2008

Conference Program - Emerging Technologies Conference

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Conference Program - Emerging Technologies Conference

Abstract
Conference program for the Emerging Technologies - Supporting Learning Community conference held at the University of Wollongong between 18-20 June 2008.

Publication Details
This conference program was originally published as part of the Proceedings of the Emerging Technologies Conference, University of Wollongong, 18-20 June 2008.

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emerging technologies
CONFERENCE
Supporting a Learning Community
Conference Program

Using technology to build community in learning environments

Mobile Learning

Researching practice in higher education

Sharing use of technology in teaching

Wednesday 18th June - Friday 20th June 2008
University of Wollongong • Communications Building 20

Keynote Speakers
Tom March - Emerging Technologies  Ron Oliver - Mobile Technologies
Hands-on workshops - Friday Morning  Poster Expo - Wednesday lunchtime

UCW staff can register for the conference via Webclock
All other registrations can be made from our website:

www.uow.edu.au/cedir/asd/conference
This conference is a joint project of CEDIR and RILE/TITR supported by the Carrick Institute.

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- Carrick/Australian Learning and Teaching Council http://www.altc.edu.au/carrick/go/home

2008 CEDIR/RILE CONFERENCE COMMITTEE

Jan Herrington, Gerry Lefoe (Convenors), Lenore Armour, Tony Herrington, Hazel Jones, Jessica Mantei, Wendy Meyers, Ian Olney

WITH THANKS TO OUR REVIEWERS

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- Wendy Meyers
- Anne Porter
- Ray Stace
- Irina Verenikina
- Annette Worthy
- Allan Yuen
Teaching and learning in higher education is experiencing rapid change, in part, as a result of the influences of emerging technologies. For teachers in education it is imperative that we continue to keep abreast of these developments, not so that we implement technological change for change itself, but that we distil the affordances that these technologies offer and exploit them for the benefit of our students.

This conference aims to showcase the technologies and the way they can be used to promote meaningful learning in the higher education sector. This is the 2nd annual conference on Emerging Technologies conducted by the University of Wollongong’s Centre for Educational Development and Interactive Resources (CEDIR) and the Faculty of Education’s Research Centre for Interactive Learning Environments (RILE).

The conference has a number of presentation formats that include keynote addresses, refereed and non-refereed papers, and workshops. The conference also incorporates presentation of a number of projects conducted as part of the Carrick funded project: New Technologies, New Pedagogies.

Papers with the symbol ®, indicated in the abstracts, have undergone a double blind peer refereeing process to DEST standards. In so doing, the papers have been assessed as providing information that increases the stock of knowledge and the use of this knowledge to devise new applications; they are original and have the potential to produce results; they represent substantial scholarly activity; and they have validity through a peer validation process.

Full papers will be available at Research Online
http://www.library.uow.edu.au/services/UOW026590.html

