Full and concise presentations
(in alphabetical order of first author)

Enabling authentic cross-disciplinary learning through a scaffolded assignment in a blended environment

Anne Abraham
School of Accounting and Finance, University of Wollongong
Hazel Jones
Centre for Educational Development and Interactive Resources, University of Wollongong

This paper reports on the development of a scaffolded learning assignment with blended components in a cross-disciplinary setting. The assignment has been developed in a socio-cultural context, based on a Vygotskian approach and this paper details the design and development of the assignment. The five stages of the assignment have been carefully scaffolded and include elements of individual and group tasks, finishing with an individual reflection on the process. Formative assessment and associated feedback are important elements of the scaffolding and suggestions for further applications for the learning design of the assignment are suggested.
Keywords: Scaffolding, blended learning, authentic learning task, formative assessment

---

Spatialities and online teaching: To, from and beyond the academy

Reem Al-Mahmood
Melbourne Graduate School of Education
University of Melbourne AUSTRALIA

"Hello! Is anyone out there?" might be the echo of many an online lecturer, but perhaps a louder echo might be in the question "Hello! Where are you in the educational landscape?" For our locations and spatialities are inevitably entangled with who we are and who we might become. We are always emplaced (Malpas, 1999), and so in the changing pedagogical spaces of academe, I argue that spatialities are inextricably linked with identity performances and teaching practices _ these configure and are configured by each other. In the postmodern university, online spaces are changing traditional academic life. As Lefebvre puts it "to change life is to change space; to change space is to change life" (Merrifield, 2000: 173). This paper explores transformations in online teaching in terms of identity, spatiality and online teaching practices in the everyday experiences of online lecturers using the socio-material lens of Actor-Network-Theory. Drawing from a larger qualitative ethnographic study within an Australian university, the experiences of 4 online lecturers are discussed in terms of (re)configurations of their identities, teaching practices and spaces/places (physical and online), as well as their evolving online teaching metaphors; relating to the conference themes of: "What are the changing relationships between people, the virtual and the physical, and objects in the educational technology landscape?"; and "What does it mean to be an online scholar in the educational technology landscape – who, what, when, where, how and why?" (ASCILITE, 2008). It is concluded that these conceptual and empirical insights can enrich our understanding of online teaching transformations in terms of identity and spatiality in shifting pedagogical landscapes – to, from and beyond the traditional places of the academy.
Keywords: online university teaching, space/place, spatiality, teaching identity, actor-network-theory (ANT), online teaching metaphors, socio-materiality

---

Communities in practice: A community dimension for the UNSW Learning and Teaching Exchange

Belinda Allen, Giedre Kligyte, Mike Bogle and Rosalyn Pursey
Learning & Teaching @ UNSW
The University of New South Wales

An online learning and teaching exchange, integrating a range of communities of practice with a showcase of good practice, and the tools to develop sound teaching approaches - it sounds a fine venture, but what should it encompass? How will it be framed and contextualised? How will it be managed? And – most importantly – whom is it for, and how will it engage users in a meaningful way, embedded into the context of their current practice?

This is not an untrodden path, there are numerous examples of exchanges, repositories and communities developed on a grander scale than the one planned for UNSW, most recently the ALTC (formerly Carrick) Exchange, designed and developed under the auspices of *ascilite*. The designers of the UNSW Learning & Teaching Exchange have learned from and built on these developments, with an intention to eventually complement those wider initiatives. Our Exchange will provide an environment for UNSW academics to share their learning and teaching practice and develop their academic career in a local context, aiming to integrate local activities with wider initiatives in learning and teaching research and practice nationally and internationally. This paper draws on the literature on communities of practice and the scholarship of teaching and learning, and reviews some recent online developments in higher education that informed the planning of the UNSW Learning & Teaching Exchange. Keywords: learning and teaching exchange, online communities, communities of practice, scholarship of teaching and learning, learning object repositories

Acting with integrity online: Some questions for educators

Bill Anderson and Mary Simpson
University of Otago

Online sites support complex discourses and multiple relationships; they cross physical, cultural and linguistic boundaries. In a discussion of the practices and welfare of staff and students we highlight ethical issues related to matters of equity and diversity, surveillance and consent, identity and confidentiality. Rather than attempt to resolve issues raised in this discussion, we pose questions to encourage exploration of those issue.
Keywords: ethics, online education, equity

Rich media technologies and uncertain futures: Developing sustainable, scalable models

Trish Andrews
TEDI, The University of Queensland
Robyn Smyth
School of Rural Medicine, The University of New England
Belinda Tynan and Deb Vale
Faculty of the Professions, The University of New England
Richard Caladine
CEDIR, The University of Wollongong

Rich media technologies are commonly defined as technologies that enable users to engage in interactive communication, with the ability to see, hear and interact with multiple communication streams synchronously or access them asynchronously. Rich media technologies are also characterised by their ability to support non-verbal communication such as body language and vocal inflection. The rapidly increasing access to rich media technologies such as video and web conferencing both commercially available and as open source, provides a wealth of opportunities for education. This is a rapidly changing landscape as existing and emerging technologies increase both access and expectation in regards to communication. Coupled with this is the growing recognition that new generations of students have greater expectations of media rich learning opportunities and in many cases institutions are poorly placed to respond to this demand.

While rich media technologies such as videoconferencing have been available for some considerable time, the adoption of these technologies is often problematic, resulting in ad hoc usage and little ability to cater to unexpected demand. Few institutions have adopted successful approaches to sustainable or scalable use of these technologies. This paper explores some of the reasons why sustainable and scalable adoption of rich media often fails, including the need to involve all stakeholders in decision making processes. It outlines an Australian Teaching and Learning Council funded project on leading rich media implementation collaboratively which seeks to address some of the issues faces by the sector and reports on progress to date.

Teaching IT professional practice with virtual teams

Naomi Augar
Institute of Teaching and Learning, Deakin University
Annegret Goold
School of Engineering and Information Technology, Deakin University

The ability to communicate effectively as part of a virtual team working in the online environment is a valuable skill to have in the modern e-workplace. Such skills can be difficult to develop in undergraduate students. This paper reports on a professional practice unit situated in a web 2.0 environment that aims to develop students' teamwork skills. The paper also reports on research that sought to gain understanding of the student experience of interacting online in virtual teams. The results showed that students value the virtual teamwork experience, finding it useful and relevant for their future careers. The student perceptions of various aspects of virtual teamwork have improved with each subsequent offering of the unit.
Keywords: Virtual teams, problem-based learning, authentic learning environment.

Paperless assignments: Moving forward or marking time?

Sandra Barker
School of Management, University of South Australia
Brenton Fiedler and Philip Johnson
School of Commerce, University of South Australia

The advent of technology in the 1990's was seen as having the potential to revolutionise electronic management of student assignments. While there were advantages and disadvantages, the potential was seen as a necessary part of the future of this aspect of academia. A number of studies (including Dalgarno et al in 2006) identified issues that supported positive aspects of electronic assignment management but consistently identified drawbacks, suggesting that the maximum achievable potential for these processes may have been reached. To confirm the perception that the technology and process are indeed 'marking time' a further study was undertaken at the University of South Australia (UniSA). This paper deals with the study of on-line receipt, assessment and feedback of assessment utilizing UniSA technology referred to as AssignIT. The study identified that students prefer a paperless approach to marking however there are concerns with the nature, timing and quality of feedback. Staff have not embraced all of the potential elements of electronic management of assignments, identified Occupational Health Safety and Welfare issues, and tended to drift back to traditional manual marking processes through a lack of understanding or confidence in their ability to properly use the technology.
Keywords: paperless marking, online submission, electronic assessment, feedback

Measuring the teaching presence of online faculty in a blended program for entrepreneurs

Kanishka Bedi
Universitas 21 Global and Indian Institute of Management Bangalore

Blended programs have gained immense popularity due to the synergy derived out of online and face-to-face pedagogies. However, in blended programs, at times students tend to compare the utility and value of the online component vis-à-vis face-to-face component. This comparison may escalate to the teaching presence of faculty especially if the professors facilitating the online and face-to-face components happen to be two different individuals. This study reports such an issue faced in a blended program for entrepreneurs and family businesses, where the students complained about less than expected teaching presence of the faculty on the online asynchronous discussion boards (DBs). The taxonomy proposed by Blignaut & Trollip (2003) was utilised by including two more dimensions namely, the DB topics and length of the faculty postings to measure the teaching presence in four completed courses of the program. The findings uncovered various dimensions of the teaching presence including an over emphasis of the faculty on informative postings while neglecting the corrective postings, lack of comprehensiveness and a declining trend in the number of faculty postings, thus impacting the student engagement on the online DBs. The utility of this simple yet effective method of measuring the teaching presence can be extended beyond the completed classes to the ongoing classes for aiding the faculty in conducting mid-course corrections to improve student engagement.
Keywords: blended program; entrepreneurs; teaching presence; online faculty

Exploring contributions to scholarship in e-learning: Weighing up the evidence

Robyn Benson
Faculty of Medicine, Nursing and Health Sciences, Monash University
Gayani Samarawickrema
Institute of Teaching and Learning, Deakin University

Recent views on the scholarship of teaching and learning have conceptualised the work of teachers as a form of inquiry, drawing on scholarly discourse about teaching and learning and communicating new understandings back to the scholarly community for peer review and evaluation. Knowledge about teaching may be based on a variety of forms of evidence, including research, evaluation, reflection, review, and the discussion or development of theoretical perspectives, ideas and concepts. This raises questions about the quality and forms of evidence about teaching which contribute to scholarship, whether these are the same in relation e-teaching and learning as they are for teaching in other contexts, and the implications of different forms of evidence for the relationship between research and teaching. In this paper we examine articles from three recent issues of three journals (two of them relating to e-learning and one to higher education in general), in order to draw some preliminary conclusions about the kind of contributions to discourse about e-learning which may be regarded as valuable in advancing the scholarship of teaching and learning.
Keywords: e-learning, evidence, scholarship of teaching and learning (SoTL)

E-teachers collaborating: Process based professional development for e-teaching

Stephen Bright
Bethlehem Tertiary Institute

This paper is the final report on this research project as required by the ASCILITE research grant conditions and outlines the research project background, rationale and methodology, and discusses results and conclusions. The project initiated the process of collegial development of a theoretically informed framework which enabled lecturers to retrospectively analyse what they did to create an effective online teacher presence and thereby facilitate a more productive online learning environment for their students. The project involved a pilot group of tertiary e-teachers interacting with an established theoretical framework - seven principles for good practice in undergraduate education (Chickering and Gamson, 1987). They developed, by a consensus process, using a mixture of face-to-face interaction and an online wiki, an extended version of this framework to analyse online interactions for evidence of their teacher presence. Working as a collegial group, lecturers then formulated a process which facilitated peer analysis and review of this data to identify both strengths and areas for further professional learning. Lecturers were invited to self-review an online course which contained examples of online interaction – these were discussed in triads with two other colleagues acting as peer reviewer and interviewer. Several themes emerged from the project conclusions – the framework developed had much in common with other existing evaluative frameworks, staff involved generally reported the process as a positive one, with greater commitment and ownership because of the collegial development, and one of the difficulties participants encountered was the time commitment required.

Achieving academic engagement? The landscape for educational technology support in two UK institutions

Tom Browne
Department Educational Enhancement, Academic Services, University of Exeter
Martin Jenkins
Centre for Active Learning, University of Gloucestershire

Drawing on results from a Universities and Colleges Information Systems Association (UCISA) 2008 survey of technology enhanced learning use in UK universities, this paper highlights support issues that impact on achieving academic engagement. It will cross-reference factors that were identified by respondents to the survey as encouraging development or that act as barriers with how TEL is supported. These sector wide findings will then be reflected upon with reference to two UK universities that represent the traditional

binary divide in type of university in the UK. Lack of time is identified as a primary barrier with staff development as the primary remedy.

Keywords: educational technology support; academic engagement, strategies

Tools for survival in a changing educational technology environment

Janet Buchan
Centre for Enhancing Learning and Teaching, Charles Sturt University

This conference provides a unique opportunity to capture a snapshot in time of where we are in the educational technology landscape. Landscape denotes static, a snapshot in time. However, the educational technology environment is dynamic and constantly changing. While at times the technological change and demands for technological change can be overwhelming, change needs to become an accepted, integral and well managed part of our educational environment. Concepts presented here have been taken from the environment management discipline and are used as metaphors for understanding change and transformations in technology enhanced learning environments. The strong environmental metaphor and associated language has been deliberately chosen because it helps us to focus on our key role as educators which is to create the best possible learning environment for our students.

This paper introduces a social ecological systems analysis approach to understanding changes in organisations and the impact of outside factors on our learning environment. The *Adaptive Cycle Framework* is introduced as a predictive tool for understanding changes and transformations in our educational technology environment, and to thus determine a pathway to maximise opportunities afforded by change. This paper draws on an ongoing Ph.D. study in which the focus is on managing change in technology enhanced learning environments. The Adaptive Cycle Framework is illustrated within the context of a case study of a regional university's changing educational technology environment as a means to better manage for the long term.

Keywords: learning environment, learning management system, management, educational technology, adaptive cycles, social ecological system

The transformative potential of the DiAL-e framework: Crossing boundaries, pushing frontiers

Kevin Burden
Centre for Educational Studies, The University of Hull, UK,
Simon Atkinson
College of Education, Massey University, NZ

This paper investigates the responses and impact upon a group of adult learners (educators) to a novel framework for the use of digital artefacts in tertiary education settings (the Digital Artefacts for Learner Engagement Framework: DiAL-e). The framework was developed as part of a UK project, sponsored through the Joint Information Services Committee (JISC), to encourage academics and other educators to adopt digital artefacts (in this case video) as part of their teaching, learning and research strategies. Eighty academics were involved in a series of focus groups to pilot the framework during 2006-2007, and the data from these workshops (recorded in video format) is analysed using Mezirow's transformative learning theory as a lens to gauge the extent to which they have experienced perspective transformations. The study categorises a number of different responses and proposes a tentative model for professional development in tertiary education settings based on the centrality of critical reflection and discourse.

Keywords: 'disorientating dilemma', transformative, learning designs, meaning structures, video

Evaluating pedagogical affordances of media sharing Web 2.0 technologies: A case study

Kevin Burden
Centre for Educational Studies, The University of Hull, UK
Simon Atkinson
College of Education, Massey University, NZ

This short paper describes a small, ongoing case study exploring how the affordances of a media sharing Web 2.0 application (*VoiceThread*) can be evaluated for its pedagogical value. Web 2.0 technologies emerge so quickly it is difficult for educators to gauge their actual value in practical terms. In many cases the latest Web 2.0 technologies are superseded almost before they emerge from their beta testing phase. Rather than focusing on the individual characteristics or details of the technology itself, this case study uses a new learning design framework (the Digital Artefacts for Learner Engagement framework: DiAL-e) to chart the affordances and uses which educators might find valuable. The tool has been used as the basis of an on-line pilot project for the Joint Information Service Committee in the UK (JISC) in which academics from further and higher education have been learning how to harness the potential of digital artefacts and Web 2.0 tools to enhance teaching and student learning. The initial responses from participants and tutors indicate this is a useful instrument through which to evaluate the potential pedagogical value of a particular application set within a wider socio-cultural context.
Keywords: voicethread; affordances; DiAL-e framework; media

A slice of *Second Life*: Academics, support staff and students navigating a changing landscape

Des Butler
Faculty of Law, Queensland University of Technology
Janice White
Teaching and Learning Support Services, Queensland University of Technology

Second Life is an on-line three dimensional virtual world which offers a dynamic educational technology landscape. The relationship between participants (real and virtual selves), and objects (both in terms of destinations and notions of capital/inventory) within this landscape, highlight the complex world(s) of an academy that, like the avatars that populate the virtual world, may continually transform to open up new possibilities. The communities, contexts and roles inherent to the experience are similarly integral to the professional development of academics and support staff. Staff and students at the Queensland University of Technology are now utilising the *Second Life* virtual environment in a variety of contexts. Although these endeavours are in their early stages, a number of themes are emerging which are instructive for future usage of virtual worlds in educational contexts. This paper examines some of the educational models that three dimensional multi-user virtual environments offer, the contexts that they operate in, and the communities they generate in order to respond to the purposes and issues that arise. It also considers the return on investment of having a place in this landscape for individuals, innovators and institutions.
Keywords: virtual worlds, Second Life, support, innovation, communities

Object appreciation through haptic interaction

Matthew Butler and Peter Neave
Berwick School of Information Technology, Monash University, Victoria, Australia

Much research and development has gone into creating a viable means to interact with virtual objects. Haptic devices, such as the Phantom Omni by Sensable Technologies, provide a means of using computer graphics and force feedback to create a multimodal sensory experience. We use touch to conceptualize objects and obtain a greater understanding of them, however objects such as artworks are usually prohibited from being interacted with in this way. Some artworks, like Michelangelo's David, have been replicated in 3D. These virtual artworks can be sent all over the world and users can interact with them by means of a haptic device. This paper compares the different characteristics of existing haptic-enabled museums and further questions the worth of using haptics as a means to communicate tactile information to museum visitors. A system has been developed to allow users the ability to interact with a replica of Michelangelo's *David*. Response has been analysed, showing that the possible benefits of virtual museums include the opportunity for greater engagement with artworks by visitors, new means of educating, and storing existing historic artwork for future generations.
Keywords: haptics, virtual museums

Hello, and welcome to the show: Applying radio's 'explaining voice' to educational podcasting

David Cameron and Brett Van Heekeren
School of Communications
Charles Sturt University

Educational podcasting takes many forms, from lecture recordings to student-produced discussions of study topics. This paper describes a pilot project that aims to consider the significance that adopting a particular presentational 'voice' may have on how understanding of that content is shaped. It is based on Gardner Campbell's (2005) notion of the 'explaining voice' of radio as a model for effective educational podcasting, drawing on the nuances of broadcasting style to enhance understanding of the content. The project draws on the production resources and training opportunities available due to the presence of an on-campus community radio station. The paper then outlines preliminary research into the potential benefits of developing a radio-like stylistic approach to podcasting in a university setting.
Keywords: podcasting, radio, explaining voice, broadcasting, education, presentation style

