

CSU EDUCATIONAL TECHNOLOGY FRAMEWORK

VERSION 1.2

26th October 2010

Approved by

CSU Learning and Teaching Committee on 31st August 2010

Academic Senate on 22nd September 2010

Information and Learning Systems Committee on 26th October 2010

*Working group: Dr Philip Uys (convenor, LTS), Prof Mike Keppel (FLI), Stewart McKinney (DSS), Matt Morton-Allen (DIT),
Craig Nelson (DLS).*

Developed in close cooperation with the Online Learning Environment (OLE) Reference Group:

Dr Philip Uys (Chair); Ken Crofts; Kay Plummer; Dr Yann Guisard; Assoc Prof Barney Dalgarno; Jenni Munday; Bruce Gater; Dr Andrea Crampton; Stewart McKinney; Greg Fry; Matt Morton-Allen; Dr Meryllyn Childs; Dr Stephen Loftus; Lynn Flynn; Greg Hardham (business expert); Dawn Calvert (business expert)

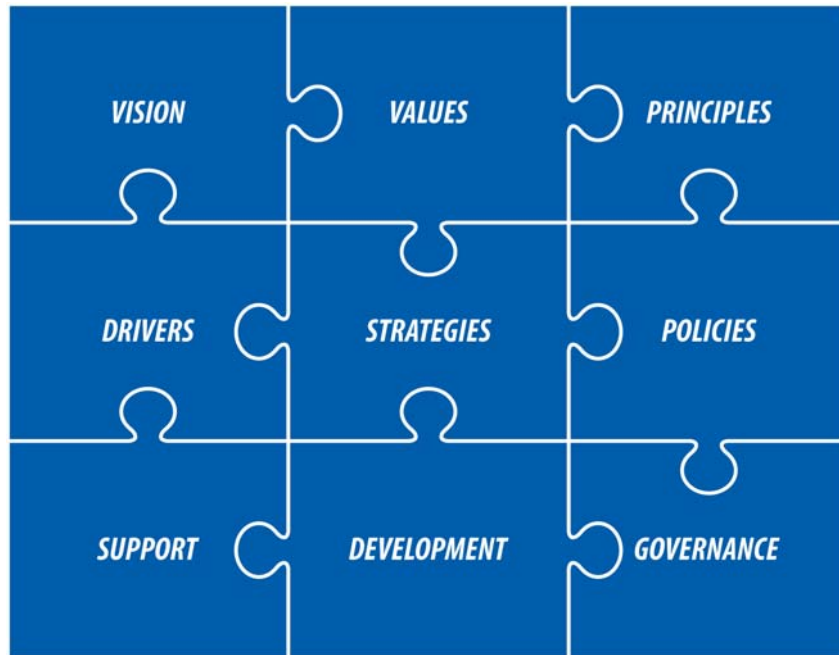
Feedback has been received through wide consultation with staff across the University.

Table of contents	
Purpose.....	4
Context.....	5
Introduction.....	6
Aims and objectives of the Framework	6
Definition of “educational technology”	7
A vision for the use and research of educational technologies.....	8
Vision	8
Objectives	8
Key drivers	10
External environment	10
Internal profile	11
Key values and principles of using educational technologies.....	12
Values	12
Principles.....	12
Principles governing the introduction of new educational technologies.....	13
Strategies for increasing the appropriate use of educational technologies.....	14
Areas for development and review of policies to guide practice across CSU.....	16
Access and equity	16
Indigenous perspectives	17
Innovation in pedagogical approaches	17
Evaluation processes and practices	18
CSU Assessment Policy	18
Legal and Ethical standards	18
Copyright	19
Communications model.....	19
Minimum expertise and usage of educational technologies by teaching staff	19
Expectations of students in using educational technologies.....	19
Principles and standards of the required systems environment and infrastructure.....	19

Strategies for professional development and training	20
Principles about support for the use of educational technologies.....	21
Support for teaching staff and learning and teaching support staff.....	21
Student user and learning support	21
Computer Systems and Services.....	21
The governance structure supporting educational technology including committees.....	22
Support of CSU’s graduate attributes and curriculum principles	22
High level indicators of successful educational technology use at CSU	22
Reference list	23
Appendix A: Findings from the two educational technology surveys.....	24
Findings among students.....	24
Findings among teaching staff	26
Appendix B: Methodology used.....	27
Appendix C: Glossary	28

PURPOSE

The Framework guides the governance, policy and practice needs for educational technology at Charles Sturt University (CSU) and defines the provision, use and application of educational technology at CSU. The Framework provides a structure through which planning and goal-setting will occur to guide future development; that is, it aims to provide a strategic and operational pathway for development to follow.