The abstracts are listed in alphabetical order by first author.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>8.50</td>
<td>Conference opening</td>
</tr>
<tr>
<td></td>
<td>Acknowledgement of country</td>
</tr>
<tr>
<td></td>
<td>Welcome address</td>
</tr>
<tr>
<td></td>
<td>- Vice Chancellor Professor Gerard Sutton</td>
</tr>
<tr>
<td></td>
<td>- Deputy Vice Chancellor Academic Professor Rob Castle</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td>Keynote Address – Tom March</td>
</tr>
<tr>
<td>11.00-11.45</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>11.50-12.35</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>12.35-1.25</td>
<td>Lunch</td>
</tr>
<tr>
<td>1.30-2.15</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>2.20-3.05</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>3.10-3.55</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>4.00-4.40</td>
<td>Panel Discussion</td>
</tr>
<tr>
<td>6.00</td>
<td>Conference Dinner - Zacs at Diggers Crown Street Wollongong</td>
</tr>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>9.15</td>
<td><strong>Overview of Project:</strong> New technologies, New pedagogies. Using mobile technologies to develop new ways of teaching &amp; learning</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td>Keynote Address – Pro Vice Chancellor [Teaching and Learning] Professor Ron Oliver</td>
</tr>
<tr>
<td>11.00-12.30</td>
<td>Concurrent Sessions – showcasing the mobile learning project</td>
</tr>
<tr>
<td>12.35-1.25</td>
<td>Lunch</td>
</tr>
<tr>
<td>1.30-2.15</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>2.20-3.05</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>3.10-3.55</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>4.00</td>
<td>Future Directions: Professor Farzad Safaei</td>
</tr>
<tr>
<td></td>
<td>Network session: Cheese &amp; wine</td>
</tr>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>9.00-10.30</td>
<td>Concurrent Workshops</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td><strong>Morning tea</strong></td>
</tr>
<tr>
<td>11.00-12.30</td>
<td>Concurrent Workshops</td>
</tr>
</tbody>
</table>
**Wednesday 18th June**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>8.50</td>
<td><strong>Conference opening</strong> (Room 20.4)</td>
</tr>
<tr>
<td></td>
<td>- Acknowledgement of country: Julie Booker</td>
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<tr>
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<td>- Vice-Chancellor Professor Gerard Sutton</td>
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<tr>
<td></td>
<td>- Deputy Vice Chancellor (Academic and International) Professor Rob Castle</td>
</tr>
<tr>
<td>9.30-10.30</td>
<td><strong>KEYNOTE ADDRESS</strong> (Room 20.4)</td>
</tr>
<tr>
<td></td>
<td>- Introduction: Dr Gerry Lefoe</td>
</tr>
<tr>
<td></td>
<td>- Tom March Emerging technologies</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td><strong>MORNING TEA</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Concurrent Sessions:</strong> Room 20.4</td>
</tr>
<tr>
<td>11.00-11.45</td>
<td>A Tale of Two Communities: How online programs can support the diverse needs of commencing and completing PhD candidates. R David L. Martin and Angela Woods</td>
</tr>
<tr>
<td>11.50-12.35</td>
<td>The affordances of computer play in young children: a preliminary study. R Irina Verenikina and Jan Herrington</td>
</tr>
<tr>
<td>12.35-1.25</td>
<td><strong>LUNCH – Poster display: Spotlight on learning and teaching</strong></td>
</tr>
<tr>
<td>1.30-2.15</td>
<td><strong>Concurrent Sessions:</strong> Room 20.4</td>
</tr>
<tr>
<td></td>
<td>Using the digital design tools in the character design classroom. R Ratanachote Thienmongkol</td>
</tr>
<tr>
<td></td>
<td>Student Experiences of Course Management Systems in a Hong Kong Institution R Allan Yuen, Robert Fox, Angie Sun and Liping Deng</td>
</tr>
<tr>
<td></td>
<td>An evaluation of nurses’ workplace clinical skill development facilitated by the use of an intranet based learning resource. R Richard Sprod</td>
</tr>
<tr>
<td>2.20-3.05</td>
<td><strong>Doctoral Symposium – Design Based Research</strong></td>
</tr>
<tr>
<td></td>
<td>The following HDR students will share their use of Design Based Research as an approach to completing PhD studies. R Pranit Anand, Kevin Ashford-Rowe, Mariolina Pais Marden, Jane Comensoli, Michelle Eady, Ray Handley, Gail Hood, Jessica Mantei</td>
</tr>
<tr>
<td></td>
<td>Getting electronic portfolios up to standard: Implementing an electronic portfolio (efolio) into an Undergraduate Teacher Education Program for a Bachelor of Education. R Ian Olney</td>
</tr>
<tr>
<td></td>
<td>Using the bilingual blog as a platform to enhance the language learning experience: a case study in French. R Hazel Jones and Anu Bissoonaugh-Bedford</td>
</tr>
<tr>
<td>3.10-3.55</td>
<td><strong>Facilitating online interaction using community building strategies. R Claire Bartlett</strong></td>
</tr>
<tr>
<td>4.00-4.40</td>
<td>Developing Learning Communities Panel discussion – Facilitated by Wendy Meyers (Room 20.4) - Janette Stirling, Lisa Kervin, Paul Carr</td>
</tr>
<tr>
<td>6.00</td>
<td><strong>Conference Dinner</strong> - Zacs at Diggers. 82 Church Street Wollongong. <a href="http://www.citydiggers.com.au">www.citydiggers.com.au</a></td>
</tr>
</tbody>
</table>
**Thursday 19\textsuperscript{th} June**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>9.15</td>
<td><strong>Overview of Project:</strong> New technologies, New pedagogies. Using mobile technologies to develop new ways of teaching and learning</td>
</tr>
<tr>
<td></td>
<td>KEYNOTE ADDRESS (Room 20.4)</td>
</tr>
<tr>
<td></td>
<td>- Introduction: Associate Professor Jan Herrington</td>
</tr>
<tr>
<td></td>
<td>- Pro Vice Chancellor (Teaching and Learning) Professor Ron Oliver - Mobile technologies</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td>MORNING TEA</td>
</tr>
</tbody>
</table>

### Concurrent Sessions:

**Showcasing New Technologies, New Pedagogies:** Using mobile technologies to develop new ways of teaching and learning.

<table>
<thead>
<tr>
<th>Room 20.4</th>
<th>Room 20.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.00-11.25</td>
<td>Creating interactive visual arts experiences using iPods</td>
</tr>
<tr>
<td></td>
<td>Ian Brown</td>
</tr>
<tr>
<td>11.30-11.55</td>
<td>Teaching Episode Project.</td>
</tr>
<tr>
<td></td>
<td>Anthony Herrington</td>
</tr>
<tr>
<td>12.00-12.30</td>
<td>Talking picture books on iPods.</td>
</tr>
<tr>
<td></td>
<td>Jan Herrington, Ian Olney and Irina Verenikina</td>
</tr>
<tr>
<td>12.35-1.20</td>
<td>LUNCH</td>
</tr>
</tbody>
</table>

### Concurrent Sessions:

<table>
<thead>
<tr>
<th>Room 20.4</th>
<th>Room 20.5</th>
<th>Room 20.3</th>
</tr>
</thead>
</table>
| 1.30-2.15 | Supporting the use of learning objects in the K-12 environment: A design-based research project. **R**
|           | Wayne Cotton |
| 2.20-3.05 | Peer assessment of student presentations using clickers. |
|           | Graham Barwell and Ruth Walker |
| 3.10-3.55 | Research in Post-Secondary education in Hong Kong: A review. **R**
|           | Robert Fox and John Pearson |
| 4.00      | Future Directions: Professor Farzad Safaei (Room 20.4) |

