can access course information online, and that staff can develop the skills to facilitate the use of the online environment for unit administration and student support. A program is also under development to familiarise students with ACU National’s LMS (WebCT). What is needed however seems to be a formal recognition and addressing of the additional demands made by the e-learning experience on staff and students and the time-related concerns associated with the less-structured environment engendered by online teaching and learning.
4.2. **Flexible Learning environments and pedagogy**

Web based LMSs are now an integral component in the delivery of education and training in many institutions and organisations. The current trends in higher education of an increase in the use of learning technologies and an internationalisation of the student body are evident at ACU National.

Through the efforts of academics regarded as early adopters of technology for pedagogical purposes, ACU National has had significant involvement in using online technologies, commencing in 1992 with the use of cross campus video conference technologies. Along with this, the university adopted a pilot of Lotus Learning Space as its first solution using networked online technologies.

From these beginnings, the importance of pedagogy for online and networked learning became paramount. With the introduction of ACUweb in 1999, training for hosting online courses was coupled with training in online pedagogy. Since this time there have been significant and many successful examples of online pedagogy such as fully online postgraduate units. Online offerings in Education, Nursing and Midwifery, Business and Theology have all modelled effective online pedagogy.

Systematic evaluation of the effectiveness of online courses was not undertaken by ACUweb. The University Unit Evaluation Program focused on units rather than courses, and its processes were essentially designed for on-campus students. ACUweb has conducted student satisfaction surveys each semester, which included questions about their learning experience and service delivery components of the online system. Individual academics within these disciplines have undertaken their own evaluations, many of which presented strong evidence of the success of online course and embedded pedagogies. However there is no readily accessible data on the effectiveness of online units or web-enhanced units. It should be noted however that since the adoption of a single platform within the University, some trialling of variations to the Unit Evaluation Program processes has been undertaken to determine how best to meet online unit evaluation needs. This has led to the trialling in Semester I, 2007 of a fully online confidential student unit evaluation system, with the view of subsequent full-scale implementation in later semesters.

The needs of online learners studying at ACU National have been outlined by Maguire and Matejka (2000) who described the following a set of key inter-related issues:

- the needs of the institution and the demand of flexible online teaching and learning environments to be provided,
- the pedagogy of online teaching and learning environments,
- specific features of web-based teaching and learning environments, and
- traditional and emerging instructional design theories.

An illustration of these emerging needs has been given by a senior member of the Faculty of Health Sciences who spoke of moves to incorporate online teaching and
learning in the undergraduate curriculum through the careful design, development and delivery of a unit being delivered across campuses to the large cohort of undergraduate nursing students.

The issues regarding implementation are significant and a number of approaches have been adopted including:

- development of units by academic teams
- design support and assistance provided by internal grants, and
- use of external consultants such as Fraynework Multimedia.

Frequently however, the development of online material has been done by academics in the normal course of unit development. In the case of fully online units offered for the first time, workload allowances for the proceeding semester for unit development are provided under the workload policy but it appears that these are not consistently available or universally applied, and as previously mentioned, it may be an inadequate provision. ACU National provides assistance to staff to incorporate the use of technology in fully online and web-enhanced units by offering regular workshops and individual consultation. The workshops are popular and cover technical, design and pedagogical issues. The content of the workshops is consistently updated to respond to the needs of academic staff and to issues associated with technical updates and the availability of new features of the LMS. Additional content is provided by ACU National Library staff and external presenters, such as staff from education.au.

The evidence from NetSpot (see Section 4.3.2) reports increased usage of online learning systems at ACU National. This is supported by Heads of School who report increasing high levels of interest among staff (see Appendix C). This is not to suggest universal take-up or acceptance however it is consistent with national and international trends.

These trends in online teaching and learning are having an impact in terms of current activity in writing and development of online units, and the number of online units and courses currently offered. ACUonline reports:

- 81 fully online units offered in semester 1, 2007
- 102 fully online units proposed to be offered in semester 2, 2007
- 690 web-enhanced units currently hosted on the ACUonline server in April 2007, and

There are no data on the web activity or the nature of web-enhanced units, i.e. the types and extent of web-enhanced features that are currently hosted.

Faculty Annual Reports provide evidence of research into the effectiveness of online pedagogy at ACU National, including conference presentations at national and international levels, symposiums within Faculties and the use of this experience within formal training at ACU National. There are also examples of the use of innovative technologies additional to the LMS which have enabled academics to form partnerships with other universities.
The use of professionally focused online tools, such as “The Virtual Health Environment” and “The Virtual School” have become an important part of the undergraduate nursing and teacher education programs. This was recognised in the 2006 Carrick Citation Awards. The Virtual Health Environment ensures that undergraduate nursing students become experienced users of the online environment through providing ‘learning experiences that are based on true to life clinical scenarios’ (School of Nursing (NSW), 2005), not only for their study but also in readiness for their professional practice. The Virtual School simulates classroom and school interactions and has become part of the Faculty of Education implementation of technology integration. These initiatives are cited in the 2006 Teaching and Learning Enhancement Scheme (TALES) grant “Beyond the Grade” (Dennis, Drury Hardy, McDonald, Matejka, and White, 2006).

4.2.1. Quality assurance for pedagogy

Procedures in place to foster the technical quality of fully online units have been outlined previously, as have the difficulties associated with the QA of web-enhanced units. There are measures which support the sound development and teaching of online units within ACU National.

- Staff training, development and support is provided by two types of workshops, conducted four times a year. Developmental workshops assist staff developing online unit content. Teaching workshops train staff in the use of LMS tools.
- An educational designer is available to work with academics to provide pedagogical advice.
- Resources such as training manuals containing pedagogical and technical advice, a training website on the LMS with relevant material and links, sample units, and the document Framework for Pedagogical Development provide further support.
- The experiences of staff who have been teaching fully online units for at least 8 years has led to some informal mentoring of colleagues new to online teaching and learning as well as providing models of sound pedagogical practice.

ACU National is able to draw upon the experience of academics across a range of disciplines pointing to strong examples of effective online pedagogies and practices. The above examples point to the growth of a positive environment for the adoption, and spread, and potential to expand collaborative research into OTL.
4.3. **Student Training and Support**

The impact of ICT on universities is evident both within and beyond the lecture and tutorial rooms and the library. Without an ability to negotiate the online environment, students’ ability to survive and experience successful e-learning is under threat. This internal scan found a number of support and training initiatives designed to establish students’ use of online technologies and provide ongoing support. Some are university wide, others are campus or discipline specific. Details of findings from the internal scan relating to these initiatives are outlined below.

### 4.3.1. Student training for effective use of current and emerging technologies

In the Australian university sector, students’ learning takes place within the context of one of many institutions, each of which has an idiosyncratic infrastructure that includes online elements. The effective use by students of current and emerging technologies that contribute to that infrastructure is dependent on students’ initial abilities to access and use these technologies effectively.

Many aspects of ACU National’s infrastructure now have an online presence. Such aspects include MyACU, which provides students with online access to information about the ACU National environment, and Student Connect, the online system through which students undertake many of the administrative tasks associated with their study from admission, enrolment, ensuring currency of their personal details, fees payment, to receiving results. Students also have an ACU National email account which they are required to check regularly for important information related to their enrolment, fees and results. Students have online access to the ACU National Library’s electronic resources, ACUonline and the LMS. Students’ access to the LMS is determined by their correct enrolment and payment of fees.

Sessions during the on-campus Orientation Week on each campus are designed to ensure that students know how to access MyACU, their student email account, the Library and the LMS, as well as the campus computer laboratories. Tours of, and special sessions about, the Library enable students to become aware of, and learn to use, the electronic resources that they will need to support their learning. Library staff work with academic staff to embed within a course the skills that focus on the particular electronic resources that best support students’ study in a particular discipline. The Library website also provides online support to help students make effective use of electronic resources (see Figure 5). The Library also conducts surveys to ascertain student and staff satisfaction with its services and to plan for improvement.