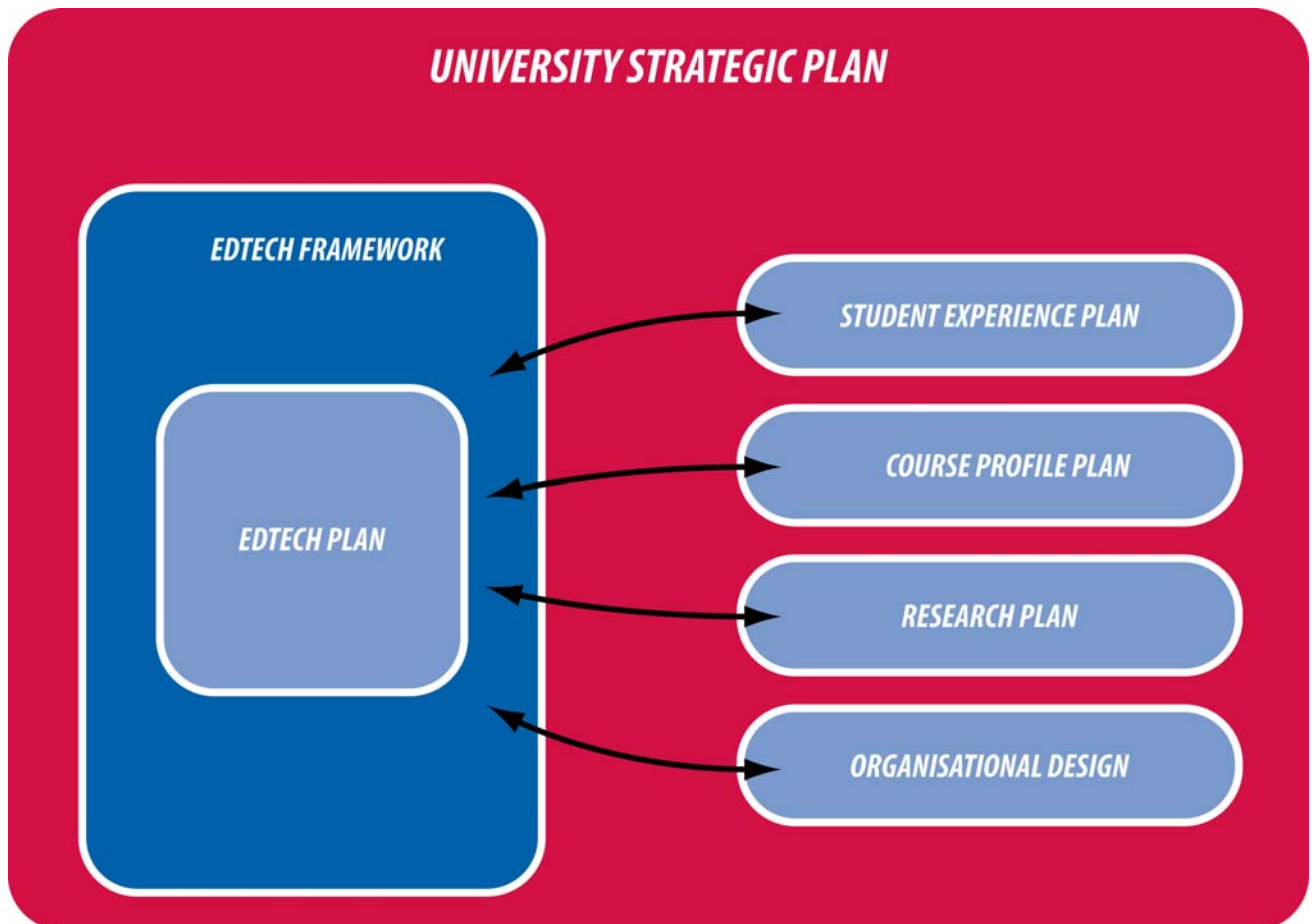


The Framework contains the enduring philosophy and principles, while the Educational Technology Plan describes in a more exact way what CSU will implement in the next five year period and how success will be evaluated. The Plan will be developed once the Educational Technology Framework is approved by Academic Senate. A subsequent process after the approval of the Framework will set out how CSU will implement the Framework in the next five years. The Plan will be formally reviewed with the University’s plans every five years, and will be appraised annually in April for currency, to allow for appropriate budget allocation.

The Educational Technology Plan will describe the implementation of the Framework. Policy will have to be reviewed and appropriate resources allocated to ensure that the key tenets of the Framework are implemented.

CONTEXT

The Framework will align with the revised CSU Strategy 2011 – 2015 and the University plans that are being developed from 2010, that is, the Student Experience Plan; Course Profile Plan; and Research Plan. The organisational design of CSU needs to support and respond to the key tenets of the Framework, for instance in the formulation of duty statements and the way that work is organised.



INTRODUCTION

The Framework will be formally reviewed every five years to align with CSU strategy; it will be reviewed annually to ensure currency and to enable input to the annual budget process; and it will be revisited if required outside this regular cycle.

The Information and Learning Systems Committee (ILSC) is the custodian of the Framework and the Plan.

The methodology used to develop the Framework is detailed in Appendix B. The Frameworks of other Australasian universities were analysed, drafts were developed by the Working group in consultation with the OLE Reference Group, and drafts have been submitted and commented on by the ILSC, Learning and Teaching Committee and Academic Senate.

The Framework addresses on-campus, blended, online and distance education and CSU's focus on education for the professions.

The Framework aligns with the revised CSU Strategy and the University plans that are being developed during 2010.

AIMS AND OBJECTIVES OF THE FRAMEWORK

The Framework guides the governance, policy and practice needs for educational technology at CSU and defines educational technology use at CSU.

It provides a structure through which planning and goal-setting will occur to guide future development; that is, it aims to provide a strategic and operational pathway for development to follow.

It responds to CSU's 2010 AUQA Audit Report which suggested that a more comprehensive Online Learning Environment Plan be developed, that would form part of the Educational Technology Plan.

The Framework interprets and informs the University Strategy and University Plans to ensure the development, provision and use of educational technology advances learning and teaching towards positioning CSU as a leader in the provision of flexible and blended learning and teaching. It positions educational technology to support professional education, to enhance participation and a successful student experience. As such, it integrates and informs Faculty educational technology needs and the related support requirements of the Divisions. It draws on and informs the CSU Infrastructure Plan – Information Architecture and the list of projects and the strategic plan of the Flexible Learning Institute (FLI) and Education for Practice Institute (EFPI), as well as divisional plans. The Plan will reconcile and integrate pedagogical and technological roadmaps (to be developed in partnership with DIT) which describe necessary developments over a five year period.

The Framework provides a coordinated means to identify and respond to current and emerging requirements for educational technology across CSU's campuses and sites, in order to respond to the needs and expectations of CSU students and the changing needs of the higher education sector.

The Framework ensures that learning and teaching innovation and development at CSU will encompass both innovation in pedagogical approaches to the use of educational technologies and the educational technologies themselves, with the emphasis on their role in collaboration, communication and mobility. As such, it links to CSU's Flexible and Blended Standards.

New educational technologies are constantly emerging, and they present research opportunities. Examples of currently emerging educational technologies are esimulations, personal learning environments and use of mobile devices. Many

small groups and individual CSU staff are researching such technologies in creative and innovative ways. The Framework provides a vision of this complex interconnected mix of educational concerns.

The Framework provides guidelines for the introduction and use of educational technologies, to ensure high quality learning and teaching practices and learning resources, and it leads to coordinated deployment of educational technology and productive work-processes. As such, it addresses the need to engender creative interest and enthusiasm in the use of educational technologies and support the appropriate uptake of educational technologies by the majority of teaching staff.

DEFINITION OF “EDUCATIONAL TECHNOLOGY”

Educational technology is the broad range of information, communication and related technologies that are integrated in well-researched educational practice for the direct purpose of effective design, development and facilitation of learning and teaching (AECT, 2010a; AECT, 2010b; ALTC, 2010; Schmid et al., 2009; Wikipedia, 2010).

Educational technologies include, but are not restricted to, information and communication technologies (computers and networks, mobile devices, video conferencing and multi-media, including audio/visual and online production) and teaching and learning spaces.

The term includes the use of technology by teaching staff, teaching support staff and students – owned by CSU, privately or by third parties - within a diverse range of learning and teaching spaces, both off and on-campus (physical, virtual and blended, i.e., a combination of physical and virtual spaces in learning) and the necessary support processes. It includes both hardware, i.e., infrastructure and software that are supported centrally in the University and by faculties, and educational technologies not supported in this way, e.g., external online technologies.

