ALT-C 2010

"*Into something rich and strange*" – making sense of the sea-change

Conference Introduction and Abstracts

www.alt.ac.uk

Acknowledgements

Production editing by Louise Ryan, ALT

Produced with the assistance of Melanie Fox, ALT and Oxford Abstracts

Design by Lucy Saxton
Cover design by Lucy Saxton
Printed by Nuffield Press

ALT gives permission for authors to reproduce and distribute their own work on the understanding that the origins of the publication are fully acknowledged. Please use the following format for referencing:

Your name (2010). Your paper title. In Blackey, H., Habib, L., Jefferies, A., Johnson, M. (Eds). "*Into something rich and strange*" – making sense of the sea-change. The 17th Association for Learning Technology Conference (ALT-C 2010). Held 7–9 September 2010, University of Nottingham, England, UK.

With the exception of sponsor logos, the ministerial statement and the individual abstracts, the material in this handbook is © The Association for Learning Technology (ALT) – http://www.alt.ac.uk/ – but licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 UK: England and Wales license, see http://creativecommons.org/licenses/by-nc-sa/2.0/uk/.

Copyright of all other materials remains vested with individual authors and/or their organisations, but is licensed under a Creative Commons "Attribution-NonCommerical-NoDerivs 2.0 UK: England & Wales license, see http://creativecommons.org/licenses/by-nc-nd/2.0/uk/.

ALT: registered charity, no. 1063519

This document is available online at: repository.alt.ac.uk/798

Welcome to ALT-C 2010

A central concept for this year's conference is sea-change. A sea-change is fundamental, radical, and at least for Shakespeare, mystical. For learning technology the sea-change involves a structural and pervasive shift in the nature of the internet: learners always connected; devices growing in capability and diversity; and the information environment, tools and services in flux.

Possibly, unlike Shakespeare, we have ways to understand that sea-change, demystifying how a fundamentally new system could emerge from small changes in the behaviour of large numbers of interacting objects – or in this case, people. So are we poised on the edge of a radical transformation? Perhaps. But there are different kinds of transformation on offer. The internet by itself has exploded access to information not knowledge, and it is certainly true that we interact differently with each other, within communities, with our students. But Twitter itself is no more transformative than the latest VLE.

In order for a sea-change actually to occur, we must do more than rely on emergent change taking place in the direction we would prefer: we cannot expect that our individual preferences will automatically translate into desirable systemic change. The best that we can do is to create a climate which encourages the kinds of change we desire (and discourages the kinds we do not).

Discussing and sharing our experiences at ALT-C 2010 involves addressing some ambitious themes:

1. The changing paradigms and structures for learning;
2. Increasing productivity and effectiveness, whilst mitigating risks;
3. Responding to and shaping the organisational landscape;
4. Meeting the changing expectations and needs of learners, employers, and society;
5. The changing design skills and knowledge needed to support learning and teaching with technology.

We hope that these themes will help us to create a favourable climate for the sea-change that we collectively desire.

Co-chairs, ALT-C 2010 Programme Committee

Richard Noss
Professor of Mathematics Education at the Institute of Education, Co-director of the London Knowledge Lab, UK, and Director of the Technology Enhanced Learning phase of the Teaching and Learning Research Programme

Vanessa Pittard
Director of e-Strategy, Becta, UK

Statement of Support from the Rt Hon David Willetts, MP, Minister of State for Universities and Science, Department for Business, Innovation and Skills

The Government understands the important role of learning technologists and learning technology in education and training. When used well and managed wisely, ICT is a powerful tool to ensure that:

- curriculum and teaching are relevant to an increasingly digital world and economy;
- learners, teachers and lecturers have good access to digital resources, together with support and tools to create and deploy these resources;
- productivity and efficiency are enhanced and innovation encouraged.

The conference themes "increasing productivity and effectiveness" and "meeting the changing expectations and needs of learners, employers, and society" resonate with this Government's agenda. The next few years will see individual institutions becoming more self-reliant, taking their own decisions about whether and how to pool resources or share services, and sourcing their own support and guidance.

Membership organisations such as ALT clearly have an important role to play in this changed world. That is why we commend ALT for its role in:

- linking together practitioners, policy-makers, and researchers to share best-practice;
- facilitating and spreading innovation;
- creating learning communities;
- supporting cross-sectoral work;
- professionally accrediting learning technology practitioners;
- developing the evidence-base on which decision-making should depend.

It therefore gives me great pleasure to put on record our support for **ALT-C 2010** ***"Into something rich and strange"*** **- making sense of the sea-change** and the valuable work of ALT and its individual, organisational, and sponsoring members.

I'm sure your conference will generate a great deal of discussion and will advance participants' understanding. Above all I am confident it will contribute in a practical way to meeting the challenges of the next few years and I wish the conference well.

David Willetts

BIS
Department for Business Innovation & Skills

The ALT-C team and a note of thanks

Shown below is the current ALT staff team, all of whom have played a part in the production and organisation of the conference over the last 18 months. John Slater led on the overall content of the conference, Hayley Maisey on the organisation, Louise Ryan on the design and production of the conference materials, and Maren Deepwell on the strand of ALT sessions during the conference.

Most or all of us will be in Nottingham for at least part of the event. Though we may sometimes seem distracted, do not let this stop you buttonholing any of us.

For the last few years we've managed annually to improve the conference, and this means that each year the bar is set a little higher. We hope that ALT-C 2010 will match or exceed in its quality that of previous conferences, and that you will appreciate various changes including:

- a better implementation of the conference programme in the CrowdVine networking site;
- online as well as physical presentation of the posters;
- a larger proceedings stream;
- improved presentation of the "back-channel", including through Twitter;
- marginally longer gaps between sessions to make movement between rooms a bit more relaxed.

A note of thanks

Three groups deserve ALT's particular thanks. Firstly, the conference sponsors – whose names and logos are shown on page vi, and whose sessions are summarised on pages 150-152 – without whose financial contribution the conference would not take place. Secondly, the conference programme committee – see page v – whose extensive voluntary activity as reviewers and editors is crucially important for the success of the conference. Finally, the very wide range of people who have "speaking parts" at ALT-C, including the conference co-chairs, the keynote and invited speakers, and, perhaps most of all, every individual presenter.

Seb Schmoller

Seb Schmoller, Chief Executive

Emma Carr-Jones
Finance Manager

Naomi Courtenay
Administration Officer (Membership and Events)

Maren Deepwell
Membership Services Manager

Melanie Fox
Administration Officer (Publications)

Hayley Maisey
Head of Operations and Events

Louise Ryan
Publications Manager (Web and Print)

Seb Schmoller
Chief Executive

John Slater
Acting Director of Development

ALT-C 2010 Programme Committee

Co-chairs

Richard Noss, Professor of Mathematics Education at the Institute of Education, Co-director of the London Knowledge Lab, UK, and Director of the Technology Enhanced Learning phase of the Teaching and Learning Research Programme

Vanessa Pittard, Director of e-Strategy, Becta, UK

Research Proceedings editors

Linda Creanor, Glasgow Caledonian University; **David Hawkridge**, Open University; **Kia Ng**, ICSRiM - University of Leeds; **Frank Rennie**, Lews Castle College UHI.

Abstracts editors

Haydn Blackey, University of Glamorgan; **Laurence Habib**, Oslo University College; **Mark Johnson**, University of Bolton; **Amanda Jefferies**, University of Hertfordshire.

Web participation coordinators

Alan Cann, University of Leicester; **John Clayton**, Waikato Institute of Technology; **Juliette Culver**, The Open University; **Matt Lingard**, London School of Economics.

Committee members

Bob Banks, Tribal Group
Trevor Barker, University of Hertfordshire
Hans-Peter Baumeister, Reutlingen University
Frances Bell, University of Salford
Liz Bennett, University of Huddersfield
Tim Bilham, University of Bath
Andy Black, Becta
Alexandre Borovik, University of Manchester
Patris van Boxel, Vrije Universiteit, Amsterdam
Kevin Burden, University of Hull
Ana Maria Carvalho, University of Coimbra, Portugal
Ian Chowcat, Sero Consulting Ltd
Adele Cushing, Barnet College
Laura Czerniewicz, University of Cape Town
Lee Davies, Institute for Learning
Hugh Davis, University of Southampton
Christine Dearnley, University of Bradford
Lesley Diack, Robert Gordon University
Peter Duffy, Hong Kong Polytechnic University
Martin Ebner, Graz University of Technology, Austria
Richard Elliott, Elearning Watch, Ltd, New Zealand
Shirley Evans, Consultant
Tom Franklin, Tom Franklin Consulting Ltd
Manuel Frutos-Perez, University of the West of England
Lisa Gray, JISC
Kristin Greene
Jonathan Grove, Futurate
Bob Harrison, Toshiba
Iain Howie, Stow College
Sandra Huskinson, Loughborough University/Leicester University
Ersun Iscioglu, Eastern Mediterranean University
Helen Keegan, University of Salford
Jacquie Kelly, JISC infoNet
Linzi Kemp, American University of Sharjah
Ayse Kok, University of Oxford
Frederika Kop, National Research Council of Canada, Institute for Information Technology, Learning and collaborative Technologies
Phillippa Levy, University of Sheffield
Lindsey Martin, Edge Hill University
Liz Masterman, University of Oxford
John McLaughlin, Department for Business, Innovation & Skills
Anna Peachey, Eygus Ltd
Stephen Powell, University of Bolton
Viven Rolfe, De Montfort University
Steve Ryan, London School of Economics
Seb Schmoller, Association for Learning Technology
Laura Shaw, Mimas
Sarah Sherman, The Bloomsbury Colleges
Keith Smyth, Edinburgh Napier University
Michael Thomas, University of Central Lancashire
Kirsten Thompson, University of Leeds
John Traxler, Learning Lab
Michael Vallance, Future University Hakodate, Japan
Julie Voce, Imperial College London
Brian Whalley, Queens University, Belfast
Janice Whatley, University of Salford
Gail Wilson, Southern Cross University
Scott Wilson, University of Bolton
Neil Witt, University of Plymouth

Major sponsors

The trustees of ALT thank the following organisations for providing sponsorship for ALT-C 2010.