Wikis, knowledge building communities and authentic pedagogies in pre-service teacher education

Nicola Carr
RMIT University

Web 2.0 technologies including blogs, wikis, RSS, social bookmarking and a host of new and emerging applications are gaining popularity in classrooms at all levels of education globally. Such technologies are claimed to offer new ways of fostering interaction, community building, content creation and modification and knowledge building in the classroom. However, as with more traditional forms of technology that have been appropriated for the classroom, it is important that Web 2.0 technologies are not just used because they are the latest thing, but that authentic and pedagogically sound contexts are developed for applying these new applications in classrooms. This paper reports on initial attempts to integrate wiki technologies into a pre-service teacher education course as a way of fostering collaborative knowledge building networks within the classroom and to model an authentic way of integrating technology into curriculum. Pre-service teaching students were situated in a rich, problem-based learning scenario, delivered in a blended model of face-to-face and online modes, including wikis. Research into students' responses to the use of the wikis suggests that most students were highly engaged in the environment and that the use of the wiki facilitated group interaction and collaborative learning, but that there needs to be further work in instilling a culture of collaboration and collective knowledge creation to realise the full potential that wikis offer an educational setting.
Keywords: Web 2.0, ICT affordance, knowledge building networks, social software

Students' evaluations of teaching quality and their unit online activity: An empirical investigation

Rodney Carr and and Pauline Hagel
Faculty of Business and Law
Deakin University

This paper reports on an investigation of the relationship between students' level of online activity in units in a business faculty and their evaluations of teaching quality in these units. The analysis was conducted using student evaluation data from 2004 to 2007 together with data for student online activity for one semester. We compare on-campus and off-campus students and undergraduate and postgraduate students. The results indicate that students' evaluations of units have improved on all surveyed criteria during the five years. We also show that for some cohorts student online activity is associated with greater satisfaction with teaching. The paper concludes by considering the implications of these findings for further research and teaching practice.
Keywords: student evaluation, teaching quality, off-campus, online, ICT

Where are we up to? A survey of Web 2.0 uptake in a regional high school

Anthony Chan
School of Computing & Mathematics, Charles Sturt University
Catherine McLoughlin
School of Education, Australian Catholic University

This brief study was conducted as part of a project in the effectiveness of innovative pedagogies conducted in a rural state high school in 2008. The project surveyed an entire cohort of 150 students in Year 9. Information was collected pertaining to uptake of, and knowledge of social networking tools and podcasting. In order to collect data, a survey was designed asking students to rate themselves on their ability to use tools such as wikis, online chats, blogging, online games, networking sites and electronic mail. Results showed that usage of some tools such as blogs and wikis was minimal. These outcomes provide the researchers with valuable insights into the potential for uptake of web 2.0 tools in the classroom
Keywords: net generation, digital natives, y generation, web 2.0, secondary education, regional, rural

Web 2.0 and user-created content: Students negotiating shifts in academic authority

Rosemary Chang
Engineering Learning Unit, The University of Melbourne
Gregor Kennedy and Tom Petrovic
Biomedical Multimedia Unit, The University of Melbourne

Web 2.0 technologies are able to support established student-centred pedagogies by enabling user-created content. However, user-created content generates some interesting challenges for educators, curriculum coordinators and designers—including issues such as academic integrity, public environments and shifting academic authority.
This paper looks at the question of how students responded to shifts in authority in the specific example of a podcasting activity using student-generated content. We report on themes that emerged from university medical students' reflections on the learning activity: resistance to shifting academic authority, hybrid teacher/student approaches to content, and the perceived benefits of peer learning. The paper concludes with a discussion of how understandings of the process of content creation, as opposed to the end product, are key to perceptions of the educational value of user-created content.
Keywords: Web 2.0, user-created content, teacher authority, student voice, podcast

Examining facilitators' habits of mind and learners' participation

Wing Sum Cheung
Learning Sciences & Technologies
National Institute of Education, Nanyang Technological University, Singapore
Khe Foon Hew
Instructional Science Academic Group
National Institute of Education, Nanyang Technological University, Singapore

The use of online- and blended-learning is growing very fast in universities. Given this interest in online-/blended-learning, understanding how to promote participation among learners in asynchronous online discussions, which is considered an integral part of online-/blended-learning has become increasingly crucial. Previous research has examined how factors, such as course design, and the amount of facilitator involvement can affect learner participation. However, none of the previous studies hitherto has examined facilitators' thinking dispositions or habits of mind. Habits of mind may be defined as the characteristics of what intelligent people do and think when they face an issue or a problem, and thus may play an important role in influencing the degree of learner participation. This proposed study aims to advance the line of research that examines facilitators' influence in promoting learners' participation by analysing their habits of mind. The following habits of mind of the facilitators will be examined: (a) awareness of own thinking, (b) accurate and seeks accuracy, (c) open-minded, (d) taking a position when the situation warrants it, and (e) sensitive to others. We refer the degree of learners' participation as the quantity of message posted by the learners. A case study methodology approach will be used in this study. The primary sources of data will be the online message postings of both the facilitators.

Mobile Web 2.0: The new frontier

Thomas Cochrane
Centre for Teaching and Learning Innovation, Unitec, New Zealand

Today's smartphones are mini multimedia computers, they are generally equipped with: 3G and WiFi internet connectivity, a 2 to 5 megapixel camera, Bluetooth for device interconnectivity, USB2 for computer connectivity and media synchronization. They have digital media storage capacities of 1 to 16GB, will play back most standard audio, image, and video formats, are GPS enabled, are integrated into online media and social networking sites (Flickr, YouTube, blogs, MySpace, Facebook etc…), and are capable of recording (and some can even edit and display on large screen video devices) video between QVGA and VGA quality. These smartphones are promoted by their manufacturers as lifestyle tools to enable sharing experiences and social networking via web2.0 sites, and mobile friendly media portals (e.g. Ovi, iTunes Store). The ubiquitous connection to web2.0 tools and collaborative communication and user generated content creation capabilities of these devices make them ideal tools for facilitating social constructivist learning environments across multiple learning contexts. However, designing good pedagogical environments to integrate the successful use of these tools is essential. This paper reports on the progress of several qualitative action research trials being conducted to investigate the impact of smartphones and mobile web2.0 on teaching and learning in higher education. These trials illustrate a variety of pedagogical designs and the creation and support of mobile learning environments.
Keywords: mobile web2.0 social constructivism.

Cloudworks: Social networking for learning design

Gráinne Conole, Juliette Culver, Perry Williams, Simon Cross, Paul Clark and Andrew Brasher
The Open University, UK

Why do some social networking services work and others fail? Can we apply the best of Web 2.0 principles to an educational context? More specifically can we use this as a means of shifting teaching practice to a culture of sharing learning ideas and designs? Can we harness the potential of technologies to create more engaging learning experiences for students? These are the key questions this paper addresses. We describe how we are using the concept of 'object-orientated social networking' to underpin the creation of a social networking tool, Cloudworks, for sharing learning ideas and designs.
Keywords: learning design, social objects, social networking, Cloudworks

Quality in the e-landscape: A collegial and developmental approach

Helen Correia, Janne Malfroy, Tim Griffin, Jennifer Ireland and Lynnae Rankine
University of Western Sydney

Since the appearance of e-learning in the tertiary education sector a range of approaches have been used to enhance the quality of online learning environments. Building on these approaches, at the University of Western Sydney our approach is one of developing quality e-learning sites in a collegial and developmental manner, as a central part of overall good teaching practice. Our view is that, in order for the process to be truly collegial and developmental, it needs to be supported across all levels of the academic environment and, importantly, it should be adopted by academics rather than being imposed upon them. A central aspect of the collegial and developmental approach is that academics should be provided with the skills and support to be the drivers of quality in the e-landscape. This paper introduces a project that applies this developmental and collegial philosophy to building quality in our online learning environments in a whole of enterprise context.
Keywords: quality, standards, online learning environments, e-learning

Defining innovation: What counts in the University of Cape Town landscape?

Glenda Cox
University of Cape Town

This short paper explores what educational technologists in one South African Institution consider innovation to be. Ten educational technologists in various faculties across the university were interviewed and asked to define and answer questions about innovation. Their answers were coded and the results of the overlaps in coding have been assimilated into a definition. Soft systems methodology (SSM) was used as a method to approach the complexity of innovation in educational technology in one setting. The initial definition formed the 'situation definition' in SSM terms. The method proved useful in producing a picture (based on rich pictures drawn by each person) and a root definition (based on CATWOE a mnemonic that enables the interviewer to ask each participant to identify processes and role players).

Using ePortfolios to combat plagiarism

Colin Dalziel
Pebble Learning, UK

Plagiarism is a growing issue of concern for the academic and wider community. Much is made of plagiarism detection software but it is widely held that detection software cannot be the only, nor even the principle preventative measure. ePortfolios are growing in popularity in universities and professional organisations where ePortfolio presentations allow users to present collections of evidence that support a particular intent; from job application to professional accreditation. Within well designed assessment, eportfolios can be used to present the outcomes of learning as well as the process by which that learning arose: the plans, draft notes, feedback comments, peer reviews, sketches and research blog. Some systems allow these learning artefacts to be presented as links from a narrative account; an example of meta-reflection, organising the individual items into a story of learning. This paper principally concerns a work in progress where eportfolio developers are working alongside academic colleagues to align plagiarism-suppressing eportfolio approaches with plagiarism detecting services to militate against cheating and improve learning.

Learning fire investigation the clean way: The virtual experience

Amanda Davies
School of Policing, Charles Sturt University
Barney Dalgarno
School of Education, Charles Sturt University

The effective teaching of fire investigation skills presents logistical challenges because of the difficulty of providing students with access to suitable fire damaged buildings so that they can undertake authentic investigation tasks. At Charles Sturt University (CSU), in the subject JST415, Fire Investigation Cause and Origin Determination, the novel approach of providing students with a CD based virtual environment based on the scene of a burned down house, as an alternative to having them undertake investigation of a real fire scene, has been implemented. This paper describes a quantitative and qualitative study exploring the effectiveness of this teaching resource. A key finding from this study was that students felt that the virtual fire investigation task had important advantages over undertaking a real investigation task, even though there were some limitations in the overall degree of realism of the experience. The results also suggested that students found that the visual fidelity and navigation capabilities provided within the environment were quite adequate for carrying out their fire investigation activity. Importantly, students also felt that the ability to revisit the virtual scene as many times as they wanted, at a time convenient to them, gave it advantages over a real investigation task if they were to be provided with only one or the other.
Keywords: fire investigation, virtual environment, Quicktime VR

Teaching smarter: How mining ICT data can inform and improve learning and teaching practice

Shane Dawson
Graduate School of Medicine, University of Wollongong
Erica McWilliam and Jen Pei-Ling Tan
ARC Centre of Excellence for Creative Industries and Innovation, Queensland University of Technology

The trend to greater adoption of online learning in higher education institutions means an increased opportunity for instructors and administrators to monitor student activity and interaction with the course content and peers. This paper demonstrates how the analysis of data captured from various IT systems could be used to inform decision making process for university management and administration. It does so by providing details of a large research project designed to identify the range of applications for LMS derived data for informing strategic decision makers and teaching staff. The visualisation of online student engagement/effort is shown to afford instructors with early opportunities for providing additional student learning assistance and intervention – when and where it is required. The capacity to establish early indicators of 'at-risk' students provides timely opportunities for instructors to re-direct or add resources to facilitate progression towards optimal patterns of learning behaviour. The project findings provide new insights into student learning that complement the existing array of evaluative methodologies, including formal evaluations of teaching. Thus the project provides a platform for further investigation into new suites of diagnostic tools that can, in turn, provide new opportunities to inform continuous, sustained improvement of pedagogical practice.
Keywords: Academic analytics, data mining, evaluation, ICT, social networking

Academic conversations in cyberspace: A model of trialogic engagement

Teresa De Fazio
Research Fellow
Open Universities Australia

In the past three decades, the move towards mass higher education in universities has resulted in an increase in "non-traditional" students (defined as part-time, adult, without a strong academic background). Concurrently, there has been an information and technology revolution which has had a profound impact on approaches to teaching and learning in higher education. This study was located at the intersection of these two forces. It focused on distance non-traditional and traditional students who received online academic learning support (ALS). The research was informed by the understanding that ALS faces new challenges in an online environment. This paper reports on an action research study that investigated experiences of non-traditional and traditional students as they focussed on the development of written discourse competencies and their teachers in an online distance learning course. These students looked to the curriculum and conversations with lecturers to facilitate understanding and their acquisition of the required literacies, however, this was unrealistic given the heavy teaching loads of their lecturers who also had little expertise in this area. By contrast, contextualised academic support interventions provided an effective response. As a result of the research, a model that suggests how ALS might be embedded within the delivery of online programs was produced.
Keywords: non-traditional students; distance e-learning; academic support; dialogue; academic literacies

Enabling learning, addressing retention: Supporting students via online tutorials with *Smarthinking*

Teresa De Fazio and Michael Crock
Open Universities Australia

Enabling student learning through the provision of enhanced and positive distance learning as opposed to delivery often proves problematic for online learning. In 2007 Open Universities Australia (OUA) began an innovative long-term trial of an online writing tutorial intervention to deal with varied levels of academic writing skill competence amongst its students. The trial set out to provide a supplementary writing support tuition service that would enable the development of learner knowledge and skills that then might impact on learner satisfaction. The trial also set out to ascertain any effect this intervention strategy would have on retention into subsequent units, unit completion rates and student grades. A trial of the

Smarthiking.com online writing lab ran over three study periods in 2007 and is reported upon in this paper.

Online student centred discussion: Creating a collaborative learning environment

Robert C. Dixon and Kathryn C. Dixon
School of Education, Curtin University of Technology, Perth, Western Australia
Mandi Axmann
Open Universities Australia

Many universities both in Australia and overseas are increasingly transferring courses and programs at both graduate and undergraduate level into fully interactive online environments. Online learning and teaching requires different and complimentary skill sets on the part of university teachers. Very little has been documented thus far in regard to training university academics to teach effectively in these environments. This paper investigates the pilot study implementation of the Online Student Centred Discussion Program (OSCD) as designed by Axmann (2006) across the cooperating institutions engaged with Open Universities Australia. The program has been based on Wright and Shoop's (2003) Student-Centred Discussion Model which places ongoing discussion at the centre of the learning process. The OSCD is designed to develop online protocols, peer- assessment strategies, critical thinking skills as well as promoting collaborative learning through ongoing engagement with online discussion environments. The research reports upon the results of a thirteen item questionnaire which was administered to forty nine participants throughout 2008. The findings indicated that academic staff engaged in learning and teaching online found the OSCD Program to be of value for a number of reasons. The program allowed academics to gain an authentic student experience, something which many of them had forgotten. It also highlighted the varying and different communication patterns and protocols associated with online learning and the development of quite distinct forms of language that are used in this mode of interaction. The research also revealed the need to re-conceptualise the overall instructional design of online learning environments in their own right and not as sub-sets or extensions of traditional face-to face methods of interaction.
Keywords: student centred discussion, collaborative learning, online learning

'Just-in-time' virtual assignment help: A case study of first year teacher education students

Eva Dobozy
School of Education, Edith Cowan University
Romana Pospisil
Centre for Learning and Teaching, Edith Cowan University

In this paper we address some of the issues surrounding the use of educational technology solutions with first year net generation students in an introductory education studies unit. These issues include the need for more engaging learning experiences, the role of technology in supporting this need, and the possible mismatch between expectations and actual needs. The student usage and access of a low-cost, flexible alternative to face-to-face individual or group-based academic support was the focus of this case study. We describe our rationale and attempt to help students with their assignment requirements in a first year teacher education unit through the development of a small-scale self-directed intervention program, and report on student engagement with the model. Analysis of the data brings to light findings that have implications for policy design and shows a need for timely research to better inform lecturers of their students' digital literacy, acceptance and access, and use of innovative learning designs. This also highlights the requirement for a greater awareness of the technologies that students embrace, the technologies that may pose a challenge and the differing needs of first year students to those of the more experienced learners.
Keywords: self-directed flexible intervention, student engagement, learning design, net-generation, millennials, generation Y, Blackboard, LAMS, Camtasia

Case studies or suitcases: Addressing graduate attributes with an airline management simulation

Ian Douglas
Department of Aviation
University of New South Wales

The graduate attributes of critical thinking and creativity sought by prospective employers are not easily achieved through passive observation of subject content, and its replay in assessment tasks that encourage rote learning. Simulations allow active learning to play a constructive role in student outcomes, providing opportunities to test, reflect on, and adapt the subject content. Where the simulation and assessment tasks are aligned with the desired learning outcomes students will be more engaged with their learning and are more likely to develop career relevant attributes. This paper addresses the introduction of a web-based airline business simulation to a 3rd year undergraduate aviation course.
Keywords: simulations, experiential learning, aviation, graduate attributes.

Engagement and learning through social software in finance: The *Trading Room* experience

Alan Farley, Ameeta Jain and Dianne Thomson
School of Accounting, Economics and Finance, Deakin University
Pam Mulready
Faculty of Business and Law, Deakin University

The introduction of a social software blog space called "The Trading Room" in an undergraduate Finance unit for an assessment task generated a great deal of activity to support student learning. A subsequent evaluation of this pilot demonstrated that students perceived high value in the opportunity it provided for them to reaffirm theories, obtain individualized feedback and benchmark their work against others. Whilst assessment is generally seen as both the carrot and the stick of learning, and certification; students in the study reported that they would still participate in reading and posting to the "Trading Room" blog even if there was no assessment requirement! Additionally they did not see any value in the environment as a purely social space, reporting that they saw it primarily as a professional educational community. It would appear that just as there are different communities in the real world social space, there are also different types of communities in the online space. Context, structure and activity design, perhaps are the most important facets of online interaction for learning.
Key words: social software, student engagement and learning, weblogs

Challenging design students to be ethical professionals in a changing landscape of technologies

Martin Friedel and Denise Wood
School of Communication
University of South Australia

Despite the existence of Web accessibility guidelines since 1999, the evidence suggests a continuation of design practices that limit the accessibility of Websites for diverse audiences. This problem has been further compounded with the increasing popularity of technologies such as Flash, which have encouraged many designers to place greater emphasis on form than function. This paper examines these issues and proposes a humanistic approach to Web design; one which acknowledges the designer's responsibility to create sites that contribute to and improve the quality of life for all users. The role that design educators need to play in challenging their students to engage in design practices that will ensure the sites they develop are accessible in a changing landscape of technologies are explored in this paper, and the benefits of incorporating changes into the design curriculum that address the need for graduate designers to be aware of, and to engage in, inclusive design practices are discussed. After presenting the case for changes in the design curriculum that engage students in inclusive design practices, a case study based on the development of an undergraduate program that promotes inclusive design is presented. The strategies developed to ensure students understand the techniques required to create accessible and compliant Flash designs are discussed in some detail and in the final section of the paper, the benefits for students and the community groups with which they engage through their program of studies are discussed.