Improvement in educational technologies could support the needs of researchers as a secondary goal. It excludes information management systems.

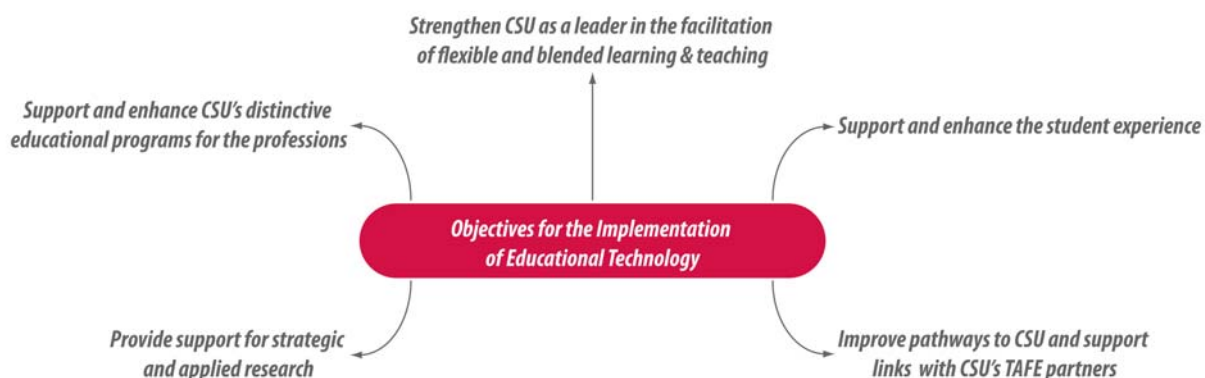
A VISION FOR THE USE AND RESEARCH OF EDUCATIONAL TECHNOLOGIES

CSU has a diverse and dispersed educational environment with multi-campus nationally, an off-shore campus in Canada and various international partner operations, and the University provides both on-campus and distance facilitation of learning.

VISION

The vision for educational technology use at CSU is to enrich the student experience, the course profile and research that are integrated within scalable educational practice and a malleable organisational design.

OBJECTIVES



The objectives for educational technology use at CSU are to:

Support and enhance the student experience, in particular to address the diverse learning needs in ways that differentiate the learning experience, and further add choices for students:

- enrich diverse and innovative research supported pedagogical approaches;
- enrich course planning and course level environments for students and staff;
- facilitate learning at a distance through technologies such as blended online, paper-based and face-to-face learning and interactive video teaching;
- develop a seamless integration of technology into the student learning experience
- demonstrate leadership in the integration of educational technologies in learning and teaching;
- articulate in the University curriculum a commitment to integrate design standards and models of practice, principles with educational technology;

- increase the level of appropriate educational technology use by all teaching staff;
- provide shared learning spaces and teaching experiences through development and enhancement of the necessary physical infrastructure and the Online Learning Environment (OLE);
- facilitate access by all students whether on or off campus and provide communities of learning and practice for dispersed staff and students;
- facilitate academic and student networking and collaboration across courses;
- support the effective use of educational technologies, including those privately owned by teaching staff and students.

Strengthen CSU’s recognition as a leader in the flexible and blended facilitation of learning and teaching:

- be responsive, proactive and flexible to emerging needs, opportunities, challenges and feedback from the CSU community.

Support and enhance CSU’s distinctive educational programs for the professions:

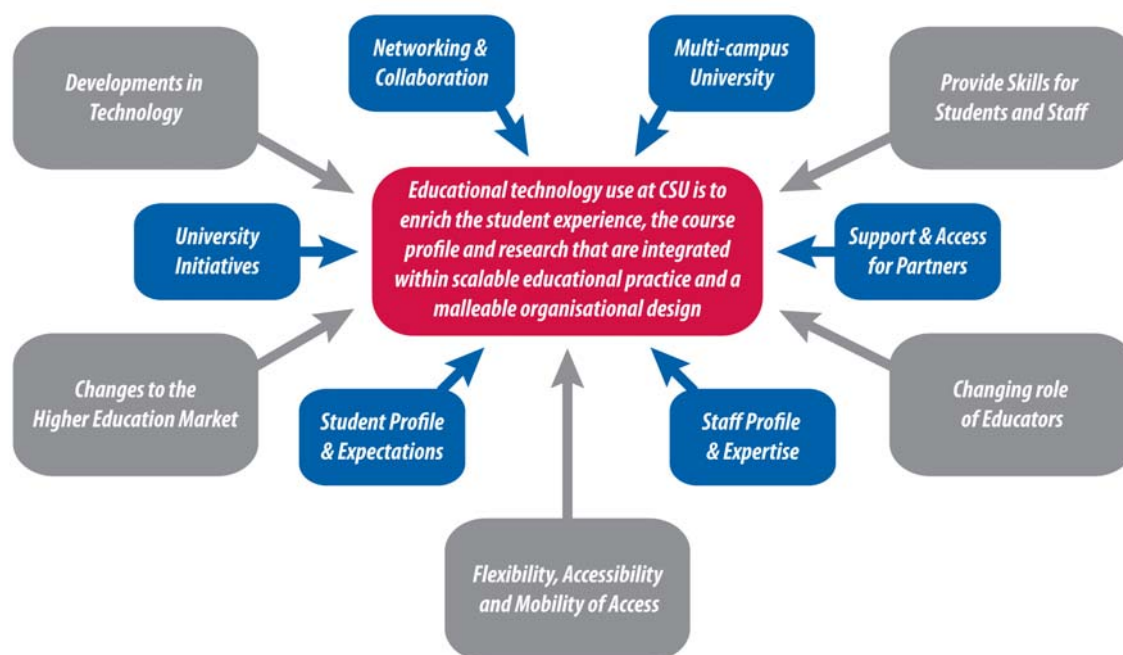
- support collaborative networks and partnerships within CSU and with professional and industry affiliations.

Where possible, also provide support for strategic and applied research:

- foster the creation and sharing of knowledge through collaborative learning, professional development and, as a secondary goal, research environments.

Improve pathways to CSU and support links with CSU’s TAFE partners.