Network session: Cheese & wine

**R** = Peer reviewed paper
<table>
<thead>
<tr>
<th>Time</th>
<th>Workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Registration</td>
</tr>
<tr>
<td>9.00-10.30</td>
<td><strong>Teaching with Slowmation:</strong> Facilitating Student-generated Animations in Various Content Areas (Garry Hoban)</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td><strong>MORNING TEA</strong></td>
</tr>
<tr>
<td>11.00-12.30</td>
<td><strong>Workshops</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Slowmation (Continued)</strong></td>
</tr>
</tbody>
</table>
WE are entering an era when it can be truthfully stated that a self-motivated student with broadband access to the Web can learn more than he or she could in school. Society has changed around us and one of the few certainties is that these changes will continue. Some of the main trends include micro-niche marketing, knowledge working and infinite choice, all of which call into question a culture focused on standardised outcomes and compliance. In other words, a culture like traditional “schooling.” This presentation will look at several immutable trends of our digital era and how smart use of pedagogy can leverage these changes into advantages, while those committed to supporting last century’s mass production model will only see them as disruptive technologies.

Biography
Tom March has been obsessed about authentic teaching, learning and children for the past three decades. He finds this often involves technology as an inspiration to creativity and means to impressive accomplishments. Recognised as a Teacher of the Year Finalist for San Diego County after five years in the profession, he concluded ten years as a classroom teaching in 1995 by taking a three-year fellowship at San Diego State University. There, Tom worked with Professor Bernie Dodge to develop the WebQuest model. Since moving to Australia in 1998 and starting ozline.com, he has contributed at least one new product or initiative every two years. These include Web-and-Flow, BestWebQuests, ClassPortals, The New WWW and CEQ•ALL. Each initiative builds on what's been learned and addresses new needs of Web-enriched educators. He regularly keynotes, writes, and facilitates workshops focused on aspects of making learning for Real, Rich and Relevant.
KEYNOTE ADDRESS: THURSDAY 19 JUNE, 9.15 AM

Getting the mob into mobile learning: Promoting the uptake and effective use of portable technologies for learning

Ron Oliver
Pro-Vice-Chancellor (Teaching and Learning) at Edith Cowan University
r.oliver@uow.edu.au

Abstract
This presentation will discuss the growing use of mobile technologies in learning and showcase some examples of best practice. It will consider learning designs that promote effective learning with mobile devices, and strategies for the sharing and reuse of effective learning designs. As well, the presentation will consider the opportunities and affordances of new mobile technologies for supporting learning in HE, and will consider the issues challenging future directions for mobile learning in education.

Biography
Ron Oliver is Pro-Vice-Chancellor (Teaching and Learning) at Edith Cowan University. He has a research background in multimedia and e-learning and has published over 200 refereed papers with contributions in most of the major international journals in this field.

Ron is a recognised leader in the Australian education sector in learning and teaching with technology. He is a regular presenter at national and international conferences and has presented over 100 keynote and invited addresses. He has won awards and recognition at the local, national and international level for research and teaching activities. His achievements include an Australian Award for University Teaching in 1997 and being selected as an Associate Fellow of the Carrick Institute in 2006.
CONCURRENT PAPER SESSIONS

Alphabetical order by first author
R = peer reviewed paper

CSCI: A LEAP into the future ®

Jo Abrantes; Anne Porter; Wendy Meyers; Ray Stace; Willy Susilo; Aneesh Krishna; Zhi Quan Zhou;
Daniel Judge; Ross Franks; Tianbing Xia
University of Wollongong, Australia
jo@uow.edu.au

Abstract

This paper outlines the development of a project which aims to improve the teaching and learning outcomes within the Computer Sciences. A major strategy being examined is the effectiveness of digital games-based learning. Utilising the Neverwinter Nights game engine the team have created a prototype to be trialled in the first half of 2008. The project forms part of a broader faculty based solution to address teaching and learning problems of first year students, known as QUALITY101. This work was funded by the UOW Educational Strategies Development Fund (ESDF).

Constructivist-based Location-aware Mobile Learning Activity ®

Pranit Anand
University of Wollongong
pranit@uow.edu.au

Abstract

Mobile wireless technologies have the potential to exploit its location-awareness capabilities to engage learners in constructivist collaborative learning activities yet there is little research that explores this capability. This paper describes the design-based research approach that has been adopted for an ongoing exploratory study that seeks to identify ways in which the location-awareness feature of mobile wireless devices could be used to create constructivist-based learning activities. A literature review of existing research in technology enhanced learning applications suggests the suitability of using the design-based research approach to develop complex and innovative learning applications. This study will make contributions for the future research and development of mobile learning applications.

Applying a design-based research approach to the determination and application of the critical elements of an authentic assessment ®

Kevin Ashford-Rowe
Griffith University
k.ashford-rowe@griffith.edu.au

Abstract

This paper describes the research approach and methodology used to conduct a doctoral study to determine and apply the critical elements of an authentic assessment. It begins with a description of the design-based research approach that was used as an overall framework for the research study, followed by a description of the methodology used to collect the data required to answer the research questions, and concludes by briefly describing the four phases applied in the use of design-based research. The intention of this paper is to outline the application of this research process in a design-based context, and not to engage in a more detailed consideration as to the relative value of design-based research itself.
Facilitating online interaction using community building strategies®
Claire Bartlett
Charles Darwin University
Claire.bartlett@cdu.edu.au

Abstract
Online learning communities provide a solution to the lack of opportunities for teacher and peer interaction and engagement when students study remotely. However, creating the intangible essences that make online learning communities effective, such as a sense of connectedness and a feeling of belonging, can be challenging. This paper describes a pilot online learning community to demonstrate the effectiveness of carefully facilitated activities during each stage of implementation. Student responses support claims of increased interaction while unit completion rates present a strong case for the merits of designing and facilitating online learning using a community building approach.