ACU National’s reliance on the online environment for many administrative aspects of student life requires that there is timely training and support for students in this milieu and regular evaluation of that support.
Training students to use the LMS

As noted above, students are shown how to access and use the LMS as part of a general orientation to the ACU National infrastructure. Some lecturers of fully online units stated that they provide support to students as part of what they do. One lecturer described special LMS orientation sessions prior to commencement of the postgraduate unit in which she was involved. Another lecturer integrated a LMS orientation session into the first week of lectures for a first year undergraduate class. One staff member spoke of optional LMS orientation week sessions that were unattended. The staff member believed that new students had not recognized the value of attending the optional sessions in the use of the LMS. The staff member also referred to the pockets of good work but stressed the size of the gaps between these pockets stating that “Lots of people [were] doing good work but getting coordinated / working together [was] the problem”.

Once students are able to use the LMS, they have access to 'Student Orientation to WebCT', an online unit that contains a number of interactive tutorials on using Discussions, Chat, Mail, Assignments and Assessments. Even though such support is available, a number of staff commented that some of their students in both fully online and web-enhanced units were in need of ongoing support to help them access and navigate the LMS effectively. In 2007, information about the use of the LMS has been developed for higher degree research students who are required to study a number of fully online research modules. The need to develop a more consistent approach to all students’ induction into the use of the LMS has been recognised and a guide to the LMS for all students is under development by a group of academic, ACUonline, Academic Skills and Library Staff.
A number of implications for ACU National can be drawn. In the absence of a compulsory OTL induction program, ACU National’s new students may miss the opportunity to identify and develop the necessary skills to negotiate the ACU National’s infrastructure and its LMS environment. The development of a consistent approach to the LMS is a positive move. There are no reliable data regarding students’ satisfaction with, as well as their ability to make effective use of, ACU National’s support for their induction into online learning. With limited measures to make students aware of the personal and pedagogical demands of e-learning and limited information about students’ perceptions of learning in the online environment, there is both an opportunity and an imperative for ACU National to survey students’ perceptions of and attitudes to e-learning and to develop programs that better prepare students for learning in this online environment.

*Specialised technology based learning environments*

Within disciplines, ICTs are at times being used to create alternative professionally oriented learning environments. During the time available for the conduct of this short scan, examples were found to include the previously mentioned Carrick Citation winning Virtual Health Environment within the Faculty of Health Sciences, the School of Education (NSW)’s Mobile Computer Laboratory (shown in Figure 6) and the Macquarie University developed Learning Activity Management System (LAMS).

The support of students using these innovative environments has been taken on within the Schools by those responsible for their use. In the case of the Virtual Health Environment, training and ongoing support have been embedded into the Nursing curriculum. Other examples of such specialists learning initiatives may exist but further investigation is needed to identify them.

The Mobile Computer Laboratory is an example of what the then Assistant Director of UNESCO, Colin Power (2004), might see as the beginnings of meeting the challenge of moving the on-campus environment “conceptually and practically from the 19th to the 21st century”. Part of the practicality of doing this is to design and provide the multi-sensory, student centred, collaborative, communal, flexible, connected, unbounded learning environments that underlie fully online education (Matejka, Maguire, and Burke, 2005).

![Figure 6: Mobile Computer Laboratory - NSW School of Education](image-url)
the pedagogical principles associated with flexible learning and innovative classroom practice. This also has additional implications for support, resourcing and management of alternative technology based learning spaces.

4.3.2. Ongoing student support for the effective use of current and emerging learning technologies

ACU National students are supported in their ongoing use of online learning technologies in various ways. As noted in the previous section, ongoing support for students’ learning in specialised learning environments is provided by the staff working in those environments. This scan found that various groups of ACU National staff support students and that a formal arrangement has been made with NetSpot to expand the university’s support capabilities.

**Internal support**

Internal support for students’ learning in the online environment is provided in varying degrees by a range of staff. Some lecturers incorporate ongoing or occasional support for students as part of unit delivery. Some Library staff reported assisting students when they were able to do so. Academic Skills staff were aware of students’ need for student support and were involved in the preparation of a guide to the LMS to be made available for all students. ACUonline Project Officers reported answering student queries on an *ad hoc* basis, at times instigated by an academic or library staff member. Of concern was the statement by some Heads of School that, in spite of many students being computer literate, the use of multiple versions of WebCT within the LMS environment led to confusion for students and resultant requests for support that would not have arisen if there were only a single environment. Overall, there is no clear knowledge of the extent of such practices nor of whether or not such practices adequately support students’ use of the various tools in the LMS. This implies that there is a need to ascertain the extent of these practices in order to assess the degree to which they meet students’ needs and to plan for the future in this regard.

These approaches to support are focussed primarily on negotiating the online environment and not on the skills and demands of e-learning in the online environment. As there was no opportunity to assess students’ attitudes to e-learning in this environmental scan, there is a gap in the data presented within this report which could be filled through further investigation. From comments made by academic staff, it seems that many students, including local school-leavers, mature-age students and international students, find that the online environment presents an unfamiliar and stark contrast with the learning environment they have previously experienced and in which they know how to learn. Just as staff are being given training to promote the development of new pedagogical skills, as noted above, students need to learn how to learn in what is for them a new learning environment as well as how to deal with the emotional challenges it presents.

This implies that there is a need to assist students to develop a sufficient understanding of e-learning to appreciate how it differs from the face-to-face environment and how they can maximise their learning in it.
**External support: NetSpot**

Currently the major method of providing ongoing support for student use of the LMS is through NetSpot. Data from NetSpot obtained for this scan have been included in Appendix H. In particular, the data from NetSpot indicate an increased use of WebCT over the period June 2006 to April 2007, i.e. over semester 2, 2006 and the beginning of semester 1, 2007 (Figure 7). The data also indicated an increased use of NetSpot for support by staff and students, particularly in the first few weeks of each semester, as indicated by the increased heights of the columns for August 2006 and March 2007. This increase was not surprising, given the requirement that all ACU National units have a web presence by semester 1, 2007.

![Figure 7: Total number of Hits on the ACUonline server Jun 06 – April 07](image)

Data from NetSpot regarding requests for assistance also provided some idea of the nature of requests. These data were analysed and categorised to better understand the problems that cause staff and student users of the LMS to seek help. As a general observation, there have been a considerable number of requests relating to how to use tools within WebCT, and on administrative issues such as course requests and student enrolment issues (see Table 6 and Table 7 in Appendix H). The graph in Figure 8 displays the percentages of calls relating to particular types of request during two 3-month periods in 2006 and 2007.

Of concern were the calls for help in relation to gaining access to courses, including problems relating to passwords or enrolment. Such calls comprised approximately 26 percent of Helpdesk requests in August – October, 2006 and 53 percent in January - March, 2007. Of concern are the 45 percent of requests for support in January – March 2007 that were categorised by NetSpot staff as being related to enrolment. As this was the first time that ACU National students were able to enrol online, there may have been a ‘trickle down effect’ as a result of difficulties with the new online enrolment system. This situation needs further monitoring.

One advantage of online tertiary education is seen as giving students the flexibility to learn when it suits them. This allows students from disparate geographical locations and students who work to access tertiary education. As stated previously, NetSpot provides phone and email support for students between 8am and 10pm (AEST) on
weekdays and between 9am – 5pm (AEST) on weekends and public holidays. Thus there is the possibility that, as the number of students engaged in online courses increases, students will require help out of NetSpot’s working hours. For example, students in New Zealand work in a different time zone and have different public holidays. A graphical representation of the timing of current requests to NetSpot for assistance has been given in Figure 9.