KEY DRIVERS



EXTERNAL ENVIRONMENT

- The opening up of the Australian higher education market in 2012 will lead to increased emphasis on the student experience. It will put pressure on universities to optimise the learning and teaching environment through educational technology;
- The need to up-skill CSU students and staff to meet the challenges of the information and knowledge society and the expectations of external stakeholders such as employers and external assessment bodies;
- The need for accessible, user-friendly and flexible access to education to meet the societal and life-wide and lifelong learning continuum;
- The abundance of resources and relationships made more accessible via the Internet is increasingly throwing into question educators' roles in sense-making, coaching, and credentialing;
- People expect to be able to work, learn, and study whenever and wherever they want to;
- There is an increasing range of potential cloud-based services, i.e., externally hosted, and notions of IT support are increasingly centralised;
- The prevalence of information and communication technology (ICT) in everyday use, i.e., mobile technology, social networking, information sources, and our increasing native literacy in terms of visual media, reinforces the expectation that technology is fundamental to the learning environment. This is reinforced by the

integration and embedding of ICT in curriculum and “good practice” in primary and secondary schools, given additional impetus by Commonwealth government policy.

INTERNAL PROFILE

- a) The student profile of skills, access and expectations needs to be considered. The 2010 educational technology survey of students (see Appendix A for details) indicates that students are using educational technologies extensively and are confident in their use. The very large majority of students have broadband access to the Internet. Students are mostly positive about the use of educational technology and see it as important in their careers.

Students are overwhelmingly satisfied with the functionality and use of *CSU Interact*. A large majority of students prefer blended (online and paper) in distance education subjects. On-campus students prefer face to face interactions above online learning. Students prefer printed readings and content above online access. Students are keen to access online audio and video clips and have assignments marked online, and to have online formative and summative quizzes. Students are divided about using mobile devices in learning. A very small percentage of students need special assistance to use educational technologies.

A large percentage of students (37%) does not see their teachers meeting their expectations regarding online communications, and around the same percentage does not believe that their lecturers are good at using educational technology for teaching.

Students in general are satisfied with the range of technologies available for studying and communicating, but only around a third of students are satisfied with the availability of on campus computing facilities and the availability of points to charge their laptop and other devices on campus.

- b) The profile of teaching staff needs to be considered. The 2010 educational technology survey of teaching staff (see Appendix A for details) indicates that staff are using educational technologies extensively. More than 60% mark assignments online during the session and a quarter of staff do more than 10 hours teaching online per week. Over half are teaching online from home. Nearly half teach all their distance subjects totally online, while 61% of staff mark assignments online during session.

A large majority of staff have a positive attitude towards the use of educational technologies. A large proportion of teaching staff would like to use online summative assessment.

However, only around 50% of staff provide online feedback at least weekly.

Half of the staff are satisfied with the functionality, availability and overall use of *CSU Interact*. A small minority prefers online teaching to face to face teaching of on-campus subjects, but more than half prefer blended on-campus subjects.

More than 50% prefer online over paper, and a small minority prefers paper in distance subjects. Half prefer a blend in distance subjects.

- c) Educational technology should support networking as students need to be able to work collaboratively, and there is more cross-campus collaboration within Schools in a variety of disciplines;
- d) There is an increasing expectation in the University of minimum expertise and usage of educational technologies by teaching staff;
- e) There is an expectation of consistent use of educational technology across subjects in courses;

- f) The multi-campus environment within a “One University” concept presents challenges such as cross-campus schools and staff, cross-campus course and subject offerings and facilitation, distance and internal modes of facilitation, dispersed student cohorts;
- g) Providing support and access for international partners, as well as the transferrable nature of the internationalism of education, places demands on CSU to provide state-of-the-art educational technology;
- h) The increasing heterogeneity in the learner characteristics and experience of our students and the need for educational technology to differentiate the learning experience;
- i) Educational technologies need to support the following key university developments and initiatives:
 - Indigenous education strategy
 - Transitions project
 - Student success as per the Student Experience Program and aspiring to the [Student Experience Project Objectives](#)
 - FLI and EFPI standards
 - The Curriculum Renewal/Degree Initiative includes course mapping software, digital object management systems (DOMS) strategy for digital learning objects, ePortfolios, Assessment tools, interactive resources and collaboration tools.

KEY VALUES AND PRINCIPLES OF USING EDUCATIONAL TECHNOLOGIES

VALUES

Derived from the assumptions of the Standards for Flexible and Blended Learning.

- a) CSU believes that the appropriate integration of educational technologies and pedagogy enhances learning and teaching and thus the student experience.
- b) Participating in ICT enabled flexible and blended learning is an important part of a CSU student’s experience.
- c) At CSU, ICT (specifically *CSU Interact*) is recognised as a valuable tool to improve access to information and increase knowledge; to enhance collaborations between teachers, students and peers; and allow diversified forms of assessment.
- d) CSU values and promotes technoliteracy as an integral part of the multiliteracies which students acquire in their time at CSU.

PRINCIPLES

Derived from the Standards for Flexible and Blended Learning.

Enriches pedagogy: supports and enhances pedagogy

Constructive alignment: aligned with the goals, values and mission of CSU in relation to learning and teaching

Fostering innovation: designed to foster innovation, creativity and transformative change

Student learning experience: supports the quality of the student learning experience across all physical, blended and virtual learning and teaching spaces

Equivalence of learning outcomes: ethical obligations of flexible and blended learning including equitable and accessibility of use

Discipline pedagogies: negotiates the specific needs of different disciplines

Accommodates technological change: accommodates the nuanced shifts fundamental to rapid technological change

Continuous renewal: designed to foster a dynamic environment of continuous renewal, simultaneously leading and responding to developments in university teaching and learning at all levels

PRINCIPLES GOVERNING THE INTRODUCTION OF NEW EDUCATIONAL TECHNOLOGIES

Need

There should be a stated curricular need and vision for the implementation of the new technology, for example identified through student or staff learning needs, technical and infrastructure requirements or tied to systemic developments such as learning theories, paradigm shifts, societal trends and research imperatives.

Improvement

New technologies need to show that they enhance the student learning experience

Introduction

Sustainable introduction of centrally supported educational technologies

Integration

Teaching staff are encouraged to integrate external technologies such as external online technologies into their learning and teaching

All educational technologies do not have to be provided centrally but integrated appropriately

Research

Designated professional staff such as educational designers and staff committed to learning and teaching innovation in the Division of Learning and Teaching Services (LTS) are encouraged to research educational technology to support learning and teaching.

DIT staff will research market directions and technology trends.

Teaching staff are encouraged and rewarded to research educational technology use as part of the scholarship of teaching.

Long life

The application of the technology has a long life and is readily accessible, i.e., there is ongoing and manageable access to the technology for all intended users.

Professional development and support for teaching staff and students

Skill development in the use of the technology both technically and pedagogically is both attainable and scalable, and professional development is ongoing.

Technical assistance and support is readily available, and the technology is maintained either internally or externally.

The technology is supported by standards, policy (see section 8 below), procedures, guidelines of use and resources. This would include alignment to the CSU strategy and University plans.