Peer assessment of student presentations using clickers
Graham Barwell & Ruth Walker

Abstract
The project, which received an ESDF grant for 2007-08, aims to trial the use of “clickers” in seminars in two Arts subjects. We explore the use of clicker technologies in small groups, where they have previously been used in large lectures, and to record peer assessment responses, where the technology was originally designed to record answers to quizzes and multiple choice questions. Students will use clickers to record their evaluation of in-class presentations by their peers. In autumn session 2008, these evaluations will form part of the feedback to student presenters and will be compared against the tutor’s formal assessment, but will have no impact on final mark for the presentation. Depending on our experiences and student responses to this first phase of the trial, we may proceed to next stage whereby the final mark for each presentation will be a combination of the tutor’s mark and the class response as recorded by the clickers. To gauge student feelings about the use of this technology, we will seek feedback from focus groups. In our presentation we will demonstrate the technology and give a brief account of the trial based on our experience and the feedback from the focus groups.

Using videoconference for inter-cultural engagement in global learning
Paul Carr, Rob Whelan & Maureen Bell
University of Wollongong

Abstract
Regular videoconferences have been the main teaching and learning strategy in global learning subjects for students from the Bachelor of International Science degree at the Universities of Wollongong, Dublin City and Colorado. Videoconferences involve discussions and debates based on set readings. Assessment tasks include individual projects and a group project with international peers using email and webcam for communication. Formal and anecdotal evidence indicates the videoconference environment is stimulating, enjoyable and enhances learning though there have been technical and organisational challenges to overcome, including: (i) academic calendars; (ii) international time zones and difficulties in arranging mutually convenient class times; (iii) daylight saving time in the international context; (iv) unequal numbers of students at the three Universities and consequences for equal participation in videoconference discussion and allocation of students to international groups; (v) communication difficulties arising from various accents, pace of speech and colloquial language; and (vi) the dependence on technology that is not always robust. Lessons learned in dealing with these challenges will be useful for others interested in utilising videoconference for
cross-institutional learning and student engagement, or in scaling up international learning for larger classes.

**Development of a knowledge management system within the system of schools comprising the Catholic Education Office Diocese of Wollongong**

Jane Comensoli  
Catholic Education Office Diocese of Wollongong

**Abstract:**

The purpose of this research is to design an effective knowledge management system within the Catholic Education Wollongong system of schools. This study will examine “how can a knowledge based information system support teachers in their learning and pedagogical practice?”

A research design approach is used as it allows the construction of the technology to support a knowledge management system, having regard to the users of the system and theoretical frameworks regarding on-line learning and knowledge transfer. The study will be conducted in four discrete phases as described by Reeves (2000) and will utilise a sequential mixed method design, Creswell (2003). The contribution of this research to the field will be in the development of design principles that can be applied to knowledge management system design in education.

**Supporting the use of learning objects in the K-12 environment: A design-based research project**

Wayne Cotton  
University of Sydney  
w cotton@usyd.edu.au

**Abstract**

This paper outlines the methodology behind a Design-Based Research project conducted at the University of Wollongong. The focus of the research project was on the systematic development of a support system to aid K-12 teachers as they integrated learning designs with learning objects. The foundations of the support system were based on a combination of existing design theories and on an analysis of the practical problems faced by teachers as they attempted to create effective pedagogical experiences which incorporate learning objects. The focal point of this paper is the journey through the Design-Based Research process rather than outcomes of the project.

**Using Design-based Research to produce strategies for synchronous literacy learning for Indigenous learners**

Michelle Eady  
University of Wollongong  
mje496@uow.edu.au

**Abstract**

Synchronous learning is emerging as an effective way to provide literacy and essential skills training to Indigenous learners living in remote and isolated communities. Although there is considerable research completed in the area of learning technologies in general, there is very little research completed in the area of synchronous learning opportunities for remote Indigenous learners. This paper demonstrates how a design-based research approach coupled with the unique needs of Indigenous learners has the potential to result in the production of effective design principles that take
into consideration an online learning community and delivering literacy services for remote Indigenous learners.

**Reviewing Research into Technology in Hong Kong Higher Education**

Robert Fox  
University of Hong Kong, Hong Kong  
bobfox@hku.hk  
John Pearson  
Education Technology Consultant, Melbourne, Australia

**Abstract**  
This paper reviews published research on ICT in higher education in Hong Kong over a ten year period and identifies the extent to which this research addresses government policy, indicating areas in which further research would be beneficial to meet the challenges contained in government reports. The majority of publications identified were based on successful small-scale case studies to guide present and future practice. This was limited to research on theoretical inquiry, providing original perspectives, ideas and ideals to shape future thinking. It was concluded that future research would benefit from a greater balance between evidence-based research and theoretical inquiry and to identify more strategically significant cross-institutional research to support the government’s vision of making Hong Kong a regional education hub.

