UWS Learning and Technology Plan:
A strategic framework for ICT-enabled learning at UWS

Purpose

This paper seeks Executive endorsement of a UWS Learning and Technology Plan. The Plan provides the basis for strategic and business planning of ICT-enabled Learning, in a way that links the various business units involved with ICT-enabled Learning, and integrates digital technologies, teaching spaces and pedagogy.

Background

ICT-enabled Learning is an important enabler of the learning and teaching aspects of the Making the Difference (MTD) strategy. Its importance is reflected in the first dot point of Create a superior and engaged learning experience in the MTD strategy, namely Enable students to study in their own time, supported by ICT-enabled learning resources. The various aspects of ICT-enabled Learning are shared across numerous business units at UWS. Most obvious is the Teaching Development Unit (TDU), which provides our enterprise virtual learning environment, vUWS. Other business units include Information Technology Services (ITS), which provides the technical foundations of most IT systems at UWS; the Library, with its intensively used interface as well as specialist tools such as Turnitin; Capital Works and Facilities (CWF), which facilitates the installation of IT equipment in our buildings; staff in Schools and Colleges who provide academic content that is delivered by learning technologies; and the University’s owned entity, CADRE Design, a repository of expertise in building e-learning resources.

The lack of coherent linkages among these business units is a potential obstacle for us to exploit ICT-enabled Learning to the full.

Over the last two years, the Spaces and Technologies Committee has developed an approach to ICT-enabled Learning that brings together digital technologies, teaching spaces, and pedagogy. Besides devising practical solutions such as standards for the fit out of learning spaces, the Spaces and Technologies Committee has clarified the need for a strategic framework that will integrate the work of the multiple business units that “own” aspects of ICT-enabled Learning.

The attached Plan has been endorsed by the Spaces and Technologies Committee, the UWS Executive and the Campus Development Committee of the Board of Trustees. It is worth noting that the Plan does not begin with a blank page; all of the “owners” of ICT-enabled Learning have their own strategic plans. The UWS Learning and Technology Plan finds ways to link them up and sets them in the broader context of strategic planning of UWS.

The UWS Learning and Technology Plan has been finalised during a period when the first results of the Student Experience of Technology Survey have emerged. The survey, carried out in parallel at UWS (7,500 responses), UTS and Macquarie University, has produced a detailed pictured of how students experience and use technologies in their university life. The Plan aligns closely with the results of the survey by establishing planning domains that address the stated concerns and needs of students.
The Plan also comes at a time when UWS is preparing for its cycle 2 AUQA audit. It provides a planning domain where the pedagogical value of ICT-enabled Learning – rather than just the business efficiency advantages – can be understood so that our resources are best targeted to help students learn better. It also comes at the conclusion of a year of work adapting CADRE Design’s e-learning capabilities to the UWS academic context – a year when UWS staff have learned a good deal about e-learning pedagogy from a company with a track record of commercial success.

Discussion

The UWS Learning and Technology Plan has a three-level architecture. The top level identifies five elements of the MTD strategy that are supported by the strategic framework, and it is worth noting that while three of these elements are related to the student experience, two are related to Build organisational and financial strength; this is an indication that for the first time, UWS has a planning instrument that recognises that ICT-enabled Learning has implications outside pedagogy.

The second level comprises seven, five-year vision statements, the rationale for which was articulated in a paper – How will our students learn in five years – presented to the Board of Trustees in June 2010. It is suggested that the vision statements are refreshed annually.

The third level comprises five planning domains, along with accountabilities, loci of quality assurance, and stakeholders. It is intended that each of these five domains has its own detailed plans, which will be referenced against the MTD strategy and the five year vision statements. The five domains are expanded below:

Virtual Learning Environment (vUWS)

This planning domain deals with our Virtual Learning Environment (VLU, which is currently Blackboard, branded as vUWS). It is proposed that operational accountability for this area lies with the TDU. Its three high level aims will be realised through specific plans:

- **Developing and maintaining the enterprise VLE**: A three-year rolling business plan to maintain and develop the enterprise VLE, including expanded data storage for learning objects, developed in consultation with ITS; TDU’s current detailed business plans can be used as the foundation of this plan, which will be submitted annually to Executive.

- **Providing staff development in the use of the VLE and design of sites**: A plan for e-learning support in the Schools: The current challenge in this domain is the lack of consistency in the position descriptions and capabilities of e-learning support staff in Schools. It is proposed that TDU take a leadership role by developing a University-wide plan for general staff supporting e-learning in the Schools, monitoring its roll-out, and advising Executive on the funding implications. The plan will take into account the broad sweep of capabilities, from routine management of vUWS sites to support in developing complex learning tools. Note that the professional development of academic staff is dealt with in the Integration with Curriculum and Assessment planning domain.

