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Views on staff development for networked learning

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Abstract

Effective staff development is the weaving together of many strands. We need to support staff in their current work, while providing them with ideas, incentives and resources to look for new ways to design learning environments that will enhance student learning. Staff development must be combined with specific projects where change is occurring. Ideas are not hard to find. Incentives and resources are another matter. The paper will outline some general principles for effective staff development. In order to get effective changes in academic work practices, there is a need for staff development at a local level with time release as an essential component, as exemplified by RMIT's Learning Technology Mentor Program. There is also a need to provide flexible staff development programs. Two ways of doing this are outlined: the use of a suite of resources and the development of flexible ways to achieve credit towards qualifications for work done during staff development programs.

Universities as organisations that support or hinder innovation

Universities in Australia are currently in an environment of intense change. They are being required to educate more students, from an increasing variety of backgrounds, with decreasing government funding. Universities are required to compete vigorously for student enrolments and external sources of funding. In this environment, universities have had to reassess their fundamental business and the way they go about it. Information Technology (IT) is viewed as an important factor in streamlining their operations.

In a recent investigation into the factors supporting the adoption of computer-facilitated learning (CFL) at Australian universities (McNaught, Phillips, Rossiter & Winn, 2000), three major themes emerged. These were *Policy*, *Culture* and *Support*. The considerable overlap between and within these themes is illustrated in Figure 1. There needs to be a congruence of policy, culture and support factors if significant adoption of CFL strategies is to occur.

The *Policy* theme looked at specific institutional policies, such as equity and intellectual property, the alignment of policy throughout the organisation, the direction of policy change (bottom-up or top-down) and a number of strategic processes which flowed on from policies such as grant schemes.

Culture incorporated factors such as collaboration within institutions, and personal motivation of staff to use CFL, as well as particular aspects of funding, staff rewards and time, leadership, teaching and learning models, and attitudes such as 'not invented here'.

Support incorporated a whole gamut of institutional issues including IT, library and administrative infrastructure, professional development for staff, student support, educational and instructional design support for academic staff, funding and grant schemes, and IT literacy.

Several universal factors in relation to widespread use of CFL were identified:

- coherence of policy across all levels of institutional operations and specific policies which impact on CFL within each institution;
- intellectual property, particularly the role of copyright in emerging online environments;
- leadership and institutional culture;
- staff issues and attitudes: namely, professional development and training, staff recognition and rewards, and motivation for individuals to use CFL; and
- specific resourcing issues related to funding for maintenance or updating of CFL materials and approaches, staff time release and support staff.

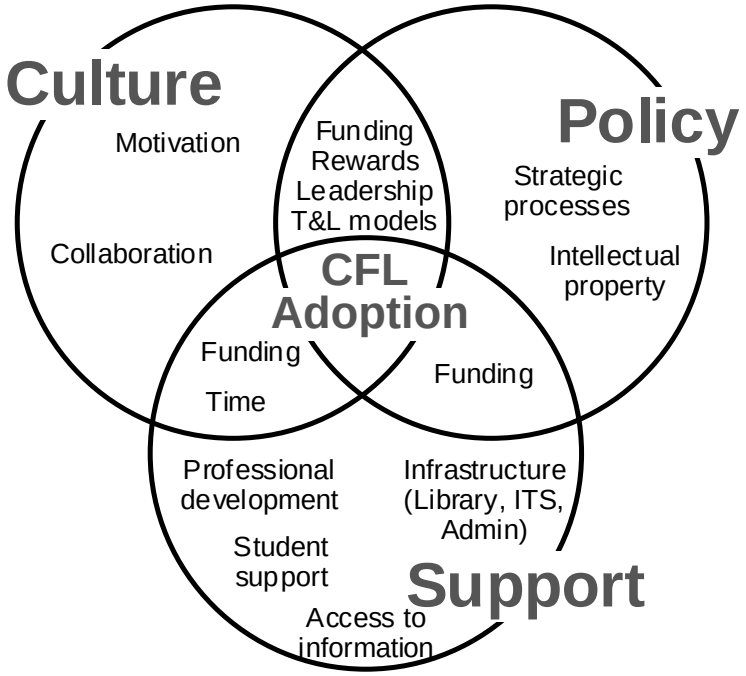

Figure 1: Themes and their relationships affecting the adoption of CFL

Staff development and training

We should not underestimate the difficulties involved in innovation and change. Marris (1986) parallels the sense of loss during bereavement to the resistance one can feel when letting go of known ways of doing things and embarking on new strategies. For many academics the increasing emphasis on the use of computer technology for administration, research and teaching is highly threatening. We need to recognise these fears and devise plans which build staff confidence and motivation, and provide adequate support and training opportunities.