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Figure 8: Nature of calls to NetSpot

Figure 9: Distribution of daily help requests to NetSpot, June 2006 to April 2007
Figure 9 demonstrates that the vast majority of calls are received within the 8am to 6pm AEST period. Whether or not the 217 calls (5.63 percent) calls that were out of NetSpot’s current working hours were made by email cannot be ascertained as a breakdown of requests by telephone and email was not available. The implications of the NetSpot data for ACU National’s Online Teaching and Learning Strategy are that requests for help to NetSpot need to be monitored by the University in order to ensure that the current service is the one most suited to the needs of our students and staff, particularly as there is a concerted effort to engage more fully in online teaching and learning.

4.3.3. Equity

ACU National’s concern for equity for indigenous, disabled and disadvantaged students results in the need to ensure that these groups of students are supported in their use of the LMS. The current template for online and web-enhanced units has addressed satisfactorily the accessibility attributes of the LMS. Further data are needed to ascertain the perceptions of these groups of students regarding online teaching and learning in general.

Whilst policies and guidelines are in place for these groups, they do not address the needs of technologically disadvantaged students: e.g. some mature age students or students from low socioeconomic backgrounds. This group of students threatens to become increasingly disadvantaged because of the increasingly important role played by ICT in learning. Whilst there was a growing awareness of the computing needs of tertiary students, some lecturers noted that not all students registering in a fully online unit seemed to be aware of the technical specifications of the equipment they would need to undertake the unit. Such students were often novices when it came to computers and struggled in their online units, even when they had computing facilities at home. Similarly, on-campus students studying web-enhanced units were reported to be not always fully aware of the online aspects of their programs. Whilst some students had computing facilities at home, others did not and became increasingly reliant on already busy campus computing facilities for their university work. Nor were these students necessarily aware of the additional skills needs for successful e-learning. This implies that there is a need for ACU National to ensure that students engaging in fully online units are aware of the equipment and skills required to engage effectively in studying an online unit, as well as a need for ACU National to ensure that it supports addressing the needs of these students. Similarly, there is a need for ACU National to ensure that those campus-based students who do not have computing facilities at home have adequate on-campus access.

Given the planned increased in online teaching and learning at ACU National, it is likely that students and staff will place greater demands on physical ICT resources and their management. This demand will also extend to the provision of initial training and ongoing support programs for ACU National’s online infrastructure, its chosen LMS, ACUonline and specialist technological learning environments. The findings of this scan indicate that various measures have been taken to provide training which supports students’ access to online learning activities but that there has been no consistent approach across the campuses. This implies that ACU National needs to address this situation and also consider conducting an evaluation across all
campuses of students’ perceptions of the adequacy of training and support for their online learning activities.

New approaches to learning facilitated by the use of online activities in campus-based web-enhanced units suggests the need for more flexible learning spaces that provide opportunities for both desk / table and computing activities. Commitment to and development of such spaces has implications for the university management and for campus managers. The implications of the development by ACU National staff of rich and innovative ways to enhance student learning through the use on online technologies lie not only in the provision of resources required for such ventures, but also in the challenge of developing an environment which fosters innovations, their evaluation and dissemination of their outcomes.

### 4.4. **Staff Development and Support**

There are a number of avenues which ACU National staff can use to access formal OTL support. IATL, in conjunction with ACUonline and the Library, offers structured workshops for staff developing and teaching fully online and/or web-enhanced units on each of the six campuses three times per year, usually in November/December, February and June/July. ACUonline staff are also normally available for ad hoc assistance (Monday to Friday) face to face on each campus except Signadou, and by phone or email to all campuses during normal working hours.

The assistance available through NetSpot has been described earlier in this document. Other assistance to staff is provided through a variety of means. For example, a list of tips for LMS users is circulated periodically by one of the ACUonline Project Officers to staff teaching online. The Faculty of Arts and Sciences uses a comprehensive ‘starter kit’ of information for staff, including Heads of School, who are involved in the development of fully online and web-enhanced units. This kit was designed by ACUonline staff. During semester 1, 2007, some Online Advisers have been invited to facilitate discussion of online teaching and learning at School meetings.

Data from the IATL for the period Jan/Feb 2005 till April 2007, during which eight rounds of workshops were provided, shows that staff from each of the three faculties across the six campuses have been participating in online teaching and learning workshops. Further analysis of these data would enable total numbers of staff attendances as a percentage of staff in each faculty/School or the number of sessions attended by individual members of staff to be determined. This further analysis should also provide a detailed overview of the skill levels of ACU National staff with regard to the current version of the LMS. Data about these skills levels – both pedagogical and technical – would help to ensure the maximisation of the efforts of staff attached to both the IATL and ACUonline in their delivery of staff training, and the maximisation of benefits from strategies for sharing new learning within/across Schools and Faculties.
Using the staff evaluations of the November 2006 and February 2007 online training workshops as a guide, a number of aspects of the perceived training needs of staff can be identified. Staff appreciate presentation of material which is clear, up-to-date, practical, relevant to their needs and which is supported by a hard copy manual for easy reference. Staff appreciate opportunities to discuss pedagogy as well as possible uses of the LMS tools to design and support high quality teaching and learning. Evaluations indicate that the staff training workshops are perceived very positively.

In increasing numbers, staff are using the support services provided by NetSpot. Data from NetSpot identify the most common areas for staff requests as the technical aspects of the Staff portal, rolling over existing unit materials to another semester, the use of certain tools in the LMS and aspects of best practice. (See Appendix H for further information).

The likelihood of increased demands being placed on the LMS by staff leads to conclusions similar to those reached in the discussion of student needs in the previous section. The high quality of staff training currently being provided will need to be maintained and expanded into the future to respond to the changing needs of staff. It is imperative that the LMS is able to support such anticipated increased usage. With that in mind, a comprehensive review of its capabilities now and into the future would provide the university with vital information for use in its future strategic planning for OTL.
5. Findings of the SWOT Analysis

As indicated in the Preamble, the SWOT analysis highlights particular strengths, weaknesses, opportunities and threats which characterise the university’s current provision of online teaching and learning. Its findings thus have implications for ACU National’s achievement of its vision for OTL. The findings relating to each of the four targeted outcomes are outlined below.

TARGETED OUTCOME 1: ACU National’s policy, procedures and planning framework supports quality online teaching and learning.

Strengths that will help achieve this target:

- An existing policy framework and establishment of roles specifically directed towards achievement of the university’s goals in this area, reflecting ACU National’s commitment to quality teaching including online teaching and learning.
- Current awareness raising within the ACU National community concerning the various policies, procedures, roles, responsibilities and support services associated with OTL.

Weaknesses that could impede achieving this target:

- Staff perceptions of lack of adequate recognition in the Interim Policy - Workloads for Academic Staff of the amount of work involved in the development of both fully online and web-enhanced units.
- Staff perceptions of an absence in policy of recognition of the impact of the flexible nature of fully online and web-enhanced modes of teaching on academic work.
- Lack of coordination between academic and other specialist staff in OTL environment e.g. Academic Skills and other specialist staff such as Librarians, Online Advisers and ACUonline staff.
- Ensuring that ACU National’s technical capabilities and support specialists are able to keep up with the increasing demands of OTL.
- Reliance on sessional staff for development and/or teaching of a number of fully online and web-enhanced units without necessarily providing sufficient lead time for unit development and quality assurance processes.
- Lack of data on the extent to which staff have adequate access to appropriate computer facilities, on- and off-campus, for unit development and teaching.