**An introduction to the potential of social networking sites in education**

Sharon Griffith & Liwan Liyanage  
School of Computing and Mathematics  
University of Western Sydney, Australia

**Abstract**  
This paper reviews Social Networking Sites (SNS) that have become available via the Internet in the light of usability for teaching and learning. Membership rules relating to entries for some popular sites, such as “Facebook” and “MySpace” are reviewed. Characteristics of these sites are reviewed and then compared to evaluate the trust and privacy issues of shared information available to any given social group. Trust and privacy plays a critical role when SNS are used for the purpose of teaching and learning. Thus, the negative and positive aspects of SNS are reviewed in detail. This knowledge will form the basis to assist with regulating SNS for teaching and learning.

**Using technology to motivate student learning**

Ray Handley  
University of Wollongong  
rgh195@uow.edu.au

**Abstract**  
The motivation of students to effectively learn and complete their secondary education is a key priority for education systems. This paper explores ways in which technology can be used to enhance this motivation, particularly for those students who experience the greatest risk of failing to finish their education. A design-based research approach, with a case study and action research methodologies will be used to explore the problem. Using authentic learning tasks as a framework, a variety of technology based learning tools will be introduced to the students. Through the observation of the process, interviews and an analysis of student work and attitudes, changes in motivation will be recorded. As a result of this research, information will be gathered on the ways in which motivation is affected by the choice and methods by which technology is used within schools. From this
information, further models can be developed that ensure schools have the strategies and the means to reengage those students who, through a lack of motivation, are failing to meet their full learning potential.

Using a design-based research paradigm to develop an online course aimed at disseminating research findings and informing practice

Gail Hood
University of Wollongong

Abstract
Between 1999 and 2003 the TIMSS Video Study (Mathematics) analyzed 638 eighth-grade classes from seven countries. Findings are published in two written reports and a set of twenty-eight public release lessons. This paper examines the development of an online course aimed at disseminating the study’s research findings to educators to inform their practice. The development was guided by design-based research. Solutions to three components, content and pedagogy, technology and implementation, were developed independently with the overall solution relying on their smooth integration. The paper discusses the process including the selection of guiding principles and the iterative cycles of testing and refinements.

The potential affordances of enterprise wikis for creating community in research networks

Nicola F. Johnson, Rodney J. Clarke, Jan Herrington
University of Wollongong

Abstract
In this paper, we describe some of the affordances, (the specific enabling features or characteristics), of an enterprise wiki to meet the needs of a developing community of practice. The Social Innovation Network (SInet) is a nascent research network that spans the social sciences, education and commerce at the University of Wollongong. It will use the enterprise wiki software Confluence to assist in the development of communities of practice across its groups and sub-groups. This paper, describes some of the features of the software and how it might be used to perform some of the common activities identified by Wenger (nd) as contributing to the development of community.

Developing a bilingual blog as a platform for language learning in French: A pilot study

Hazel Jones and Anu Bissooauth-Bedford
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Abstract
This paper outlines the preliminary stages of the development of a bilingual blog for use in a third year undergraduate French class with a view to enable asynchronous written communication between students at University of Wollongong and universities in France with whom our university has exchange agreements. The bilingual blog was chosen as an aid to extend the learning experience of students from social, cultural and linguistic perspectives. It also aims at preparing students for their study period abroad more effectively whilst working on their language skills. A social network site was developed with appropriate activities to facilitate discussions and networking in the foreign language. In this paper the rationale behind the choice of a blog is described, the design and development processes are explained followed by an analysis of the problems and issues that arose and possible solutions that could be incorporated in future projects. The paper concludes with a
discussion of future development and ways in which this activity could be repurposed for other subjects.

The use of new technologies in advanced Italian classes®
Sabrina Leone
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Abstract
This paper discusses the results of a blended learning strategy which has recently been adopted in advanced Italian classes at the University of Wollongong. The embracing of new technologies in education has engendered a deep innovation in teaching and learning processes. Language learning, in particular, seems to have been more receptive than other fields thanks to the dynamics which characterize the subject and to the communicative approach currently used. However, if the information and communication technology curriculum integration offers powerful tools to enhance language learning, in terms of greater emphasis upon flexibility, transferability, individualisation, modularisation, mobility and interaction, it also creates critical points which require an attentive evaluation to make the impact on teaching and learning significant.

Using a design based research approach to explore the ways that primary school teachers conceptualise authentic learning in their classrooms: A work in progress®
Jessica Mantei
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Abstract
This paper reports on the use of design based research (Reeves, 2006) as an approach to conducting research for a doctoral thesis. The research explores the ways that teachers conceptualise authentic learning experiences for primary school children in response to consistent observations in the literature of the need for schools to change in an effort to meet the needs of modern learners. The research aims to report its findings from analysis of data gathered as early career teachers explore their professional identities in connection with a professional development model designed in response to themes emerging from the literature and collaboration with classroom teachers of more than five years experience. At the time of publication of this paper, the study was in Phase 3, the first iteration of the design.