Shifting perspectives about Aboriginal health and history: Using digital archives in an online role play

Bill Genat
Onemda VicHealth Koori Health Unit, The University of Melbourne
Som Naidu
Educational Technology, The University of Melbourne
Patrick Fong
Educational Technology, The University of Melbourne

This paper describes the implementation of an online role-play that provides participants with the opportunity to immerse themselves in the socio-political context of public health on a Victorian Aboriginal settlement between the 1860's and the mid 1880's. A powerful innovation in the role-play is electronic access to primary historical sources that inform character development and interaction. Role-play provides strong instructional guidance complemented by exploration and discovery-based learning. Evaluation of the role-play indicated that students experienced the role-play as an efficient, effective and engaging way to learn about the subject matter. Overall, the role-play worked as a powerful learning vehicle to shift student perspectives on Aboriginal health and history.

Collaborative self-study supporting new technology: The Mahara e-portfolio project

Philippa Gerbic
Auckland University of Technology
Marguerite Maher
Charles Darwin University

E-portfolios have long been used to support learning and development and to showcase achievement. This paper discusses a new and innovative use of e-portfolios which relates to the ways in which they can support collaborative research. The collaborative self-study which accompanied the implementation of an e-portfolio within a teacher education programme is described and then followed by discussion of three of its features. These were the value of the collaboration for supporting the deep understanding of a new technology, ethical issues for such a research study and the use of the e-portfolio environment as a data collection instrument.
Keywords: e-portfolios, research, collaborative self-study, teacher education, Mahara.

Internet use equals computer literacy?

Shirley Gibbs
Lincoln University, New Zealand

This study reports an analysis of IT use by undergraduate university students. The term 'computer literacy' is as widely used now, as it was previously, but the meaning has changed as has how and why computers are used. Thirty years ago computer literacy meant the ability to program in a main frame environment then moved to meaning using computers to manipulate data. Now computer literacy seems to mean a number of things, including being comfortable using on-line tools.The findings of this study indicate that there is little relationship between how a person rates their overall computing ability and how they rate their ability in specific areas. However, a paired samples t-test, between on-line and off-line activities, returned a significant ($p < 0.05$) mean difference between these two activities. This suggests further investigation is warranted.
Keywords: on-line computer literacy; off-line computer literacy; undergraduate; IT use

Influences on pre-service teachers' preparedness to use ICTs in the classroom

Lincoln Gill
Centre for Enhancing Learning and Teaching, Charles Sturt University
Barney Dalgarno
School of Education, Charles Sturt University

The role of Information and Communication Technologies (ICTs) in the school classroom is becoming increasingly prominent, both because of the need for children to develop skills that will empower them in modern society and because of the potential value of such technologies as tools for learning. One of the challenges facing teacher educators is how to ensure that graduate teachers have the necessary combination of skills and pedagogical knowledge that will enable them to both effectively use today's technologies in the classroom as well as continue to develop and adapt to new technologies that emerge in the future. This study explores first year teacher education student preparedness to use ICTs in the classroom. The primary data source for the study is a set of intensive interviews with eight teacher education students. The results suggest that despite the prevailing view that this generation of University students are 'Digital Natives' (Prensky, 2001), there are a number of barriers to their preparedness to use ICTs in the classroom. In particular the study suggests that as well as looking at the teacher education curriculum and other aspects of the formal preparation of these pre-service teachers, the pre-service teachers' personal preparedness including attitude, motivation, and confidence, along with various social factors are important. The results are discussed in the context of various models of pre-service teacher ICT pedagogical development. As well as being important for teacher educators, the findings are also important in the context of academic staff development associated with the use of ICTs as a learning tool in tertiary education, as well as in the context of other disciplines where similar assumptions about the ICT literacy of first year university students are being made.
Keywords: ICT education; pre-service teacher attitudes; teacher education;

The student experience of working in teams online

Annegret Goold
School of Engineering and Information Technology, Deakin University
Annemieke Craig
School of Information Systems, Deakin University
Jo Coldwell
School of Engineering and Information Technology, Deakin University

The research reported here is part of a project undertaken at a large Australian university in late 2005. The overall aim of the project was to identify the characteristics of student learning in an online environment. A university-wide student survey was conducted to ascertain student views of online learning and also of online teaching as part of the project. In the survey students were asked questions about their experiences of team work in online environments. The student perceptions of teams and team work are the focus of this paper. The findings from the survey indicated that students appreciated the opportunity of working in diverse teams. They supported the view that their opinions were valued in such teams. Student views of how teaching should be conducted in units with online teams were also expressed. Concerns about team interactions, technological barriers and communication and cultural issues were also raised. The implications for teaching with online student teams are presented and discussed.
Keywords: student groups, student teams, online groups, online teams, group work, team work, virtual teams.

Evolution of blended learning in a large enrolment subject: What was blended and why?

Tim Griffin
School of Social Sciences, University of Western Sydney
Rosemary Thomson
Teaching Development Unit, University of Western Sydney

This paper outlines the model of blended learning which has evolved in a large enrolment undergraduate subject offered across multiple campuses. The pedagogical rationale, management and administrative imperatives, and student expectations which have informed

the development of the model are discussed. The current design uses weekly online self-directed learning activities supported by an online tutor, maintains weekly face-to-face lectures which are positively evaluated by students and well attended throughout the semester, and has reduced the number and changed the function of face-to-face tutorials. Student and teaching staff evaluations of the current blended learning model are included along with challenges for ongoing development.

Keywords: blended learning, first-year students, independent learning, higher education

A design-based research approach for eportfolio initiatives

Cathy Gunn
Centre for Academic Development, University of Auckland
Roger Peddie
Faculty of Education, University of Auckland

The University of Auckland's recently revised elearning strategy aims to support grass roots teaching and learning enhancement initiatives as well as providing standard tools for course administration and management. This offers teachers a significant degree of freedom to choose tools and strategies to suit their specific learning design requirements. This element of choice has implications for professional development and support services, and requires evaluation and testing of options during selection and implementation. ePortfolios are a current 'hot topic' that is being explored for educational purposes by three faculties. An eportfolio tool is available within the in-house learning management system. However, Mahara, the open source product of a nationally funded initiative is proving to be a more popular choice. This paper outlines a systematic approach to implementation and evaluation of faculty-based eportfolio initiatives that draws on the collaborative approach of design-based research.

Keywords: eportfolios, elearning strategy, design-based research, communities of practice, professional development

The Australian ePortfolio project and the opportunities to develop a community of practice

Gillian Hallam
Australian ePortfolio Project
Queensland University of Technology

In 2007-2008, the Australian Learning and Teaching Council funded a national research project to examine the current picture of ePortfolio practice in Australian universities. The paper presents a review of the Australian ePortfolio Project, with a specific focus on the strong interest across the Australian higher education sector to establish communities of practice to support the sharing of knowledge and experience at the institutional, discipline and sector levels nationally. A number of international models of communities of practice that encourage the sharing of expertise through research and practice are outlined. The paper seeks to stimulate discussion about the possible opportunities for all ePortfolio stakeholders (learners, teachers, academic managers, ICT directors, educational technologists and learning and teaching support teams) to build and sustain a strong future.

Keywords: ePortfolios, communities of practice

Rethinking teaching and assessment strategies for flexible learning environments

Julia Hallas
Centre for Educational and Professional Development
Auckland University of Technology

This study explored how eight university lecturers adapted and developed their classroom based teaching and assessment strategies for the online environment. Ramsden's (2003) framework for evaluating and recognising effective teaching, which assists lecturers to reflect on their practice, was used to guide the literature review and to gather examples of online teaching and assessment strategies. The examples were evaluated according to good practice principles drawn from the literature. This is a limited study, and the results were used to inform a professional development programme in flexible learning.

Keywords: online teaching practice, online teaching strategies, online assessment

Academic integrity compliance and education

Margaret Hamilton
School of Computer Science and IT, RMIT University
Joan Richardson
School of Business IT, RMIT University

In 2002, RMIT University trialled Turnitin (Barrie 1996) a text matching software package to assist in the identification of plagiarism. Turnitin enables access to databases of text stored digitally and provides a means of comparing student submissions. Subsequent to the initial use of Turnitin by staff, a pilot was conducted during which student groups had access to the software to check their submission drafts. Now student assessments whether online or on-campus can be run through the detection software. In this paper, we discuss the process and practices of using plagiarism detection software at RMIT and briefly examine some information gathered from students, both online and on-campus, informal comments regarding their participation in the student upload pilot. From these comments some suggested improvements to the implementation process are discussed. Some directions for future research into student use of Turnitin are also suggested.

In recent years, the Schools of Computer Science and Information Technology (CS&IT) and Business and Information Technology (BIT) have spear-headed trials of the use of plagiarism detection software, as well as implementing processes, procedures and workshops for explaining and dealing with academic integrity. This has possibly occurred because most of their student submissions are electronic and therefore amenable to use of copy detection software, or because the staff are well aware of and interested in the technologies involved. Dealing with the numerous cases of plagiarism found by the software has posed difficult questions for both Schools and the University, and is the main issue addressed in this paper.

Breaking down online teaching: Innovation and resistance

John Hannon
Curriculum, Teaching and Learning Centre, La Trobe University

The term "innovation" is mainly associated with change in practice using educational technology. This paper explores the question of why innovations in online teaching and learning in higher education break down or deliver less than they promise: why they are so resource intensive, so prone to breakdown, and why they often fail to live up to their promises? Two cases of innovation were selected from a broad doctoral research project across three Australian universities, involving 24 interviewees. One case was a bottom-up, wiki-based learning space inspired by a constructivist commitment, the other a top-down response to organisational change in a degree program. Despite literature on case studies which offer useful evidence-based approaches and models for online pedagogy, there is a lack of analytical perspectives with which to engage with breakdowns and "thwarted innovation" in online learning. The focus in this paper is *online teaching,* and breakdowns are scoped beyond the technologies involved and encompass any social, material or discursive entity. An actor network perspective (Callon 1986; Latour 1987; Law 2000) is used to explore the relationality between social and technological entities, or the *sociotechnical assemblage* which constitutes online teaching. It argues that (i) crucial factors are hidden by the normative perspective inherent in the implementation of technology systems, and (ii) recognising the connections between the social, material and discursive entities in online learning offers a strong analytic basis for innovative teaching and learning practice.
Keywords: online teaching, sociotechnical assemblage, actor network, translation, discourse

Student views on participation and interaction in student centred online discussion forums

Neil Harris and Maria Sandor
School of Public Health
Griffith University

It is important for higher education to evolve and incorporate new teaching and learning technologies as they emerge. While such technologies can offer new educational possibilities, it is vital to ensure their usage is grounded in pedagogical thinking and enriches the learning experience of students. Computer-mediated communication (CMC), and more specifically online discussion forums, is being increasingly utilised. However, how to best incorporate such applications remains modest amongst most academics. This paper presents a framework

of the online discussion forum as a student centred peer e-earning environment. In particular, the paper presents research findings relating to student views on participation and interaction in these online discussion forums. Data was gathered through semi-structured interviews with students. The findings support the discussed framework in that it allows students to take an active role in their learning and enriches their learning experience. In summary, the framework provides a viable mean of implementing peer learning in an online learning environment.

Keywords: Discussion forums, peer learning, participation, student views

Cn I jus txt, coz I don wan 2b heard: Mobile technologies and youth counselling

Ailsa Haxell
Faculty of Arts and Education, Deakin University

When integrating new technologies into practice, we tend to think of ourselves as designers or directors of our own practices. In contrast, this paper considers how technologies may be shaping practices and/or shaping us. In studying change as communication and computer technologies are integrated within a community youth counselling centre, I explore the web of relations where human and non-human actors have influence. The research presented in this paper is informed by actor-network theory (ANT), an approach investigating the material semiotics of what shapes, and is shaped. In this paper the particular and peculiar effects of text messaging for counselling are considered. The effects are not considered in terms of being *good* or *bad*. To this author, attempting such normative evaluation is like asking: is talking to strangers good or bad? The answer must be: *it depends*. Whether the changes that occur are anticipated, desirable, able to be enhanced or moderated requires a fuller picture of processes involved. Initial findings suggest there are implications for educators considering this medium whether providing pastoral care or in integrating text messaging as a medium for learning.

Keywords: mobile technology, SMS messaging, text messaging, text counselling

Contrasting approaches: Institutional or individual ownership in ePortfolio systems

Eva Heinrich
School of Engineering and Advanced Technology
Massey University

The traditional approach to the provision of e-learning systems is one of institutional control and ownership. In the context of electronic portfolio systems in support of lifelong learning this approach needs to be questioned, as the characteristics of lifelong learning are in conflict with institutional ownership and control. Lifelong learning, with its aspects of life-wide and self-directed learning, needs to put the learner in charge of system and data. Institutional learning linkages are still important, but the role of the institution has to be one of support instead of control. To retain the advantages of institutional types of ePortfolio systems while at the same time matching the lifelong learning paradigm the suggestion is made to separate system provision from the educational relationship by hosting the ePortfolio system with an external provider.

Keywords: ePortfolios, electronic portfolios, lifelong learning, tertiary education, ownership

Adult educators' authentic use of smartphones to create digital teaching resources

Anthony Herrington
Faculty of Education
University of Wollongong

The development of digital resources set in authentic contexts using mobile technologies is reflected in this study. The research involved adult educators creating teaching episodes or digital narratives using smartphones, as part of a postgraduate subject designed to introduce these learners to technological applications in adult education. The study involved interviewing students to determine the affordances of the technology in this context and the pedagogical strategies suited to such an approach.

Keywords: mobile learning, mobile phones, adult education. authentic learning

New technologies, new pedagogies: Mobile technologies and new ways of teaching and learning

Jan Herrington, Jessica Mantei, Anthony Herrington, Ian Olney and Brian Ferry
Faculty of Education
University of Wollongong

This paper describes a major development and research study that investigated the use of mobile technologies in higher education. The project investigated the educational potential of two ubiquitous mobile devices: Palm smart phones and iPod digital audio players (mp3 players). An action learning framework for professional development was designed and implemented with a group of teachers from a Faculty of Education. Each teacher or team created pedagogies to implement appropriate use of a mobile device in different subject areas in higher education. This paper describes the project aims, design and implementation in four phases, together with a description of the project management and communication factors that helped to ensure its success.

Keywords: mobile learning, mobile technologies, mobile learning, authentic learning, design-based research, higher education

Conflicting landscapes: Musing on the implementation of an open source collaboration environment

David Hirst
Curriculum, Teaching and Learning Centre, La Trobe University
Claire Brooks
Borchardt Library,La Trobe University

This discussion of the implementation of an open source collaborative environment (MUSE) in a traditional institution during a period of upheaval not only explores the details of the evaluation of the first year of operation, but also the tensions around ownership, control and power. The paper reports on the implementation and seeks to address some of these questions: Can open source initiatives make a difference to the fundamental pedagogy of educational institutions? Can a modest change in IT solutions enable users to create their own learning and research spaces effectively? What factors would we do differently? In what ways does supplementing an existing large integrated system with another involve innovation in educational technology?

Keywords: collaboration environments, e-Research, open source, Sakai.

Letting in the Trojan mouse: Using an eportfolio system to re-think pedagogy

Julie Hughes
University of Wolverhampton

E-learning research, as an emergent field in the UK, is highly political in nature (Conole & Oliver, 2007, p.6) occupying a complex landscape which houses policy-makers, researchers and practitioners. Increasingly and more interestingly, the landscape is being shaped by the narratives and experiences of the learners themselves (Creanor *et al*., 2006, Conole *et al*., 2006) and the use of Web 2.0 technologies. However, as Laurillard (2007, p.xv) reminds us we still, 'tend to use technology to support traditional modes of teaching' and 'we scarcely have the infrastructure, the training, the habits or the access to the new technology, to be optimising its use just yet' (p.48).

Web 2.0 spaces, literacies and practices offer the possibility for new models of education (Mayes & de Freitas, 2007, p.13) which support iterative and integrative learning but as educators and higher educational establishments are we prepared and ready to re-think our pedagogies and re-do (Beetham & Sharpe 2007, p.3) our practices? This concise paper will reflect upon how the use of new learning landscapes such as eportfolios might offer us the opportunity to reflect upon the implications of letting in the e-learning eportfolio trojan mouse (Sharpe & Oliver, 2007, p.49).