Opportunities that could help achieve this target:

- The opportunity to fast-track development and implementation of a sustainable flexible learning initiative by examining the successful and not-so-successful experiences of other institutions.
- The development of frameworks to support innovation and research in OTL as well as to share expertise across campuses and faculties within ACU National.
- An opportunity to broaden the focus of ‘online’ teaching and learning to ‘flexible’ teaching and learning which acknowledges current and emerging trends.
Threats that could impede achieving this target:

- Failure to address any gaps between ACU National’s current practices and external expectations and practices could impact adversely on perceptions of the quality and viability of ACU National’s online teaching and learning.
- Failure of particular Schools or Faculties to ensure that their OTL development is consistent with the various current ACU National policies relating to OTL.
- Failure to consider the need for new approaches to the design and use of the physical and virtual learning spaces needed to scaffold flexible teaching and learning policies and practices.
- Failure of the University to address OH&S issues associated with academics being involved in OTL.
- Undue proliferation of policy, planning and procedures documentation in this and other areas leading to information overload.

TARGETED OUTCOME 2: Online learning environments are flexible and dynamic, and demonstrate high standards of pedagogy.

Strengths that will help achieve this target:

- The existence of specialist positions to support quality online teaching and learning, especially the recent appointment of a Director of Flexible Teaching and Learning.
- The incorporation of pedagogical underpinnings of OTL into staff training sessions in 2006 and 2007.
- The university has some highly experienced academic staff who been early adopters and/or innovators in this dynamic environment, some of whom have shown a willingness to mentor other staff.
- A broad acceptance by academic staff of the move towards OTL and a desire to base their OTL activity on a sound pedagogical base.
- The implementation of QA procedures to ensure that fully online units meet high technical standards.
- A collaborative approach within some Schools to the development of units, enabling high pedagogical standards to be established and maintained.

Weaknesses that could impede achieving this target

- The late assignment of staff to teaching some fully online units, resulting in short timelines for the development of such units.
- The lack of a consistent approach within and across faculties to pedagogical QA procedures for the development and delivery of online materials.
- An inability to meet a future increase in requests for assistance with educational design resulting from an expanded use of OTL by academic staff, given the current level of specialist staffing in this area.
- A lack of consistent and comprehensive quality assurance processes for web-enhanced units.
Opportunities that could help achieve this target:

- Access to an existing, expanding body of research into effective pedagogy and professional development strategies in flexible learning.
- Creating new partnerships to create new physical and virtual learning environments.
- Participation in established OTL related professional networks.

Threats that could impede achieving this target:

- The implementation of an unsustainable technologically or politically driven approach to e-learning, rather than one which has a sound pedagogical base.
- Failure to set in place a coordinated, flexible and responsive support structure to facilitate the development of OTL in a dynamic complex environment.
- Poor recognition and understanding of the complexity and inter-relatedness of many aspects of OTL could result in sub-optimal decision making about this context.

Targeted Outcome 3: Ongoing support and training are provided to students for both current and emerging technologies

Strengths that will help achieve this target:

- The preparedness of ACU National staff including ACUonline Project Officers, Library and Academic staff to support students
- The provision of a free full telephone and email support service operated by the external provider NetSpot, and extension of its hours of operation in 2006.
- The preparation of a Student Guide to the use of ACU National’s LMS.

Weaknesses that could impede achieving this target

- The absence of initial hands-on training in the use of ACU National’s LMS and Student Connect for some beginning students studying on-campus and for students enrolled in fully online units.
- The lack of formalized ongoing training and support for students in their use of the LMS, particularly students with poor ICT skills.
- A lack of awareness on the part of some students registering in a fully online unit regarding the equipment and e-learning skills they will need to undertake the unit.
- An inability by some on-campus students to easily access computers to meet the demands of web-enhanced units.
- Lack of comprehensive data on students’ knowledge of and need for e-learning skills development and the impact of student diversity on student participation in online activities.
- Confusion resulting from the use of a variety of LMSs.
- Lack of 24 hour, seven days per week technical support for students.
- Accessing the LMS is problematic for students with enrolment difficulties.
• Lack of information about students’ perceptions of OTL, ACU National’s LMS and Student Connect.

An emerging opportunity associated with this target:
• An opportunity to develop ACU National’s model for student training and support after appraising models of and standards for student training and support used by other institutions

Threats that could impede achieving this target:
• Inability of students to keep up with the increasing demands of flexible learning technologies and their inability to access the associated technology.
• Maintaining a physical and regulatory environment which is unable to support the changing needs of student learning.

TARGETED OUTCOME 4: Appropriate staff development and support are provided for online teaching and learning.

Strengths that will help achieve this target:
• The availability of ongoing support of staff by IATL and ACUonline personnel.
• The provision of professional development workshops which cover issues of pedagogy, copyright and library eResources as well as the university’s LMS.
• Manuals provided at the professional development workshops are clear and user-friendly, providing ongoing support to staff.
• The regular evaluation of professional development workshops.
• The provision of a free full telephone and email support service operated by the external provider NetSpot, and extension of its hours of operation in 2006.
• A general willingness on the part of IATL, ACUonline, ITCS, Library Services and experienced ACU National staff to support newcomers to OTL.
• The recent assistance given to some schools in their unit development and resourcing by external providers with expertise in OTL.
• Accessibility of OTL professional development sessions to other academic support and general staff who wish to use the LMS.

Weaknesses that could impede achieving this target:
• Lack of preparation time and inability to access professional development when staff are allocated to teach a fully online or web-enhanced unit without sufficient time before the commencement of teaching periods.
• Difficulties experienced by some sessional staff in obtaining access to the LMS if their contracts are not finalized before the commencement of the teaching period for which they have been employed.
• The lack of 24 hour, seven days per week technical support for staff teaching fully online and web-enhanced units means that staff working outside the normal operating hours of the current provider are disadvantaged if problems occur.
• The absence of an ACUonline Project Officer at Signadou campus.
• Under-developed avenues for sharing of experiences and innovative approaches to OTL within and across faculties.

**Opportunities emerging for ACU National include:**

• The ability to appraise existing models of and standards for staff training and support used by other institutions to develop one best suited to the needs of ACU National.

• The opportunity to engage in conversation and to form new partnerships with staff at other institutions, thereby encouraging and support innovation in IATL.

• The opportunity to develop and enhance the culture of research into OTL leading to a better understanding of OTL in the ACU National context.

• Forming new partnerships to generate new physical and virtual professional development environments.

**The threats that could impede achieving this target:**

• Lack of awareness of new physical environments and intra-organisational partnerships that support professional development and quality OTL.

• Lack of access to the technology and associated support necessary for successful flexible learning environments.

• The potential inability of the current LMS to support an increased level of usage as the *Strategic Plan for Online Teaching and Learning 2007 – 2009* is implemented.
6. Further considerations for achieving sustainable change at ACU National

As noted in the introduction, and evidenced throughout this scan, education in the university sector is dynamic in nature. To achieve sustainable existence in this environment it is helpful to consider for a moment Fullan et al.’s (2005) eight drivers of sustainable change. As has been stated elsewhere (Applebee, Flowers, Schneider & Kazlauskas, in press), in applying Fullan et al’s framework to the achievement of sustainable change with respect to OTL, ACU National would need to:

- Engage people’s moral purpose: staff, students and relevant external groups need to know why provision of quality OTL is on the agenda and how it contributes to the achievement of ACU National’s vision and mission.

- Build capacity by developing new knowledge, skills and capabilities which are appropriately resourced with time and materials and which assist with the development of a shared identity and purpose around OTL.

- Understand the change process by harnessing the energies and commitment of people to do the tasks of enhancing the quality of OTL. This leads eventually to an ownership of the change process and creation of a culture of continuous improvement.