A Tale of Two Communities: How online programs can support the diverse needs of commencing and completing PhD candidates®
Dr David L Martin and Dr Angela Woods
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Abstract
In the context of higher education, discussions about community – and particularly online community – tend to assume that students’ needs to connect to community are consistent throughout the course of their study. In the case of relatively small student populations undertaking coursework subjects this may well be the case. PhDs candidates, by contrast, spend an average of 3.75 years in full-time study characterised by distinct and, for some, highly disjointed phases. Their need for community will vary considerably according to the nature and stage of their research.
The University of Melbourne has developed two online support programs for PhD candidates under the title Postgraduate Essentials. Strategies for a Successful Start to your PhD facilitates transition into the academy; Completion and Beyond supports candidates to complete their theses and plan for what comes next. This paper offers a series of critical reflections on particular online tools and communication strategies deployed within each program, focussing on how they can help create the different forms of community sought by candidates at the commencement and completion of their research.

A Learning Architecture Framework (LAF) for developing community, engagement and professional identity for pre-service teachers

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Abstract

To support students completing their practicum placements as part of a one-year Graduate Diploma in Education (Secondary), a community of practice (CoP) framework was developed by adopting a Learning Architecture Framework based on the work of Wenger. Through this framework, student interaction and structured dialogue were facilitated that enabled professional conversations and peer-to-peer learning offering mutual engagement, emotional support, feedback and scope for reflection. Data collected in the form of podcast recordings and blog entries of critical incidents created by the students while on practicum, as well as post-practicum focus group discussions, attests strongly to the effectiveness of this approach in developing online communities to support the professional development of pre-service teachers.

Getting electronic portfolios up to standard: Preparing to implement an electronic portfolio (efolio) into an undergraduate teacher education program for a Bachelor of Education

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Abstract

Many training institutions are increasingly expected to provide platforms and tools to allow students to reflect on their teaching and learning throughout their period of study. Data is collected each year as indicators of progress and attainment but often this does not fully reflect the true picture. Electronic portfolios are now seriously considered as a means of collecting and presenting information about an individual’s attributes and experiences. As part of a more formal component of their coursework, learners are increasingly being asked to provide a portfolio containing a detailed account of their learning experiences during their period of study. Employers and professional bodies are also beginning to use portfolios to identify employees that match their requirements and be able to gauge that certain benchmarks are being achieved. With improvements in access, storage ability and provision of linkage to standards or competencies electronic portfolios have the potential to provide a more accurate view of a student’s achievements and experiences. These digital repositories allow students to create a clear and consistent record of their knowledge and understanding in readiness for a particular audience. This paper describes an electronic portfolio tool and the proposed initial stages of its implementation with staff into a core program of a Faculty of Education.
The travel project: designing and implementing an online community of learners using design based research ®

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Abstract
This paper describes a research study that adopted the model of design-based research (DBR) outlined by Reeves (2006) to design and implement an online community of language learners within the context of an Italian as a second language university class. An online community of learners that included a group of second and third year students of Italian, their teacher and seven native speakers facilitators was developed and implemented according to the principles that guide community development, the use of authentic and situated activities, and according to Vygotsky’s sociocultural theory applied to second language learning. This paper describes the four phases of this study according to the model of DBR outlined by Reeves, and discusses the theoretical principles that inform the development of the online learning environment.

Understanding the experience of university students as facilitators of the learning process within the medium of online discussion forums ®

Maria Sandor & Neil Harris
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Griffith University

Abstract
Knowledge and skills of how to use computer conferencing techniques, such as online discussion forums, remains modest amongst most academics. This paper presents a conception of the online discussion forum as a context that supports student centred peer e-learning. In particular, the paper overviews research findings relating to the experience of university students as facilitators of the learning process as a central element of this approach to discussion forums. Data were collected through semi-structured interviews with students including both open and closed ended questions. The findings presented in the paper support the proffered approach as a viable means to effectively position students at the centre of an online peer learning experience. Such an approach could be of interest to academics looking to incorporate computer conferencing techniques and create or maintain meaningful peer learning opportunities for their students.

An evaluation of nurses’ workplace clinical skill development facilitated by the use of an intranet based learning resources ®

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Abstract
This evaluation investigated the affordances of an intranet-based, learning tool which is being developed for paediatric nurses. The tool has been designed to be used in the work place to complement and support traditional approaches to teaching and learning. The focus of the evaluation is how nurses use five learning objects within this resource: two short films and three interactive animations, to learn a specific nursing skill: tracheostomy suction. These learning objects were delivered to the nurses’ workplace, the hospital wards and clinical areas via the web-based technology. Four nurses participated in the study, two with no experience and two with experience in tracheostomy care. They rate their skills and knowledge prior to using the learning resources and then again after using the resources and demonstrating the skill on a patient. The findings of this pilot
evaluation demonstrate that the use of media rich learning resources by nurses in clinical settings can contribute learning new skills, particularly when these newly learned concepts and knowledge were reinforced with actual supervised clinical practice. The use of technology facilitated learning resources was enthusiastically embraced, boosted confidence and prompted discussions with the clinical teacher.

A brief overview of the results of a design research approach applied to the development of a pilot online learning community for regional and rural clinicians

Richard Sprod and Sandy Cleghorn
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Abstract
In April 2008 staff from the Oncology and Digital Media Units at the Women’s and Children’s Hospital Adelaide South Australia completed a two year pilot project to develop a range of authentic learning resources and an internet based learning community that aimed to support the ongoing learning and professional needs of regional and rural clinicians involved in the care of children with cancer. This paper summarises the design solutions and reflects on the design research method that was used to guide the process. These include intensive collaboration between the education technology researchers and tertiary clinicians, continuous testing, evaluation and reflection of complex learning and mentoring needs. The pre-implementation outcomes are presented. This includes a secure website with three main areas; a ‘community area’ designed specifically for clinicians involved in the care of children and families, a ‘learning centre’ where authentic learning resources can be found, and a specific ‘patient area’ with information resources for the treating team.