Keywords: eportfolio, integrative learning, pedagogy

The virtual patient project: Using low fidelity, student generated online cases in medical education

Michelle Imison and Chris Hughes
School of Public Health and Community Medicine
University of New South Wales

Objectives: This paper reports on an in-progress study of low-fidelity virtual patients (VPs) created by and for medical students at the University of New South Wales. Its goals were to advance the diagnostic reasoning and patient management skills of all participating students. Methods: Two groups of volunteers from among the University's fifth-year medical students were trained in the use of software programs that enabled them to produce virtual patients. The cases they subsequently created were then reviewed for accuracy by clinical specialists, and are soon to be trialled with more junior student readers.
Results: Student authors, who came to the project with varying levels of technical confidence and ability, were all able to create interesting and engaging cases. Thus far they have produced eleven VPs, and qualitative analysis indicates positive impacts for their confidence in diagnostic pathways, treatment options and consolidation of knowledge. Quantitative analysis of changes in their clinical reasoning abilities is ongoing.
Conclusion: Given the success of the project, it is highly likely that student-created virtual patients will become an optional assessment task for senior medical students in the future, with the added benefit that this will develop a bank of VPs for future use in the program.
Keywords: medical education, virtual patient, peer learning, VUE, labyrinth

The *Ps Framework*: Mapping the landscape for the PLEs@CQUni project

David Jones
Australian National University
Jocene Vallack and Nathaniel Fitzgerald-Hood
Central Queensland University

The complex task of effectively using educational technology within universities is becoming more difficult as the shifting educational technology landscape brings into question many current institutional structures, practices and policies. This paper introduces the *Ps Framework,* a descriptive theory intended to reduce the complexity associated with making decisions within this changing landscape. The *Ps Framework* helps map out the changing landscape within a particular organisation, identify the diverse perspectives that may exist, and consequently aid decision makers to better understand the large amounts of complex and uncertain information involved in such decisions. The value of the *Ps Framework* is illustrated by using it to make sense of the landscape faced by the PLEs@CQUni project. This project aims to investigate, encourage and enable the use of social media, in the form of personal learning environments (PLEs), to supplement and enhance existing applications of educational technology at CQUniversity.
Keywords: PsFramework, taxonomy, e-learning, PLEs

Pestering staff into online learning: An integrated plan for implementation

Hazel Jones
Centre for Educational Development and Interactive Resources (CEDIR)
University of Wollongong

Universities are striving to provide quality learning experiences for their diverse student population and online learning is one aspect of this changing environment. This paper notes barriers that have been recognised that impede faculty uptake of online learning and examines some of the strategies that can be implemented to overcome these barriers. A plan for integrated implementation of online learning is proposed which consists of Planning & Promotion, Education, Support, Training, Encouragement and Recognition & Reward (PESTER). The elements of the plan are described in detail and an example of an implementation plan is provided.
Keywords**:** barriers to online learning, PESTER plan, support for staff

Challenging online learner identity through online learning tools

Gordon Joyes
School of Education, University of Nottingham, UK

This paper explores ways learner identity needs to and can be developed in our rapidly changing digital globalised world. It argues for a redefinition of personalisation to one where learners are able to identify with and work within a learning community. Two tools for learning are discussed in relation to this notion of development of learner identity and personalised learning. The first is the V-ResORT (Virtual Resources for Online Research Training) website www.v-resort.ac.uk. This free and highly navigable resource provides complete research narratives by Masters and Doctoral students in education studies as well as researching academics. This represents a community of research practice revealing their understandings in authentic and compelling ways unlike the reified versions found in academic texts and research papers. Research students can flexibly explore the online researcher narratives and research lecturers/supervisors can use these as triggers with which to raise issues and ground aspects of methodology and theory. Research into the use of materials reveals the ways this helps connect the learners with research communities and develops their identities as researchers. The second tool for learning is the ViP (Virtual Interactive Platform). This is pedagogically driven Web2.0 tool that makes use of and extends server based media materials combined with online discussion functionality. The pedagogic innovation is the ways it allows distributed learners to upload, share and analyse visual media through commentary and discussion linked to supporting resources. The ViP supports learners to co-construct meaning and develop an identity as a learner working within a learning community.
Keywords: Identity, personalisation, tools for learning, WeB2.0, research

Towards community based learner support: A case study

Benjamin Kehrwald
College of Education
Massey University

This paper reports on the preliminary results of a heuristic evaluation of one learner support community in the BEd(Teaching) Primary programme in the College of Education at Massey University. It examines the use of an online community structure to support a programme delivered in blended modes for both internal (face-to-face) and external students. The presentation includes a description of the context for the case, the development of a learner support community including key feature of the community design and development process and issues arising in the early phases of implementation of the design.
Keywords: online community, learner support, community development

Immigrants and natives: Investigating differences between staff and students' use of technology

Gregor Kennedy
Biomedical Multimedia Unit, The University of Melbourne
Barney Dalgarno
Faculty of Education, Charles Sturt University
Sue Bennett
Faculty of Education, University of Wollongong
Terry Judd, Kathleen Gray and Rosemary Chang
Biomedical Multimedia Unit, The University of Melbourne

The corollary of the 'Digital Native' – young, technologically avid and literate – is the 'Digital Immigrant' – older, less familiar and comfortable with technology. The accompanying rhetoric posits that in the higher education sector, staff and students are ensconced firmly on either side of a 'digital divide', with critical implications and consequences for teaching and learning. This proposition was tested by surveying 108 staff and 2588 first-year undergraduate students across three Australian Universities about their use of a large selection of common and emerging technologies. These technologies were grouped into eight coherent categories using factor analysis. A MANOVA was then used to analyse different uses of these technologies according to participants' role (staff or student), gender and age. Significant main effects were reported for each of these independent variables and differences were seen particularly for technologies related to mobile phone use and gaming. However, the absolute magnitudes of most differences between groups were small and,

critically, there were no role, gender or age effects for technology-based activities associated with Web 2.0 technologies, and the overall use of these technologies was low. These findings support a growing evidence base that, while some differences exist, the 'digital divide' between students and staff is not nearly as large as some commentators would have us believe.

Taking iPods into the field to capture and share teacher wisdom stories

Lisa Kervin and Jessica Mantei
Faculty of Education, University of Wollongong

Mobile technologies offer significant possibilities for educators. This paper explores the use of iPods as a tool to bring together the teaching field and the tertiary classroom. We have designed a learning experience to engage our students in collecting and reflecting upon knowledge shared by practitioners in the field. It builds upon the premise that educators need to consistently gather and evaluate evidence to inform their professional practice. The task encourages students to consider the 'teacher wisdom' (Labbo, Leu, Kinzer, Teale, Cammack, Kara-Soteriou, & Sanny, 2003) that can be gathered and disseminated through 'new literacies' (such as podcasts) as they plan, record and edit an oral text to share with their student colleagues through their subject website.
Keywords: iPods, mobile technology, pedagogy, field experience, early career teachers

Virtual teams: Worlds apart

Ian Knox and Deirdre Wilmott
Institute for Professional and Organisational Learning, University of Ballarat

Virtual teams are a relatively new phenomenon. A number of studies have focused on the description of team development and the group process of virtual learning teams as they form. This paper is a study of how Australian and American undergraduates worked together in virtual teams to respond to ethical and business practice problems for a given scenario. The study specifically examined the communication methods, task completion methodology and cultural differences exhibited by two undergraduate classes from the University of Ballarat, Ballarat Australia and Jacksonville State University, Jacksonville, Alabama, United States. Both synchronous and asynchronous communications methods were used with differing levels of enthusiasm and acceptance. Although the study was based on a small sample, which limits its generalisability, there are implications to inform those who are considering similar methods in their teaching.

Usability and usefulness of eBooks on PPCs: How students' opinions vary over time

Paul Lam, Shun Leung Lam, John Lam and Carmel McNaught
Centre for Learning Enhancement And Research (CLEAR), The Chinese University of Hong Kong

The number of academic eBooks in university libraries is increasing. Reading digital materials such as newspapers is valued in Hong Kong; however, students' perceptions of the value of reading academic eMaterials are not well known. In this study we investigated 12 students' use of academic eBooks on mobile readers in two ways. Six students had brief introduction to eBooks and they reported their first impressions of the technology. The other six students had a 12-week eBook reading period that was closely monitored by the research team. The experiences from the two groups of students generally affirmed that the technology has potential to enhance teaching and learning in a university setting. However, the experiences (especially of the long-term users) highlight a number of challenges that need to be addressed.
Keywords: eBooks, mobile technology, student perceptions, evaluation

"You're breaking up …": Responding with integrity to the student voice in asynchronous online discussions

Jo Lander and Sharon Reid
School of Public Health, Faculty of Medicine
University of Sydney

Recent years have seen the increasing integration of asynchronous online discussions, often embodying a collaborationist, constructivist pedagogical paradigm, into on- and off-campus postgraduate courses. This paper uses data from published research, a series of course evaluations and one study by the authors into the development of a community of practice to highlight the tensions between pedagogy and student expectations in this context, and explore possible biases in existing research methodologies. These, taken together, may mean that educators and researchers are not clearly hearing student voices when they interact online or report their experiences of asynchronous online discussions.
Keywords: online discussions, asynchronous discussions

Enabling teaching, enabling learning: How does staff development fit the educational technology landscape?

Geraldine Lefoe
Centre for Educational Development and Interactive Resources, University of Wollongong
Ian Olney and Anthony Herrington
Faculty of Education, University of Wollongong

The *New Technologies: New Pedagogies Project* is a nationally funded project to support the use of mobile learning in higher education to support student learning. We explore the staff development process of this larger project, where academics in a Faculty of Education investigate new pedagogies that are required to meet the needs of millennial learners. The staff development process addressed the need for staff to own and use mobile technology in their professional and personal contexts in order to think differently about engaging their students in pedagogically sound ways. We identified four key actions for participants which contributed significantly to the development of the authentic tasks for their pre-service student teachers to undertake as part of their assessment: an understanding of the theoretical frameworks, (authentic learning, action learning, and mobile learning); an understanding of the affordances of the technologies; active participation in authentic tasks which modeled the practice; and active participation in cycles of reflection based on the implications for the development of new pedagogies presented by the three initial understandings.
Keywords: mobile learning, faculty development, action learning, pedagogy, ipod, smartphone

Acceptance of e-learning among distance learners: A Malaysian perspective

Bibiana Lim Chiu Yiong
Swinburne University of Technology (Sarawak Campus), Kuching, Sarawak, Malaysia
Hong Kian Sam and Tan Kock Wah
Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak, Sarawak, Malaysia

Distance learning and e-learning are rapidly becoming popular modes of studies among students and working adults worldwide. This trend is also visible in Malaysia, with the emergence of several higher education distance learning institutions using e-learning to support its learning activities such as the Open University of Malaysia and the Wawasan University. However, an important point of concern to both educators and researchers are the distance learners' acceptance of e-learning. Therefore, this study aimed to investigate the acceptance of e-learning among distance learners at the Open University of Malaysia in Malaysia. This cross-sectional survey used questionnaires to obtain the necessary data. The questionnaires used to measure distance learners' acceptance of e-learning were adapted from the research instruments used by Poon, Low and Yong (2004). A total of 112 students from the Open University branch campus in Kuching, Sarawak, Malaysia responded to the questionnaires. Most of the students surveyed reported moderate levels of e-learning acceptance. The findings of this study indicated that institutions offering distance learning via e-learning should provide some non-credit courses to improve students' acceptance of e-learning.
Keywords: distance learning, e-learning, acceptance of e-learning

Work-ready wiki: Supporting the learning and teaching of professional graduate attributes

Andrew Litchfield and Skye Nettleton
Faculty of Engineering and Information Technology, University of Technology Sydney

The paper presents the background, design and formative evaluation of a wiki of work-ready learning activities and teaching support resources to improve the learning of professional graduate attributes. The '*Improving graduate work-readiness*' project is a University of Technology Sydney curriculum renewal project involving five Faculties. The project aims to improve graduates' professional attributes and employability skills by designing new subjects, new subject modules and integrating short well-designed contextualised work-ready learning activities into existing subjects. The authors inquired of relevant professional societies their understandings of the key professional attributes required of a graduate in the contemporary workplace. These findings informed the design of a matrix of 11 professional attributes and associated sub-attributes and aligned understandings and skills that can be learnt. The work-ready wiki gives access to a matrix of generic work-ready learning activities and 16 matrixes of learning activities contextualised for each professional area of study involved in the project to-date. Work-ready activities contextualised for each profession maximises student relevance and motivation to learn. Maximising the ease of integration of work-ready activities into existing subjects has guided the design of the wiki-based learning activities. From the wiki practical teaching support resources can be downloaded to enable easier integration of the work-ready learning activities. The beginning of collections of work-ready learning activities can be found at <wiki.it.uts.edu.au/workready>.
Keywords: work-ready professional graduate attributes online teaching resources curriculum integration

The practice of web conferencing: Where are we now?

Birgit Loch
Faculty of Sciences, University of Southern Queensland
Shirley Reushle
Faculty of Education, University of Southern Queensland

The use of web conferencing tools to support learning and teaching and facilitate interaction and collaboration is common in many higher education environments as is the replacement of face-to-face meetings with virtual collaboration tools. This paper reports on Phase 3 of a trial of web conferencing conducted at a regional Australian university and further explores the use of web conferencing to support and enhance learning and teaching. Preliminary findings from Phases 1 and 2 of the trial have been reported on in a previous paper. The action research method which framed the initial trial has again been applied to Phase 3. In Phase 1, collaborative mathematical problem-solving in an undergraduate course was carried out using web conferencing and tablet PCs. In addition, students in postgraduate Education courses were linked across the globe to participate in interactive and collaborative web conference activity. In Phase 2, a university-wide trial across disciplines was conducted. Phase 3 represents an analysis of feedback received from teachers who were involved in Phases 1 and 2 and who have had some time to reflect on the impact web conferencing has had on their teaching practice. From this, and their own experience, the authors make further observations regarding the use of web conferencing to support learning and teaching and raise a number of questions and issues to guide future research.
Keywords: web conferencing; action research; evaluation; collaboration

Horizon Report: Australia/New Zealand edition 2008

Phillip Long
Professor Innovation and Educational Technology, and Director of the Centre for Educational Innovation and Technology, University of Queensland.

The Horizon Project, as the centerpiece of New Media Consortium's Emerging Technologies Initiative, charts the landscape of emerging technologies for teaching, learning and creative expression. This is distilled and reported annually in the NMC's Horizon Report. Since the launch of the Horizon Project in March 2002, the NMC has held an ongoing series of conversations and dialogs with hundreds of technology professionals, campus technologists, faculty leaders from colleges and universities, and representatives of leading corporations. This year the NMC in coordination with the University of Queensland, the University of

Melbourne, and the Royal Melbourne Institute of Technology, convened the first Australia/New Zealand Advisory Board to conduct the process leading to predictions of the technologies likely to impact teaching, learning and the creative arts here in the Australia/New Zealand region. The results of this project will be presented and placed in the context of the trends affecting emerging technologies for tertiary education.

Blending real work experiences and virtual professional development

Julie Mackey
School of Literacies and Arts in Education, University of Canterbury

Blended learning holds promise for re-thinking the various ways that learning theory, pedagogy, and technology might be brought together to engage learners. This paper draws on variation theory and social learning theory to describe how blended learning can facilitate learning experiences which occur across the boundaries, and at the intersections, of communities. The data is drawn from a preliminary analysis of a project investigating the connections between online learning and teachers' communities of practice. The emerging premise is that teachers (as learners) negotiate much of the 'blend' themselves as they work simultaneously in their school communities and engage in online learning communities. While the online learning community provides the experiences of variation necessary to provoke reflection and engagement with new ideas, teachers situate their learning within their daily practice. This authentic participation is an integral part of the workplace learning experience but this aspect is often overlooked in blended learning discussions. Higher education institutions offering virtual professional development programmes would benefit from leveraging learners' participation in everyday work as a valuable ingredient in the blended learning experience. Online professional development can adopt a thoughtfully designed blend of mode and environment incorporating virtual and real interaction, and study and real work to support teachers' learning.
Keywords: blended learning, teacher professional development

Learning how to e-teach? Staff perspectives on formal and informal professional development activity

Juliana Mansvelt, Gordon Suddaby and Duncan O'Hara
Massey University

This paper reports on the findings drawn from a New Zealand research project (Professional Development in e-Learning PDeL) which is producing a sector-wide framework for professional development in tertiary e-Learning. The findings indicate that staff engaged in e-learning in tertiary institutions are not making use of the formal professional development opportunities available to them. Rather they seem to gain their knowledge and support from a variety of informal means. This is despite an emphasis on the provision of formal professional development opportunities by both the New Zealand government and institutions themselves. The conclusion drawn from the findings is that institutional approaches to e-Learning professional development do not yet fully reflect the demands and constraints that working in a digital context impose.

Copyright policy issues facing tertiary institutions engaged in e-learning

Stephen Marshall
University Teaching Development Centre
Victoria University of Wellington

Changing technology, changing laws, the ease of copying, and the growing access to a vast array of online materials have all changed how copyright affects academic work and consequently the content and complexity of institutional copyright policies. Traditionally oriented policies and systems that have not been updated to address the full range of issues present a risk and a barrier to ongoing development and use of e-learning. This paper suggests a range of issues that institutions should be addressing and presents evidence that many institutions lack modern and effective policies in this area.
Keywords: copyright, policy

Steps towards using an enquiry-based blended learning design for curriculum change in Health Sciences

Iain McAlpine, Linda Pannan and Kerry Fitzmaurice
Faculty of Health Sciences, La Trobe University

A learning design based on the enquiry-based learning (EBL) pedagogical model is being used for course unit design in a curriculum change within a faculty of health sciences. The learning design is scalable to support large student cohorts spread across multiple campuses. The EBL model is used to promote high levels of student engagement and active self-directed learning with the aim of enhancing academic performance and making teaching and learning time-efficient for academic staff. The large project described in this paper uses a design-based research method and is currently in its first phase. Details of the enquiry-based blended learning design, its application across the common first year units, and processes used to achieve inclusive dialogue and orient academic staff to its use are reported.

Keywords: pedagogical models, learning designs, enquiry-based learning, curriculum change

Facilitating online integrity using *OpenID*

Tony McDonald
Learning Technologies for Medical Sciences, The Medical School
Newcastle University, UK

"Integrity is the essence of everything successful" (Richard Buckminster Fuller)
How can individuals behave in an online environment that enables them to keep and enhance their integrity and reputation, fills colleagues with confidence, allows for free exchange of information and yet still manage to keep private those things that they wish to keep private? The Internet is a largely anonymous world, with flame-wars, spamming, phishing and distrust being the order of the day, but I will argue that by allowing some carefully controlled non-anonymity to 'leak out', mutual trust can be built up. I will outline some existing authentication and authorisation systems, and will touch upon identity management issues in general. I will discuss some initiatives such as Shibboleth, OpenID in general and discuss in particular how OpenID might be used in practice to allow individuals to have a greater say in what information is held about them, and how this information is used by third parties.