- Develop cultures of learning by developing and enhancing the strategies which enable people to learn from each other and become committed collectively to improvement of OTL. It involves learning through doing and from sharing knowledge, which may have implications for the way training is provided.

- Develop cultures of evaluation by evaluating all aspects of OTL in order to meet both external and internal accountability requirements and to use the information generated to inform our own learning and to contribute to the continuous improvement of OTL.

- Focus on leadership for change by spreading change leadership throughout the organization so that decision-making capabilities and knowledge of change management are being developed at all levels of the university’s operations. Such an approach will enable ACU National to achieve short-term results while focusing also on long-term, sustainable change and development.

- Foster coherence making by ensuring that things which happen at the operational, policy and planning levels are consistent with, and further enhance, the core business of the university as reflected in its vision and mission statements. For OTL, this means that the strategies employed in capacity building do contribute to the development of cultures of learning and evaluation within and across faculties and operational units.
• Cultivate tri-levels of development by enabling all operational units to work together to achieve sustainable development of OTL. The development of OTL capabilities among individual staff members or small groups of staff will be ineffective unless the improvement of systems and organizational capabilities are also a high priority, supported by time and resources. Changed people need changing environments in which to apply their new learning and to learn from others also engaged in the process.

With this in mind, conclusions can be drawn in relation to OTL and its future at ACU National.
7. Conclusions

Online Teaching and Learning (OTL) is an increasingly dynamic component of the increasingly complex environment of teaching, learning and researching in Higher Education (HE). Given that technology is continually changing, new tools/techniques associated with information and communication technologies (ICT) regularly present themselves for integration into HE environment. Associated with ICT has been an exponential increase in knowledge, an explosion in the information exchange and at times, information overload. ICT has the ability to:

- enable teaching and research collaboration on a local and global scale
- facilitate flexible learning environments for students, and
- stimulate new pedagogical underpinnings for teaching and learning.

Consequently, OTL is viewed by many as a completely new and unprecedented challenge for HE, both financially and pedagogically. In equipment terms, the associated ongoing costs of investment and obsolescence present significant challenges. Pedagogically, new types of learning environments populated by students with different learning needs demand changed understandings. This in turn impacts upon the professional development needs of the staff in tertiary institutions and the ways in which staff work. Not surprisingly, universities and other tertiary institutions have invested in OTL to varying degrees and in varying ways and with varying levels of success as they try to meet the challenges OTL presents and to materialise the potential it offers.

The historical precedents, institutional experiences and body of research into distance, open and online teaching and learning and educational change, provide a valuable resource for ACU National as it considers its own response to the constantly evolving domain of HE. Whilst we live and work in a changing global context, it is worth noting that much of what is being said now about OTL was said 20 or more years ago about the rapid expansion of distance education. With this in mind, the broad findings of this environmental scan and SWOT analysis as they impact on the future of OTL at ACU National are:

- ACU National has an established policy framework and specific roles directed towards achievement of the University’s goals in this area. However, there is a need to monitor the effectiveness and implementation of current policies, procedures and associated strategies to ensure that they do support an integrated dynamic, flexible and effective response to the demands of the constantly changing context of OTL.

- There is a broad acceptance within the ACU National community of the current developments in OTL. There is recognition of the need for a sound pedagogical base and associated quality assurance procedures for OTL. While quality assurance procedures have been established for the technical aspects of fully online units, further work in this area is needed for web-enhanced units. Comprehensive and consistent quality assurance mechanisms are needed for the pedagogical aspects of both fully online and web-enhanced units.
• ACU National staff have a strong commitment to supporting their students in the OTL environment. However, both within and beyond ACU National, there is a lack of understanding of the students’ perspective about learning in an online environment. This issue requires evaluation and offers opportunities for further research.

• ACU National has established regular and ongoing professional development programs and technical support opportunities for staff. The availability of effective and accessible pedagogical and technical support is valued by staff. The main concerns relate to the time involved in development and delivery of online and web-enhanced units and associated workload issues. Associated with this is the need for timely allocation of staff to teaching fully online or web-enhanced units. Further data would enable the university to determine the specific needs of both staff and faculties and to develop its capacity to sustain and enhance pedagogically sound OTL. This may also lead to better recognition of ACU National’s potential to contribute to research in OTL.
8. References


9. Appendices

- Appendix A: List of ACU National Policy documents
- Appendix B: Emailed survey questions for Heads of School Interview
- Appendix C: Summary of Heads of School Interview data
- Appendix D: ACODE members
- Appendix E: ACODE benchmarks
- Appendix F: Online Teaching and Learning Roles at ACU National
- Appendix G: Model of modes of engagement in e-learning (Sharpe, Benfield & Francis, 2000)
- Appendix H: Data provided by NetSpot regarding support requests
Appendix A: ACU National Documents

Note: some documents are only available after authentication on the ACU National network

Assessment Policy and Procedures

Framework for Online Pedagogical Development: Principles and Guidelines
http://my.acu.edu.au/__data/assets/word_doc/0019/44380/Online_Pedagogical_Development.doc

Interim Policy - Workloads for Academic Staff

Mission Statement

Online Learning System Technical Documentation and Guidelines

Policy on Quality Teaching and Learning
http://www.acu.edu.au/__data/assets/word_doc/0003/44598/Policy_-_Qual_Teaching_and_Learning.doc

Policy on Quality Online Teaching and Learning
http://www.acu.edu.au/__data/assets/word_doc/0004/44626/Policy_-_Quality_Online_Teaching_and_Learning.doc

Strategic Plan for Online Teaching and Learning 2007 – 2009

Strategic Plan (Revised) for the Period 1999-2008

Teaching and Learning Plan 2006 - 2008
Appendix B: *Emailed survey from Online Advisers to the Heads of Schools*

**Context: what’s currently happening in your School**

- Roughly how many units does your School offer? How many units are fully online? How many units are web-enhanced?
- How do you determine which staff will be allocated to fully online units?
- How many of your fully online units are staffed partly/wholly by sessional staff?
- How do you think staff feel about teaching online units?
- What has been the staff’s reaction to ACU National’s Policy on Quality Online Teaching and Learning, (Principle 11) to develop a web presence even if the unit is not fully online? Are they aware of the requirement?

**Strengths and concerns with respect to online teaching and learning**

**Strengths**

- What do you see as strengths in your School/University in the development and provision of online teaching and learning? Please give us an example.
- How can these strengths be enhanced?

**Concerns**

- What concerns do you have about online teaching and learning in your School/ the university? You might have concerns that relate to staff (F/T / P/T / sessional / contract), students, training and support, quality of fully online units, quality of web-enhanced units, or other matters

- How do you think that these could concerns be addressed?

- What do you think could happen at a policy level that would address your concern(s)?

- What do you think could happen at a procedural level that would address your concern(s)?

- How can ACU National support high quality teaching standards for web-enhanced units and fully online units?

**The future and possible opportunities and threats**

- What online teaching and learning aspects / areas would you particularly like your School/University to explore in the coming 3 years in …e.g. cutting-edge/new developments in online teaching and learning.

**Lastly,** is there any other comment about online teaching and learning at ACU National that you would like to make?

If other things come to mind later that you would like to add, please ring or email us, as we see this as only the beginning of the conversation.