Facilitating a learning community online

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Abstract
The Community of Inquiry model has been one of the most influential in online pedagogy. Learning to facilitate such a community often proves a challenge for online teachers as support is mainly found in the form of prescriptions or activity design. Difficulties with the higher levels of Salmon’s model mean that there is still a lack of teacher support in the area of facilitation of online community learning. Recently, studies of successful practice have begun to emerge which could inform a practical approach to such support. An ‘artefact’ (Design-Based Research Collective, 2003) is being developed, which includes guidelines, strategies and tactics to allow online teachers to explore the effectiveness of a variety of pedagogically sound ways of supporting and scaffolding collaborative learning online. Aspects of this artefact will be demonstrated in order to elicit critique of its applicability in learning situations familiar to participants. If Internet facilities are available, a wiki will be used for the presentation.
Using digital design tools in the character design classroom ®
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Abstract
This paper presents an experience of using digital design tools in the character design classroom. These materials have become a necessity for a classroom instruction. However, it can be found that although the character design classroom needs effective digital design tools that are easier to use for design working, these tools should be used based on appropriateness. The teacher should have enough knowledge and skill in the digital design tools because the teacher must be able to advise the appropriate digital tools for students that can help the students to work well in this area.

The affordances of computer play in young children: A preliminary study ®
Irina Vereni and Jan Herrington
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Abstract
Theories of play have identified many ways in which play may advance children's development. Yet, much traditional childhood play is being replaced by time spent on computer play. However, such computer programs are often produced without theoretical foundation, using animations, colour, sound, and surprise as the basis of their design rather than pedagogical principles or theories. This study explores the affordances of different types of computer play in enhancing children’s traditional developmental play. A number of computer games designed for young children were selected on the basis of criteria developed from an extensive literature analysis. This study presents analysis of a preliminary study in which two young siblings were observed playing the selected games in a variety of settings, including their natural home environment.

The dynamics of mathematical connection using F2F or video conferencing?
®
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Abstract
A large majority of Australian academics, particularly mathematicians, have not been exposed to undergraduate learning by flexible delivery. Today’s undergraduates are subjected to various forms of flexible delivery, whether it is by print form used in distant education, edu-stream or video conferencing. The implementation of new technologies suggests academics neither experienced flexible delivery nor received training in effective curriculum design, good quality teaching strategies along with classroom management within this type of medium. Consequently their delivery of information/subject content using video conferencing is assumed to be identical as if the content was delivered by face to face (F2F). Thus video conferencing is being used without the basic understanding that there is an essential need for visual and sound dynamics along with a different teaching style and support. The contrast between video conferencing and F2F teaching can best be
demonstrated in an analogy of its effectiveness and consequently student education to seat allocation at a rock concert. This paper discusses issues raised by both academics and students on the immediate affects of using flexible delivery in mathematics at a University of Wollongong off-campus site.

**Student experiences of course management systems in a Hong Kong institution**

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**Abstract**

The course management system, as an evolving tool, is increasingly used to promote the quality, efficiency and flexibility of teaching and learning in higher education. However, the ways that course management systems can support and enhance the quality of teaching and learning needs further investigation. This paper describes findings of an exploratory study into undergraduate and postgraduate students’ experiences, and aims to provide insights into issues concerning the implementation of such systems in Hong Kong. The exploration focuses on: perceived usefulness of technologies for study; usage patterns; students’ perceptions; user support preferences; and self-reported experiences. Significant differences between academic levels of students are evident. Findings of the study shed light on issues concerning technology, pedagogy, and implementation strategies of course management systems within an institution.
CASES FROM CARRICK FUNDED PROJECT

New Technologies, New Pedagogies: Using mobile technologies to develop new ways of teaching and learning

THURSDAY 19TH JUNE, 11.00-12.30

Support for this project has been provided by The Carrick Institute for Learning and Teaching in Higher Education Ltd, an initiative of the Australian Government Department of Education, Science and Training. The views expressed in these cases do not necessarily reflect the views of The Carrick Institute for Learning and Teaching in Higher Education.

Creating interactive visual arts experiences using iPods

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Abstract
Through research, exploration and invention students will develop an age appropriate learning experience, which uses or culminates on-site at the Wollongong City Gallery. Students in groups of three (3) developed an innovative, interactive visual arts learning experience using a mobile device (iPod) to deliver the experience for students K-Tertiary.

Use of Game Centred Approaches in Physical and Health Education by pre service teachers

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Abstract
Game Centred Approaches (GCA) are a relatively recent pedagogical alternative to teaching Physical Education. Advocates of the approach suggest that the traditional method of teaching had more to do with a ‘ticking of boxes’ rather than real learning and disengaged the majority of learners (Werner, Thorpe & Bunker, 1996). The rationale behind the project was to gain an understanding for the students and myself into what was actually occurring in a ‘class’ when they attempted to use a Games Centred Approach. Dialogue from lessons was recorded and analysed in conjunction with student self reflection to determine what learning was occurring in the lesson through the use of questions and student responses and what level of understanding those using the pedagogical approach had in relation to GCA’s. Data was also gathered to help me understand the role I played in the student’s
understanding of GCA’s by using the device as an audio diary, recording observations, tutorials and consultations with the two student groups.