The technology is supported by a collaborative community of users that have invested in the introduction and implementation process.

Resourcing

There are ongoing budget considerations and planning for the future or specific timeframes.

Governance

Investment in new educational technologies takes place through the governance mechanisms described below in which the custodian of the service plays a key role.

Evaluation

There is ongoing assessment and evaluation of the effectiveness of the technology for learning and teaching or stated need/intention.

Standards

Educational Technology aligns with the [Enterprise Architecture \(EA\) principles that](#) include risk management, and adheres to [information technology standards](#)

STRATEGIES FOR INCREASING THE APPROPRIATE USE OF EDUCATIONAL TECHNOLOGIES

Objectives

Strategies should begin with the outcomes and objectives for learning and teaching, affordances of the educational technology and learning spaces;

The emphasis should be on how the technology enables the usage of a richer range of learning spaces for learning and teaching;

Scholarship of Teaching

Advance the recognition of, and the scholarship of teaching;

Organisational design

Have an organisational design, which includes duty statements and how work is organised, that emphasises the appropriate use of educational technologies;

Policy and guidelines

Appropriate policy should be adhered to and developed (see section 8 below), such as dealing with the use of external technologies;

Support and guidelines should be developed and provided to all teaching and teaching support staff to make appropriate choices in using educational technologies;

Support major educational technology implementations with appropriate change management processes;

Standards

Flexible and blended learning standards need to guide the aspirations of Faculties and Schools;

Dissemination

Communities of Practice about educational technology should be encouraged and supported;

The appropriate use of educational technologies needs to be promoted, shared and published by teaching and teaching-support staff;

Regular forums should be available for the exchange of ideas such as CSUEd, 59minutes @FLI, Yammer, the site “about ICT integration”, webinars, Forums;

Professional development

Professional development should be provided for teaching, teaching support staff, learner support staff and students;

Educational Designers in particular need professional development to enhance their own knowledge and skills to enable them to act as champions;

Access to well-documented exemplars of ICT-enabled learning should be provided;

Provision should be made for attendance at educational technology conferences, e.g., CSUEd, ASCILITE, ALT-C, ED-MEDIA, of teaching and teaching support staff;

The FLI Teaching fellowship scheme should be supported and explored for educational technology use;

External technologies

Exploration of appropriate external online and off-line technologies should be encouraged and experiences shared;

Change processes

Rewards schemes should be put in place to encourage innovation and integration;

The Initiatives Handling Process should be used as appropriate.

Appropriate support for staff should be provided.

Particular emphasis should be placed on the use of educational technology within first year subjects not only to help students transition to university, but to promote good practice. By experiencing sound online and blended strategies early within their academic career students expect similar teaching practices from other courses and subjects.

ACCESS AND EQUITY

A central intention of the Framework is to ensure that no students or staff are disadvantaged by the introduction or application of educational technology. The intention needs to be embedded into practice without impeding innovation and development but rather compliments and enhances. The Access and Equity Policy at CSU (CSU, 2010a) should ensure that no students are disadvantaged. It is not so much that technology is accessible, but that it does not raise barriers to the quality of learning and teaching. The appropriate use of educational technology will add choices for staff and students rather than add barriers by limiting or closing down choices. Appropriate use of technology is the 'tool' that expands choices, not the main 'platform' that distributes learning content and resources to students, so that students or academics become locked to computers in order to study or to teach. Educational technology that causes non-usability or inaccessibility, or that limits student-centred learning, should not be supported.

The diverse range of students and the diverse places of study are openly recognised by the Framework. A wider and more appropriate use of educational technology is not related to technology in itself, but to a firm commitment by all sections within the University community to the centrality of student-centred learning design where students are allowed to work according to their strengths and with scope to develop them.

Universal Design in Learning principles are affirmed (CAST, 2010):

Multiple means of representation, to give diverse learners options for acquiring information and knowledge,

Multiple means of action and expression, to provide learners options for demonstrating what they know,

Multiple means of engagement, to tap into learners' interests, offer appropriate challenges, and increase motivation.

Hardware and software applications should meet the recognised needs of teaching staff and students such as stability and retrieval of lost information.

Equity of access needs to be ensured for international students and overseas partners through CSU's student support services and the website.

Assistive technologies should be maintained on campus, such as the assistive technology labs located within Learning Commons facilities. These labs are primarily as showcase and training facilities, not the 'solution' for access to assistive technology for all students with disabilities. What is of more importance is providing students and staff with ways of accessing assistive technology in their places of study or work.

The 2010 Educational Technology Student survey (see Appendix A) indicates that 2.1% of students have special requirements when using educational technology. Student target groups who may be identified as needing special support include low SES groups. Financial support for low SES students should be provided in support of their own technology, e.g., a laptop subsidy.

A key point is that an assurance in policy form needs to be provided, that all students and staff at CSU have equal access to good-quality wireless Internet connection. Students undertaking workplace learning need to have good access to a wireless internet connection.

Equity of access needs to be ensured for international students and overseas partners through clarity and effectiveness of CSU's international student support services.

The following policies should be adhered to:

▀ [Disability and Work/Study Adjustment \(Policy and Procedure\)](#)

▀ [Equal Opportunity Policy](#)

[CSU Disability Action Plan](#)

Accessibility of CSU websites (CSU,2010d) needs to be considered, as well as the CSU Web Publishing website and the Web Disability Access Action Plan (CSU, 2010d) that provides information on web content accessibility guidelines for staff (CSU, 2010e).

Regular review of hardware and software should ensure that it meets the needs of teaching staff and students such as stability and retrieval of lost information. Teaching staff in general need a higher level of computer than students.

INDIGENOUS PERSPECTIVES

A key issue within the Framework is to identify, improve and address ways to increase Indigenous access to and participation in learning mediated through educational technology.

The 2010 Educational Technology Student survey (see Appendix A) indicates that 20% of indigenous students have 5 or less years of computer use compared to 6% of other Australians. 77% of other Australians have more than 10 years of computer use compared with 51% of indigenous students. Indigenous and other Australians spend about the same time using a computer, or studying using a computer per week.

The Framework considers and align with policies such as::

- [Indigenous Education Strategy](#)
- [Centre for Indigenous Studies](#)
- [Indigenous Curriculum and Pedagogy](#)
- [Vision Statement Indigenous Student Services](#)

INNOVATION IN PEDAGOGICAL APPROACHES

Effective pedagogy should embrace the affordances of educational technology. As such, the effects on pedagogy of disruptive and other technologies (i.e., technologies that lead to a transformation of practice) need to be guided to positive outcomes.