Keywords: integrity, persona, authentication, authorisation, shibboleth, openid, identity management, privacy

Designing for authentic relationships, content and assessment in unpredictable learning contexts

Ann McGrath, Julie Mackey and Niki Davis
School of Literacies and Arts in Education, University of Canterbury

The professional development landscape is being redrawn as e-learning and educational technologies provide opportunities for participants to connect everyday life and formal online learning in new and dynamic ways. These connections call for authentic learning pedagogies which challenge traditional teacher/learner relationships, formal course design and assessment practices. This paper explores some of the difficulties and benefits arising from responsive course design requiring mutual engagement and collaboration between teachers and learners, and where learning and assessment are framed by authentic problems and situated in everyday contexts. We explore how relevant knowledge can be constructed and assessed within an e-learning community; specifically how e-learning can facilitate learner-negotiated pathways linking work/interests and study; and provide a balance between flexibility and structure in course design to enable participants to select relevant activities and resources. This investigation into the practices and strategies of linking work and study has highlighted changing relationships between people, the virtual and the physical, and objects in our educational technology landscape.

Keywords: e-learning, teaching on-line, authentic, professional development

Fostering collaboration amongst off-campus students

P. Craig McIntosh
Faculty of Higher Education, Lilydale, Swinburne University of Technology
Debbi Weaver
Swinburne Professional Learning, Swinburne University of Technology

While the importance of developing and giving feedback on generic skills is widely recognised for on-campus students, this is still largely ignored for off-campus students, primarily due to the practical difficulties involved. This paper reports on a pilot project that introduced a compulsory group work project into an off-campus unit, delivered through Open Universities Australia. Wikis were used as the technical tool to facilitate the project, which was mostly successful for students, albeit stressful and time-consuming for staff. While all participating students successfully completed group projects, only one group demonstrated high levels of collaboration during the process.

Developing peer review of teaching in blended learning environments: Frameworks and challenges

Jo McKenzie
Institute for Interactive Media and Learning, University of Technology, Sydney
Lina Pelliccione
School of Education, Curtin University
Nicola Parker
Institute for Interactive Media and Learning, University of Technology, Sydney

The growth of blended learning environments in higher education has emphasised the need for better ways of describing and recognising good teaching that promotes student learning in these environments. Although the affordances of e-learning technologies have long been discussed, there has been little emphasis on developing systematic processes for recognition of good teaching in blended learning environments and developmental feedback for academics. This paper reports on work in progress on a two year ALTC project in which teams across the ATN universities are developing a scholarly framework and a sustainable process for peer reviews through a co-productive, action research approach. The peer review process is currently being developed and trialled, with team members focusing on aspects of their teaching in blended learning environments across a wide range of disciplines and contexts. The challenges encountered to date include: successfully combining formative and summative goals for reviews; balancing concerns about trust and independence; the extent to which blended learning and/or disciplinary expertise is necessary for reviewers and the ubiquitous time constraints. Peer review of learning and teaching in blended learning environments is complex. A significant challenge for this project is ensuring that the processes and resources developed are sustainable and helpful for a wide range of academics and universities, as well as useful for improving student learning.

Keywords: peer review of teaching, blended learning, action research, improving student learning

Where are audio recordings of lectures in the new educational technology landscape?

Wendy McKenzie
School of Psychology, Psychiatry & Psychological Medicine, Monash University

The increasing availability of audio recordings of lectures is having an impact on the role of the traditional lecture in universities. The reasons why students use lecture recordings have been well documented, however, less is known about the impact of listening to recorded lectures on the quality of the learning experience. Undergraduate psychology students were asked to rate how well attending lectures and listening to audio recordings of lectures met a range of learning objectives. The results show that, compared to attending lectures, listening to recorded lectures was at least as effective in meeting the learning objectives, and even rated significantly higher than attendance in relation to acquiring information and clarifying what needs to be learned. Notwithstanding the limitations of the study, the results are encouraging in terms of the usefulness of lecture recordings in meeting the lecture needs of today's students, that is, if information transmission is the primary goal.

Keywords: audio recordings of lectures, learning objectives, lectures

Has the computing competence of first year university students increased during the last decade?

Theresa McLennan
Lincoln University, New Zealand
Shirley Gibbs
Lincoln University, New Zealand

Computers have become ubiquitous. The perception is that they are used effectively and with authority by much of the younger population. Previous generations used computers to manipulate data, mainly in employment. The current generation considers use of computers to be part of their social life. This paper reports on the results of a longitudinal study of students in an introductory computing class at Lincoln University. Results from 1999 were compared with results from 2008 to see if there were any differences in the overall computing confidence reported by students from both cohorts. The computing activities of the 1999 and 2008 students have been compared. Results show that the current students are more likely to be computing online and their overall confidence is higher than in the earlier study. This confidence is not matched by increased skills in offline computing. There is some evidence that the 2008 students are less competent users of productivity software such as spreadsheets and databases than the 1999 students.

Keywords: first year students, computing competence, computing knowledge, online computer literacy, offline computer literacy, skills perception level

Mapping the digital terrain: New media and social software as catalysts for pedagogical change

Catherine McLoughlin
School of Education (ACT), Australian Catholic University
Mark J.W. Lee
School of Education, Charles Sturt University

In the emerging digital landscape of the Web 2.0 era, where social software tools like blogs, wikis and podcasts provide instant connectivity, promises of engagement and community building, there is a need to rethink models for teaching and learning. In this paper, the authors argue that outmoded didactic models, which place emphasis on the delivery of information by an instructor and/or from a textbook, may need to be replaced in order for student-centred learning to come to fruition. Currently, e-learning pedagogies at universities and colleges appear to be fuelled largely by learning management systems (LMS's) that replicate these traditional paradigms in an online setting. They conform to a "student-as-information consumer" model, thereby reinforcing instructor-centred approaches to teaching, learning and knowledge, as opposed to being conducive to constructivist modes of learning that enable a high degree of learner self-direction and personalisation. This paper also explores a range of examples demonstrating productive pedagogical applications of social software tools. A number of recent constructivist theoretical paradigms are presented that have the potential to transform teaching, learning and pedagogy in higher education.

Keywords: web 2.0, social software, constructivism, connectivism, navigationism.

Bringing 'second life' to a tough undergraduate course: Cognitive apprenticeship through machinimas

Nona Muldoon and David Jones
Division of Teaching and Learning Services, Central Queensland University
Jennifer Kofoed
Faculty of Business and Informatics, Central Queensland University
Colin Beer
Division of Teaching and Learning Services, Central Queensland University

This paper discusses a novel use of Second Life to produce a series of 'machinimas' to support a cognitive apprenticeship model of learning in accounting education. In this paper, the notion of 'second life' has dual meaning: first, it is about curriculum renewal; and second, it pertains to the widely talked about social software. The paper describes both meanings of 'second life' in this context, shows how when combined they have resulted in a significant increase in the quality of student learning outcomes and argues that technology only becomes transformational when it is used to enable alignment across all curriculum elements.

Students' perceptions of interactive multimedia mediated web-based learning: A Malaysian perspective

Mai Neo and Tse-Kian Neo
Faculty of Creative Multimedia, Multimedia University, Cyberjaya, Selangor, Malaysia
Wei-Li Yap
Faculty of Computing and IT, INTI International University College, Nilai, Seremban, Malaysia

While using the Web can be viewed nowadays as a new platform for delivery of course materials, there are still many educators who look to the Web as a replacement for their current teaching methods. This paper sought to investigate students' perceptions towards an interactive web-based learning environment, which consisted of using multimedia-mediated web-based learning modules, created based on Mayer's (2001) design guidelines, and the use of weblogs to capture the student learning process. Students were given pre-and posttests, and a survey to ascertain their reactions and attitudes toward this mode of learning. The results obtained were very positive and encouraging. Students generally found the multimedia-mediated web-based learning environment to be enjoyable and motivating, and were able to demonstrate their learning and skills of the subject domain via their weblogs. Results also gave strong support for the use of multimedia in learning modules that followed proper design guidelines which would better engage students in their learning.
Keywords: student-centred learning, web-based learning, interactive multimedia, malaysia

Beyond textbook communication exchanges: Are student teachers ready for virtual assessments?

Eugenia M. W. Ng, and Yiu Chi Lai
Department of Mathematics, Science, Social Sciences and Technology, The Hong Kong Institute of Education

The production of videos and sharing them on the Internet has changed the landscape of communication exchanges, and the approach to education. This change is attributed to the low budgets associated with video production and with the convenience of using the Internet as a means to disseminate the information thus processed, through technology. However, most learning and teaching resources continue to be in the traditional text format, as are the assessment modes for teachers. This study aims to describe an innovative practice of having student teachers present a summary of their final assignments in digital format, which could either be videos or other digital formats. The participants in the study are final year undergraduate and post-graduate Diploma of Education student teachers. For the purpose of the study, the virtual presentations were uploaded to a learning platform to enable the two different classes to comment on each other's work within one week. Thereafter, the data collected, was analysed from tracked statistics provided by the learning platform and students' reflections of this inter-class activity. It was found that most of the participants were positive about this new presentation approach, but they preferred to give comments to peers of their own class rather than comment on the work of the other class. It was concluded that our student teachers were ready to accept virtual presentations in formative assessments, at the same demonstrating a marked reluctance to criticise the work of their peers from a different class.
Keywords: preservice teachers, virtual presentation, reflection, peer assessment

Sense of place in online learning environments

Maria Northcote
Centre for Teaching and Learning
University of Newcastle, NSW

Online learning environments are as diverse as the students and teachers who inhabit them. While one person may envisage an online learning environment to be a simulated website, another may imagine a site where vast numbers of students communicate using discussion boards, email and chat. With these varied expectations and perceptions in mind, this paper begins by acknowledging why a *sense of place* in online learning contexts can support and enhance the quality of student learning in higher education courses which have online components. Using George Seddon's understanding of *sense of place* (Seddon, 1972, 2004), the paper presents an analysis of developments in online learning spaces and explores this concept in terms of online learning, identity, community and belonging. As a student, locating oneself in an online learning environment is sometimes difficult - difficult to navigate, difficult to know and difficult to ascertain one's location as an individual and as a member of a community in virtual terms.

Although the benefits offered by flexible, technologically-rich learning contexts often outweigh the problems associated with this type of learning, the confusion and disorientation sometimes felt by learners during online learning experiences is thought to be worthy of acknowledgement and analysis. The paper concludes with six recommendations drawn from "lessons learned" from online educators and students, and those researchers who have investigated online learning contexts over the past decades. It is anticipated that these recommendations will assist to foster a sense of place in future online learning environments.

JISC the Joint Information System Committee: A summary of UK funded activity

John O'Donoghue
Professor of Learning Technology
University of Central Lancashire, UK.

John sits on the Joint Information Systems Committee (JISC's) Strategic Committee for Learning and Teaching as well as a number of JISC expert and advisory boards. John also is an executive committee member of ascilite.

The Joint Information Systems Committee (JISC) is funded by the UK HE and FE funding bodies to provide world-class leadership in the innovative use of ICT to support education and research. JISC funds a national services portfolio (e.g. JANET) and a range of programmes (e.g. Use of Technology to Support Admissions to HE). JISC's activities support education and research by promoting innovation in new technologies and by the central support of ICT services. JISC provides:

- A world-class network - JANET
- Access to electronic resources
- New environments for learning, teaching and research
- Guidance on institutional change
- Advisory and consultancy services
- Regional support for FE (TAFE) colleges

An implementation of the generative learning object model in accounting

James D. Oldfield
Unitec Business School, Unitec New Zealand

In the pursuit of more effective and efficient teaching methods the concept of learning objects has been expanded and reworked. Newer more flexible learning objects called generative learning objects have empowered lecturing staff with the ability to easily adapt and mould their content to fit their circumstances. This paper reports on a project that takes the powerful concept of a generative learning object (GLO), improves its flexibility through the use of XML and Flash, and applies it to accounting instruction.

Typically generative learning objects have been developed in the area of programming where they have been well received. This research marks the first attempt at applying a generative learning object to the field of accounting, specifically in the area of depreciation. The Depreciation GLO combines animation with textual instructions and automated evaluation to increase student's interest and provide them with a variety of learning streams to improve their performance. The automated nature of the Depreciation GLO also provides lecturers with feedback on the student's performance and time spent working with the software allowing for a better understanding of their performance.

iPods in early childhood: Mobile technologies and story telling

Ian Olney, Jan Herrington and Irina Verenikina
Faculty of Education
University of Wollongong

Mobile technologies are making inroads in many aspects of education. The potential of many of these devices is being explored in a range of educational environments but early childhood educators are not commonly early adopters of these new technologies. This paper examines the process and impact of iPods on these students' creation of original digital stories to support their understanding of how young children learn. The pedagogical approach is

described in detail together with observations on the process, lessons learned, and extensions of the activity into other discipline areas.

Keywords: iPod, talking picture books, digital stories, early childhood, preservice teacher education

Clinical diagnosis online

Meg O'Reilly
Teaching and Learning Centre, Southern Cross University
Ken Wojcikowski
Department of Natural and Complementary Medicine, Southern Cross University

Students of natural medicine at Southern Cross University undertake a program of learning that encompasses both scientific and holistic approaches to health and wellbeing. Case based presentations in two inter-related units – Clinical Diagnosis I and Clinical Diagnosis II allow students to develop their skills in patient history taking, problem solving, differential diagnosis and treatment. This paper describes the progression of innovations in teaching these two units from fully face-to-face, to paper-based and CDROM structured case based activities, to an online version that is currently in place. Student feedback on both the CDROM and online versions is discussed and a statistical evaluation of student performance is presented to compare the impact of the two innovations in delivery.

Keywords: clinical diagnosis, authentic assessment, case based, online learning, reflection.

Learners re-shaping learning landscapes: New directions for old challenges?

Hazel Owen
Centre for Teaching and Learning Innovation
Unitec NZ

The sheer inevitability and momentum of global adoption of all forms of technology has engendered a range of responses from wholehearted welcome and exploitation, to denial and anger . Consequently, the education landscape has been shifting, although not in the colossal, earth-rending manner that was initially envisaged. Information, Communication Technology Enhanced Learning and Teaching (ICTELT) has progressively continued to evolve and mature, embedded in an increasing foundation of research. One key benefit identified in this process is the inclusiveness and fluidity that can be built into ICTELT experiences, especially when they occur within a collaborative community. This paper explores an example of how ICT was used to adapt part of an existing 'problematic' curriculum in a way that helped address central issues, encouraged collective learning and enabled learners. In the Foundations programme at Dubai Men's College (DMC) students find the conventions of academic writing, and the requirement to improve their proficiency, challenging, especially as they are also struggling with the transition from secondary to tertiary education, and their own changing identities. The framework of existing Communities of Learning (CoL) was employed to introduce a blended, scaffolded approach that aimed to assist students with academic writing, as well as assisting their transition to more self-directed, confident learning. The design and implementation of the interventions is described, and a brief overview of the results of the associated research study is given, along with recommendations for educators wishing to adopt a similar approach.

Keywords: ICTELT, blended learning, communities of learning, academic writing, Gulf region, foundation programmes

The learning outcomes of an online reflective journal in engineering

Stuart Palmer, Dale Holt and Sharyn Bray
Institute of Teaching and Learning
Deakin University

Reflective thinking based on experiential learning is a key skill required for the lifelong learner and the socially mature professional. Following several semesters employing a written reflective journal as an assessable task, a fourth-year engineering management unit adopted an online reflective journal. During the initial semester of use, an evaluation was undertaken to investigate student perceptions of the online journal. A summary of this previous work is presented here. Following three semesters of use of the online journal, an analysis of the

student use of the journal was undertaken to investigate its contribution to unit learning outcomes. Based on the evaluation of student perceptions of the online reflective journal, it was found that a majority of students understood the purpose of the journal, and valued the journal in their learning; a majority of students read the journal entries of other students, and indicated that this assisted their learning; and the two most frequently reported 'most useful' aspects of the journal were the 'enforced' continuous revision of course material, and the ability to compare their understanding of the course material with that of other students. Based on a regression analysis of the factors related to student usage of the online reflective journal, it was found that the significant contributors to final unit mark where: prior academic performance; number of journal postings; and mode of study. This research confirmed that the online reflective journal was fertile territory in the landscape of educational technology, both in terms of student perceptions and contribution to unit learning outcomes.
Keywords: reflective journal, engineering management, online journal, student evaluation, learning outcomes.

Assessing learning technologies for software design using CRC cards

David Parsons and Hokyoung Ryu
Institute of Information and Mathematical Sciences, Massey University, Auckland, New Zealand

Software engineering practice supports the development of learning technologies, but we do not, perhaps, utilise these learning technologies as much as we could when teaching the practices of software engineering. One useful technique for both learning about and designing object oriented systems is the CRC (Class, Responsibility, Collaboration) card exercise. In this paper we describe an experiment based on a CRC card exercise to compare a learning task related to software design executed in three environments; classroom based, e-learning and mobile learning. Our results indicate that although the software engineering aspect of the task may be better executed in traditional classroom environment, some aspects of the learning process may be enhanced by a mobile solution.
Keywords: mobile learning, software design, email, SMS text messages.