- **Developing quality assurance standards for vUWS sites**: It is proposed that TDU’s current basic and advanced vUWS Quality Standards are framed within a formal UWS-wide quality management plan. The plan will be coordinated by TDU and will require a staged and verified quality assurance of all vUWS sites. The
plan will be submitted to Education Committee for endorsement by the academic community, and a business plan will be submitted to Executive

**Integration with Curriculum and Assessment**

This planning domain has two high level aims:

- **Developing strategies that make the best use of vUWS and other learning technologies in teaching and assessment.** Achieving this aim is a core task of TDU and will be an ongoing process of research, benchmarking and dissemination. The task is not just to improve business efficiency through ICT-enabled Learning, but to understand and to implement how it can help students learn better. Improvements in assessment are a likely priority target, with the objective of transforming the impact of assessment through making it more relevant, more targeted, and more timely. This planning domain will be the conduit through which proven innovations are introduced into the mainstream. TDU will work with a wide range of stakeholders, including academic governance bodies such as School Academic Committees and Education Committee, and academic managers such as Associate Deans Academic, Associate Heads of Schools, and Heads of Programs. Its role will range from leading partnerships to supporting projects initiated elsewhere. Three key partners will be the Library, Student Support Services, and CADRE Design. It is proposed that TDU provides a three-year rolling plan, endorsed annually by Education Committee and Executive, showing which priorities it will address and which academic units it will work with. The plan will incorporate TDU’s partnership with CADRE Design, especially with regard to reusable e-learning tools and learning objects. Colleges will consider the plan in developing their annual learning and teaching budgets.

- **Professional development of academic staff to integrate ICT in curriculum and assessment.** It is proposed that TDU takes the leadership of this specialist professional development area. Besides TDU’s current professional development work in e-learning, the task will also include embedding professional development in Foundations, in the proposed Graduate Certificate in Higher Education, and in sessional staff training. Other kinds of credentials could be developed according to circumstances, e.g. for PhD students engaged in tutoring. TDU will develop a UWS-wide e-learning professional development plan to be submitted to Education Committee for endorsement by the academic community, as well as a business plan for consideration by Executive. The plans will include the engagement of key partners such as the Library.

**Learning technologies in teaching spaces**

This planning domain covers strategic work done by the Spaces and Technologies Committee and the operational work of ITS and CWF. At the core of this domain is the development of business drivers for ITS that are grounded in pedagogy and aligned with the work of CWF (bearing in mind that almost all learning spaces technologies entail building modification to some degree). These business drivers then form the basis for ITS’s business plans and support models. Examples of work in this domain are: (a) support for and development of Lectopia, which was launched by way of an effective if *ad hoc* process of consultation between ITS, TDU and the Schools during 2008-2009; (b) development of a model for Interactive Whiteboards; these boards have been introduced in a fairly *ad hoc* manner, and we still lack a clear process for their purchase, installation, and support; and (c) upgrading of the teaching consoles and audio-visual equipment in general teaching spaces to a functionality similar to that in lecture theatres; this requires a staged plan based on
priorities and aligned with CWF’s backlog maintenance plans. Under this planning framework, projects like these will follow a predictable process with clear accountabilities.

The high level aims are:

- **Developing and implementing fit-out standards for learning spaces, including lecture capture and videoconferencing, incorporating inclusive practice.** Standards have been submitted to Executive in 2010 and trialled in refurbishments at Bankstown. The standards will be monitored and modified under the supervision of the Spaces and Technologies Committee. The Committee has requested ITS and CWF to provide an estimate of costs to implement the fit-out standards over 2011-2013.

- **Developing and implementing support models for classroom technologies.** This is seen as a primary responsibility of ITS, working in collaboration with CWF where necessary. The central task is to make sure that where a new technology is introduced, there are technical and financial resources to support it over the long term. ITS will establish internal business processes to achieve this.

- **Developing and implementing quality assurance standards for classroom technologies.** ITS will develop and disseminate quality assurance standards for classroom technologies, and build a transparent support model to implement them. The standards would cover such issues as maintenance cycles, inclusive practice, response to equipment failure, etc.

**Applications, devices and connectivity**

This planning domain requires both the technical expertise of ITS and the pedagogical expertise of academics and the Library. The domain covers technologies outside the VLE and, broadly speaking, outside the classroom. The Library is a major stakeholder in this domain given the volume of services and collections available through its interface. In the area of software, this domain is primarily concerned with applications that are particular to learning and teaching, and which are accessed through the desktop or through the web. The former category includes content analysis software like Leximancer, statistics packages like SPSS, and the online feedback tool ReMarks; for all these, ITS negotiates licences and builds network versions. The latter category includes web-based applications that require some level of integration with UWS; prime examples are web access to the Library and to vUWS, where in both cases the sites can only be accessed once the student has entered an ID that is authenticated by UWS.

Besides applications, the domain includes the support and quality assurance of student desktop computers in labs and flexible learning spaces.

Within this domain also fall development plans and support models for web connectivity, including campus wifi and 3G, across a range of devices from mobile phones to tablet devices to laptops. The connectivity/devices area is in urgent need of processes to evaluate new proposals from the educational, technical and financial standpoints, to trial and evaluate new systems, and to build business and support models for those that work.

The high level aims are:

- **Developing a catalogue of desktop and web-based learning applications;**
Developing a web connectivity plan;
Developing a plan for use and support of desktop and mobile devices; and
Developing support models and quality assurance standards for applications, devices and connectivity.