Staff development can no longer be a pleasant 'cottage industry' on the fringes of academe or the enthusiastic enterprise of a few individuals supported by 'soft' money. Effective staff development is positioned at the centre of university functioning and yet needs to retain connections with the needs and perceptions of teaching staff. This is a demanding challenge. Staff development programs that are successful in meeting the needs of complex modern Australian universities need to be supported strategically (and financially) by their own universities.

The number of players in the professional development area is large, including:

- more 'traditional' academic development units, concentrating on general teaching and learning support; these can be centrally located or faculties;
- units where the key focus is the use of communication and information technologies in teaching and learning; these can be centrally located or faculties; often they are called flexible learning units;
- units which focus on courseware production using technology; these can be centrally located or faculties; some of these are units which have evolved from print-based distance education units;
- centrally-based Information Technology Services units; and
- university libraries.

Hughes, Hewson & Nightingale (1997) in a study of 20 Australian universities describe three approaches to staff development for the use of information technology in teaching—integrated, parallel and distributed. These approaches are defined, and the discussion in Hughes *et al.* is summarised, in Table 1. In reality, universities use a combination of approaches, though with a trend in one direction. The table is useful as a tool for assessing the potential strengths and weaknesses of the combination of any particular set of support units in a given university.

Table 1: Integrated, Parallel and Distributed Approaches to staff development for the use of information technology in teaching
(after Hughes *et al.*, 1997)

Integrated Approach (eggs in one basket!)	
Strong structural links between units or section of the one unit which provide general T&L support, support for using IT in T&L, and production support for courseware. Essentially top-down.	
Benefits:	*Issues raised by:*
Coherent policy framework.	Ease of access by all staff limited.
Efficient planning of resources and avoidance of duplication.	Individual approaches less likely to be recognised.
	An emphasis on one technological solution may emerge and overwhelm educational design.
Parallel approach (never the twain shall meet?)	
Separate units for general T&L support and support for using IT in T&L	
Benefits:	*Issues raised by:*
Allows due recognition to be given to a wide range of T&L issues (e.g internationalisation) and not just educational design associated with the use of IT.	Cooperation between the various units may be difficult to achieve. There is a potential for confusion and competition to emerge.
Allows the development of expertise relating to the new technologies.	May result in a narrow range of educational issues being addressed in the IT in T&L units.
Distributed approach (organic sprouting)	
More bottom-up than the other two approaches. A range of units, centrally located and in faculties which are not tightly coordinated. Project management remains with local projects.	
Benefits:	*Issues raised by:*
An 'organic' solution where unnecessary controls do not hamper innovation.	Can result in weak project management where there may be insufficient educational expertise.
Can be economical as skills are sought when they are needed.	Potential for innovations to falter without visible institutional support.
	Can result in waste and duplication of effort and resources, including equipment.

In the study cited above (McNaught *et al.*, 2000), six key issues in staff development were strongly voiced:

- The appropriate balance point between centrally provided and local staff development services needs to be determined in each university. Central services can be more clearly linked to university priorities; faculty or department services can be more in touch with local needs.
- As technology becomes more mainstream, support services need to be scaled up. This involves deciding on the level of support that can be afforded and the model of support that is most apposite. The educational design and evaluation, technical, and media production support services that universities currently have are under strain. It is unlikely that the existing examples of good practice at each university will be sufficient to ensure that new or revised subjects will be well designed and

evaluated. By modelling good practice themselves, mentors can assist staff to make optimal use of resources.

- A follow-on issue is determining the optimal relationship between staff development and production support services. Again, this needs to be decided in each university context.
- Even if an integrated model of professional development is adopted, there are still many professional development providers at most universities. Mapping the services of each provider and ensuring reasonable coordination is increasingly important as the need for support services scales up.
- Academic and general staff work load is a key issue. Careful work planning to ensure that staff have time to learn new skills and manage new processes is essential.

We are in a time of rapid change. It is important that professional development support be flexible, appropriate and adaptable. It should make sense to staff, be linked to practice and be appropriately timed.