Enabling learning for all through adaptable personal learning environments

Elaine Pearson, Steve Green, Voula Gkatzidou
Accessibility Research Centre, University of Teesside, UK

In the current landscape of technological and social change, the shape of learning technology is being influenced by forces which present significant challenges for the learning designer. The increasing demand for personalised approaches and pedagogies, together with an emphasis on the need to cater for the needs and preferences of the individual learner, are shifting the focus to the integration of adaptive and ubiquitous learning, to respond to the challenge of providing truly- learner-centred, accessible, personalised and flexible learning. This paper proposes a model for the development of a framework for an open source Adaptable Personal Learning Environment (APLE). It goes beyond current definitions of a Personal Learning Environment (PLE) that encompasses personal systems and tools. In our definition an APLE is also adaptable to the needs and preferences of the individual learner, and to the environment in which they are working. Taking an existing Virtual Learning Environment (VLE), known as the Portland VLE, as the starting point the framework is focused around the creation of individual interfaces for personal learning. Central to the development of this framework is engagement with and development of a community of practice (COP) comprising tutors, developers, researchers, students and administrators. Through the COP we aim to develop a set of anonymous personal profiles from which sample interfaces and learning objects will be produced. These sample interfaces and learning object templates will enable the definition of requirements that should meet the needs and preferences of all learners regardless of disability, environment or personal preference.
Keywords: Adaptable, personal, learning, environments, accessibility, inclusion

ePortfolios: Beyond assessment to empowerment in the learning landscape

Lina Pelliccione and Kathryn Dixon
School of Education
Curtin University of Technology

The purpose of education is to allow each individual to come into full possession
of his or her personal power (Dewey, 1938, p. 10).
Over the past decade, Universities in Australia have experienced a shift towards outcomes-based education. Since 2000 in particular there has been an increased emphasis on core, generic skill development as this relates to course outcomes in individual programs. This paper investigates the implementation of ePortfolios as a means of assessing student achievement and development in the Bachelor of Education Program at a Western Australian University. The complex process of embedding and developing the ePortfolios is discussed, including the stages throughout the four year degree where they are assessed. The key factor of student ownership is examined as one of the most powerful elements of building such an assessment protocol. This paper describes the outcomes of a content analysis which has been conducted upon two of the major course outcomes as represented in the ePortfolio student sample. The students also participated in an open-ended questionnaire which asked them to reflect upon their experiences with the development of their ePortfolio in terms of intended and unintended outcomes as well as their attitudes towards the process used, how the ePortfolios related to overall learning outcomes of the program and their perceptions of future ePortfolio use.
Keywords: ePortfolios, assessment, empowerment, outcomes-based education

Podcasting: Is it a technology for informal peer learning?

Tom Petrovic, Gregor Kennedy, Rosemary Chang and Jenny Waycott
Biomedical Multimedia Unit
The University of Melbourne

We describe a semester long pilot project in which a podcasting system was created to support informal peer learning in a problem based medical curriculum with so called Net Generation students. Students could create short podcasts that communicated their understanding, difficulties or opinions to their peers about the weekly clinical problem under investigation. Student activity was logged throughout and a focus group was held at the end of semester. About one quarter of the student cohort used the podcasting system but very few students created podcasts. Students were interested in listening as consumers of content and a small group visited the site weekly to check for updates. However, student engagement with the podcasting system required incentives. It seems that in the absence of quality content, the technology itself does not provide enough incentive to drive participation.
Keywords: peer learning, podcast, net generation, Web 2.0, higher education

A peer review model for the ALTC Exchange: The landscape of shared learning and teaching resources

Robyn Philip
Humanities and Social Sciences, Macquarie University
Geraldine Lefoe
CEDIR, University of Wollongong
Meg O'Reilly
Teaching and Learning Centre, Southern Cross University
Dominique Parrish
Faculty of Education, University of Wollongong

The ALTC Exchange (formerly the Carrick Exchange), is a national repository and networking service for Australian higher education. The Exchange was designed to provide access to a repository of shared learning and teaching resources, work spaces for team members engaged in collaborative projects, and communication and networking services. The Australian Learning and Teaching Council (ALTC) established the Exchange for those who teach, manage and lead learning and teaching in higher education. As part of the research conducted to inform the development of the Exchange, models for peer review of educational resources were evaluated. For this, a design-based research approach was adopted. Findings

from the literature and feedback from key practitioners and leaders within the sector are discussed in this paper.
Keywords: ALTC Exchange, Carrick Exchange, peer review, MERLOT

Developing standards for best practices in prospective and new student introduction to e-learning

Gloria Pickar
Compass Knowledge Group
Stephen Marshall
University Teaching Development Centre, Victoria University of Wellington

As online courses and programs continue to grow at exponential rates and provide global reach, e-learning student completion, retention and persistence are areas of great concern to faculty and administrators. In response to this need the IMS Global Learning Consortium, an international e-learning technology standards and best practices organisation, is developing an evidence-based methodology to improve e-learning student persistence by identifying and defining best practices around three phases of the new student's introduction to the e-learning experience: expectations, preparation, and induction. These practices are under active development and this paper provides a progress report of work to date and an invitation to contribute to the development of this IMS standard.
Keywords: retention, persistence, induction

A model for evidencing the benefits of technology enhanced learning in higher education in the UK

Megan Quentin-Baxter
Medicine, Dentistry and Veterinary Medicine, Newcastle University, UK
Jacquie Kelly
JISC infoNet, Northumbria University, UK
Stephen Probert
Business, Management, Accountancy and Finance, Oxford Brookes University, UK
Cary MacMahon
JISC TechDis, Higher Education Academy, UK
Gill Ferrell
JISC infoNet, Northumbria University, UK

A model for describing and collecting evidence with which to evaluate technology-enhanced learning was developed as part of the Tangible Benefits of e-Learning project which took place in the UK in 2007. This small study sampled innovative technological approaches to support learning in business, health and the humanities in the tertiary sector, and documented the results as case studies. The model, underpinned by theories of the potential of technology to bring about organisational change, is discussed in the context of the results observed. The model illustrates how technology-enhanced pedagogic innovation relies primarily on qualitative evidence, while evidence of the benefits of process-automation can be quantified. The model may help institutions to choose the most appropriate type of evaluation strategy when technology-enhanced learning innovations are being tested.
Keywords: Technology-enhanced learning, innovation, e-Learning, tangible benefits, evidence of organisational transformation.

Trigger: Bi-directional interaction via text messaging in a Web 2.0 student administration system

Joan Richardson, John Lenarcic and Linda Wilkins
RMIT University

SMS technology in the university sector has been used primarily to push information to students. *Trigger* offers a more flexible use of the technology, enabling two-way 'push-pull' information access. A restricted vocabulary of requests for information 'on-demand' enables students to receive time-sensitive data such as assessment details, class scheduling and location information updates at minimal cost, irrespective of geographical location. Trigger also has the potential to reduce the need for students to access university or home computer systems at peak usage times during the semester. Piloted at RMIT University in 2006, this SMS application was made available initially to a sample population of 183 students drawn

from an information systems subject delivered to all business disciplines at first year undergraduate level. Surveys of uptake and usage of the technology were subsequently investigated via an online survey. The Technology Acceptance Model (TAM) was used to evaluate Trigger's 'perceived usefulness' (PU) and 'perceived ease of use' (PEOU). This innovative SMS technology extends studies completed at Kingston University and Huang et al's (2005) Kimono information kiosk and phone knowledge sharing system, built and evaluated at the MIT and Nokia research centre. This paper describes the RMIT University implementation experience including increased functionality, selection of system features and tested trigger words to other educational administrators considering implementation of SMS technology.

Keywords: mobile communication; short messaging service; SMS; text messaging, HCI. user interfaces

You are here: Students map their own ICT landscapes

Matthew Riddle
Faculty of Law and Management, La Trobe University
Catherine Howell
Centre for Applied Research in Educational Technologies, University of Cambridge

It is clear that most university students make extensive use of information and communications technologies (ICTs). Many studies have attempted to describe the extent of this use. However, gaining a clear understanding of where, how, and why students use these technologies is more elusive. This project follows students as they use these technologies in their everyday lives, asking them to become co-researchers to take photographs, create diaries and record voice memos of their experience over a full day. Through the use of this novel qualitative approach a rich description of the perspective of student use of ICTs can be developed. The analysis of these data is also informed by a student survey on the use of ICTs. This work shows that students at the University of Cambridge are generally confident users of a number of ICTs, and suggests that students use multiple technologies in parallel to achieve a range of study, leisure and social tasks. In addition, a notably large proportion of Cambridge students reported making use of Facebook to manage their social lives. An analysis of reported locations suggests that students, and particularly undergraduates often use computers in their college rooms for extended periods. The article concludes by reflecting on the day experience method and suggesting possible adaptations for future studies.

Keywords: information and communications technology, qualitative methods, space and time, education

IT's evolving, they're changing, we're listening: Everybody's learning

Diane Robbie
Swinburne Professional Learning. Swinburne University of Technology
Lynette Zeeng
Faculty of Design, Swinburne University of Technology

This paper describes a case study approach used to identify changes in the millennial student's educational, institutional, social and economic environment and the impacts these had on teaching practice. Reviewing and reflecting on existing teaching practice, decisions were made in the way teaching photography to first year design students could be delivered in a student-centred blended learning environment. A trial was implemented, employing a new approach to teaching, taking into account all aspects of digital technology and the students' propensity for social interaction and engagement with Web 2.0 technologies. We created a platform for delivering the successful elements of an existing curriculum that included the important components of critical and analytical reviews of images. This case study embraced the realms of digital age, at the same time, maintaining student motivation and peer learning in a blended pedagogy. The creation of a virtual learning classroom environment allowed students to manage and construct knowledge that empowered their learning. Reflecting on teaching practice facilitated a paradigm shift resulting in an innovative delivery that has more than met teacher and student expectations. The students have responded to the new methodology with enthusiasm. Their increased participation, contribution to peer learning and high satisfaction, is evidenced through student and teacher feedback surveys. This has encouraged exploration of innovative teaching practices, transferability of this approach to other disciplines and extended possibilities within teaching scholarship. Information technologies (IT) are continually evolving and need to be considered when making changes to teaching practice to improve student learning.

Keywords: web 2.0 technologies, reflection, blended learning, critical analysis

Sustainable e-learning, activity theory and professional development

Ian Robertson
RMIT University, Melbourne

Sustainable e-learning can be defined as e-learning that has become normative in meeting the needs of the present and future. This exploratory paper proposes that activity theory is a theoretical framework that provides the potential to contribute to change management towards sustainable e-learning. Using organisational, technological and pedagogic perspectives, the paper demonstrates that activity theory provides a common language for discussion across the three activity systems. Activity theory provides an opportunity for the assumptions, values and beliefs that underpin each system to be made more explicit. With debate, discussion and critique, expansionist learning becomes possible. That is, learning beyond what would have been possible if actors from each perspective were to remain insulated. The power dynamics that occur at the interface of the organisational, technological and pedagogic activity systems are considered to conclude that any change management towards sustainable e-learning must address this issue. The role of professional development for teachers in establishing sustainable e-learning emerges as a central issue. It is concluded that professional development that does not address teacher's beliefs about what constitutes good teaching practice is likely to be unsuccessful.

Did I mention it's anonymous? The triumphs and pitfalls of online peer review

Arianne Jennifer Rourke, Joanna Mendelssohn and Kathryn Coleman
College of Fine Arts, University of New South Wales
Belinda Allen
Learning and Teaching, University of New South Wales

The role of student peer review in teaching and learning in higher education has been discussed extensively in the literature (Topping, 1998; Carlson & Berry, 2003; de Raadt, Toleman, & Watson, 2005; Bernstein, Burnett, Goodburn & Savory 2006). It is seen to be particularly useful in online courses as a mechanism for providing students with the tools to conduct criteria-based critical reviews on the work of their peers (Mulder & Pearce, 2007; Cho & Schunna, 2007). This system can work well for both the online learner and instructor particularly when students are provided with specified assessment criteria, grade ranking system and set deadlines. However when factors relating to the management of such activities come into play, such as the misreading of requirements and criteria, the subjectivity of dealing with some material and the need for flexibility in the due dates, peer review as an assessment system can literally fall apart. This paper discusses these issues via two case studies, which showcase two approaches to using peer review to teach coursework Masters students how to write a research paper in arts administration. The first case study uses the anonymous and random online calibrated peer review (CPR™) (http://cpr.molsci.ucla.edu) system developed by UCLA, while the second attempts to simulate the same system using computer mediated peer review (CMPR) within the discussion forum and assignment tools in My eLearning Vista UNSW. This paper presents the triumphs and pitfalls of both systems within the theoretical framework of the higher education literature on teaching and learning and online peer review. Keywords: collaborative learning, editing, e-learning, art, online communities, peer review

Can one size fit all? Using web-based audiographics to support more flexible delivery and learning

Stephen Rowe and Allan Ellis
School of Commerce and Management, Southern Cross University, Lismore Campus, NSW

As educational technologies evolve and new technologies become available they create opportunities and challenges for university teaching staff. Once potential improvements are identified they often need to be implemented incrementally and carefully evaluated. The separate and specific benefits to teaching staff, enrolled students and the institution need to be recognised. Audiographics is an established teaching technology that has evolved with the spread of the Internet and improvements in compression technologies such as particular VoIP. This case study describes the central role of a current Web-Based Audiographic product (Elluminate Live!) in the evolving online structure for an undergraduate auditing course in a degree program at a regional Australian university. The ability for staff and students to engage with the rich suite of synchronous teaching and learning tools as well as the ability to record

session interaction for later playback are presented as key benefits for improved flexibility in staff teaching and access to student learning opportunities.

Keywords: teaching, leaning, pedagogy, audiographics, Web-based audiographics, synchronous, asynchronous

Media richness and user acceptance of *Second Life*

Nauman Saeed and Yun Yang
Faculty of ICT, Swinburne University of Technology
Suku Sinnappan
Faculty of Higher Education, Swinburne University of Technology

Second Life is a 3-D multi user virtual environment and is used as a platform for education by many institutions around the world. It offers a variety of communication channels to perform academic activities for both distance and on-campus education. As such, *Second Life* provides an excellent platform to test the implications of media richness theory (MRT). This paper aims at examining the media richness of *Second Life* and its impact on the user acceptance. Media Richness Theory and Technology Acceptance Model have been used as its theoretical basis. PLS approach is used to test the hypothesised relationships. Our study results suggest that *Second Life* is highly rich medium and is capable of promoting effective communication among its users. We found that media richness has a direct positive effect on the perceived usefulness and perceived ease of use of *Second Life* which in turn leads to actual usage. Some implications of our findings are discussed and ideas for future research are also presented.

Keywords: *Second Life*, education, media richness theory, TAM, PLS

An evaluation of selected pedagogical attributes of online discussion boards

Chinmoy Sahu
U21Global, Singapor

Technology has for long been used as a pedagogical aid in learning. While technology has numerous ways of providing pedagogical assistance, the current paper attempts to focus on online discussion boards as a pedagogical tool in an elearning environment. The paper highlights some of the pedagogical attributes of online asynchronous discussion boards that do not exist in a traditional classroom learning environment. Based on ideas emphasised in literature, the paper lists learner centricity, asynchronous interaction, communication effectiveness and assessment facilitation as the major pedagogical attributes of online discussion boards. Even as technological innovations continue to evolve alternative pedagogical tools, discussion boards continue to play a significant role in the learning facilitation process. The paper also discusses the strategy of applying data mining techniques to aid assessment of discussion board transcripts. Text mining as an extension of data mining algorithm could be used effectively to assess discussion board transcripts with the goal of eliminating subjectivity in the assessment of discussion board contributions.

Keywords: discussion board, learner centricity, asynchronous learning, elearning, assessment, data mining

Online learning design: Does generational poverty influence the young adult learner?

Rachel Sale
Instructional Design for Online Learning, Lincoln University
Roderick Sims
Instructional Design for Online Learning, Capella University

A conundrum exists when examining online learning and young adults who live in generational poverty. As informal learners these individuals gain and practice communication skills such as synchronous chat, uploading files, and frequent posting habits as members of social networking sites, yet typically do not succeed in formal online learning. This study examined how a sample of young American adults living in generational poverty participated in online social networking sites in order to identify cognitive styles used to develop knowledge or share knowledge, and to consider the implications of these approaches for the design of online learning for students at or near the poverty level. A case study strategy was employed to investigate online activities of Midwestern (USA) young adults who identified

their families as living for at least two generation in a poverty level economic status defined by the U.S. Bureau of Census. The group was of mixed gender, and the same questions were posed to a like group of self-identified middle class adults to assess responses that were not unique to income level. Five usage perceptions or patterns were identified as unique to the generational poverty participants: (a) how the individual perceives life as a member of the virtual world; (b) life in the responders' real world; (c) language register; (d) use of millennium learner cognitive styles; and (e) preference for synchronous versus asynchronous activity. These patterns suggest designers can cater for generational poverty through community interaction as a survival tool, casual language and tackling projects or problems with a sense of immediacy.

Keywords: instructional design, online courses, social networking, generational poverty

Academic staff take the lead: Experimenting with social software at Deakin University

Gayani Samarawickrema
Institute of Learning and Teaching, Deakin University
Elizabeth Stacey
Faculty of Arts and Education, Deakin University
Colin Warren
Faculty of Business and Law, Deakin University

This paper reports on a two staged staff development exercise to help new academic staff to integrate Web 2.0 technologies including web-based communication and some digital technologies into their curricula. It involved professional development for the teaching staff in the first stage followed by these teachers providing professional development for the course participants. The teachers engaged in a blended community of inquiry with face-to-face sessions and online work while the professional development for the course participants included technical support, training and a peer group environment with formal allocation of time for the course, finally leading to an institutionally recognised qualification. Evaluations conducted through focus group interviews revealed that collegial networks and time were important for effective professional development. The paper reflects on the successes and limitations of the model and its potential for further development. It also highlights the importance of providing professional development in a safe environment for academics to adopt technologies for teaching and learning.

Keywords: professional development, social software, online community, Web 2.0 technologies

Exploring graphical user interfaces and interaction strategies in simulations

Janet Saw and Matthew Butler
Berwick School of Information Technology
Monash University

Simulations are capable of replicating complex systems using a set of determined rules and variables. However, many people are still unable to understand the results from scientific computer simulations, as they can be quite abstract. Current use of 3D graphics in games and virtual environments can facilitate new innovations and perceived affordances for interacting with simulations, therefore user interfaces could be upgraded with these functionalities to create interfaces with a high level of usability for users with or without expertise in the simulated content, particularly in education of traditionally complex areas. A proposed artefact with a new user interface for scientific simulations was developed to explore its possible acceptance and benefits to users. The new user interface was user evaluated against a control that was built to mimic the most common features of a traditional simulation interface. Analyses of the evaluations indicate that the modern approach was successful. Users felt the modern interface was more engaging, more efficient and was aesthetically preferred compared to the traditional user interface. This was mainly due to the extensive use of the direct manipulation idiom in the modern interface which improved ease of use and allowed direct interaction with the output display. With additional research into the area of direct manipulation, further interactions and user interfaces can possibly be developed to improve the usability and user experience of scientific simulations.