Thank you
## Appendix C: Summary of points highlighted from the 20 HOS conversations

### Strengths

<table>
<thead>
<tr>
<th>Point</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td>Provision of access and flexibility for students</td>
<td>11</td>
</tr>
<tr>
<td>Innovation</td>
<td>9</td>
</tr>
<tr>
<td>Staff willingness, expertise and enthusiasm</td>
<td>6</td>
</tr>
<tr>
<td>Technical Support</td>
<td>5</td>
</tr>
<tr>
<td>Collaboration, working across the university</td>
<td>4</td>
</tr>
<tr>
<td>Provision of access and flexibility for staff</td>
<td>3</td>
</tr>
<tr>
<td>Online workshops</td>
<td>3</td>
</tr>
<tr>
<td>The ability to provide specialist units</td>
<td>2</td>
</tr>
<tr>
<td>Development of units by Fraynework</td>
<td>2</td>
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</table>

### Concerns

<table>
<thead>
<tr>
<th>Point</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td>Pedagogy</td>
<td>14</td>
</tr>
<tr>
<td>Need more staff support</td>
<td>11</td>
</tr>
<tr>
<td>Workload of development and teaching online is demanding,</td>
<td>8</td>
</tr>
<tr>
<td>current workloads do not recognise this</td>
<td></td>
</tr>
<tr>
<td>Online T&amp;L is at odds with the push for research</td>
<td>5</td>
</tr>
<tr>
<td>Need more technical support</td>
<td>5</td>
</tr>
<tr>
<td>Problems for students in terms of access and support</td>
<td>4</td>
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### Opportunities and Threats

<table>
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<th>Point</th>
<th>Frequency</th>
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</thead>
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<tr>
<td>Development of local expertise and support</td>
<td>10</td>
</tr>
<tr>
<td>Development of pedagogical base for effective online teaching &amp; learning</td>
<td>7</td>
</tr>
<tr>
<td>Expansion of online units within and beyond current offerings</td>
<td>7</td>
</tr>
<tr>
<td>Work related: both quality and quantity (changing nature &amp; workload, including OH&amp; S issues relating to staff working at home to respond to students out of normal work hours)</td>
<td>6</td>
</tr>
<tr>
<td>Assurance of high-quality offerings</td>
<td>5</td>
</tr>
<tr>
<td>Research</td>
<td>2</td>
</tr>
<tr>
<td>Technology</td>
<td>1</td>
</tr>
</tbody>
</table>

### Other:

- Time for action: planned and steady with firm targets
- Already have a crowded curriculum
## Appendix D: ACODE Membership

<table>
<thead>
<tr>
<th>ACODE Members</th>
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<tbody>
<tr>
<td>Auckland University of Technology</td>
<td>Griffith University</td>
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<tr>
<td>Australian Catholic University</td>
<td>La Trobe University</td>
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<tr>
<td>Australian Defence Force Academy</td>
<td>Macquarie University</td>
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<tr>
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<td>Southern Cross University</td>
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<td>Flinders University</td>
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Appendix E: **ACODE Benchmarks**

**Benchmarks for the Use of Technology in Learning and Teaching in Universities**

**Benchmark 1:**
Institution policy and governance for technology supported learning and teaching.

**General Performance Indicators:**

1. Institution strategic and operational plans recognise and support the use of technologies to facilitate learning and teaching.
2. Specific plans relating to the use of learning and teaching technologies are aligned with the institution’s strategic and operational plans.
3. Planning for learning and teaching technologies is aligned with the budget process i.e. funds are allocated to progress priorities.
4. Institution policies specify the use of technologies to support learning and teaching covering all aspects and stakeholder perspectives.
5. Policies are well disseminated and applied.
6. The institution has established governance mechanisms for learning and teaching with technologies that include representation from key stakeholders.
7. Clear management structures identify responsibilities and authority.
8. Decisions regarding new technology adoption are made within current policy frameworks.

**Benchmark 2**
Planning for and quality improvement of the integration of technologies for learning and teaching

**General Performance Indicators:**

1. Institution wide processes for quality assurance are in place and in use to integrate technologies in learning and teaching.
2. Institution and Faculty plans are aligned with institution policy for the use of technology in learning and teaching.
3. Operationalisation is planned and evaluated.
4. Planning and quality improvement is resourced.
5. Collaboration for integrating technology in learning and teaching occurs across key functional areas.
6. Evaluation cycles are in place to measure key performance indicators for all key stakeholders.
7. Outcomes are reported to all levels of the institution.
8. Evaluation feedback is integrated in planning for continuous improvement purposes.
Benchmark 3
Information technology infrastructure to support learning and teaching

General Performance Indicators
1. Evaluation processes are in place to generate data to support decision making.
2. Evaluation processes are comprehensive.
3. Responsibilities and processes for maintenance and administration are effective and efficient.
4. Responsibilities and processes for support and training are effective and efficient.
5. Project management processes are in place, responsibilities defined and processes applied.
6. Resources are allocated for maintenance and upgrades of existing equipment.
7. Implementation is well planned.
8. Implementation is resourced.
9. Professional development occurs for staff managing infrastructure (including new and emerging technologies).

Benchmark 4
Pedagogical application of information and communication technology

General Performance Indicators:
Aligned
1. Pedagogical applications are grounded in the context of the institution’s learning and teaching strategy.
2. The intent of pedagogical applications of ICT is readily available to all teaching and teaching support staff.

Informed
3. Pedagogical application is based on sound educational research and good practice.
4. Guidelines (including compliance with legal requirements, accessibility, and learning designs) for the pedagogical application of ICT are readily available to all teaching and teaching support staff and in use.
5. Examples of good practice are available and in use.

Supported
6. Communities of practice exist for communicating and promoting the innovative use of pedagogical applications in learning and teaching.
7. Professional development covering e-learning pedagogy is available for all teaching staff and used.
8. Tools for the pedagogical application of ICT are available for all teaching staff and in use.

Deployed
9. Resources are allocated for developing e-learning projects.
10. The pedagogical application of ICT is sustainable.
Evaluated

11. Deployment of pedagogical applications of ICT is evaluated at the unit of study level including students’ learning outcomes.
12. Overall, pedagogical application of ICT is evaluated.
13. Evaluation of feedback is integrated in planning for continuous improvement of pedagogical application.

Benchmark 5
Professional/staff development for the effective use of technologies for learning and teaching

General Performance Indicators:
1. All of the institution’s obligations to learning and teaching technologies are clearly communicated in its strategies, policies and practices.
2. Processes are in place and in use to identify staff development needs for the institution’s strategic development.
3. Processes are in place and in use to identify individual staff development needs.
4. Educational and technical expertise is available to develop and support quality programs and resources which address staff needs, including those with special needs.
5. Staff development programs are coordinated with other service units.
6. Staff development is resourced.
7. Professional/staff development programs can be delivered flexibly and address differing skill levels.
8. Evaluation of feedback is integrated in planning for continuous improvement of professionals/staff development processes.

Benchmark 6
Staff support for the use of technologies for learning and teaching

General Performance Indicators:
1. Technical and/or educational support is aligned with the current and emerging technologies for learning and teaching in use at the institution.
2. Support needs are identified for individuals, work groups and the institution.
3. Support services for staff are evaluated for materials, procedures and systems.
4. Coordination occurs between areas providing staff support services.
5. Support provided is available, accessible and used by staff.
6. Support services are adequately resourced.
7. Support services are promoted to staff.
8. New technologies are analysed for staff support implications.
9. Evaluation of feedback is integrated in planning for continuous improvement purposes.
Benchmark 7
Student training for the effective use of technologies for learning

General Performance Indicators:
1. Student training is aligned with the use of technologies and teaching approaches in use at the institution.
2. Student training is resourced.
3. Processes are in place to determine student needs and maintain alignment with those needs.
4. Processes are in place to evaluate student satisfaction with their training.
5. Coordination occurs between areas providing student training.
6. Student training is delivered flexibly and tailored to address differing needs.
7. Student training promotes an ethical approach to the use of technologies for learning.
8. Materials used in student training and student support are complementary.
9. Evaluation of feedback is integrated in planning for continuous improvement purposes.