Applying these ideas to the context of RMIT University

RMIT University is an 'old' (in Australian terms; RMIT began in 1887) technological university. It is highly diverse—it is a cross-sectoral (includes vocational sector) university and has the largest number of international students of any Australian university. There are seven strong faculties that often resist central directions (what's new?). In recent years there has not been a strong staff development program.

In the program which is described below, RMIT wanted staff development which:

- is linked to RMIT business and vision,
- promotes sound educational practice,
- ensures flexible learning is 'owned' in every department,
- organises adequate support for all staff, and
- results in low increase in staff work loads (quite an ask!).

There are two key policy documents which are currently guiding the direction RMIT adopts in the next three to five years. The first is the Teaching and Learning Strategy (T&LS).

RMIT Teaching and Learning Strategy

The RMIT Teaching and Learning Strategy aims to provide a student-centred learning environment where:

- subjects and the courses they comprise are designed to develop the following graduate attributes in students: knowledgeable, critical, responsible, creative and with a capacity for life-long learning, leadership and employment and an international outlook;
- the system is flexible enough to suit the particular learning needs of students in terms of their prior experience and current situation;
- courses are designed and implemented holistically with coherent connections between subjects comprising the core of a course;

- students and the community are seen as significant stakeholders;
- assessment is directly related to the explicitly stated objectives of subjects; and
- quality improvement and quality assurance based on reflective practice and customer-focussed systems design are ubiquitous.

There are resources allocated to implement the T&LS both in human and financial terms. For example, each faculty has two senior positions (Director of Teaching Quality, DoTQ, and Director of Information Technology, DoIT) established by secondment of academic staff members from within the faculty. The DoTQs have responsibility for all course design and accreditation matters and for quality assurance processes. The DoITs have been engaged in upgrading the IT infrastructure across the whole university, as well as supporting the Learning Technology Mentor program (see below). Each faculty has a developing Faculty Education Services Group (FESG) where technical and educational support for staff is available.

We have conceptualised the process as follows (Figure 2):

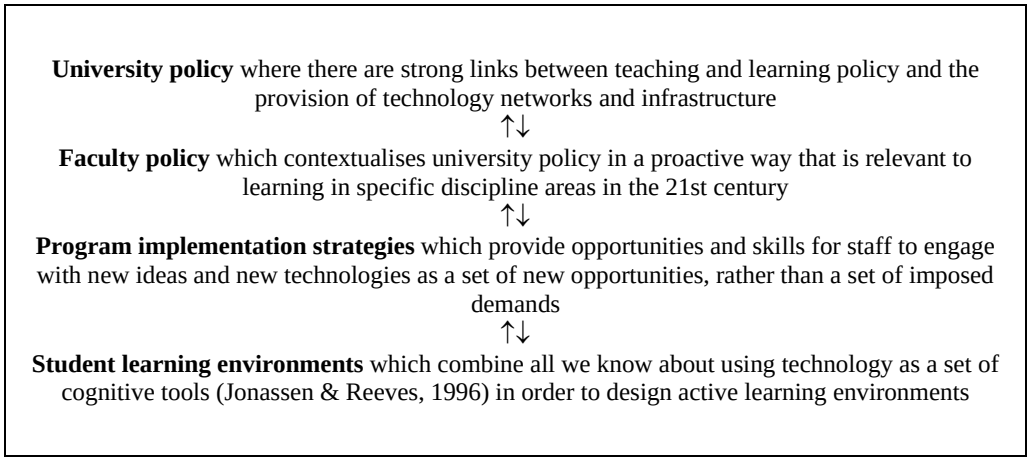

Figure 2: Effective policy stages for the development of flexible learning environments

RMIT IT Alignment Program

RMIT University established a project team in 1998 to develop an Information Technology Strategy designed to facilitate the implementation of the objectives of the Teaching and Learning Strategy in respect of electronically mediated flexible learning environments. The Information Technology Alignment Project (ITAP) report forms the basis for a $A50 million investment by RMIT over the four years 1999-2002. The report comprises several elements:

- IT infrastructure aligned with the needs of education to deliver the systems and hardware necessary to provide students with an electronically connected learning environment and access to computer-based learning resources;
- a Distributed Learning System (DLS) compliant with the emerging Educom/CAUSE Instructional Management System (IMS);
- an Academic Management System (AMS), fully integrated with the DLS to provide enrolment and subject and course progress records electronically accessible to academics and students;

- an extensive review of all academic processes within the university in a Business Process Re-engineering (BPR) project; and
- extensive staff development.