1

5

9

Blackboard

2

6

10

3

7

11

4

8

12

13

1 Becta; 2 Blackboard; 3 Desire2Learn; 4 Elluminate; 5 The Higher Education Academy; 6 Intel; 7 JISC; 8 Positive Internet; 9 Talis; 10 Ufi; 11 UK Department for Business, Innovation and Skills; 12 University of Nottingham; 13 Wimba

Keynote speakers

Barbara Wasson, University of Bergen, Norway

Barbara Wasson is Professor of Pedagogical Information Science in the University of Bergen's Department of Information Science and Media Studies, Scientific Leader of InterMedia, and she has led the FLEXIBLE research group at the department since 1997. Barbara has been involved in research involving the use of information and communication technologies in learning since 1983. Her research interests include collaborative learning in distributed settings, socio-cultural theories of learning, design-based research, methodologies for studying virtual environments, and pedagogical agents.

Design and Use of Technology Enhanced Learning Environments

A fundamental challenge for Technology Enhanced Learning is how to design technology enhanced learning environments sensitive to the complex interconnections between pedagogical, technological and organisational issues and how to understand their use. Using examples from my own research I will focus on my understanding of the intricate relationship between design and use. In the Norwegian DoCTA projects we aimed to bring a theoretical perspective to the design of ICT-mediated learning environments that support the sociocultural aspects of human interaction and to evaluate their use. By taking a sociocultural perspective on learning activity focussing on the interpersonal social interaction in collaborative learning settings we contribute to knowledge about the pedagogical design of network based learning scenarios, the technological design of the learning environment to support these learning scenarios, and the organisational design for management of such learning environments.

Through various empirical studies we improved our understanding of the pedagogy and technology of networked learners, and increased our understanding of learner activity. In this talk I will focus on the VisArt artefact design scenario and the gen-etikk collaborative knowledge building scenario both of which supported co-located and distributed students collaborating over the Internet during a 3-4 week period.

Sugata Mitra, University of Newcastle, UK

Sugata Mitra is Professor of Educational Technology at the School of Education, Communication and Language Sciences at Newcastle University, UK. He is also Chief Scientist, Emeritus, at NIIT. He is the instigator of the Hole in the Wall (HIW) experiment, where in 1999 a computer was placed in a kiosk created within a wall in an Indian slum at Kalkaji, Delhi and children were allowed to freely use it. The experiment aimed at proving that kids could be taught computers very easily without any formal training. Sugata termed this as Minimally Invasive Education (MIE). HIW has more than 23 kiosks in rural India, and the experiment has been repeated with similar results in many different locations.

The Hole In The Wall: Self Organising Systems in Education

This presentation introduces Self Organised Learning Environments and Remote Presence technologies, and hints at a future of education that may be very different from what we have today. It is based on the following premises:

- The quality of traditional primary education declines with 'remoteness'.
- Groups of children, given the appropriate resources, can
  a. learn to use computers and the Internet on their own,
  b. achieve many objectives of schooling on their own and,
  c. attain levels of achievement close to traditional schooling with the help of a friendly, but not knowledgeable, mediator
- Learning is a self organising system.

These premises are proposed based on experimental results, often referred to as 'the hole in the wall' experiments, as well as more recent experiments that will be discussed. This presentation then moves on to the design of facilities and technology for areas where good schools cannot exist and good teachers do not want to go.

Donald Clark

Donald Clark was CEO and one of the original founders of Epic Group plc, which established itself as the leading company in the UK e-learning market, floated on the Stock Market in 1996 and sold in 2005. Describing himself as 'free from the tyranny of employment', he is now a board member of Ufi LearnDirect (Government agency delivered e-learning to 2.6 million learners), Caspian Learning (learning games tool provider), LearningPool (content provider), Brighton Arts Festival, and a school governor. Donald has won many awards for the design and implementation of e-learning, notably the 'Outstanding Achievement in e-learning Award'. He has advised on e-learning for HEFCE, IVIMEDS (Worldwide Medical Schools Consortium) World Bank, United Nations and many other public and private sector organisations and is a regular speaker at national and international conferences, he is also a regular (and controversial) blogger on e-learning http://donaldclarkplanb.blogspot.com/

Don't lecture me

As student numbers increase and cuts are implemented the HE sector has to do more for less. This means less low occupancy building, cutbacks in second and third rate research, cutting low student number courses and a rethink of how we are to deliver higher education. The sector has largely ignored the most important event in 20th century HE, the creation of the OU, and therefore the opportunity to increase student numbers.

However, there's a dark secret at the heart of HE that really holds it back - the lecture. Apart from being pedagogically suspect, many are badly delivered and few are recorded. Donald will do some deconstruction of the lecture in terms of its history, lack of relevance in the terms of the psychology of learning and serious limitations for students. He will use the teaching of science, physics in particular, to show the shortcomings of courses anchored in lectures.

And before you ask, yes he is aware of the contradiction!

Saul Tendler, University of Nottingham, UK

Saul Tendler, who will welcome delegates to the conference on behalf of the Univerisity of Nottingham, is Pro-Vice-Chancellor for Teaching and Learning and is a Professor of Biophysical Chemistry. Previously he was Head of the University's School of Pharmacy and the Dean of the Graduate School. Saul's research is directed towards the biophysical investigation of molecular systems and their interactions. In 2007 Saul was awarded his DSc by the University of Nottingham. He was a founding director of Molecular Profiles Ltd and is currently a Director of Nottingham University Industrial and Commercial Enterprise Ltd, and BioCity Ltd. Previously Saul was a member of the HEFCE Strategic Committee for Research. He is a Fellow of the Royal Society of Chemistry, and was designated a Fellow of the Royal Pharmaceutical Society of Great Britain in 2000.

Invited speakers

Hans-Peter Baumeister, Reutlingen University, Germany

Hans-Peter Baumeister is a Professor at and Co-Director of the European School of Business's Research Institute. His research interests are in the field of innovation for knowledge societies and regional clustering processes ("learning regions"), with particular emphasis on the role of universities. Hans-Peter has extensive knowledge of developments in distance education, e-learning and e-learning methods, and of the major fields of application and organisation.

The Future of Knowledge Acquisition

Knowledge society, knowledge economy, knowledge management – knowledge everywhere. What does it mean for our approach to education?

The Internet has a major impact on the culture of the acquisition of knowledge, but educational institutions, both for children and for adults, are still based on a model stemming from the area of enlightenment combined with the emergence of the nation state: open access to new information, but keep it under institutional control, represented by the teacher.

On the other hand we know that already the current workforce needs skills and qualifications to deal with the so-called knowledge economy. But what are those skills? And are our institutions and the people working within them prepared to analyse the required skills and to act accordingly or are we still following a model of top-down teaching? Or more to the point: Do our students know better how to deal with new forms of knowledge acquisition than the teachers and lecturers?

Heather Fry, Higher Education Funding Council (HEFCE), UK

Heather Fry is HEFCE's Director of Education and Participation. Heather has wide experience of working in universities, holding academic appointments both in the England and abroad, and is an expert in higher and professional education policy and practice. Heather started her career in Nigeria. After teaching and lecturing there she took up an academic post at the Institute of Education, University of London, working for some years in the Centre for Higher Education Studies, Department of Policy Studies, and also at the Barts and London School of Medicine and Dentistry at Queen Mary, University of London. Immediately before joining HEFCE, Heather was the founding Head of the Centre for Educational Development at Imperial College London, where she was a Reader in Higher and Professional Education.

How national funding and policy supports learning and teaching in higher education

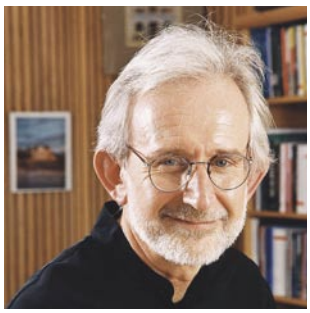
Heather will briefly consider some of the challenges for learning technology in meeting the needs and demands of the diversity of students and provision in higher education. She will also touch on current and past HEFCE funding and policy initiatives in this area, in particular on institutional learning and teaching strategies, on how HEFCE continues to work with the JISC and the Higher Education Academy to support teaching enhancement and learning technology, and the open educational resources programme, the latter now being in its second phase. She will also make reference to the Online Learning Task Force and share some early insights about its work, prior to the publication of its recommendations in October / November 2010.