Benchmark 8
Student support for the use of technologies for learning

General Performance Indicators:
1. The provision of support for students is integrated with current and emerging technologies for learning that are in use at the institution.
2. Support services are resourced.
3. Support services are promoted to the student body.
4. Support is available and accessible to students and used.
5. Support services for students are evaluated – for materials, procedures and systems.
6. Coordination occurs between areas providing student support.
7. Processes are in place to determine the ongoing support needs of students.
8. Evaluation of feedback is integrated in planning for continuous improvement purposes.
9. New learning technology initiatives are analysed for student support implications.
10. Materials used in student training and student support are complementary.
Appendix F: **Online Teaching and Learning Roles at ACU National**

**Director of Flexible Teaching and Learning**
- coordinate the pedagogical, technical and developmental aspects of flexible delivery
- lead the implementation of the *Strategic Plan for Online Teaching and Learning 2007-2009*
- promote innovative and sustainable practice in online teaching and learning
- provide pedagogical leadership and stakeholder liaison and a focal point for research and development
- gain recognition for the work of staff and the University in the provision of online teaching and learning
- oversee a wide range of teaching and learning experiences and opportunities using a variety of learning technologies, media and environments.

**Coordinator Online Teaching and Learning**
- manage and facilitate pedagogical aspects of the development, implementation and evaluation of fully online and web-enhanced units, involving:
  - online teaching and learning training and support programs
  - support and advice required by lecturers-in-charge
  - quality assurance processes
  - internal and external communication strategies
  - evaluation of online teaching and learning
  - targeted research and publication activities.

**Online Educational Designer**
- in collaboration with Faculty staff, the Director of Flexible Teaching and Learning and the Coordinator Online Teaching and Learning, design, plan and manage the development of quality online courses and units
- assist targeted Faculty staff to acquire high-level skills in the effective pedagogical use of online technologies
- be involved in online pedagogical training and support, at both group and individual levels
- assist staff to plan and implement evaluation of online materials, design and learning outcomes
- provide advice to committees and working parties on learning design.

**Online Advisers**
- work with the Associate Deans (Teaching, Learning and International) on a cross-Faculty basis to assess online teaching and learning needs and assist in strategic planning to address these needs
- work with academic staff to assist in developing their online pedagogical design, development and implementation capacities, through IATL-sponsored workshops and informally with small groups and individuals
- be involved in evaluating the processes and impacts of online teaching and learning and associated training and support mechanisms
- provide advice as members of the University Online Teaching and Learning Committee and Faculty Teaching and Learning Committees.
Manager, ACUonline
- manage the professional and technical support for online teaching and learning
- develop and implement the ACUonline budget within approved parameters
- lead the planning process for the provision of professional and technical support for online teaching and learning including the introduction of new technologies/software
- negotiate and oversee contracts with external providers.

ACUonline Project Officers
- provide professional and technical support for online teaching and learning, including advice on layout, accessibility standards, copyright, etc.
- provide technical training for staff
- undertake technical proofing of online units as part of the quality assurance processes.

Director of Flexible Teaching and Learning
Ann Applebee (02) 9739 2446

Coordinator Online Teaching and Learning
Emma Felton (07) 3623 7253

Online Educational Designer
Alison Blair (07) 3623 7425

Online Advisers
Evan Harris (07) 3623 7264
BJ Johnson (03) 5336 5375
Alanah Kazlauskas (02) 9739 2884
Brian King (07) 3623 7199
Des Matejka (02) 9701 4183
Annette Schneider (03) 5336 5349

Manager ACUonline
Jeremy Gauder (03) 9953 3230

ACUonline Project Officers
Pedro Baldoria (02) 9701 4136
Tim Baillie (02) 9739 2287
Peter Blakey (07) 3623 7421
Pauline Ferguson (03) 5336 5423
Ian Kershaw (03) 9953 3232
Rupert Russell (03) 5336 5330
Donna Strahan (07) 3623 7113
Wai-Leng Wong (02) 9701 4087

Emails follow the usual profile of firstname.lastname@acu.edu.au
Appendix G:  E-Learning modes of engagement
(Sharpe, Benfield, & Francis, 2006: p. 139)

Mode 1
baseline course administration and learner support

Use web to distribute course information and carry out course administration (chosen from the following): aims and objectives, assessment criteria/pro formas, past exam questions and model answers/assessment sheets, timetabling announcements, reading lists, tutor contact details, course evaluation tools, FAQs, additional web resources, links to field level resources, course/module handbook, lecture notes.

Mode 2
blended learning leading to significant enhancements to learning and teaching processes

Communication
Provide improved tutor-student, student-student communications, mainly using discussion boards or email. Enable students, especially in disparate groupings and locations, to exchange information, ask questions and discuss issues relating to the course.

Assessment
Provide improved feedback to students on their learning via computer assisted assessment for either formative (self-assessment and monitoring of progress) or summative (examination and grading) purposes or both. May involve electronic setting, submission and return of student assignments using digital artefacts and pro formas where objective testing inappropriate.

Collaboration
Provide a platform for collaborative student projects, involving shared responsibility for resources and outcomes. Students use communication tools and shared directory to collaborate on task processes and outcomes.

Learning content
Develop flexible access to high quality, reusable learning content, which may include structured gateways to web and other resources with accompanying self-paced independent learning activities, interactive tutorials with feedback, simulations, study and learning skills resources and activities fostering independent learning.

Mode 3
on-line course/module

Develop module/course incorporating all or most of the above that can be delivered flexibly to allow learners to learn at times and places of their choosing. Likely to include presentation of course materials, communication between tutor and students, self-assessment and monitoring of progress.
Appendix H: *Information received from NetSpot*

Table 4: Nature of Recent Requests to NetSpot

<table>
<thead>
<tr>
<th>Issue Type</th>
<th>August – October, 2006</th>
<th>January – March, 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of tickets</td>
<td></td>
<td>No. of tickets</td>
</tr>
<tr>
<td>12% Password</td>
<td>71</td>
<td>8% 136</td>
</tr>
<tr>
<td>3% Course Establishment Request</td>
<td>20</td>
<td>3% 51</td>
</tr>
<tr>
<td>14% Enrolment</td>
<td>82</td>
<td>45% 766</td>
</tr>
<tr>
<td>5% University system (email/dlibrary/etc)</td>
<td>32</td>
<td>4% 63</td>
</tr>
<tr>
<td>4% Tools – Assessments</td>
<td>25</td>
<td>1% 17</td>
</tr>
<tr>
<td>8% Tools – Assignments</td>
<td>45</td>
<td>0% 8</td>
</tr>
<tr>
<td>4% Tools – Communication (discussion/chat)</td>
<td>24</td>
<td>0% 0</td>
</tr>
<tr>
<td>2% Tools – Content upload</td>
<td>14</td>
<td>0% 4</td>
</tr>
<tr>
<td>5% Tools – Other</td>
<td>30</td>
<td>5% 88</td>
</tr>
<tr>
<td>10% Browser/Java/Firewall</td>
<td>58</td>
<td>8% 136</td>
</tr>
<tr>
<td>3% Bug/Issue</td>
<td>18</td>
<td>4% 71</td>
</tr>
<tr>
<td>29% Other</td>
<td>168</td>
<td>21% 358</td>
</tr>
<tr>
<td></td>
<td>587</td>
<td>1698</td>
</tr>
</tbody>
</table>

Table 5: Distribution of requests for support to NetSpot

<table>
<thead>
<tr>
<th>Support Requests by Day of the Week</th>
<th>Jul 06 - Apr 07</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of requests</td>
</tr>
<tr>
<td>Monday</td>
<td>835</td>
</tr>
<tr>
<td>Tuesday</td>
<td>785</td>
</tr>
<tr>
<td>Wednesday</td>
<td>708</td>
</tr>
<tr>
<td>Thursday</td>
<td>665</td>
</tr>
<tr>
<td>Friday</td>
<td>570</td>
</tr>
<tr>
<td>Saturday</td>
<td>156</td>
</tr>
<tr>
<td>Sunday</td>
<td>133</td>
</tr>
<tr>
<td>Total</td>
<td>3852</td>
</tr>
</tbody>
</table>
Report from NetSpot on ACUonline Support Issues (August – October, 2006)

As a general observation, there have been a considerable number of requests relating to how to use tools within WebCT, and on administrative issues such as course requests and student enrolment issues.