Keywords: simulation, graphical user interface

Leading from within: Distributing leadership to enhance eLearning at Australian Catholic University

Annette Schneider
School of Educational Leadership, Faculty of Education, Australian Catholic University
Andrelyn C. Applebee
Institute for the Advancement of Teaching and Learning, Australian Catholic University
Joseph Perry
Faculty of Health Sciences, Australian Catholic University

Research on academic leaders of Australian and international higher education institutions has shown how "the broader societal change forces that have unfolded over the past quarter century have generated a set of higher education specific pressures on universities to change, which, in turn, are testing the extent to which these institutions and their leaders are 'change capable'" (Scott, Coates and Anderson, 2008, p. xiii). Australian Catholic University (ACU) which has six campuses across Queensland, New South Wales, Victoria and the Australian Capital Territory, is responding to these change forces in accord with its mission to provide quality teaching, research and service. ACU has focussed on the development of policy, procedures and strategic initiatives related to eLearning. This paper reports on embedding of an initial Australian Learning and Teaching Council (ALTC) project designed "to develop distributed leadership capacity in the pedagogical and evaluative dimensions of online teaching and learning" in which six academic staff members were funded for a new role as Online Advisers (OAs). The paper highlights the leadership learning which has occurred for the OAs, identifies ongoing challenges in terms of distributing leadership in a sustainable way for the enhancement of online teaching and learning (OTL) and offers eight insights and challenges into how such projects can be implemented by like institutions.

Keywords: leadership, eLearning, distributed, online, challenges, change, unknown future

Medical student use of an online formative assessment resource

Karen M Scott
Paediatric & Child Health, Faculty of Medicine, The University of Sydney
Joanna E MacLean
Faculty of Medicine, The University of Sydney and The Children's Hospital at Westmead
Tracey Marshall
Department of Respiratory Medicine, The Children's Hospital at Westmead
Peter Van Asperen
Faculty of Medicine, The University of Sydney and The Children's Hospital at Westmead

With the rising use of elearning in higher education, an ever-increasing amount of research has been conducted into its educational value. However, such research has been found to focus on academic staff perspectives and course design, rather than student perceptions. When developing elearning resources, staff need to understand not only their academic value, but also how students use and experience elearning. This paper reports on a recent research project that evaluated medical student use and experience of an elearning formative assessment resource that was redesigned to enhance interactivity and feedback. The aim of redevelopment was to help students assimilate and build on their knowledge of paediatric asthma management and begin to apply this knowledge in a clinical context. This study investigated how students used the resource, their evaluation of its effectiveness, including the role of learning for professional competence versus preparation for assessment, and their recommendations for improvement. This research will inform the redevelopment of the resource and the design of future elearning resources.

Keywords: Student evaluation, online formative assessment

Latour meets the digital natives: What do we really know

Stephen Sheely
Centre for Advancement of Teaching and Learning, University of Western Australia

The concept of Digital Natives was first introduced in 2001 and since then has taken a firm hold in both the educational literature and the public consciousness. However the evidence supporting this concept has never been particularly strong. This paper will use the tools of sociology of knowledge particularly those promoted by French sociologist Bruno Latour to attempt to explain how a construct like Digital Natives can become treated as a fact in both disciplinary and public discourse despite the lack of compelling evidence.

Employing the new educational technologists: A call for evidenced change

Simon Shurville
School of Computer and Information Science, University of South Australia
Tom Browne
Educational Enhancement, University of Exeter, UK
Marian Whitaker
Flinders Business School, Flinders University

Flexible technology-enhanced learning environments, both educationally and institutionally are key enablers for delivering efficient mass higher education. Educational technologists make significant contributions to the development and organisational embedding of such environments. Their emerging role is complex as it requires current knowledge and skills in learning and teaching, management and information technology. Given the strategic importance of the contributions that educational technologists now make to their institutions, we propose an international program of empirical research to analyse current issues and future trajectories relating to their aspirations, careers, management and organisational locations.
Keywords: educational technologists, flexible learning, management, organisational structure

Attempting to realise the potential of blended learning: An initial teacher education case study

Mary Simpson
University of Otago

Although a lot has been written and said about blended learning, realising the potential that has been written and spoken about is challenging. This paper presents a case study of an initial teacher programme where a commitment to providing more interactivity, ensuring media richness and to personalising the learning experience for students led to a reconceptualisation of the delivery and a move to a blended learning approach. The nature of teacher education is explored and considered alongside the potential of blended learning and the question asked: Can an initial teacher education programme be redesigned in a way that realises the potential of blended learning? In attempting to answer this question design, development and implementation issues are explored and the responses to them outlined. The paper concludes with suggestions for other higher education institutions contemplating similar change and some initial thoughts about assessment and evaluation of the effectiveness of blended learning in the university based initial teacher education programme that provided the case study for this paper.
Keywords: blended learning, programme implementation, programme redesign, initial teacher education

Poultry production online: Where broilers and layers encounter virtual pedagogy

Roderick Sims
Instructional Design for Online Learning, Capella University
Lene Mikkelsen and Paul Iji
School of Environmental and Rural Science, University of New England

Programs traditionally offered through distance and/or residential models of delivery are being challenged by the value and accessibility of online learning. For the Australian Poultry CRC, the opportunity to both upgrade its foundational units and shift the delivery mode to enhance unit accessibility resulted in funding being allocated for conversion of those units to online delivery. This paper provides the background to the project, the rationale for the development paradigm, the delivery model that emerged through interactions between content and educational specialists and the outcomes of an evaluation conducted over Semester 2, 2008. The project reinforced the value of applying established online learning frameworks to the transformation of educational resources, the importance of subject matter experts collaborating with educational design specialists and the potential for specialist models such as Three-Phase Design (3PD) to facilitate emergent learning opportunities. The project also addressed three key challenges –conversion of face-to-face practical exercises to the online context, changing from a content-rich to an activity-intensive environment and building a functional online course within a short time-frame.
Keywords: poultry production, online learning, higher education, continuous improvement

Planned behaviour: Student attitudes towards the use of ICT interactions in higher education

Lou Siragusa and Kathryn C. Dixon
School of Education, Curtin University of Technology

A pilot study was undertaken to collect data from a small group of undergraduate students in a higher education setting to determine their attitudes towards their use and engagement of ICT interactions. The study employed a mixed methods approach with the intention of combining the strengths of both quantitative and qualitative paradigms. The students were asked to complete a questionnaire, individually work though a brief ICT interaction activity and then participate in an informal interview. The questionnaire gathered data on each on the components of the Theory of Planned Behaviour, which is commonly used psychological research, in order to determine the students planned use of ICT. While the collected quantitative data revealed that students believed that interacting with ICT was pleasant, helpful and easy, the qualitative findings showed that some experienced feelings of anxiety and intimidation when working through the ICT interaction. Planned follow up studies will continue to investigate the causalities and relationships between variables to determine likely influences on ICT interaction behaviour.
Keywords: information communication technologies, attitudes, planned behaviour

Educational blogging: A Malaysian university students' perception and experience

Helena S. Y. Song and Yuen May Chan
Faculty of Creative Multimedia, Multimedia University

The explosion of technological growth with Web 2.0 applications and more recently, Web 3.0, has open up new and exciting learning possibilities. There is a growing body of literature on weblogs or blogs as an effective learning tool in higher education. While evidence has shown that educational blogging is not a new phenomenon, the use of blogs in teaching and learning in higher education particularly in Malaysia is still at its infancy. Hence, this study is a preliminary attempt to gather data and information on educational blogging that is significant to the Asian culture, particularly multicultural Malaysia and its potential to be a transformational technology for teaching and learning. The findings shows that while the acceptance of the use of blogs as learning tool among Malaysian students were encouraging, there are some challenges to be considered when using the blog as a learning tool.
Keywords: educational blogging, learning tool, Malaysia

Success factors for blended learning

Elizabeth Stacey
Faculty of Arts and Education, Deakin University
Philippa Gerbic
Faculty of Education, Auckland University of Technology

There is now a new landscape in educational technology where physical and virtual environments are blended to support learning in university courses. Blended learning has potential to improve learning but there are also challenges, especially in responding to the complexity of two environments and embedding it as a legitimate learning environment. Owing to the newness of the blended learning concept in higher education, little is known about what makes a successful blended learning experience and this paper provides an overview of success factors that are starting to emerge from the literature, research and our practice. It also offers some suggestions for future research.
Keywords: Blended learning, research, success factors

Creating community engagement around the concept of ePortfolios: An innovative planning process

Caroline H. Steel
Teaching and Education Development Institute, The University of Queensland
Stephen C. Ehrmann
The Teaching and Learning Technology Group
Phillip D. Long
Centre for Educational Innovation and Technology, The University of Queensland

ePortfolio progress has been slowed at many institutions by a technology-first attitude: a platform is chosen and then wider use of that platform is encouraged. One flaw in this strategy is that ePortfolios can be used for a variety of activities, each of which has somewhat different support needs (often including different technologies). A planning team at the University of Queensland decided to widen the engagement of the academic community by focusing attention on the activities, rather than on the software. The team's innovative planning process has many points of interest including the involvement of international expertise, the list of ePortfolio-supported activities, the workshop's tasks, and the use of Google spreadsheets to make small group breakouts work more quickly and effectively. The resulting half-day workshop has energised wider interest in ePortfolios at the university.
Keywords: ePortfolios, implementation, dissemination

Shared spaces in a 'safe' urban jungle: Juggling pedagogical goals and student needs and expectations

Graham Steventon
Faculty of Health and Life Sciences, Coventry University
Paul Grove
E-Learning Unit, Coventry University
Mark Childs
The Centre for the Study of Higher Education, Coventry University

This paper reflects on the tensions inherent in higher education between institutions taking advantage of the pedagogic opportunities afforded by new Web 2.0 technologies and yet remaining aware of the diverse e-needs of all students. The aim of this paper is to discuss how these tensions have informed the development of a virtual community in Second Life (R) for use by second year Criminology students on a community safety module. The module is currently run on a workshop basis in which students map on paper a physical neighbourhood environment on which they overlay social characteristics and problems intended to simulate a typical dysfunctional community. The virtual community in Second Life is currently being designed to provide a more immersive environment, in which students can explore issues in a simulated real-life context without the ethical dilemmas associated with field experience. However, since not all students are interested in, or competent with, the technologies involved in this type of e-learning, the virtual community is intended to complement these existing arrangements rather than replace them. Furthermore, the freedom of constraints afforded by the inherent lack of structure in Second Life may be disorientating for students, especially those used to more didactic methods of teaching and learning. Thus, scenarios are designed in stages of relatively simple and prescribed to increasingly free, complex and cognitively demanding as the module progresses and students become more confident and technologically able. In this way it is hoped to harness the opportunities of Web 2.0 technology whilst optimising the learning experience of the whole group.
Keywords: Web 2.0 technologies; *Second Life*; virtual community

Developing interactive scenarios: The value of good planning, whiteboards and table based schemas

Terry M. Stewart and Mark E. Brown
Centre for Academic Development and E-Learning, Massey University

Fictional or fact-based interactive scenarios (or cases), where students are able to explore a problem, event or issue, can assists with student problem-solving, decision making and interpretation of data or observations in a real-world context. Software exists to assist with authoring and delivery of these types of learning objects, but one of the hardest tasks is the planning and storyboarding of the scenario itself. Interactive scenarios are context-based, often include elements of drama, and may be required to follow a script of sorts. They must

also link back to the learning objectives of the lesson. In goal-based scenarios in particular, where students are required to form hypotheses and test them in order to get to the root of a problem, the scope (and limits) of what they can do within the scenario must be carefully thought about. This paper reports on the initial questions which need to be answered before commencing work, and outlines simple techniques such a whiteboard brainstorming and table-based schemas for developing scenario structure and content. Along with their function as planning aids, these techniques can also be useful in communicating the structure and content to other team members during development. Thirdly, they allow archiving of scenarios in an easy-to-access format, so content can be used in different authoring tools than the one they were originally designed for, and for other modes of delivery, such as face-to-face tutorials and scenario walkthroughs.

Keywords: interactive scenarios, goal-based scenarios, scenario-based learning, lesson planning, schemas, whiteboards

We've thrown away the pens, but are they learning? Using blogs in higher education

Katrina Strampel
Faculty of Education and Arts, Edith Cowan University
Ron Oliver
Pro-Vice-Chancellor (Teaching and Learning), Edith Cowan University

In today's university classrooms, "the time of restricting students products and learning opportunities to ink on paper are past" (Siegle, 2007). Blogs are only one of many computer-mediated technologies starting to dominate blended and wholly online courses. Most people assume that using these technologies, because it is what the students want, will translate into increased learning opportunities. As the literature continuously asserts, however, learning, and especially reflection, does not just happen (Boud, Keogh, & Walker, 1985). It seems imperative, therefore, that extra measures are taken when any technology is being implemented in a university classroom to ensure high levels of reflection and cognitive processing are being fostered. Studies must be conducted to understand how blogs can be used to help students engage in reflection, at all levels: Stimulated Reflection, Descriptive Reflection, Dialogic Reflection and, the highest, Critical Reflection. This study explored the use of blogs in a tertiary setting to learn how the tool was used, and could be better used, to foster reflection and higher-order thinking. This paper focuses on how blogs were used as one element of a learning activity in an Accounting unit in an Australian university to promote reflection. We provide an analysis of the learning environment set by the instructor, including the learning task, learning resources, and learning supports, student perceptions of the value of the task, and an examination of students' blogs. Finally, we discuss the outcomes of the blogs in terms of levels of reflection being accomplished.

Keywords: blogs, reflection, cognition, tertiary education

PortisHEad: Portfolios in successful HE admissions

Shane Sutherland
Pebble Learning, UK
Alan Paull
APS Ltd, UK

The PortisHEad project developed tools to support applications to UK HE through learner-owned e-portfolios; including the ability to target unique e-portfolios to different institutions. The original demonstration tool helped address the recommendations of the Schwartz report for fairer admissions to HE. However, despite good learner feedback and a strong sectoral imperative, the tool was not implemented by UCAS, the application service. Despite the withdrawal of UCAS from the project the remaining partners developed a generic application toolkit which allows any e-portfolio user to auto-complete educational or employment-related 'application-type' forms using learner-owned data from their e-portfolio. The toolkit is consistent with the 'thin e-portfolio model' propounded by the JISC-funded e-Portfolio Reference Model project. It uses an 'open standard' web-service which is easily implementable by 'form-owners'; access to data is managed by the learners and remains secure. The toolkit is easy to deploy and has already generated significant interest not only from admissions tutors but also for its utility to teachers and staff developers. This paper points to how learner-controlled technologies, and learner-owned data, can be meaningfully utilised to engage with intra- and extra-institutional systems using open standards and web services. It also illustrates that technological difficulties are less critical than organisational ones. Keywords: e-portfolio, admissions, application, web-services,

Symposium: International perspectives, case studies and collaborative strategies for developing ePortfolios concepts

Facilitators: Caroline Steel, Gillian Hallam Wendy Harpe and Cathy Gunn

- Gillian Hallam will introduce the framework and format for the ePortfolio symposium and provide context from the ALTC sponsored investigation and recommendations, in particular, the use of a Communities of Practice model to move forward national/ international agendas (See abstract for Gilliam Hallam presentation)
- Gillian, Cathy and Caroline will outline case studies from the University of Auckland, Queensland University of Technology and the University of Queensland as a stimulus to further discussion (See abstracts for Hallam; Gunn & Peddie; and Steel, Ehrmann & Long)
- Group activities led by all facilitators will identify areas of common interest and approach, and be invited to propose practical ways to progress cross institutional/ sector/ discipline and international collaborations
- Identification of common ground and the methods to continue the conversations

---

Symposium: Do free social networking tools belong in educational environments?

Facilitator: Ian Smissen with a panel of peers
Desire2Learn Inc

With advancements in technology, principally Web 2.0, social software, and open source tools, learners are challenging what it means to gain an education and be educated. Faculty are starting to explore the potential of blogs, media-sharing services and social software' which, although not designed specifically for e-learning, can be used to empower students and create new learning opportunities. What is the potential and implications of utilising Web 2.0 tools in online learning courses and as resources? What is the potential of social software tools and how far should they go? Ultimately this is something that institutions will have to determine for themselves. However, enabling the learner to take an active role in shaping their learning with tools that they are currently using may result in institutions seeing more students reach their goals. This interactive session, scheduled for 55 minutes, will feature three panelists who will present the spectrum of views based on their own experience and participation in a recent ascilite co-hosted Web 2.0 roundtable. In addition, the session will present US and UK viewpoints on this topic gained by Web 2.0 roundtables hosted in the respective countries. Keywords: Web 2.0 tools, social software, social networking

---

Intercultural communication by non-native and native speakers of Japanese in text based synchronous CMC

Atsushi Takagi
RMIT University

This study explores speech behaviour when non-native speakers of Japanese (NNSJ) and native speakers of Japanese (NSJ) exchange cultural information, specifically using text-based synchronous computer-mediated communication. This experimental study uses a scaffolding technique in which a Japanese language teacher is less present and NNSJ are left to communicate with NSJ within a restricted timeframe. This study demands their intercultural engagement, thus suggesting an outcome of intercultural relationship building. While the study examined participants' speech behaviours – specifically, the key speech act of requesting – observed to be important for realising smooth intercultural relationships, it also highlighted attributes of available technologies useful in facilitating intercultural engagement. Since people from different cultural backgrounds have different perceptions of politeness reflected in their behaviour and language use, understanding how request strategies are used by NSJ could give NNSJ intercultural insights and skills in Japanese language and socio-cultural behaviour. CMC has been utilised in computer-assisted language learning (CALL), with students able to learn languages through a real-world context and access native speakers of the target language, beyond the classroom. CMC has been found to be an effective adopted 'third place' (Kramsch 1993) located at the intersection of the cultures the learner grew up with, and the cultures to which they are introduced. In the case of language use, technology allows NNSJ to record their conversations, and reflect on the language being used, thus gaining intercultural insights and skills; these could be transferable to other communication modes, whether computer-driven technology or face-to-face. It is intended that the findings of

this study might shed light on the innovative enhancement of non-native Japanese speakers' intercultural and socio-cultural competence through the use of text-based CMC.