Sudhir Giri, Google, UK

Sudhir Giri is Head of Google Learning Labs, having joined to help establish an operational infrastructure for learning. Additionally, he is experimenting on how we can innovate corporate learning especially using Google technologies. Prior to working for Google, Sudhir managed learning programs for Accenture and Deloitte Consulting for nine years. His work included delivering an e-learning program to Kenyan nurses to increase school capacity to meet health care demands. With a biomedical engineering background, he spent four years at NASA developing and testing biomedical flight hardware for the Space Shuttle program which included astronaut training. Sudhir holds an MBA from the University of Texas and a bachelor's degree in bioengineering from Texas A&M University.

Developing a learning ecosystem

In this session Sudhir will outline how Google uses and plans to use learning technology to support the learning and development of its own workforce of 20,000.



Martin Hall, University of Salford, UK

Professor Martin Hall is Vice-Chancellor of the University of Salford. Martin ia a historical archaeologist and strategic leader, and his career has spanned both political change and transformation in South Africa and new directions in archaeology over the past four decades. Martin has written extensively on South African history, culture and higher education policy. He was for a time President of the World Archaeological Congress and General Secretary of the South African Archaeological Society. After working at two major museums in the 1980s, he moved to the University of Cape Town (UCT) in 1983, where he led the Centre for African Studies. After stints as Head of the Department of Archaeology, and as Dean of Higher Education Development, he became in 2002, Deputy Vice-Chancellor at UCT prior to his move to Salford in 2009.

When worlds collide – revisiting experiential learning

How can universities incorporate the collision between informal education and social networking, and the formal curriculum and accreditation?

What happens when the worlds of formal university education and social networking collide? The imminence of this collision is now widely accepted. But what happens when open, byte-sized bits of knowledge come up against the need for sequence and structure, for curricula that build systematically on prior understanding and insight, and formal accreditation? This is not primarily a technological issue – it is more a question about the nature of knowledge itself. Social networking is transforming the nature of "tacit knowledge". By revisiting formative concepts of experiential learning, leading-edge experimentation with new technologies can themselves be codified and theorized, and translated into organizational change within the universities.

Frank McLoughlin, CBE, City and Islington College, London, UK

Frank McLoughlin has been Principal of City and Islington College since July 2002. The college is one of the largest general further education colleges in England and is one of only a handful of colleges judged by Ofsted to be outstanding in every measure. Frank is a trustee of the Helena Kennedy Foundation, a board member of Action Aid UK, a member of the All Souls Group and a fellow of the Royal Society of Arts. Frank was awarded a CBE in the Queen's New Year's Honours list 2009.

One college's journey – a view from the bridge

City and Islington College, where Frank McLoughlin has been principal for many years, has long been committed to the systematic use of ICT. In this session Frank will reflect on the college's overall journey in

its use of ICT to support learning, focusing on the impact of the college's web-based services on learners' relationship with the college, and on the changing nature of the college's learners and their use of ICT in learning. Frank, who is also Chair of the 157 Group, a membership organisation representing an influential group of large, successful and regionally influential Further Education colleges in England, will also provide a 'forward look' covering how, in the new political and economic climate, publicly funded education can continue to innovate in learning technology.

Aaron Porter, National Union of Students, UK

Aaron Porter is President of the National Union of Students, responsible for leading and campaigns and representation for students in UK higher education. Previously, Aaron served two terms as Vice-President (Higher Education) having graduated with a BA in English from the University of Leicester. Alongside his role, Aaron holds Non-Executive Directorships on the Boards of the Higher Education Academy, UCAS and the European Students' Union. He is also a member of the HEFCE Online Task Force.

A student perspective on the use of technology in 21st century higher education

My session will focus in on the expectations and perceptions of students on the use of technology in higher education, taking forward the work of the HEFCE Online Task Force, and giving my perspective on what the sector should take forward to meet the needs of students in the 21st century.

Josie Taylor, Open University, UK

Professor Josie Taylor is Director of the Institute of Educational Technology at The Open University. She has a bachelor's degree in Dance, Drama and Psychology (University College, Worcester) and a D.Phil in Cognitive Sciences (University of Sussex). Her research focuses on understanding the ways in which people learn from complex media (traditional and digital) and how best to design those media to support learning. This spans system design, interface design, interaction design, user requirements, and evaluation, and entails understanding user psychology, the nature of learning and the contexts of learning.

Literacies, learning and people's lives: where practice and real life collide...

Digital literacy is much debated at present, and there is no one clear definition. However, such a literacy is a vital 21st century skill without which people will not be able to operate effectively and safely in the digital environment. It is central to enabling people to be lifelong learners. It is also a key employability skill. The Digital Britain report (2009) highlights the economic necessity of people possessing these skills.

Digital literacy not only needs to be taught and learned in its own right, but it is also increasingly part of learning and teaching in a disciplinary context. Being digitally literate enables students to shape their own learning and to effectively manage the ever-increasing amounts of information they are exposed to. They also need to be able to share what they find, in new ways. Trust and sense-making are essential if this is to happen.

But do we know what we are all talking about? In this session, I will outline some of the major issues being raised in debate at the moment, and stimulate conversation around them.

David White, University of Oxford, UK

David White is Senior Manager: Development with Technology-Assisted Lifelong Learning (TALL) at the University of Oxford. TALL is an e-learning research and development group, which David co-manages, with responsibility responsible for the production and delivery of a wide range of online distance courses. David has worked in the overlapping space between education, technology and media for nearly 16 years, and was an early observer of 'Web 2.0' in learning and of the blurring of the boundaries between 'social', 'studying' and 'professional' activities. Recently he has been closely involved in the work of the HEFCE Online Learning Task Force, which has been set-up with the aims of maintaining and developing the position of UK higher education as a world leader in online learning.

Sailing against the trade winds?

How online distance learning could help to maintain the character of higher education in stormy seas.

Earlier this year my group at the University of Oxford were commissioned to undertake a study of online learning for the HEFCE Online Learning Task Force. Our research showed that the vast majority of online distance learning provided at higher education level is in postgraduate 'professional' courses which in these Return-On-Investment times offer an attractive income stream from employers and employees alike. Increasing activity in this area could lead us to believe that we are in danger of generating a parallel 'training 2.0' HE sector but the reality is far more complex.

Using evidence published in the study, this presentation will explore how the emergent culture of the web is encouraging online students to expect a form of engagement that many in the HE sector have been advocating for years. It will discuss how this is challenging the role of the academic and what strategies institutions are taking to meet the demand for discursive, activity based pedagogies. The presentation will also discuss the need for non STEM disciplines to move online to maintain a balanced representation of the character of our university system in the mêlée of course offerings from around the globe.

Introduction to the Abstracts

On behalf of the editors of this book of Abstracts, a very warm welcome to the University of Nottingham for the 17th ALT-C. The title of this year's conference is: "*Into something rich and strange*" – making sense of the sea-change. The quotation is taken from Ariel's song in Shakespeare's play 'The Tempest', a singularly different era and world from the one we encounter at the end of this first decade of the 21st century. The title however aptly summarises the motif of major change which in recent months has become a familiar theme used by the media and national and international governments, as well as more specifically for our own conference which considers the sphere of change for learning technology. As the conference announcement has identified, the sea-change we are currently experiencing in learning technology involves a structural and pervasive shift in the nature of the internet. Last year's conference considered the changes brought about through communicating a vision for learning with technologies which was both realistic and realisable and we consider this year the future uses of learning technology and its influence on our lives as education workers as well as on our students.

The themes addressed in this year's conference present many facets of the changing learning environment. Authors have considered in their papers the changing paradigms and structures for learning and the perceived need for increasing productivity and effectiveness, whilst mitigating risks. There is an exploration of the very present impact of change on the organisational landscape and suggestions as to how we can meet the changing expectations and needs of learners, employers, and society. Beyond these overarching themes are the practical requirements for changing design skills and determining the knowledge needed to support learning and teaching with technology whilst keeping learners and learning at the heart of our thinking.

A number of authors have addressed the conference theme by considering different ways to provide access to learning technologies for those located on the 'wrong side', both in the UK and further afield. The critical use of ICT to support staff and students at a time of economic straitening and the impact of this for disadvantaged members of society is explored by, amongst others, Seale's[1] work in the UK on digital inclusion for disadvantaged members of society and Jameson's report about Zimbabwe. The latter highlights the necessity of change for those who live where the infrastructure has not yet been developed or supported to enable engagement with ICT in learning throughout the school and FE/HE sectors. Closer to home, arising from research carried out in the UK, Beetham and Sharpe lead a symposium sharing ways that institutions are creating and enabling opportunities to promote effective learning in a digital age and showing how research can inform institutional practice.