Table 6: Break-down of support requests (both Staff and Students) by type of request

<table>
<thead>
<tr>
<th>No. of tickets</th>
<th>Issue Type</th>
<th>No. of tickets</th>
<th>Issue Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>168</td>
<td>Other</td>
<td>30</td>
<td>Tools – Other</td>
</tr>
<tr>
<td>82</td>
<td>Enrolment</td>
<td>25</td>
<td>Tools – Assessments</td>
</tr>
<tr>
<td>71</td>
<td>Password</td>
<td>24</td>
<td>Tools – Communication (discussion/chat)</td>
</tr>
<tr>
<td>58</td>
<td>Browser/Java/Firewall</td>
<td>20</td>
<td>Course Establishment Request</td>
</tr>
<tr>
<td>45</td>
<td>Tools – Assignments</td>
<td>18</td>
<td>Bug/Issue</td>
</tr>
<tr>
<td>32</td>
<td>University system (email/dlibrary/etc)</td>
<td>14</td>
<td>Tools – Content upload</td>
</tr>
</tbody>
</table>

In addition to basic instructions on what tools are available, and how to perform certain tasks, the help desk has been receiving quite a few questions from staff regarding best practices, for example whether to use a Learning Module or a Folder for uploading content, how to best manage groups of students, and whether to separate or consolidate discussion topics. In particular the following queries regarding WebCT tools are commonly reported:

- Content
- Basics of uploading and adding content
- Learning Modules vs Folders
- Assignment/Assessments
- Availability dates
- How to enable students to edit submissions
- Sharing student assignments
- Question sets and randomizing
- Selective release of content/assessments/assignments
- How to best manage
- Avoiding conflicts between availability dates and release criteria
- Troubleshooting why a particular student can’t see an item

The common administrative issues reported by lecturers include:

- Rolling over last semester’s content into a new unit.
- General use of the Staff Portal, ie. Requesting units, Adding staff, Specifying Access dates. There appear to be some staff who have not heard of the Staff Portal.
For **students**, the common issues are consistently:

- Login issues as a result of trying to login using Student Connect pin, or trying logging in with DDMMYY format.
- Missing the 'My Computer' icon, caused by not accepting the Java Security Certificate.
- Browser blocking download of Course Material.

**Report from NetSpot on ACUonline Support Issues January – March, 2007**

During the period January 1 to March 19, the break-down of support requests (both Staff and Students) by type of request was as follows:

<table>
<thead>
<tr>
<th>No. of tickets</th>
<th>Issue Type</th>
<th>No. of tickets</th>
<th>Issue Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>766</td>
<td>Enrolment</td>
<td>63</td>
<td>University system (email/dlibrary/etc)</td>
</tr>
<tr>
<td>358</td>
<td>Other</td>
<td>51</td>
<td>Course Establishment Request</td>
</tr>
<tr>
<td>136</td>
<td>Browser/Java/Firewall</td>
<td>17</td>
<td>Tools – Assessments</td>
</tr>
<tr>
<td>136</td>
<td>Password</td>
<td>8</td>
<td>Tools – Assignments</td>
</tr>
<tr>
<td>88</td>
<td>Tools – Other</td>
<td>4</td>
<td>Tools – Content upload</td>
</tr>
<tr>
<td>71</td>
<td>Bug/Issue</td>
<td>0</td>
<td>Tools – Communication (discussion/chat)</td>
</tr>
</tbody>
</table>

For **Staff**, as a general observation, there have been a considerable number of requests relating to

- Enrolments
- Java configuration,
- Tool usage.

There have also been quite a few WebCT bugs reported.

The help desk continues to receiving quite a few questions regarding best practices, for example how to best manage groups of students – in particular setup of private groups. The use of the Selective Release Tool continues to be a significant issue we are supporting.

In terms of administrative issues, there have been a large number of requests to remove units from the WebCT listing.

For **students**, the common issues are consistently:

- Internet Explorer blocking downloads
- Login issues as a result of trying to login using Student Connect pin, or trying logging in with DDMMYY format.
- Request to remove units from their WebCT listing
- Cannot access a unit
Table 8: Support Requests by day of the week, July 2006 – April 2007

<table>
<thead>
<tr>
<th>Day</th>
<th>Requests</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday</td>
<td>156</td>
<td>4.05%</td>
</tr>
<tr>
<td>Sunday</td>
<td>133</td>
<td>3.45%</td>
</tr>
<tr>
<td>Monday</td>
<td>835</td>
<td>21.68%</td>
</tr>
<tr>
<td>Tuesday</td>
<td>785</td>
<td>20.38%</td>
</tr>
<tr>
<td>Wednesday</td>
<td>708</td>
<td>18.38%</td>
</tr>
<tr>
<td>Thursday</td>
<td>665</td>
<td>17.27%</td>
</tr>
<tr>
<td>Friday</td>
<td>570</td>
<td>14.80%</td>
</tr>
</tbody>
</table>

![Weekly Requests Pattern](chart.png)
## 10. Glossary of Terms

<table>
<thead>
<tr>
<th>Acronym/term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACODE</td>
<td>Australasian Council on Open, Distance and E-learning</td>
</tr>
<tr>
<td>ACU National</td>
<td>Australian Catholic University</td>
</tr>
<tr>
<td>ACUweb</td>
<td>Australian Catholic University platform for fully online units prior to the introduction of WebCT</td>
</tr>
<tr>
<td>CML</td>
<td>Computer managed learning</td>
</tr>
<tr>
<td>DEST</td>
<td>Department of Education, Science and Training</td>
</tr>
<tr>
<td>EdNA</td>
<td>Education Network Australia</td>
</tr>
<tr>
<td>e-learning</td>
<td>Electronic learning</td>
</tr>
<tr>
<td>HE</td>
<td>Higher Education</td>
</tr>
<tr>
<td>HOS</td>
<td>Head of School</td>
</tr>
<tr>
<td>IATL</td>
<td>Institute for the Advancement of Teaching and Learning</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>LMS</td>
<td>Learning Management System</td>
</tr>
<tr>
<td>MyACU</td>
<td>ACU National Intranet Homepage site for accessing staff and student information</td>
</tr>
<tr>
<td>OA</td>
<td>Online Adviser</td>
</tr>
<tr>
<td>OH &amp; S</td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td>OTL</td>
<td>Online Teaching and Learning</td>
</tr>
<tr>
<td>QA</td>
<td>Quality assurance</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats</td>
</tr>
<tr>
<td>TALES</td>
<td>Teaching and Learning Enhancement Scheme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>WebCT</td>
<td>Web Course Tools: The learning management system adopted by ACU National</td>
</tr>
<tr>
<td>WebCT/Blackboard EC 6</td>
<td>The current version of the Learning Management System used at ACU National</td>
</tr>
<tr>
<td>Web-enhanced unit</td>
<td>A unit, not fully/wholly online, but which includes e-learning components</td>
</tr>
<tr>
<td>WWW</td>
<td>World Wide Web</td>
</tr>
</tbody>
</table>