Criteria for assessing new technology are discussed in section 6 above. In a rapidly changing educational technology world, research and evidence-based practice in educational technology and pedagogy needs to occur on an ongoing basis.

A 'maturity' scale should be developed for technologies, locating them within adoption phases, such as pilot, limited introduction, roll-out, maximum use.

Innovation should align with:

- [Quality assurance and enhancement Office of Planning and Audit](#)

EVALUATION PROCESSES AND PRACTICES

Evaluation is best predicated upon an educational articulation of educational technology, its role and effects within an institutional vision, framework, and action plan.

Evaluation processes and practices need to support the use of external technologies such as external online technologies in learning designs.

Evaluation should align with “[Quality Enhancement and Evaluation Services](#)”

Compile a specialised section on educational technology use in the Online Evaluation Survey and continue with the educational technology survey on an annual basis.

Piloting needs to be seen as a matter of course in evaluating educational technologies.

The input of teaching and teaching support staff in the piloting and use of educational technologies should be recognised in workload formulas.

An evaluation process to measure the impact of educational technology on professional learning and practice should be maintained at individual and School levels.

Schools, Faculties and teaching support staff should be assisted to identify and share learning and teaching benefits that arise from specific uses of educational technology.

Strategies and support programs should include mentoring, coaching and action-learning.

CSU ASSESSMENT POLICY

All educational technologies with an application in assessment should be adequately supported to ensure that user (staff and student) experiences comply with the [CSU Assessment policy](#) and the proposed Generic Guidelines for Online Assessment.

LEGAL AND ETHICAL STANDARDS

Legal and ethical matters need to be considered in particular with regard to the use of external technologies.

The CSU Code of Conduct for Users of Electronic Facilities should be explicit about online related unacceptable practices such as cyberbullying and stalking

Privacy and confidentiality, especially in the use of records databases, should align with CSU’s [Access to Personal Files Policy](#).

Educational technology should comply with licence requirements.

Intellectual property issues should align with [CSU’s intellectual property policy](#).

The Framework considers and align with policies such as::

- Expectations of students and staff in the use of educational technology within learning and teaching
- [Academic Manual](#)
- Teaching and Learning Educational Support including [Code of Conduct for Users of Electronic Facilities](#), e.g., external online (currently referred to as Web 2.0) information; internet uncensored.

COPYRIGHT

Copyright should adhere to the guidelines provided on CSU's website at <http://www.csu.edu.au/copyright/> Copyright issues associated with external technologies and CSU's presence in other countries, including international partners, must be addressed in consultation with the Copyright Coordinator.

COMMUNICATIONS MODEL

A communication model should be developed for communication by and with teaching staff, teaching support staff, students and student support staff that deals with

- Plans
- Pilots
- Evaluations
- Service interruptions.

Technical standards are discussed in the next section.

MINIMUM EXPERTISE AND USAGE OF EDUCATIONAL TECHNOLOGIES BY TEACHING STAFF

There is an increasing expectation in the University of minimum expertise and usage of educational technologies by teaching staff.

The expectation of higher technoliteracy also needs to be reflected in the employment practices of the University.

See the "Internal profile" above for current engagement with educational technologies.

EXPECTATIONS OF STUDENTS IN USING EDUCATIONAL TECHNOLOGIES

The minimum level of technology knowledge and familiarity, as well as average computer hours per week that are expected, needs to be formulated.

See the "Internal profile" above for current engagement with educational technologies.

PRINCIPLES AND STANDARDS OF THE REQUIRED SYSTEMS ENVIRONMENT AND INFRASTRUCTURE

Standards describe specifics like infrastructure, while principles are usually a higher level concept. (For examples see [EA principles](#).)

Educational technologies should adhere to [IT infrastructure standards](#).

Internal and external systems will be evaluated through the Systems Architecture checklist and Initiatives Handling Process (IHP) impact assessment.

STRATEGIES FOR PROFESSIONAL DEVELOPMENT AND TRAINING

- a) Allocate a high priority to professional development in educational technology and student learning mediated through educational technology; a need for organisational commitment and leadership from LTS staff;
- b) Support the required technoliteracy within a pedagogical framework;
- c) Create a vision and coherent long-term plan for professional learning in the use of educational technology that is integrated in learning and teaching professional development strategies;
- d) Ensure that professional development is timely, focused, practical, ongoing and reflective. One-off, particularly the sit-and-get training type, professional development sessions have proven largely ineffective in promoting both commitment to and effective use of learning technologies;
- e) Engage teaching staff actively in their own development, not merely 'transmitting' knowledge and skills to them; relate professional development activities to the work of teaching staff;
- f) Provide time for reflection and coaching/mentoring on a sustained basis, recognising that follow-up support/strategies are as important as initial training;
- g) Promote continuous inquiry and improvement embedded in what teaching staff already do on a daily basis;
- h) Promote an organisational design that supports community-based learning through the development of collaborative teams and collegial communities of learners/communities of practice; component activities that are team-based to facilitate collegiality and collaboration (e.g., Teaching Fellowship Scheme);
- i) Professional learning ought not be confined to skill-building activities but include a focus on improving educational technology practices as a means of increasing student achievement; connected to a comprehensive change process focused on improving student learning;
- j) A focus on pedagogy which allows for a deepening understanding of the learning process and a greater appreciation of students' needs, recognising that an ongoing process of inquiry into, and reflection on, practice enhances professional knowledge, attitudes and skills;
- k) Support and encouragement for teaching staff to contribute to, or lead, educational technology professional learning networks; evidence-based practice; action-research approaches to PD activity;
- l) Continually increase the capabilities of teaching support staff;
- m) Deal with the professional needs created by the increased casualisation of teaching staff;
- n) Develop a program for the mentoring of teaching staff by colleagues;
- o) PD through formal programs of the University;
- p) Apply the TPCK framework to consideration of pedagogy which is an integration of technological, pedagogical, and content Knowledge (Mishra & Koehler);
- q) Recognise the importance for learner support staff and teaching support staff to receive adequate training.

PRINCIPLES ABOUT SUPPORT FOR THE USE OF EDUCATIONAL TECHNOLOGIES

SUPPORT FOR TEACHING STAFF AND LEARNING AND TEACHING SUPPORT STAFF

Support needs to be in terms of induction into the technology, using it well in terms of the technology, and using it well in terms of its application in learning and teaching. Technology is not, by itself, transformative.

Just in time (JIT) support should be available to teaching staff regarding skills to use educational technologies. This JIT support could be provided by tier 0 (self-help particularly online training), tier 1 (Service Desk and educational designers) and tier 2 support.

Educational technology situated in physical, blended and virtual spaces to facilitate high-quality learning and teaching; to gain familiarity and competency in using educational technology.