Mobile learning may be favoured by more affluent students in western society who seek to be 'always connected', yet it has also been widely proposed as a solution for less developed countries where reliable and widespread fixed line networks have never existed and learning technology has moved straight to the opportunities to engage with learning provided by mobile networks. Stead offers a comparative view of mobile learning across different cultures and Garnett considers the use of personal mobile devices to support learning across the educational spectrum from primary education to support for work-based learning in higher education. Martin reviews the development of e-learning standards for mobile users.

As we consider the changing landscape, there is much discussion about the future use and sustainability of Open Educational Resources (OERs) and the sea-change these offer to institutions from among others: Darby, di Savoia, Hall, Leeder, Stapleton and Yuan. The authors present a variety of personal considerations of the state of play for OERs across HE and share research outcomes which reflect on whether OERs will present opportunities for institutions to become more sustainable in terms of power use and efficiency savings and how OERs may support institutional aims to improve the overall student experience.

[1] *Papers are usually referred to by the name of the first (or only) presenter: see the Index for the pages on which they can be found. Citations in this introduction are for illustrative purposes only.*

Many academics continue to explore ways to engage with their students virtually; Heaney considers the advantages of using Second Life (SL) as a teaching medium and identifies barriers such as the technological and training requirements of using SL in this way. A number of contributors explore their own local use of opportunities for teaching in virtual worlds and how to equip students to communicate in a virtual environment while Traxler invites participants to come and debate the ethics of educational intervention in popular digital technologies.

In this short introduction we have provided a taster of some of the many different ways in which academics internationally are discussing the sea-change towards a technology-rich future where teachers and learners can be 'connected' wherever and whenever they are. This leads to opportunities for further extending the impact of learning technology. We look forward to an excellent conference offering lively debate and exchange of ideas whether face to face or online, and the opportunity thoughtfully to engage with the outputs of each others' research and practice.

We now invite you to read on and make your own choices from the range of short papers, symposia, demonstrations, workshops and posters; and above all to enjoy the conference.

Amanda Jefferies
for the Editors

Section and Abstract layout

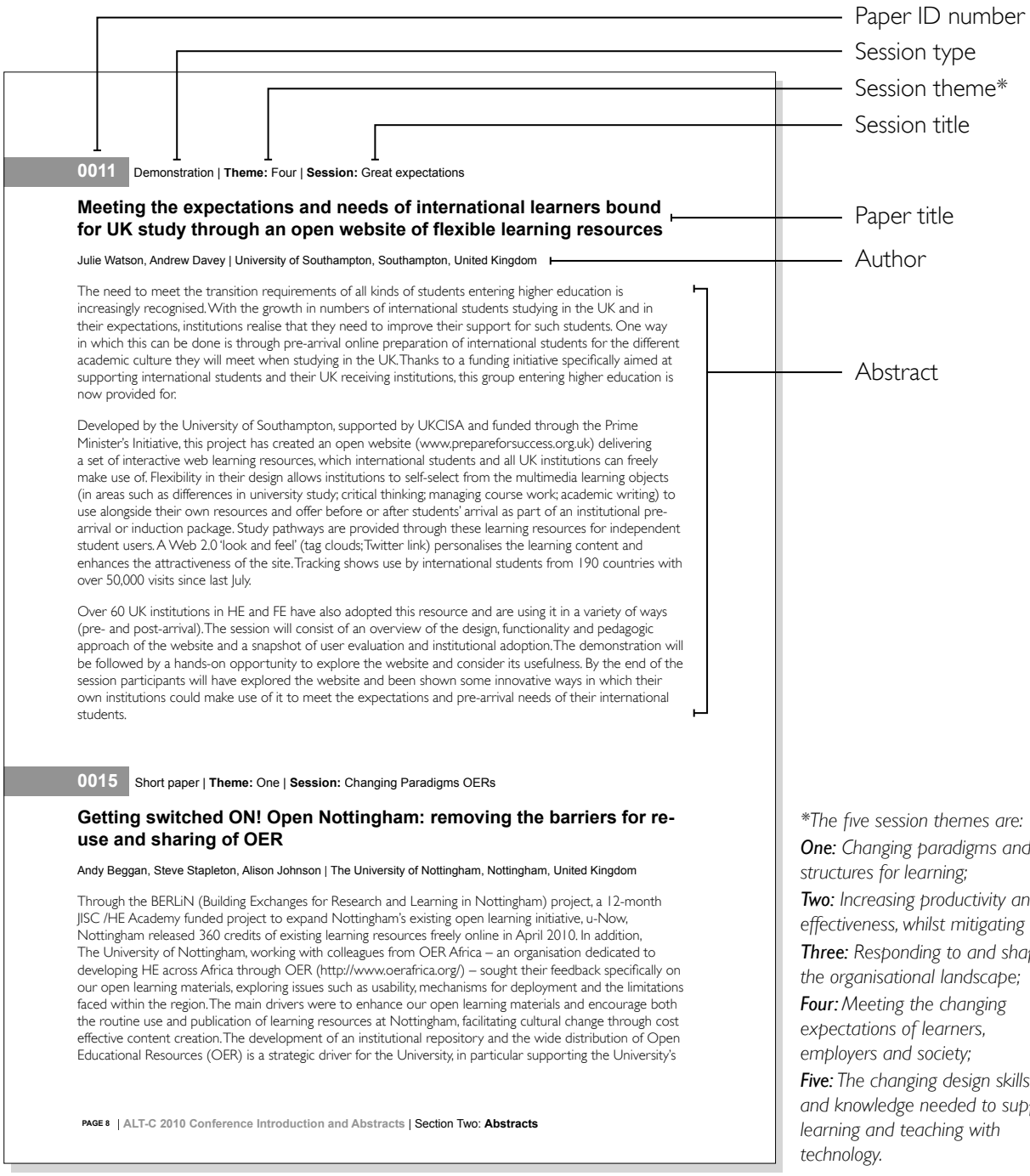
Section two layout

All papers have a unique ID number, assigned to the paper when first submitted; the papers are ordered sequentially by ID number.

There are two indexes: one organised by ID number and the other alphabetically by first author. The abstracts for Proceedings Papers are included here; however you can read the full papers in the separate Conference Proceedings publication.

For information on the scheduling and room information for each session please refer to the online timetable available at Crowdvine: http://altc2010.alt.ac.uk, or to the Programme Guide.

Abstract layout



**The five session themes are:*
One: *Changing paradigms and structures for learning;*
Two: *Increasing productivity and effectiveness, whilst mitigating risk;*
Three: *Responding to and shaping the organisational landscape;*
Four: *Meeting the changing expectations of learners, employers and society;*
Five: *The changing design skills and knowledge needed to support learning and teaching with technology.*

0000! ALT Symposium

Flexible service delivery: ALT and JISC

Alex Hawker[1], John Slater, Acting Director of Development[2] | [1]JISC, United Kingdom, [2]ALT, United Kingdom

With the reduction in sector funding, as well as the changing demands of government and funding bodies, there is an increasing requirement for HEIs and FECs to become more cost effective and agile. Flexible service delivery is gaining momentum as a way to help deliver and sustain transformational change and improvement, including real efficiency savings as well as other measurable strategic and educational value, through the streamlined and flexible provision of services to students and staff.

The Flexible Service Delivery Programme is a JISC funded initiative, restricted by country, which aims to explore and pilot ways to make systems more flexible, within and between institutions and/or suppliers. It has had two phases and intends to complete its work by mid 2011. ALT, along with JISC Infonet, UCISA and CETIS, have supported aspects of the activity including dissemination.

Activities include shared service activities where the Bloomsbury consortium are involved, cloud computing experiments and making suppliers systems interwork better with a set of different HEI systems. There is a significant administration component.

The session will have some presentations from JISC and its partners in support about what is covered and how it relates to future LT activity in JISC and the community. There will be discussions on what to do to ensure that the outputs and experience are fully exploited for the benefit of the community.

0001 ALT Presentation

Welcome to ALT at ALT-C 2010

Maren Deepwell, Membership Services Manager | ALT, United Kingdom

This session is designed to introduce you to the Association for Learning Technology (ALT) in the context of this annual conference. The main focus of the session will be on ALT's work and its community, including publications and membership services, the ALT Open Access Repository and new developments over the past year.

Everyone is welcome to attend, particularly individuals who have not attended our annual conference previously or who have recently joined ALT. The session is led by Maren Deepwell, ALT's Membership Services Manager.

0002 ALT Workshop

Find out about CMALT

CMALT Development Group, Maren Deepwell, Membership Services Manager | ALT, United Kingdom

This session provides an overview of CMALT, which is ALT's certified membership scheme. CMALT is our portfolio-based professional accreditation scheme, developed to enable people whose work involves learning technology to have their experience and capabilities certified by peers and to demonstrate that they are taking a committed and serious approach to their professional development.

Led by members of the CMALT Development Group, this session is intended for those who would like to find out more about CMALT or those who have recently registered for the scheme. This session will be repeated later in the programme as 0002 bis.

ALT Presentation **0002[b]**

Certified Members' Meeting

CMALT Development Group, Maren Deepwell, Membership Services Manager | ALT, United Kingdom

Led by member of the recently formed CMALT Development Group (CDG), all Certified Members of ALT, candidates, assessors or individuals otherwise interested in CMALT and who are attending the conference are encouraged to attend. The session will formally introduce the CMALT Development Group and provide an overview of its current remit and activities.