Good educational design is the key to successful flexible learning. Here at RMIT University we offer staff a set of online tools to assist them in refurbishing their subjects and courses. We explain the functionality of each of the tools in terms of student learning activities (Laurillard, online). An earlier report on RMIT's work (McNaught, Kenny, Kennedy & Lord, 1999) describes the toolset, early implementation experiences and early evaluations.

Prior to and since the ITAP Report, there has been substantial investment by RMIT to promote quality learning outcomes. The investment is quite considerable, with approximately 5% of each faculty budget being set aside, along with central money, to fund the course and subject renewal process. Also, major upgrading of the RMIT network, and student and staff computer facilities have occurred over the last two years. A list of the major institutional drivers is given below with some commentary on the effects of each (table 2). Many of these drivers are yet to bear fruit (Kenny & McNaught, 2000).

Table 2: Institutional drivers for change within RMIT

Institutional Driver	Comment
The RMIT Teaching and Learning Strategy <http:www.teaching.rmit.edu.au>	This has been a key strategy for driving change in the university over the last five years.
The institutional target of 60% of all subjects with some flexible delivery components by the end of 2000 caused a rush to get subjects online.	As a component of the Teaching and Learning Strategy, this target has generated a lot of interest and activity within faculties leading to the large growth rate of online subjects within the Distributed Learning System (DLS) (see below), often as a misinterpretation of flexible as meaning online. This surge in online interest has often been at the expense of quality or considered planning. There is benefit in setting targets, but the targets have to be realistic and acknowledge the complexity of the task.
The ITAP report had 113 recommendations about linking IT developments with teaching and learning needs.	The ITAP report is driving much of the change associated with the DLS and the Academic Management System (AMS, see below), but its existence is not known throughout all the university. The implementation of the recommendations of the ITAP Report is now in the hands of Learning Technology Services (LTS), a centrally funded group to plan, develop, support, evaluate and report on the progress. Many of the processes within this group are still being refined.
Creation of Director of Teaching Quality (DoTQ) and Director of Information Technology (DoIT) posts in each faculty (academic level C++) as faculty resources to direct and influence faculty policies.	These are key people in the adoption and promotion of the institutional strategy. While they are included in management committees intended to direct the implementation of the online learning strategies, there does not seem to be a fully collaborative and coherent approach to managing the organisational change issues.
Development of an Academic Management System (AMS) for mid-2001, intended to automate and streamline many administrative tasks.	This is a major initiative to develop a computerised system to streamline and standardise many of the administrative procedures which are carried out around the university. It is still under development, for release in May 2001.
A Business Process Re-engineering (BPR) to review the administrative systems of the university.	This was a 1999 project to completely review the administrative processes of the university to look for efficiencies and to prepare for the implementation of the AMS.
Establishment of the Distributed Learning System (DLS), a secured, modular web-based suite of tools for staff to use as a subject delivery platform, which can be tailored to suit the	This is currently in operation and has undergone three development phases and two evaluations. The process linking the development and the evaluation is still being shaped. It currently operates using a secured central server system on the RMIT network offering support, professional development and training to RMIT staff and

requirements of an individual subject.	students as part of LTS.
Faculties asked to develop IT strategy Plans as drivers for the strategic re-development of IT infrastructure. Faculties asked to develop Course and Subject renewal guidelines as drivers for the strategic re-development of subjects and courses.	Both these initiatives have the potential to promote meaningful change, but there is little process of evaluation and reporting built into each plan. The feedback and accountability loops do not function well, so there is little direct evidence of the effectiveness of each strategy and how it might be improved. Within some faculties, the feedback and evaluation occurs, but in others it is ad hoc and under-developed.
Selection and training of Learning Technology Mentors (LTMs) within each department to work with staff (elaborated in next section).	Thus far, 120+ staff (200 by end of 2000) have been nominated by their departments to become staff LTMs and to work with staff in their own departments, to facilitate communication between the staff and the DLS and to mentor them as they renew their subjects (McNaught & Kennedy, 2000). The LTM staff were given funding for one day a week for 26 weeks to carry out their duties. In many cases, these staff have shown enthusiasm, leadership and have developed plans and promoted adoption of new learning technologies amongst their colleagues. However, the full process is not necessarily supported by faculty and departmental processes. Some LTMs were pressured into the role.
Development of planning guides, training programs and a support desk service by the LTS to support staff.	A range of support and training documentation was produced by the DLS. This continues to be developed.
Staff work plans	Staff are required to produce a work plan to set out the achievements expected over a year along with their professional development plans. Progress against the goals is then reviewed with their supervisors. There is room to more closely link the work plans to quality assurance processes, to promoting the reflection, particularly with teaching practice, as Boyer (1990), Laurillard (1993) and Biggs (1999) have all urged.