It is critical that learning and teaching support staff be adequately supported.

STUDENT USER AND LEARNING SUPPORT

Students use educational technology extensively and positively (see profile above).

There should be Just-in-place (contextualised) support where there is integration of technologies into the study habits of students.

There should be Just-in-time (needs basis) support for students learning on- and off-campus.

Assist students in learning how to use educational technologies effectively – implement strategies for helping students learn with technology the way they live with technology.

Increase the capacity of students for managing their own learning through personal learning environments (PLEs).

Students need to embrace and be enthused by the importance of learning mediated through educational technology.

Technology literacy - set up a process for students to self-diagnose (tier 0 support) their educational technology competencies, with feedback that directs them to specific support avenues and/or strategies.

COMPUTER SYSTEMS AND SERVICES

The range of systems and services referred to in this section is depicted on the [Dashboard of Systems for ICT-enabled Learning and teaching](#).

Reasonable uptime of systems should be defined and provided as part of service level guarantees.

Reasonable after hours services should be defined and provided.

Backup/fallback processes and plans, i.e., business continuity details, need to be included in service level agreements (SLAs) between systems' custodians and DIT.

An acceptable use policy about the use of educational technologies should be defined and provided.

THE GOVERNANCE STRUCTURE SUPPORTING EDUCATIONAL TECHNOLOGY INCLUDING COMMITTEES

The Senior Executive Committee (SEC) is responsible for funding and prioritising initiatives (through IHP).

The Executive Director, DIT has responsibility technological standards, acquisition of information technology, contracts and agreements and other matters as per the delegation schedule.

The Information and Learning Systems Committee (ILSC) is the primary educational technology committee. The ILSCOSC is the operations sub-committee of the ILSC.

The CSU Learning and Teaching Committee and Academic Senate deal indirectly with educational technologies via the ILSC and directly via the representation of the DVC (Academic) and the Executive Director, LTS.

The Online Learning Environment (OLE) Reference Group was created by the DVC (Academic) to ensure academic representation with regard to the OLE. The brief of this group need to be extended to cover all educational technologies.

The CSU Web Management Committee (WMC) deals with overarching web governance through standards and principles.

The Enterprise Architecture principles and standards guide technological decisions with regards educational technology.

SUPPORT OF CSU'S GRADUATE ATTRIBUTES AND CURRICULUM PRINCIPLES

Educational technologies need to support CSU's graduate attributes (CSU, 2005; CSU, 2010b) and the many associated initiatives such as the development of curriculum design principles.

HIGH LEVEL INDICATORS OF SUCCESSFUL EDUCATIONAL TECHNOLOGY USE AT CSU

- a) The bi-annual longitudinal study of educational technology use, skills and expectations of CSU's teaching staff and students will contribute evidence of success.
- b) Reported progress by schools on achieving Standards for Flexible and Blended Learning will contribute evidence of success.
- c) Increase in the research and publications associated with educational technology as submitted to CSU's CRO database.
- d) Longitudinal study of FLI Teaching fellowship scheme in relation to flexible and blended learning, transformative learning, distributive leadership and strategic change. (Currently entering third year of design-based research project).
- e) FLI Needs analysis of CSU flexible and blended learning environment (18 month evaluation – completed July 2010).
- f) These evaluations will feed back to the ILSC, and the CSU Learning and Teaching Committee and Academic Senate.
- g) The feedback could indicate that certain educational technologies should be decommissioned or updated.

REFERENCE LIST

- ALTC, 2010. http://www.alt.ac.uk/learning_technology.html
- AECT, 2010a. <http://www.aect.org/About/default.asp>
- AECT, 2010b. <http://www.aect.org/default.asp>.
- CAST, 2010. Universal Design in Learning principles. <http://www.udlcenter.org/research/researchevidence>
- Cope, B., & Kalantzis, M. (2000). Multiliteracies: The beginning of an idea. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 3-8). London: Routledge.
http://www.decs.sa.gov.au/thenetwork/files/pages/identity_web/multiliteracies.html
- CSU, December 2005 <http://www.csu.edu.au/faculty/educat/folio/folio.htm>
- CSU, 2010a <http://www.csu.edu.au/division/studserv/equity/>
- CSU, 2010b <http://www.csu.edu.au/docs/publications/2011-DE-Prospectus.pdf>.
- CSU,2010d <http://www.csu.edu.au/division/studserv/disability/staff/accessibilityofwebsites.htm>
- CSU,2010e http://interact.csu.edu.au/portal/tool/www.csu.edu.au/adminman/tec/WMC_web_content_guidelines.doc
- Mishra, P. & Koehler, M.J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. *Teachers College Record*. 108(6), 1017-1054.
- Schmid R.F., Bernard R.M., Borokhovski E, Tamim R., Abrami P.C., Wade C.A., Surkes M.A., Lowerison G. (2009). Technology's effect on achievement in higher education: a Stage I meta-analysis of classroom applications. *Journal of Computing in Higher Education*. 21:95–109
http://www.dest.gov.au/archive/highered/eippubs/eip00_7/00_7.pdf
- Wikipedia, 2010. http://en.wikipedia.org/wiki/Educational_technology

APPENDICES

APPENDIX A: FINDINGS FROM THE TWO EDUCATIONAL TECHNOLOGY SURVEYS

Two surveys were conducted among CSU students (around 4000 respondents) and teaching staff (around 300 respondents) in July 2010 as a base line of the use, skills and expectations of teaching staff and students regarding educational technology.

FINDINGS AMONG STUDENTS

Students are using educational technologies extensively, also for personal use

- 94% are confident in using a computer and 88% are confident about using educational technologies
- 90% use *CSU Interact* occasionally or regularly
- 94% use email regularly and nearly 100% use it occasionally or regularly
- 63% download music or videos occasionally or regularly
- 92% are occasional or regular users of SMS on their mobile phones

Student access

- 91% use broadband and only 2% use dial-up for their Internet connection

Stance regarding educational technology

- 64% have a positive attitude towards educational technologies
- The most important benefit of educational technology for the majority is to provide access to learning
- 94% see educational technology as making their learning more flexible
- 84% see educational technology as making it easier to interact with fellow students
- 90% agree that educational technology supports their learning; 77% that it increases their satisfaction with their learning
- 84% see educational technology as important for their future careers
- 74% agree that the lecturer needs to check electronically for plagiarism
- 79% agree that the students needs to check electronically for plagiarism of their own work