The session will also allow all Certified Members attending to get to know each other and network as well as to share their views about the scheme and its development with members of the CDG.

ALT Workshop **0003**

ALT future strategy

Carol Higgison, Chair | ALT, United Kingdom

ALT is revising its strategy (see http://www.alt.ac.uk/docs/ALT_2008-2011_Strategy.pdf) While the timing for this was prearranged as part of a cycle, it is also especially appropriate at this time with the sea-changes in LT, government, funding structures and austerity strictures.

Questions to be asked are whether ALT's current six aims are still appropriate and whether the proposed activities still flow from the aims. In particular, in the light of the "Big Society" concepts in which charities and membership organisations are viewed by government as having a role to play in taking over functions from "Big Government", should we be adding to the current strategy in this area?

The actual revision will be finalised following a joint meeting of ALT's operational committees in October 2010. In the meantime ALT's Trustees have been having discussions and getting input. Carol Higgison will chair the session at which ALT will briefly outline current thinking leaving the bulk of the time for members to influence the work.

ALT Presentation **0004**

Get involved with ALT

Haydn Blackey, Chair of the Membership Services Committee, Maren Deepwell, Membership Services Manager | ALT, United Kingdom

If you are interested in becoming more involved in the work of ALT or if you would like to find out how you can engage with our community of practitioners, researchers and policy makers, this session is designed to encourage and show you ways of doing so. We will cover topics from Special Interest Groups (SIGs),

Operational Committees and publishing with ALT, to finding ways to engage with our community and get networking.

Everyone is encouraged to attend the session which is led by Haydn Blackey and Maren Deepwell and will also include members of ALT sharing their views on the benefits of engaging in ALT's work and its member community.

0005 ALT Presentation

Meet ALT's members

Maren Deepwell, Membership Services Manager | ALT, United Kingdom

This informal session takes place at the ALT exhibition stand in the main atrium and provides everyone with the opportunity to meet members of ALT, particularly those involved in one of our four Committees for Further Education, Publications, Research, and Membership Services.

Come and have a chat, network, take a break and get to know the people that are active in ALT.

0006 ALT Presentation

ALT Special Interest Groups: LERSIG and ViE SIG

Maren Deepwell, Membership Services Manager | ALT, United Kingdom

During the past year two new ALT Special Interest Groups have been formed: the ALT Learning Environment Review Special Interest Group (LERSIG) and the ALT Video in Education Special Interest Group (ViE SIG).

This session provides a brief introduction to each new SIG and its members, remit and current activities. You will be able to meet members of each and find out how you can join. The session will also allow you to find out more about how ALT supports SIGs and about the process for getting an ALT SIG established.

0007 Demonstration | **Theme:** One | **Session:** Redesign demonstrations

Designing afresh for distance learning: a demonstration of a Masters degree programme innovatively repurposed for online delivery

Julie Watson, Will Baker | University of Southampton, Southampton, United Kingdom

With an ever increasing array of technologies offering potential for the delivery of educational e-content and support of online communication and interaction, distance learning has an opportunity to expand as never before. However, institutions have not fully exploited this opportunity (Chapelle 2009) and those offering distance-based online masters degree programmes have generally not managed to break away from a design formula which simply transfers much of the face-to-face teaching content into paper-based downloads.

A different approach to online course-building has been developed at the University of Southampton, which innovatively repurposes face-to-face course content into interactive, activity-based 'learning objects' to form an online Masters programme in ELT (English Language Teaching). The activity-based framework underpinning the course content has been developed in-house and also seeks to draws on elements of Laurillard's 'Conversational Framework' (2002). The learning objects together with podcasts and video clips from lectures and seminars form the e-content, and are supported by annotated reading lists and access (through VLE) to the University library's stock of e-books and online journals. The course consists of 8 complete modules and extends over 2 1/2 years with the first full programme being delivered in conjunction with the British Council in Mexico to 25 students based in Latin America and Europe.

The session will consist of an overview of the course design and development process (10 minutes) and a detailed demonstration including questions (20 minutes) of the online MA programme in ELT. During this demonstration participants will be shown the structure of the programme both in terms of content and participants. This will include demonstrations of the technologies used for content delivery and examples of asynchronous and synchronous student discussion and interaction. The roles of those participating in the course will also be explained. The manner in which the face-to-face MA course has been adapted and rendered appropriate for online delivery, will also be discussed. By the end of this demonstration participants will have experienced an approach to online course-building which uses innovative repurposing to produce interactive activity-based learning content and address the changing paradigms and structures of distance learning in global contexts.

Chapelle, C. 2009. The spread of computer-assisted language learning. *Language Teaching,* 43(1): 66 -74.

Laurillard, D. 2002. *Rethinking university teaching: a framework for the effective use of learning technologies* (2nd ed.). London: RoutledgeFalmer.

Is the use of technology in HE 'more efficiently unsustainable'?

Richard Hall[2], Joss Winn[1] | [1]University of Lincoln, Lincoln, United Kingdom, [2]De Montfort University, Leicester, United Kingdom

When we speak of 'sustainability', what is it that we wish to sustain? In a future of climate change, energy depletion and low or no economic growth, what will Higher Education look like? Will our institutions and the current form of educational provision survive? This workshop will encourage participants to imagine and work towards a more 'resilient education'.

This session will provide an opportunity for both non-academic and academic staff to discuss Higher Education, its institutions, curricula and pedagogies, in the light of two external impacting factors: Climate Change and fossil fuel depletion. HEIs are significant energy consumers. Increasingly both pedagogy and the curriculum are aided and delivered through the use of ICT. University floor space is increasing to accommodate growing numbers of students. In a near-future scenario of energy scarcity, which impacts both the reliability and availability of affordable energy, as well as the need to radically shift to the use of renewable energy and extreme efficiencies, we ask: "How resilient are our educational institutions?"

The workshop facilitators (Joss Winn and Dr. Richard Hall) will explain a near-future scenario in which the impacts of climate change and energy depletion on Higher Education are apparent. After a Q & A session, clarifying the scenario for participants, small groups will be challenged to 'think the unthinkable' and develop responses relating to the business continuity of their institutions and the continued provision of quality research, teaching and learning in an environment where absolute emissions are reduced by 80%. Participants will be encouraged to consider the most radical solutions including massive reform of curricula and the disestablishment of the national institutional model. "It is not an exaggeration to claim that the future of human prosperity depends on how successfully we tackle the two central energy challenges facing

us today: securing the supply of reliable and affordable energy; and effecting a rapid transformation to a low-carbon, efficient and environmentally benign system of energy supply. What is needed is nothing short of an energy revolution." (IEA World Energy Outlook 2008 http://www.worldenergyoutlook.org/)

Anderson, K & Bows, A. 2008. *Reframing the climate change challenge in light of post-2000 emission trends,* Phil. Trans. R. Soc. doi:10.1098/rsta.2008.0138 (*http://rsta.royalsocietypublishing.org/content/366/1882/3863*)

Global Witness. 2009. *Heads in the Sand: Governments Ignore the Oil Supply Crunch and Threaten the Climate* (*http://www.globalwitness.org/media_library_get.php/1084/1256592598/heads_in_the_sand_print.pdf*)

Heinberg, R. 2009. *Searching for a Miracle* (*http://www.postcarbon.org/report/44377-searching-for-a-miracle*)

Hopkins, R. 2008. *The Transition Handbook. From oil dependency to local resilience.*

Jackson, T. 2009. *Prosperity without growth? The transition to a sustainable economy* (*http://www.sd-commission.org.uk/publications.php?id=914*)

0009 Short paper | **Theme:** One | **Session:** More changing staff development

Leading e-Learning: achieving personal growth whilst overcoming self-doubt

Kyriaki Anagnostopoulou[1], Susannah Quinsee[2] | [1]Middlesex University, London, United Kingdom, [2]City University, London, United Kingdom

Stemming from the lack of leadership development available for Heads of e-Learning (HeL) in UK higher education institutions this paper reports on research which sits within a larger boundary and identity study funded by the Leadership Foundation in Higher Education. "Outstanding leaders base their hopes for the future on what they have learnt through assessing their past experiences" (Ramsden 1998, 12). It is precisely this previous learning which leaders of e-learning have done, how they conceive of it and how it influences the way in which they lead the enhancement of learning and teaching in their institutions was explored during this research project. The absence of research which brings together the two phenomena coupled with the uniqueness of the role of HeLs provided the basis for an original contribution to the field of research.

A phenomenological approach was used to explore the conceptions of learning and leadership and the conceptual framework was underpinned by Heideggerian theory. Data was collected during 6 in-depth semi-structured interviews which enquired about HeLs' experiences. Theories and perceptions of the two phenomena and transcripts were then analysed using the modified Stevick-Colaizzi-Keen method (Moustakas, 1994). Focus groups were used to present and substantiate the findings as applicable to the community of HeLs.