A survey on online teaching preference among pre-service teachers in Malaysia : Andragogy vs pedagogy

Zaidatun Tasir, Norah Md Noor, Jamalludin Harun, and Nurul Syazwani Ismail
Faculty of Education, University of Technology Malaysia

This paper reports on a research project that investigated the pedagogical and/or andragogical orientation preferred by pre-service teachers in Malaysia for online learning.. To gather the data, questionnaires were distributed among 433 pre-service teachers in three educational institutions in Malaysia and descriptive analyses have been conducted. The findings showed that majority of the pre-service teachers in this study stay under Stage 2 in the four stages of learning development. This means that the respondents had high preference for pedagogical as well as andragogical learning orientations. The findings have implications for educators involved in designing online learning applications. They have to consider such student preference when planning teaching and learning activities.

The impact of a spring cycle blended curriculum model on learning: A case study

Santhakumari Thanasingam
Language and Communication Centre, Nanyang Technological University
Swee Kit Alan Soong
Centre for Educational Development, Nanyang Technological University
Chun Hu
Faculty of Education and Social Work, University of Sydney

This study evaluates the impact of the Spring Cycle Blended Curriculum (SCBC) model on students learning in an English Proficiency course for undergraduates. The model took a blended learning approach, intending to combine the best of face-to-face interactions and the affordance provided by the Internet. The model was used over one and a half academic years to teach English Proficiency at the Nanyang Technological University, Singapore. Pre- and post-course surveys, student focus group discussions, discourse analysis and samples of student writing were used to evaluate the impact on student's learning which in this study was their ability to write better paragraphs. The survey and focus group data on student's perceptions showed that the model helped them to gain knowledge and regulate their learning to achieve the target writing outcomes. The workshop mode of instruction enabled students to learn from systematic input and discussion with peers and tutors. The consultation mode of instruction helped students understand their mistakes. The online mode of instruction enabled them to revisit activities so they could review what they needed to learn. In addition, the online discussion forum activity provided additional student-centred feedback which enabled students to ask questions, and to clarify and negotiate their understanding of paragraph building features. Such finding was supported by the analysis of the students' written texts. There was a high percentage of students who were able to use paragraph building features taught in the curriculum to structure their paragraphs.
Keywords: blended learning, scaffolding, learner efficacy

Framing pedagogy, diminishing technology: Teachers' experience of online learning software

Julia Thornton
School of Global Studies, Social Science and Planning, RMIT University

The purpose of this study is to understand the role played by cognitive framing in setting the parameters for teachers use of courseware. I use a small study of 10 teachers, emphasising two, to suggest that there are a number of 'frames' built up from previous teaching practice which influence the varieties of teachers' engagement style used to approach 'mixed medium' teaching. The study shows that teachers who have mastered a set of basic skills in using Blackboard are in some instances content to remain guided by an 'information transfer' episteme; they are technologically adequate but passive, while other teachers who have

relatively basic technological knowledge can produce truly 'blended' teaching using both face to face and online modes to the best value of their respective strengths. I argue that the explanation of this rest in the frames teachers use to understand what they are doing when engaging online.. One particular frame found in interviews also suggests that an immersion in understanding one's own pedagogical practices produces more effective teaching online than does understanding technology. This has implications for teacher educators as well as for notions of pedagogy as resident in software.

Rationale, restrictions and responses: Online academic development to promote a community of practice

Terry Timberlake
Institute of Teaching and Learning
Deakin University

Casual academics play a major role in higher education in Australia today. In their roles as tutors, demonstrators and markers, casual academics need access to opportunities to develop as teachers. As such, Deakin University has developed an online academic development program designed to better equip new and inexperienced casual academics for their roles. This paper reports on the approach that has been taken to designing one module of an online academic development program for casual academics, considering the influence of information and communication technology (ICT) on this design, and discusses an analysis of the feedback on the module by the participants who completed it. A conclusion is drawn that aligning self paced online learning with induction into a community of practice via ICT presents particular challenges.
Keywords: academic development, casual academics, communities of practice, self-paced online learning

Participatory action research for professional development: Changing our approach to distance learning

Belinda Tynan, Cherry Stewart, Rachael Adlington and Mike Littledyke
Faculty of The Professions, University of New England
Steve Swinsburg
University of Lancaster

This paper details a mini-case of (a) the implementation of a professional development program which underpins the design, development and implementation of renewing curriculum for improved distance education learning experiences; and (b) using an alternative open-source learning management system-Sakai. The methodology of Participatory Action Research (PAR) has proved important for gaining deep engagement and conceptual change of teaching and learning practices. The min-case reflects the voices of various members of the project throughout the first PAR cycle. The focus of this mini-case is on 'who leads' in relation to professional development of/with academic staff. There is some focus on how the project came about, how professional development has been pursued and how one academic has experienced the process so far. The lessons drawn from the project at this first stage will be of interest to a wide audience especially in relation to the methodology. The lessons do not intend to be generalisable beyond this context but for many they will "ring true" and add to the substantive emerging field of professional development when using technologies for enhancing student learning.
Keywords: professional development, Sakai, participatory action research

The value of lecture podcasting for distance and on campus students

Rob van Zanten
School of Agriculture, Food and Wine
The University of Adelaide

The purpose of this paper is to explore the value of podcasting the traditional classroom lecture to distance (external) and on-campus (internal) students. Download data are compared for distance and on-campus students enrolled in the same course. This exploratory research shows that for distance students at least, the lecture podcast appears to have some

pedagogical merit. However, the format may have its limitations as shown by the marked decline in download activity of successive lectures in both of the courses examined.
Keywords: educational podcasting, audio, distance education, lecture recording, teaching and learning strategies

The role of metacognitive reading strategies and types of links in comprehending hypertexts

Elena Verezub and Hua Wang
Swinburne University of Technology, Australia

The advent of computer and Internet technology enables hypertext, hypermedia and e-learning to be involved in the vocational education and training area. Hyperlinks play a significant role in hypertexts and e-learning systems, since they are connections among different nodes of information. Besides textual links, hypermedia systems provide access to various links that include multimedia applications, such as pictures, and audio clips. Therefore, comprehending information presented in hypertext/hypermedia systems and e-learning systems utilising appropriate reading strategies becomes crucial. This paper adds a new dimension to the existing body of research by investigating the influence of metacognitive strategies training and different types of hyperlinks on reading comprehension of hypertexts. A comparison of comprehension outcomes for hypertexts with text, picture and audio links is presented in order to illustrate the relationship among hypertext comprehension, types of links and learning styles. Also theoretical and practical implications of this research are presented.
Key words: hypertext comprehension; metacognitive reading strategies; hyperlinks

Second Life and the role of educators as regulators

Ian Warren, Darren Palmer and Tanya King
School of History Heritage and Society, Deakin University
Stephen Segrave
Institute of Teaching and Learning, Deakin University

Regulation, governance and harms stemming from the use of virtual worlds and other Massive Multi Media Online Role Playing Games (MMMORPGs) in higher education, are poorly understood and under-researched issues. Second Life, developed by Linden Labs, provides users with a series of generic 'terms of service' and codes of conduct, yet place the bulk of responsibility on individual users or groups to report misbehaviour or develop their own behavioural codes, enforcement procedures and punishments suited to their particular needs. There is no guidebook to assist users in the processes of risk identification and management. As such, the various benefits of MMMORPG technologies could be offset by the risks to users and user-groups from a range of possible harms, including the impact of actual or perceived violence within teaching and learning settings.
While cautioning against the direct translation of real-world regulatory principles into the governance of virtual worlds, this paper suggests theoretical and practical guidance on these issues can be taken from recent criminological developments. Using Lawrence Lessig's (1999) landmark work on cyber-regulation as a starting point, this paper examines the literature on video-game violence to illustrate the need for educators show awareness of both real and perceived risks in virtual worlds as a core element of an emerging educational pedagogy. We identify how the multiple roles of the virtual-world educator become useful in framing this pedagogy to improve student learning, to dispel myths about the risks of immersive technologies and advocate for their adoption and acceptance in the educational community.
Keywords: MMMORPGs, virtual worlds, *Second Life*, violence, regulation

Developing teaching practice for more effective use of asynchronous discussion: A preliminary investigation

Abigail Watson
University of Wollongong

Teachers inexperienced in the delivery of online instruction may now be expected to teach subjects with a limited understanding of how tools in a Learning Management System can be appropriately and successfully utilised to enable the learning strategies

of the subject design. How best do we develop teaching practice to facilitate the increasing use of asynchronous discussion tools in flexible and distance courses? This preliminary investigation analyses practitioner perceptions of the effectiveness of asynchronous discussion tools in tertiary education and explores some of the factors that may affect the participation of students in online discussion such as activity design and student characteristics.

Keywords: asynchronous discussion, distance education, discussion forum, participation

From sequential to global: Exploring the landscapes of neomillennial learners

Julie Willems
School of Humanities, Communications and Social Sciences, Faculty of Arts, Monash University

Virtual learning, once the realm of science fiction, is now a reality. The informal learning multi-user virtual gaming environments of neomillennial learners are beginning to shape formal educational landscapes. Such informal environments as *RuneScape* and *Second Life* contain the key pedagogical elements of learner-centred environments: they are visually rich, immersive, nonlinear, allow for individual and collaborative learning, creativity, and allow for learner choice in activities, pathways and assessments. Learning style research in e-learning environments yielded some interesting discrepancies between the learning styles of novice undergraduate e-learners, and between graduate e-learners and educators teaching in, and designing for, e-learning environments. This in turn suggests considered approaches to accommodating both sequential and global learning preferences in e-learning environments. This paper uses the example of *Second Life* to suggest a balanced approach for sequential and global learners.

Keywords: sequential learners, global learners, neomillennial learners, e-learning, MUVEs

SkillQuests: Bringing real life to the classroom with a collaborative computer-based instructional tool

Marian Williams, Shilo Brosnan and Jenna Swan
Bond University

This paper explores the development and implementation of a structured computer-based learning tool, named a "SkillQuest", for undergraduate students studying introductory project management at Bond University. This SkillQuest, "*Making sense of all the dollars*" was developed as an alternative to a lecture on project budgeting. Students are placed in a real-life working environment via a project scenario relevant to their chosen degree. In alignment with the theories of Gestalt, Constructivism and Experiential Learning, the SkillQuest provides a collaborative, student-centred approach where the lecturer acts a facilitator to the learning process. Student survey responses indicate the SkillQuest was a useful learning tool, interesting and a pleasant change from lectures. Statistical analyses of exam results support the use of the SkillQuest as a teaching tool. Use of the SkillQuest to actively engage students in the learning process was deemed a success. It is the belief of the authors that this type of computer-based, collaborative learning can allow students to learn more interactively and in an environment that more closely aligns with their learning preferences. Such a tool can be used in any university discipline in place of the traditional lecture-style approach or as a complement. SkillQuests can be undertaken with the instructor present in a classroom setting or as homework, making them also useful for online studies. This was a small pilot study in a single application. The authors hope that others will adapt this tool for use in their classrooms.

Keywords: computer-based active learning tool, scenarios, project management, collaborative

Factors affecting professor facilitator and course evaluations in an online graduate program

Amy Wong and Jason Fitzsimmons
U21Global, Singapore

Along with the rapid growth in Internet-based instruction there have been concerns about the quality of online instruction and whether traditional student evaluations of faculty are suitable in online environments. This study uses data collected from ongoing student evaluations of faculty in an MBA program within an online university to investigate the factors leading to

student ratings of overall professor facilitator performance and overall satisfaction with the course. Using factor analysis we investigated the underlying factors related to the items on the survey which revealed factors relating to personal attributes of the professor facilitator, learning facilitation and quality of feedback. Results from regression analysis finds that evaluations of overall professor facilitator performance is predominantly driven by both the professor's attributes and learning facilitation while overall student satisfaction is largely driven by factors associated with learning facilitation.

Keywords: student evaluation of faculty, student satisfaction, professor facilitator performance

Peer review of online learning and teaching: New technologies, new challenges

Denise Wood and Martin Friedel
School of Communication
University of South Australia

This paper reports on a collaborative project led by the University of South Australia, which involves the design and develop a comprehensive, integrated Web-enabled peer review system that guides academic staff in the development or redevelopment of their own courses through reflective processes, and uses these same criteria to have their work evaluated. The project, which is funded by an Australia Learning and Teaching Council Grant, builds on extensive work that has been undertaken both within Australia and overseas in the development of peer review of online learning and teaching, which supports and stimulates the scholarship of online learning and teaching, and has the capacity to demonstrate quality learning and teaching through course development, evaluation, improvement and interactive learning. Evidence produced through such quality processes can be used by academic staff as evidence to support claims for recognition and reward. The project commenced as a pilot in 2003 and has evolved in response to changing technologies and recognition of the need for a more adaptable system that enables academics to play a significant role in the creation of criteria and in contributing their own exemplars using a Web 2.0 approach. A major feature of the approach is its educative dimension, which is responsive to supporting online teaching and learning at a time when new Web 2.0 and 3D virtual learning technologies are presenting new challenges for educators. This paper describes the project and argues that online learning and teaching in this changing landscape is an emerging area of scholarship which needs to be supported and encouraged.

Keywords: quality assurance, peer review, scholarship, online learning and teaching, 3D virtual learning environments, web 2.0

3D virtual environments: Businesses are ready but are our *'digital natives'* prepared for changing landscapes?

Denise Wood and Lee Hopkins
University of South Australia

Futurists anticipate that within just three years, 70-80% of businesses and Internet users will have a 3D virtual presence. This should be welcome news to our current 'digital native' undergraduates who have grown up in a digital era, and who are said to prefer environments that are highly interactive, immersive, multi-modal and connected. 3D virtual learning environments not only fulfil these criteria, but also provide increased flexibility for students who are not on campus. It is perhaps not surprising, therefore, that 3D virtual worlds such as *Second Life* (2003), which provide a social space in which students—represented by avatars—can learn, create, explore and gather information collaboratively and individually, have been readily adopted in instructional settings. Yet very few studies have documented the challenges in adapting these technologies to the teaching and learning curriculum. Do we know how prepared our *'digital natives'* are for this changing landscape? This presentation will draw on the case studies in which three undergraduate media arts courses at the University of South Australia were trialled in *Second Life*. The challenges experienced by both teacher and students will be discussed and assumptions about the readiness of *'net generation'* learners to readily adapt to such technologies debated. The presentation will conclude with a discussion of the strategies required to utilise the potential of 3D virtual worlds for re-engaging students in a flexible, experiential and community-based learning environment so that they are ready to grasp the opportunities afforded by this rapidly changing landscape.

Keywords: 3D virtual learning environments, web 2.0, digital natives, generation-y, business, employability, 3D CVE, collaborative virtual environment

Poster presentations: Monday 1 December

Authors will be available to discuss their posters at morning tea (10.30 – 11.00) and afternoon tea (3.00 – 3.45).

Meaghan Botterill, Garry Allan and Sally Brooks
Building community: introducing ePortfolios in university education

Melanie Brown
Beauty and blended learning: E-learning in vocational programs

Janet Buchan
Online assessment at CSU: Snapshots in time

Des Butler
Air Gondwana: Teaching negotiation skills by utilising virtual worlds for an authentic learning experience

Brian Ferry
Using mobile phones to augment teacher learning in environmental education

Maree Gosper, Margot McNeill, Karen Woo, Rob Phillips, Greg Preston and David Green
Web-based lecture technologies: Guidelines to support learning and teaching

Howard Grossman and Virginia Grossman
Use of interactive multimedia programs for pathology e-learning: Strengths and weaknesses

Jennifer Jones
Supporting the design of online learning through use of learning designs

Tony Koppi, Fazel Naghdy, Joe Chicharo, Judy Sheard, Sylvia Edwards and David Wilson
The crisis in ICT education: An academic perspective

Mary Low O'Sullivan and Gayani Samarawickrema
Changing learning and teaching relationships in the educational technology landscape

Christine McDonald and Birgit Loch
Adjusting the community of inquiry approach to a synchronous mathematical context

Matthew Riddle
ICTs in the daily lives of Australian students

Harsh Suri and Margot Schuhmacher
Open-source vs proprietary VLE: An exploratory study of staff perceptions

Julie Willems
"See you after school?" How informal virtual learning environments are influencing formal education (Poster)

Poster presentations: Tuesday 2 December

Authors will be available to discuss their posters at morning tea (10.30 – 11.00) and afternoon tea (3.00 – 3.45).

Janet Buchan, Lynnette Flynn, Deborah Murdoch and Philip Uys
A decade of change @ CSU 1999 – 2009

Rosseni Din, Mohamad Shanudin Zakaria, Khairul Anwar Mastor & Mohamed Amin Embi
Construct validity and reliability of the hybrid e-training questionnaire

Kristine Elliott, Kevin Sweeney, Victor Galea, Helen Irving and Elizabeth Johnson
Scientific inquiry: Where is it in the educational technology landscape?

Stavroula Gkatzidou and Elaine Pearson
A vision for truly adaptable and accessible learning objects

Abdul-Hakeem Kasem, Yousef Alreemawi, Jonathan Gould and Ian Charleson
Pioneering innovative approaches to language teaching at tertiary level in Australia

Thierry Karsenti, Diane Lataille-Demore and Michel Demore
Educational technology to train teachers of minority languages in Canada: Challenges and successes

Thomas Kerr
Teaching by example, learning by design: Three recent technologies in three learning contexts

Tristram Lawson
Scenario + Rapid e-learning = Powerful learning

Ya Ling Lee
Educational game themes of a fraction brick game

Michael O'Donoghue, Alan Hoskin and Tim Bell
Guidelines for podcast production and use in tertiary education

Gabriella Pretto and Catherine Pocknee
Online project collaboration … we still have a long way to go

Luke Rogers
Virtual worlds: A new window to healthcare education

Stefan Schutt and John Martino
Virtual worlds as an architecture of learning