The governance model for this domain necessarily crosses internal boundaries, given that quite complex technical planning processes within ITS need to be reconciled with high level pedagogical objectives. It is proposed that strategic planning for the four high level aims is jointly developed by the PVC(L&T) and the Director ITS with input from the Librarian, and endorsed by the Spaces and Technologies Committee. ITS would devise business plans that align with this strategic planning.

**Innovation in learning technologies**

This final planning domain is intended to promote and evaluate innovations, and to build business and support models that allow successful examples to be mainstreamed and transferred to the other planning domains. This planning domain in particular is expected to be guided by the MTD strategy and the five-year vision so that resources are targeted at achieving institutional aims. Two approaches to innovation are anticipated: (a) researching technologies used elsewhere that appear to answer a perceived need at UWS (Lectopia was one such example), and (b) evaluating innovations emerging from individuals and groups within UWS (for example Student Response Units “clickers”). An important task is to manage risk, e.g. to prevent innovators from committing UWS resources beyond our capacity, and to avoid duplication and competing systems; for example there appear to be a number of localised – and perhaps unlinked – projects at UWS experimenting with mobile phones for e-learning. This domain is best dealt with by an Innovation and Technological Change Group reporting to the Spaces and Technologies Committee, comprising representatives of TDU, ITS the Library, Student Services, and CADRE Design. It is likely that the Innovation and Technological Change Group will develop a process for evaluating innovations from the pedagogical, technical and financial viewpoints, and then commissioning the development of business and support models.

**Recommendations**

It is recommended that Executive endorses the following:

(a) The rationale for the UWS Learning and Technology Plan and the three-part architecture;
(b) The five planning domains, namely,
   - Virtual Learning Environment (vUWS)
   - Integration with Curriculum and Assessment
   - Learning technologies in teaching spaces
   - Applications, devices and connectivity
   - Innovation in learning technologies; and
(c) The following plans and processes, with their associated accountabilities, stakeholders, and upward reporting:
<table>
<thead>
<tr>
<th>Plan/process</th>
<th>Primary accountability</th>
<th>Operational accountability</th>
<th>Stakeholders</th>
<th>Upward reporting</th>
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<tbody>
<tr>
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<td>University-wide plan for School-based e-learning support</td>
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<td>Internal business processes to develop and implement support models for classroom technologies</td>
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*Spaces and Technologies Committee includes representatives of ITS, TDU, Library, CWF, CDU, SSS, Colleges, UWSCollege

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28 March 2011

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31 March 2011
## UWS Learning and Technology Plan

### Elements of the Making the Difference Strategy supported by the UWS Learning and Technology Plan

<table>
<thead>
<tr>
<th>Enable students to study in their own time, supported by ICT-enabled learning resources</th>
<th>Create a first year experience that optimises retention and success</th>
<th>Develop staff capacity for high quality teaching</th>
<th>Implement 5-year financial and capital plans and a rolling 3-year budget framework</th>
<th>Ensure sustainability in the University's academic program and operation</th>
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### Five year vision for ICT-enabled Learning at UWS

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<tr>
<th>Multiple campuses are insignificant as a barrier to quality learning and teaching</th>
<th>All students, regardless of background and circumstances, have low cost access to the WWW-based facilities needed to pursue their programs</th>
<th>Superior learning technologies play a key role in high student retention rates, especially in first year</th>
<th>UWS's learning technologies are an important factor in students' choice to come to UWS rather than another institution</th>
<th>UWS is publicly known as an innovator in learning technologies</th>
<th>Learning technologies play a significant role in the efficiency gains needed to achieve UWS's growth targets</th>
<th>UWS has a significantly reduced carbon footprint because of its learning technologies</th>
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### Planning domains

#### Domains

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#### High level aims

- Develop and maintain the enterprise VLE
- Provide staff development in the use of the VLE and design of sites
- Develop quality assurance standards for vUWS sites
- Develop strategies that make the best use of vUWS and other learning technologies in teaching and assessment
- Professional development of academic staff to integrate ICT in curriculum and assessment
- Develop and implement fit-out standards for learning spaces, including lecture capture and videoconferencing, incorporating inclusive practice.
- Develop and implement support models for classroom technologies.
- Develop and implement quality assurance standards for classroom technologies

#### Plans & processes

- Three-year rolling business plan to maintain and develop the enterprise VLE
- University-wide plan for School-based e-learning support
- UWS-wide vUWS quality standards management plan
- Three-year rolling plan on integration of vUWS and other technologies with curriculum and assessment, including TDU/CADRE partnership
- UWS-wide e-learning professional development plan
- Estimate of costs to implement the learning spaces fit-out standards over 2011-2013
- Internal business processes to develop and implement support models for classroom technologies
- Quality assurance standards and support models for classroom technologies

#### Innovation and Technological Change Group

- Promote and benchmark innovation
- Capture existing innovation
- Evaluate and scale up innovation
- Transfer proven solutions to mainstream
- Monitor technological development in education, and evidence of effectiveness

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