CSU Interact

- 81% are satisfied with the functionality of *CSU Interact*; 67% are satisfied with the availability of *CSU Interact*; and 81% are satisfied with the overall use of *CSU Interact*; but 50/50 on adequate training on *CSU Interact*
- Class rooms and Learning Commons
- Majority of on-campus students happy with classrooms for learning and indicated that the majority of on-campus teaching is lecturing
- Majority of on-campus students are satisfied with the Learning Commons

Preferences

- 71% prefer blended (online and paper) in distance education subjects, while 50/50 online above paper in distance education subjects
- Only 20% prefer online above face-to-face in on-campus subjects; 32% uncertain; 48% prefer face-to-face
- Regarding readings: 73% have printed book as first choice

- Regarding content 67% have printed book as first choice

Expectations

- Half would want to use online lecture notes weekly
- 72% would like to use online audio clips every few weeks or more – 33% each week.
- 73% would like to use online video clips every few weeks or more – 43% each week.
- 94% would like to have their assignments marked online
- 90% would like to have online quizzes
- 80% want online graded assessments
- 57% want at least weekly online feedback
- 87% want to revisit work from lectures on their handheld/mobile device
- 50/50 on campus info; subject information; subject readings; assessments or notifications on a handheld/mobile device
- Only 63% agree that teachers meet expectations regarding online communications
- 67% believe that their lecturers are good at using educational technology for teaching
- 79% are satisfied with the range of technologies available for studying and communicating
- Only 32% are satisfied with the availability of on campus computing facilities
- Only 24% are satisfied with the availability of points to charge their laptop and other devices on campus

Staff are using educational technologies extensively

- More than 60% mark assignments online during the session
- 52% of teaching staff spend between 6 and 20 hours per week on the computer for research
- A quarter of staff do more than 10 hours teaching online per week
- Over 50% are teaching online from home
- 80% use Interact regularly
- 53% use podcasts occasionally or regularly
- 30% write blogs occasionally or regularly
- 52% use audio clips at least every few weeks
- 55% use video clips at least every few weeks
- One in 8 respondents are using eportfolios at least weekly
- 30% using quizzes for feedback at least weekly
- 33% using online summative assessment at least weekly
- 54% use online group work
- 46% teach all their distance subjects totally online
- 61% of staff mark assignments online during session

Stance regarding educational technology

- 75% have a positive attitude towards the use of educational technologies

Growth areas

- Announcements, posting lecture notes, and discussion forums very highly used (all >50% weekly) but other tools used much less.
- Only 50% provide feedback at least weekly

CSU Interact

- 55% agree with good functionality of Interact – and 31% are not finding functionality acceptable
- 52% are fine with the availability of Interact – and 34% not satisfied
- 57% fine with overall use of Interact – 27% not satisfied

Preference

- only 16% prefer online teaching to face to face teaching of on-campus subjects,
- 59% prefer blended on-campus subjects
- More than 50% prefer online over paper and 17% prefer paper in distance subjects
- 50% prefer a blend in distance subjects
- Only 15% use Interact because students demand it

Intentions

- 77% would like to use audio clips every few weeks or more – 33% each week.
- 78% would like to use video clips every few weeks or more – 31% each week.
- 68% would like to use online summative assessment

APPENDIX B: METHODOLOGY USED

Framework: Establish a vision and goals, and conduct an institutional audit to establish the base line.

Followed by the development of a Plan: develop strategy implementation and professional development plans, devote resources, put accountability measures in place and devise suitable incentives, rewards and support systems.

1. Review documents of other universities and the CSU Faculty of Education strategy/plan
2. Interview ACODE colleagues who have developed similar plans/frameworks/strategies
3. Investigate principles guiding current practice through the baseline surveys
4. Work with ACODE colleagues to develop generic aspects and learning from each other
5. Link with CSU Strategy and University plans, especially the Student Experience theme
6. The Working Group develop drafts in consultation and collaboration with stakeholders, especially the OLE Reference Group
7. Review educational technology use by staff and students as
 - A baseline institutional audit and what staff and students would want to use in the next 5 years
 - Identify and categorise known issues with regard to the areas in the Framework
 - Develop use cases for the Plan.
8. Seek endorsement of the Framework by ILSC, L&T Committee and Academic Senate
9. Seek endorsement of the Plan by ILSC, L&T Committee and Academic Senate.

APPENDIX C: GLOSSARY

Blended learning - utilises both physical and virtual environments and may be defined as “a design approach whereby both face-to-face and online learning are made better by the presence of each other” (Garrison and Vaughan, 2008). Blended learning and teaching can occur at four levels of granularity: activity-level blending, subject-level blending, course-level blending and institutional-level blending (Graham, 2006). A blended learning design may also be enabling, incremental or transformative. Enabling blends would address issues of access and equity to provide equitable opportunities in face-to-face, print-based, blended and fully online learning environments. Enhancing blends focus on incremental changes to the existing teaching and learning environment. Transformative blends focus on a major redesign of the teaching and learning environment (e.g., problem-based learning). Within CSU, blended learning would also include a further dimension of blending which would allow predominantly print-based distance education subjects/courses to be combined with online teaching and learning. (The Flexible Learning Institute working definition)

CSU Interact - *CSU Interact* is the Collaborative and Learning and Teaching dimension of the community source system [Sakai](#). It is used for learning and teaching as well as for research and administrative collaboration. Also included are CSU OLE tools, i.e., forums, OASIS (online quizzes), EASTS (electronic assignment submission), subject outline tool and OES (online subject evaluations). Other uses of Sakai are excluded such as the potential use of Sakai as a portal.

External online (currently referred to as Web 2.0) technologies - educational technologies that support online collaboration and networking and the development of online objects

Flexible learning - Flexible learning offers flexibility in the time, place and pace of study, including flexible entry and exit possibilities and differing assessments. It also allows for different learning styles and the option to collaborate or work independently. It can include recognition of prior learning, and it can employ a range of technologies such as online teaching and learning, offline teaching and learning via CDs and DVDs as well as the more traditional methods of face-to-face and distance learning using print-based materials (The Flexible Learning Institute working definition).

LMS – A Learning Management System is a computer-based platform for online learning and teaching

Multiliteracies – A set of literacies that are needed to operate in modern learning and teaching environments such as literary literacy, information literacy, technological literacy, visual literacy and communication literacy (Cope & Kalantzis, 2000).

Mobile devices – A mobile device is a pocket-sized or handheld computing or communication device typically having a display screen with touch input, keypad or keyboard, such as mobile phones, smart phones, iPads.

OLE – The OLE includes *CSU Interact* and any online learning and teaching tools to be added in future. The dashboard of systems for information and communication technology (ICT) enabled learning and teaching at CSU depicts the OLE as shown at <http://www.csu.edu.au/division/lts/docs/role/ltsystemsdashboard.pdf>