Teaching Episode Project
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Abstract
This project investigates the educational potential of smart phones to be used with adult educators to facilitate the construction of teaching episodes (digital narratives) for use with their students/colleagues. Short videos explaining or demonstrating concepts/skills are becoming commonplace in web-based teaching and training. The aims of the research are to evaluate pedagogical strategies for the use of the smartphone as a cognitive tool, and to observe and document students’ use of the devices as they complete an authentic task.

Talking picture books on iPods
Jan Herrington, Ian Olney and Irina Verenikina
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Abstract
The learning experience was designed to address a common problem in ICT-based classes. Subjects that seek to enhance pre-service teachers’ use of educational technologies, in pedagogically appropriate ways, often end up focussing on the tool itself rather than its use in learning (teaching ‘hammer’ rather than ‘carpentry’ to quote Oppenheimer, 1997). Typically, 2-3 weeks are spent on learning how to use tools like Powerpoint, before moving on to the next tool. Such learning provided to be transitory and lacking in transfer. The rationale behind the project was to use a central authentic and complex task to encompass learning a range of different technological tools, and to create a genuine product to share with other pre-service teachers and their own students. The project was based on authentic learning principles such as: authentic context, authentic task, expert performance, multiple perspectives, collaboration, reflection, articulation, scaffolding, integrated assessment.

Use of mobile phones to capture images for student generated animations (Slowmation)
Garry Hoban
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Abstract
Slowmation (abbreviated from Slow Animation) greatly simplifies the process of creating animations so that students can make animations of science concepts in several hours. Although slowmation has been evolving over the last four years, mobile technologies have never been used in this process. In this study 20 preservice teachers who were teaching several science lessons in primary schools were encouraged to use mobile phones to take the photos of science concepts. All of the preservice teachers used the mobile phones to take the photos which were uploaded into Windows Movie Maker (PC) or QuickTime Pro (Mac) to create an animation. Interviews with the students revealed that the phones were useful for taking photos but they need to be stabilised to keep the field of view constant and the quality of the cameras in the phones could be improved. It is likely that the quality of the still
cameras in mobile phones will improve in the next few years so that they become accessible teaching tools.

**Taking iPods into the field to create ‘teacher wisdom stories’**

Lisa Kervin and Jessica Mantei  
The University of Wollongong  
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**Abstract**

The learning experience was designed to engage the early career teachers 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 other student colleagues through the BEST website. The rationale for the project was to create opportunity for students to use the mobile technology to facilitate engagement with an authentic task. Using the gathered text data, students needed to discriminate amongst this to create a genuine product to share with their peers.
WORKSHOPS: FRIDAY, 20TH JUNE, 9.00-12.30

Digital Storytelling
Tony Herrington and Jan Herrington
Faculty of Education, University of Wollongong

Brief description
This workshop will enable you to create a digital story using the affordances of mobile phone technology and movie editing software. The potential for your teaching will be explored.

Teaching with Slowmation: Facilitating Student-generated Animations in Various Content Areas
Garry Hoban
Faculty of Education, University of Wollongong

Brief description
Slowmation (abbreviated from Slow Animation) is a new form of stop-motion animation, which greatly simplifies the normally complex process of creating animations so that students (university or school students) can design and make their own animations about educational concepts in several hours. Although the approach was originally developed for the teaching of science concepts, it has applicability for teaching in other subject areas such as mathematics, English, history etc. It is ideal as a new form of assignment in university subjects to promote creativity, independent thinking and use of technology. In this three hour workshop, participants will be shown examples of slowmation, be provided with a four-phase teaching approach, provided with a workshop manual and make their own slowmation. It would be advisable for participants to do a “google” search on the word “slowmation” and view some of the URLs to get a context for the workshop. Places are strictly limited for this workshop. Participants should bring their own laptop computer (PC or Mac) and a digital still camera (with downloading cables etc).

Locating and using podcasts in your teaching
Wendy Meyers
CEDIR, University of Wollongong

Brief description
Podcasting allows students to access audio or video files on their portable media device (eg ipod) or computer. This workshop will explore the benefits of using podcasts. You will find out how to locate, evaluate, and use podcasts in your teaching.

Wikis & blogs: Some possibilities
Ian Olney
Faculty of Education, University of Wollongong

Brief description
Have you considered using these tools to support your subject? This session will allow you to design and create a variety on online environments using these tools.
Presentation to Podcast
Jeff Vardy
Apple Computers

Brief description
This session will show you how to create a podcast - from an existing PowerPoint presentation and from scratch.

Create, distribute access: Mobilising your lecture content
Jeff Vardy
Apple Computers

Brief description
This session will enable you to create and distribute your lecture content using freely available social networking tools.

Small Investment – Big Return: Wacom graphics tablets
Linda Zugai
Wacom

Brief description
Millions of dollars are being spent on hardware and software to achieve educational outcomes. Cost, flexibility, portability, adaptability are all criteria that should be considered when purchasing resources. Wacom graphic tablets are completely compatible with both Win and Mac systems and work with all software. They can be used in place of, or in conjunction with an IWB to increase its interactivity. They are not only a very cost effective presentation tool but also greatly enhance the functionality of some of the leading software packages from Adobe, Corel and Microsoft. In this session see how a small investment financially can yield a big return educationally.