A comparison of the structures of the two phenomena revealed that they are intertwined under certain conditions. This has resulted in two key findings which will inform the planning of leadership development for HeLs. Firstly, when greater self-presence of participants was evident both phenomena afforded challenging learning experiences which led to personal growth. However research findings position greater self-presence positively with regard to learning, but negatively in relation to functional performance in leadership. Secondly, feelings of fraudulence, of being imposters, were evident in conceptions of both phenomena which could inhibit personal growth. Findings and recommendations are offered with caution as they may not be applicable for, or generalisable to, leaders not in this unique position of 'Head of e-Learning' (middle manager, new professional, straddling both the academic and administrative domains, etc) or leaders outside the higher education sector as value systems vary significantly.

Ramsden, P. 1998. *Learning to lead in higher education.* Oxon: Routledge.

Moustakas, C. 1994. *Phenomenological Research Methods.* London: Sage Publications

Provision of professional development: overview of empowerment and deficit models

John Clayton, Richard Elliott | Waikato Institute of Technology, Hamilton, New Zealand

Over the last decade, individual New Zealand schools and successive Governments have increased their funding for professional development in Information and Communication Technologies (ICT) (Ham, et al 2002). This funding acknowledged the competence and confidence of teachers in the educational use of ICT directly impacted upon the capacity and capability of schools to positively engage their learners in ICT-supported learning environments (Clayton, Elliott & Saravani 2009).

Initially, the professional development followed conventional models of provision. In essence, a perceived need (i.e. teachers' lack of personal ICT skills and theoretical knowledge to effectively use ICT) was centrally addressed. This was achieved by either the creation of a range of professional development activities, provided within a defined timeframe and facilitated by external experts or, by the funding of Advisory Services to provide guidance to individual schools (Ham, et al 2002). The initial professional development, where external experts advised and/or delivered learning events to address the identified deficiencies in teachers' knowledge, was based upon a 'deficit' model of professional development (Clayton et al 2009). Influenced by the educational reforms of the 1980s, a school-focused model of professional development was introduced. This was the Information Technology Professional Development (ICT PD) initiative (ICT Strategy Reference Group 1998) resulting in the establishment of a professional development model known as the ICT PD Clusters model (Ham et al 2005).

The ICT PD model encouraged groups of schools to reflect upon teachers' capabilities and confidence in ICT and the impact of ICTs on their teaching and learning practices. The introduction of the ICT PD model shifted investment in professional development from funding a 'deficit' approach to an 'empowerment' approach (i.e. schools' internal reflection and decision making on how, when and why ICTs could be integrated drive the creation, provision, timing and content of school-focused professional development) (Vrasidas & Glass 2010: Niess 2006; Clayton, et al 2009). In 2009 the Ministry of Education funded an evaluation of the ICT PD. This poster will use the findings of this evaluation to graphically illustrate both empowerment and deficit models of professional development within the context of the ICT PD Clusters model.

Clayton, J., Elliott, R. & Saravani, S-J. 2009. ICT PD Cluster Programme: Past Practices and Future Trends. *ICT PD Cluster Programme Research Review Project. Unpublished Project Report.* Ministry of Education Research Division, Wellington.

Ham, V., Gilmore, A., Kachelhoffer, A., Morrow, D., Moeau. P. & Wenmoth, D. 2002. What makes for effective teacher professional development in ICT?: *An evaluation of the 23 ICTPD school clusters programme 1999-2001*. Wellington: Ministry of Education, Research Division.

ICT Strategy Reference Group 1998. *Interactive education: An information and communication technologies strategy for schools.* Wellington: Ministry of Education.

New Zealand Dept. of Education. Implementation Unit 1989. *Tomorrow's schools*. Wellington: The Dept.

Niess, M. L. 2006. Guest editorial: Preparing teachers to teach mathematics with technology. *Contemporary Issues in Technology and Teacher Education,* 6(2), 195-203

Vrasidas, C & Glass, G. 2010 *Teacher Professional Development and ICT: Strategies and Models.* Retrieved 04 May 2010, from: *http://nsseyearbook.org/files/2010/01/Vrasidas-and-Glass.pdf*

0011 Demonstration | **Theme:** Four | **Session:** Great expectations

Meeting the expectations and needs of international learners bound for UK study through an open website of flexible learning resources

Julie Watson, Andrew Davey | University of Southampton, Southampton, United Kingdom

The need to meet the transition requirements of all kinds of students entering higher education is increasingly recognised. With the growth in numbers of international students studying in the UK and in their expectations, institutions realise that they need to improve their support for such students. One way in which this can be done is through pre-arrival online preparation of international students for the different academic culture they will meet when studying in the UK. Thanks to a funding initiative specifically aimed at supporting international students and their UK receiving institutions, this group entering higher education is now provided for.

Developed by the University of Southampton, supported by UKCISA and funded through the Prime Minister's Initiative, this project has created an open website (www.prepareforsuccess.org.uk) delivering a set of interactive web learning resources, which international students and all UK institutions can freely make use of. Flexibility in their design allows institutions to self-select from the multimedia learning objects (in areas such as differences in university study; critical thinking; managing course work; academic writing) to use alongside their own resources and offer before or after students' arrival as part of an institutional pre-arrival or induction package. Study pathways are provided through these learning resources for independent student users. A Web 2.0 'look and feel' (tag clouds; Twitter link) personalises the learning content and enhances the attractiveness of the site. Tracking shows use by international students from 190 countries with over 50,000 visits since last July.

Over 60 UK institutions in HE and FE have also adopted this resource and are using it in a variety of ways (pre- and post-arrival). The session will consist of an overview of the design, functionality and pedagogic approach of the website and a snapshot of user evaluation and institutional adoption. The demonstration will be followed by a hands-on opportunity to explore the website and consider its usefulness. By the end of the session participants will have explored the website and been shown some innovative ways in which their own institutions could make use of it to meet the expectations and pre-arrival needs of their international students.

0015 Short paper | **Theme:** One | **Session:** Changing Paradigms OERs

Getting switched ON! Open Nottingham: removing the barriers for re-use and sharing of OER

Andy Beggan, Steve Stapleton, Alison Johnson | The University of Nottingham, Nottingham, United Kingdom

Through the BERLiN (Building Exchanges for Research and Learning in Nottingham) project, a 12-month JISC /HE Academy funded project to expand Nottingham's existing open learning initiative, u-Now, Nottingham released 360 credits of existing learning resources freely online in April 2010. In addition, The University of Nottingham, working with colleagues from OER Africa – an organisation dedicated to developing HE across Africa through OER (http://www.oerafrica.org/) – sought their feedback specifically on our open learning materials, exploring issues such as usability, mechanisms for deployment and the limitations faced within the region. The main drivers were to enhance our open learning materials and encourage both the routine use and publication of learning resources at Nottingham, facilitating cultural change through cost effective content creation. The development of an institutional repository and the wide distribution of Open Educational Resources (OER) is a strategic driver for the University, in particular supporting the University's

international strategy ('knowledge without borders') and fostering interaction with prospective and existing students in order to complement their studies, as well as building connections with other HEIs nationally and internationally.

The BERLiN project team began by exploring the barriers preventing adoption at Nottingham, identifying the issues involved and developing strategies for overcoming them. Consequently, a series of academic focus groups (summer 2009) explored institutional perceptions towards open learning and potential reuse at Nottingham: http://unow.nottingham.ac.uk/focus_groups.pdf

The detailed results were illuminating though they did confirm our suspicions that anxieties lay in areas such as the fear of loss of control, legal or moral restrictions, time and effort required, quality controls and the extent to which the numerous forms of teaching can be represented in OER.

This presentation will discuss the successful and unsuccessful strategies employed to support the growth in use and repurpose of OER at Nottingham, including:

- content development, including processes to find and attribute open materials;
- end user feedback;
- digital literacy training;
- promotion and awareness raising activities;
- approaches for encouraging reuse;
- strategies for addressing academic concerns.

HE practice and Web 2.0 – what's stopping us?

Liz Bennett | University of Huddersfield, Huddersfield, United Kingdom

This short paper is a discussion, informed by wider reading, focusing on the challenges of adopting web 2.0 tools in HE learning and teaching practices. Web 2.0 practices involve a radical or sea change in the pedagogical model from a traditional 'chalk and talk', teacher-led activity, to student-centred activity based learning. Yet despite Web 2.0's apparent suitability for supporting a constructivist approach to learning and teaching, which is known to be deliver deeper approaches to learning (Trigwell, Prosser, & Waterhouse, 1999), its uptake in HE practice is limited (Crook, 2008, p. 5). This paper explores the reasons for this.

A number of writers have identified challenges or tensions that arise when HE teachers adopt Web 2.0 tools in their learning and teaching practices (Crook, 2008; Dohn, 2008; Land & Bayne, 2008; Owen, Grant, Sayers, & Facer, 2006). The nature of these tensions is very broad and includes philosophical and epistemological challenges alongside, and overlapping with, more practical issues of safety, time and skills. Finding ways to address these tensions has far reaching implications.

This paper discusses the nature of these tensions and how they can be understood in terms of three categories philosophical, epistemological and practical, arguing that it is easy to get stuck worrying about the barriers what might be called the 'usual suspects' of teacher time and technical skills.