Staff development through the Learning Technology Mentor program

Learning Technology Mentors (LTMs) have been appointed in each department of the University. There are 145 Learning Technology Mentors (LTMs)—two in each department of the university and some in central areas such as the Library. These are mostly academic and teaching staff who have funded one day a week time release to develop online materials and support their colleagues in their departments to engage with online teaching and learning. Each LTM has 26 days time release. Some LTMs are continued as Experienced LTMs with further time release to engage in more

strategic roles in their faculties, such as quality assurance of online subjects, development and implementation of online publishing standards, etc.

The primary goals of Learning Technology Mentors (LTMs) relate to:

1. carrying out subject renewal, including adoption of the Distributed Learning System (DLS). The LTMs may renew subjects that they coordinate, or mentor and support colleagues as collaborative subject renewal projects.
2. coordinating and contributing to staff development with a view to enhancing departmental capacity to engage in subject renewal. This includes staff development in the DLS and associated tools, but in several cases (especially in vocational education departments where previous IT infrastructure has been weak) relates to foundation computer skills, e.g. Word and Internet.

While the majority of the Faculty mentors undertake at least one of these roles the mentor activities vary according to faculty, departmental and individual priorities. Other roles include:

3. leading or participating in special strategic projects for the department generally associated with renewal (e.g. coordinating or assisting the selection of subjects for priority renewal, setting up a department intranet facility).
4. providing technical support in developing a DLS presence.

We are seeing that staff development and support for developing online learning materials and strategies must become distributed across the organisation. Therefore the role of the faculty-based Faculty Education Services Groups (FESGs) is pivotal. Growth needs to occur in these units rather than at the centre. We believe that technical support staff, educational designers and graphical designers are needed at faculty level and the only courseware production that should exist at the centre is some support for high-end media production and multimedia production. We are trying to combine the benefits of both the integrated and distributed approached mentioned earlier by Hughes *et al.*, (1997; see table 1).

These LTMs undertake an extensive staff development program about a week long. Some of the key topics are:

- RMIT's vision with respect to the university's position as a major international technological university. The Boyer (1990) Scholarship model has been used for some time as an integrating model for all RMIT work.
- The evolution of the Teaching and Learning Strategy over the last few years.
- The structure and function of the IT Alignment Program; description and key staffing of the ITAP Teams. Some comment on the importance of the Business Process Re-engineering (BPR).
- Course and subject renewal guidelines exist in all faculties and form a central focus of the T&LS and the way in which ITAP works. The concept of graduate attributes is part of this process.
- Roles of the faculty-based Faculty Education Services Groups (FESGs). Relationship between FESGs and central ITAP Teams.
- Overview of the DLS toolset; how the use of the DLS tools relates to the renewal of subjects.

Additional staff development sessions are run each week. These sessions cover a range of practical 'hands-on' sessions, as well as workshops in areas such as

assessment and evaluation strategies for online learning, student induction methods, managing digital resources, project management, etc.

Fifty-three of the 61 1999 LTMs produced reports on their work. (Some LTMs left RMIT or for various health and other personal reasons were not able to complete their LTM duties). These reports were analysed to see if the goals listed above had been achieved. LTMs also provided feedback about their work regularly through an online questionnaire and several case studies of online subjects were undertaken with staff who were LTMs. In 2000, a further 84 LTMs completed the program; reports are currently being analysed.

All of this evidence has clearly indicated that the LTM initiative was useful in:

- sharing awareness of the DLS and Faculty course renewal;
- skilling a range of staff with basic DLS capability in most departments; and
- identifying and developing a first set of active and highly skilled subject renewal 'champions' who could continue to support strategy implementation.

All of the above is fairly conventional staff development, albeit on a larger scale than is currently undertaken at other Australian universities. In what ways does the model relate to the principles of flexible learning that we are training staff to use?