In order to achieve adoption of Web 2.0 practices fundamental changes are needed in design of learning and teaching activities and these require teachers to address their underpinning values and beliefs on the nature of teaching and learning, and to develop an understanding of web literacies and epistemological

structures. This paper identifies some key research questions for further empirical studies focussing on teachers' skills and how these are acquired, and teachers' identities and whether there is a disposition which lends itself to openness with Web 2.0 practices.

Crook, C. 2008. *Web 2.0 technologies for learning: The current landscape – opportunities, challenges and tensions*. Becta.

Dohn, N. 2008. *Knowledge 2.0 – tensions and challenges for education.* Paper presented at the Proceedings of the 6th International Conference on Networked Learning.

Land, R., & Bayne, S. 2008. *Social technologies in higher education: Authorship, subjectivity and temporality.* Paper presented at The Proceedings of the 6th International Conference on Networked Learning

Owen, M., Grant, L., Sayers, S., & Facer, K. 2006. *Social software and learning.* Future Lab.

Trigwell, K., Prosser, M., & Waterhouse, F. 1999. *Relations between teachers' approaches to teaching and students' approaches to learning.* Higher Education, 37, 57-70.

0019 Poster | **Theme:** One

HE practice and Web 2.0 – what's stopping us?

Liz Bennett | University of Huddersfield, Huddersfield, United Kingdom

This poster accompanies a short paper under the same title. The paper identifies a number of challenges or tensions that arise when HE teachers adopt Web 2.0 tools in their learning and teaching practices (Crook, 2008; Dohn, 2008; Land & Bayne, 2008; Owen, Grant, Sayers, & Facer, 2006). The nature of these tensions is very broad and finding ways to address them has far reaching implications. They include philosophical and epistemological challenges alongside, and overlapping with, more practical issues of safety, time and skills. The poster graphically identifies the tensions and shows how they can be grouped into three categories of philosophical, epistemological and practical (using colour coding). People will be asked to vote using post-it notes for the tension(s) that most affect their practice. Responses will be collated onto an accompanying graffiti wall.

The poster enables people who have not attended the short paper session to examine the paper's contents. It will also be relevant for those who have attended to feedback on their views of the paper's contents (by voting and by adding to the graffiti wall). The paper includes a definition of Web 2.0 tools and examples of Web 2.0 services. The paper identifies some key research questions for further empirical studies focussing on teachers' skills and how these are acquired, and teachers' identities and whether there is a disposition which lends itself to openness with Web 2.0 practices.

Crook, C. 2008. *Web 2.0 technologies for learning: The current landscape – opportunities, challenges and tensions*. Becta

Dohn, N. 2008. *Knowledge 2.0 - tensions and challenges for education.* Paper presented at the Proceedings of the 6th International Conference on Networked Learning.

Land, R., & Bayne, S. 2008. *Social technologies in higher education: Authorship, subjectivity and temporality.* Paper presented at the Proceedings of the 6th International Conference on Networked Learning

Owen, M., Grant, L., Sayers, S., & Facer, K. 2006. *Social software and learning.* Future Lab.

0020 Poster | **Theme:** Two

Drawtivity – a web based e-learning authoring system designed to support Open Education Resource development

Tony Lowe | Webducate, Dorchester, Dorset, United Kingdom

This poster will describe the progress of the Drawtivity project which is funded by the Talis Incubator for Open Education. This project aims to develop an easy to use web based authoring system for a new type of learning activity (called Drawtivity) which will also provide a pathway for the rapid and easy adaptation

of these activities by educators wishing to re-use them in different contexts. In doing this it is hoped to demonstrate a new model of content authoring and re-authoring that could be applied to other types of learning resource authoring systems.

Drawtivity activities are based around the participant drawing a line or an area on an image or photograph. On submission the participant can view feedback on the accuracy of their drawing through viewing the correct line or area and an accuracy score. Example activities include marking out anatomical structures, drawing graphs of mathematical functions, marking geographical features on a map etc. Drawtivity activities are anticipated as being used as interactive components of self-directed on-line learning resources delivered as part of distance or blended learning courses. By the time of the ALT-C conference it is anticipated that example activities will be available for testing and feedback. If available, feedback from typical student users will be documented on the poster.

The authoring system for these activities is web based and will offer functionality to allow activity authors to not only author an activity from scratch but also to easily discover, use and re-purpose activities created on the system by other authors. This process is central to the realisation of the goals of the OER movement as has been identified by many authors including Pegler (2010). It is hoped that by the ALT-C conference evidence for this process being used by Drawtivity activity authors will be available.

The development of this system is being carried out with feedback from a project steering committee and is also being documented in a blog (www.drawtivity.org). Feedback gained from these two channels will be used to evaluate and direct the project as it progresses.

Pegler, C. 2010. *Reuse: the other side of sharing OERs.* OER10 conference. University of Cambridge (*http://www.ucel.ac.uk/oer10/docs/abstractsA4.pdf* accessed 13th May 2010).

Out of something rich and strange: the appearance and subsequent fate of issues and themes in the ALT-C Proceedings 2000 – 2009

David Morris[1], Nigel Ecclesfield[2] | [1]Coventry University, Coventry, United Kingdom, [2]Becta, Coventry, United Kingdom

This symposium, supported by the authors' analysis of the content of ALT-C Proceedings in the period from 2000 to 2009, seeks to explore the themes that have emerged over the last ten years and how these have evolved. While semantic analysis has been used extensively to explore meaning and the development of ideas in individual texts or disciplines, its use to explore themes in multi-disciplinary conference proceedings is not reported in the current literature. Through the use of a new semantic analysis tool, the authors have reviewed the published Proceedings to identify the fate of themes in terms of the attention given to them by individual authors and the volume of work referencing these themes across the decade.

While providing a short introduction to the tools and methodology employed in this review, the symposium will focus on the influence of technology, policy and pedagogy in the emergence and subsequent fates of themes identified in the proceedings and how the themes reflect the wider concerns of those contributing to the current ALT-C. The authors will present a visual mapping of key themes and seek to engage participants in a historical review of recent ALT-C Proceedings and to identify issues to be carried forward into the current and future dialogues initiated by the conference theme. By considering the recent trajectory of the themes reflected in the Proceedings it is hoped to identify how this history influences current thinking and helps create the resources to support future work.

Working in the symposium to bring together different strands of thought, it is intended to explore the wider issue of the extent to which developments in technology, policy and learning and teaching are mutually influential and developments in each area are reflected in the documentation as second order themes and indicators. Participants in the symposium will be given access to the detailed analyses used to support the introduction to the symposium and the research paper describing and reviewing both the methodology and findings of the project.

0025 Proceedings paper | **Theme:** Five | **Session:** Professional development

The provision of professional development in ICT: a New Zealand perspective

John Clayton | Waikato Institute of Technology, Hamilton, New Zealand

During the last fifteen years funding for the provision of professional development in Information and Communication Technologies (ICT) in New Zealand has increased significantly. This funding acknowledges the competence and confidence of teachers in the educational use of ICT directly impacts upon the capacity and capability of schools to positively engage their learners in ICT-supported learning environments. Initially, the professional development offered followed conventional models of provision. In essence, a perceived need (i.e. teachers' lack of ICT skills and theoretical knowledge) was centrally addressed.

This professional development, where external experts deliver events to address identified deficiencies, is based upon a 'deficit' model of professional development. Influenced by the school reforms of the early 1980s a school-focused model, the ICT PD Clusters (ICT PD) model, was introduced in 1996. The ICT PD model encouraged groups of schools to reflect upon teachers' capabilities and confidence in ICT. The ICT PD shifted investment in professional development from funding a 'deficit' approach to an 'empowerment' approach (i.e. schools' decide on the provision, timing and content of professional development offered). This presentation will examine both empowerment and deficit models of professional development within the context of the ICT PD Clusters model.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0027 Short paper | **Theme:** One | **Session:** Friend or Folio

Friendfolios – harnessing social scaffolding for reflection

Alan Cann, Jo Badge | University of Leicester, Leicester, United Kingdom

Reflection is an essential aspect of learning, allowing students to progress through identification of learning strengths and needs. This commonly involves construction of reflective portfolios. Building reflection is rarely popular with students (Driessen et al, 2005). Our experience with reflective e-portfolios confirms this difficulty.

We revised a first year undergraduate key skills module, leading to the construction of a personal learning environment (PLE) and reflective e-portfolio. Evidence shows that "big box" tools tend to be rejected by students in favour of social sites - a "mashup PLE" (JISC, 2008). Students were initially encouraged to construct reflective e-portfolios based on wikis. Feedback indicated that students did not enjoy enforced reflection because they perceived it to be "not relevant" to their degree.

Baker, A.C., Jensen, P.J., and Kolb, D.A. 2002. *Conversational Learning: An Experiential Approach to Knowledge Creation*. Quorum Books.

Dorum, K., Bartle, C., and Pennington, M. 2010. *The Effect of Online Social Networking on Facilitating Sense of Belonging among University Students Living Off Campus*. World Conference of Educational Multimedia, Hypermedia and Telecommunications, Toronto, Canada, 2010. *http://tinyurl.com/FacebookPaper* Accessed: 1st May 2010.