Flexible methods for staff development about flexible learning

We have approached the question of flexible staff development from two aspects. We do not believe in totally online staff development activities. Cultural change is a more complex situation, and the vibrancy of face-to-face workshop discussion and exploration is not likely to be achieved as regularly in online discussion forums. We have online staff development discussion areas but they are not heavily used. Instead we have tried two approaches:

The use of a suite of resources

In the year and a half that the program has existed, we have built up a suite of practical resources, including the following:

- Project planning checklists, to assist staff in scoping and costing online development.
- Publishing standards checklists.
- Quality assurance checklist for online learning. This has been opted as a standard procedure for all online subjects by the university.
- An LTM manual which is a collection of readings and checklists such as how to run an effective threaded discussion; how to incorporate principles of student-centredness into renewing subjects.
- Evaluation materials. We provide online questionnaires, and evaluation planning guides. Many of these were written for, or adapted from, Phillips, Bain, McNaught, Rice & Tripp (2000), a current national project on evaluation of computer-facilitated learning materials.

- Many of these resources are available at a 'Renewal@rmit' website <http://www.lts.rmit.edu.au/renewal/>, where links to other information exists, activities are provided, and a set of DLS exemplars are located.

The development of flexible ways to achieve credit towards qualifications for work done during staff development programs

At RMIT we take the view that staff can obtain credit towards a formal university qualification for any substantial staff development activity they undertake. For example, all LTMs develop a work contract with the author who heads the Professional Development Team of Learning Technology Services. These contracts include specification of:

- the specific subject(s) being renewed, involving use of the DLS, the LTM will be working on in 2000/2001. These subjects need to relate to approved faculty plans for the production of quality assured material.
- the subjects that the LTM will be assisting colleagues in planning the renewal of for 2000/2001;
- staff development activities to be undertaken, such as presentation to the department, appropriate course teams, lunch-time seminars and demonstrations; and
- other activities relating to specific interests/ activities of the LTM such as online assessment strategies, development of a list of local and international examples within the department's discipline field.

In all activities, evaluation strategies and performance targets are specified. Specific issues relating to context and local support should be described.

If individual staff wish, their reports on this work can be formalised into accreditation for a subject in a Graduate Certificate of Flexible Delivery.

At RMIT we have a suite of Graduate Certificates which staff can undertake. These are:

- Graduate Certificate in Tertiary Teaching and Learning
- Graduate Certificate in Flexible Delivery
- Graduate Certificate in Industrial Education and Training (largely for staff in the vocational education and training sector)
- Graduate Certificate in Leadership (for staff in management positions, either senior administrative positions such as faculty executive officers, or academic heads of department)
- Graduate Certificate in Information Technology (specifically for technical staff)

All of these Graduate Certificates can be studied as formal courses. What we have been trying to do is give staff credit for their normal work when they can demonstrate by the production of a portfolio that they have achieved the learning outcomes listed in the subject guides. We do provide workshops and resources but the majority of the work is based on reflective professional practice. Three examples of work which is overseen by Learning Technology Services are given in Table 3.

Table 3: Examples of professional work that articulates into formal qualifications

Key evidence of professional work sought	Subject	Course where partial credit is achieved
Report on work as a Learning Technology Mentor	Teaching and Learning Online	Graduate Certificate in Flexible Delivery
Reflective journal kept by sessional teachers	Teacher Training Program	Graduate Certificate in Tertiary Teaching and Learning
Development of a work plan which links work done to key institutional priorities and strategies	Tertiary Institutions – Theory and Practice	Articulates to both Graduate Certificate in Leadership, and Graduate Certificate in Information Technology

Where to from here?

Providing effective staff development for a university involves work on several fronts. We have tried to provide a scheme at RMIT that tries to combine some clearly focused central support with local action in every department of the university. We have tried to ensure that staff are allocated time to learn new skills and apply them. And we have tried to ensure that staff who engage in innovative work (which always means a greater personal investment than the time allocated) can be rewarded in tangible ways with formal qualifications. Support, time and rewards—these three factors are essential to ensuring real growth and change. The trick is often to sustain the investment for a long enough time to ensure that new practices and processes are effectively embedded across the whole institution.

We have a great deal of consolidation and development to do. We have been delighted by the enthusiasm of many Learning Technology Mentors and other staff in our programs. We have a sense of gathering momentum. Several faculties are showing real commitment, though a couple might still need a persuasive nudge. Have we reached critical mass yet, where the appropriate use of technology will roll out across the University? Probably not, but we feel we are on the right track.

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