Driessen, E.W., van Tartwijk, J., Overeem, K., Vermunt, J.D. and van der Vleuten, C.P.P. 2005. *Conditions for successful reflective use of portfolios in undergraduate medical education*. Medical Education 39: 1230-1235.

JISC. Effective Practice with e-Portfolios. 2008. *http://www.jisc.ac.uk/whatwedo/programmes/elearning/eportfolios/effectivepracticeeportfolios* Accessed: 1st May 2010.

Selwyn, N. 2007 *Screw Blackboard... do it on Facebook! An investigation of students' educational use of Facebook.* Poke 1.0 - Facebook social research symposium, University of London, November 2007. *http://www.scribd.com/doc/513958/Facebook-seminar-paper-Selwyn* Accessed: 1st May 2010.

PebblePad enabled PDA use on placement pilot scheme (PUPPS) – a case study of biographical work based mobile learning

Iwi Ugiagbe-Green | Leeds Metropolitan University, Leeds, United Kingdom

PUPPS is a small scale qualitative pilot study involving 7 students from Leeds Business School who are using loaned PDAs to create artefacts of their learning during their work-placement. The PDAs have PebblePad installed, allowing students to upload photos, MP3 audio files and video to evidence critical events of learning which they reflect on and organise using the effective scaffolding features of PebblePad. Students are currently organising their artefacts into e-portfolios which they will own and will use for self promotion in relation to future employment and other Level 3 assessments. Students adopt agency of their learning, deciding what artefacts they want to create and to select to evidence their learning. Narrative reflections to support their learning are created through PebblePad and organised into an e-portfolio, as well as blogs in Google Blogger or PDA notes about their experiences in terms of the research project itself.

The poster will visually communicate the important themes emerging from the pilot with an emphasis on biographical learning. Biographical learning focuses on the relevance to their personal learning of how and what learners select. It also addresses how learners seek to organise and present evidence of their learning to others.

Alheit, P. Dausien, B. 2002. *The double face of lifelong learning: Two analytical perspectives on a silent revolution.* Studies in the Education of Adults. 34(1): 3-22.

eAssignment: an institutional submission and management system for assessment of open-ended assignments

Trevor Bryant, Peter Gibbs, Martin Chivers, Peter Silvester, Alex Furr | University of Southampton, Southampton, United Kingdom

Although digital drop boxes for student submissions exist in VLEs they are often incomplete solutions. We are developing an institutional system to provide an on-line environment for administration, marking and feedback of electronically submitted open-ended student assignments, these are typically essays but any digital document that can be uploaded could be assessed using this system. The benefits for students is access to assignment criteria, marking descriptors, assignments results and feedback anytime anywhere; for markers it provides access to assignments online, thus removing the need to circulate physical copies of assignments; for quality assurance, there is the transparency of assignment criteria and marking descriptors in use for all assignments, together with a consistent process of marking and easy access for external examiners anytime anywhere. One of the perceived benefits from our institutional system will be that it will be used to facilitate the harmonisation of assessment processes across the institution.

0031 Short paper | **Theme:** one | **Session:** Technology in delivery

Knowing when to let go: a pedagogy for using online chat in teaching

Sarah Horrigan | Open University, Milton Keynes, United Kingdom and Nottingham Trent University, Nottingham, United Kingdom

Students talk online all the time. By the time they come to university, 9 out of 10 of them will be a regular user of a social networking site (CLEX 2009) but their ability to communicate online: to converse freely, to exchange thoughts and ideas is given little scholarly direction (Ipsos MORI 2008). There is little research into the impact of scaffolding within online synchronous communications (sometimes referred to as 'instant messaging' or 'chat') in an educational context. This paper proposes that appropriate scaffolding can lead to more educationally rich dialogue amongst students and examines the role of the tutor in facilitating that discussion.

Using a within-participants small groups study at the Open University, two online synchronous discussions were held where a tutor was present in one of the groups and the resulting effects on communication were analysed. The results showed that the tutor was observed using particular techniques to scaffold students' learning, for example the use of questions and the periodic provision of summaries (Mercer 1995; Burnett 2003; Bradley et. al. 2008) and that their presence changed the type of communication occurring. However, whether or not this made the communication more educationally rich was unclear since quantitative analysis alone did not offer the potential to understand learners' wider socio-cultural contexts or their perceptions of the value of the discussion on their learning. Even so, it provided food for thought on what level of participation was appropriate for the tutor in order to maximise the depth of discussion for their students. The lack of a specific pedagogy for using online chat in Higher Education is therefore addressed by this paper. Based on the above research, some simple guidelines have been produced to help academics explore the use of lightly scaffolded online synchronous discussion in teaching whilst looking to deepen students' learning and give them the opportunity to build on their fluency with this form of communication.

Bradley, M. E., Thom, L. R., Jayes, J. and Hay, C. 2008. *Ask and you will receive: how question type influences quantity and quality of online discussions,* British Journal of Educational Technology, vol.39. no.5. 888-900

Burnett, C. 2003. *Learning to Chat: tutor participation in synchronous online chat,* Teaching in Higher Education, vol.8. no.2. 247-261CLEX. 2009.

Higher Education in a Web 2.0 World, available from *http://clex.org.uk/CLEX_Report_v1-final.pdf* (accessed 8th February 2010)

Ipsos MORI. 2008. *Great Expectations of ICT,* JISC, available from *http://www.jisc.ac.uk/publications/documents/greatexpectations.aspx* (accessed 8th February 2010)

Mercer, N. 1995. *The Guided Construction of Knowledge –Talk amongst teachers and learners.* Cromwell Press. UK

0032 Poster | **Theme:** Four

Using blogs in summative assessment: the mature students' experience

Julie Vuolo, Irene Anderson | University of Hertfordshire, Hatfield, Hertfordshire, United Kingdom

As scholarly uses for social networking software such as blogs emerge (Downes, 2004), it is timely to ensure the student perspective on using learning technologies is understood and where possible incorporated into curriculum design. In 2005, the importance of listening to users' views on e-learning was endorsed by the DfES (2005). Since then, the Joint Information Systems Committee's e-learning pedagogy programme has done much to explore the learner perspective (JISC, 2009); they have also highlighted the need to hear the student voice through initiatives such as the National Student Survey and the Committee of Inquiry into the Changing Learner Experience. The need to hear the voice of the less experienced, less confident user of technology as typified by the post-qualified nurse learner provided the impetus for this study..

This poster will describe a small scale study which aimed to gain insight into the experiences of students required to write a blog as part of a summative assignment. The researchers adopted a mixed methodological approach, utilising survey and interview strategies to elicit the views of 8 students (qualified nurses) who were each studying as mature, part-time students in a Higher Education setting.

Analysis of the survey and interview findings revealed four emergent themes: fear of the unknown, collegiality and support, bravery and willingness to engage and impact on learning. Overall findings indicated a high level of initial anxiety about using blogs although once started they were found to be easy to use and of overall benefit to learning. The survey findings will be displayed graphically and complemented by quotes from the participants.

Although this study was limited by size, some important 'take away' messages were identified for learning and teaching practice. These can be are summarised as: expect and respect students feelings of fear and anxiety, ensure clarity of academic requirements, provide a supportive and safe blogging environment, agree rules of engagement together.

The researchers concluded that the student experience should inform decisions of when and how blogs are used in education in order to maximise benefit for both learner and teacher.

Department for Education and Skills (DfES). 2003. *The Future of Higher Education.* DfES Available at: *http://www.dfes.gov.uk/hegateway/uploads/White%20Pape.pdf*

Downes, S. 2004. *Educational Blogging.* EDUCAUSE review. 39 (5) 14-26 Available at: *http://www.educause.edu/erJISC* (2009)

E-learning pedagogy programme. JISC. Available at: *http://www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy.aspx*

Short paper | **Theme:** Five | **Session:** Changing pedagogy **0033**

Preparing nurses for web-based learning: exploring the value of emotional support and blended learning on self-efficacy

Cherry Poussa, Shaaron Ainsworth, Heather Wharrad | University of Nottingham, Nottingham, United Kingdom

Nursing students undertaking web-based learning for the first time are confronted with multiple challenges including gaining new skills that can impact significantly on their confidence to succeed as a Web-based learner (Stokes, 2000). Training on web-based learning provides opportunity to undergo mastery experiences of the skills needed. This study investigates if student nurses' web-based learning skills and self-efficacy (WBLSE) can be improved following training alone (self-directed) or with others (blended setting). This study also investigates the use of virtual peers (avatars, quotes and photos) (Nass et al, 1995) in providing similar social support.

A background study identified familiarity with hyperlinks, bookmarking and downloading documents as essential skills for web-based learning. Thus, bespoke training packages and associated pre, post and delayed tests of skills and WBLSE (adapted from Compeau & Higgins 1995) were developed. The study employed a 2 by 2 between measures design (setting/ virtual peer) as well as a non intervention control.

Overall, the nurses' skills increased significantly following training unlike the control group. The improvement in WBLSE was the same whether they trained in blended or self-directed setting. However, virtual peers only benefited the self-directed groups' WBLSE.

These results showed that all interventions were equally effective at improving nurses' knowledge of Web-based learning but that in the absence of a blended learning situation, a peer avatar was needed to improve

WBLSE. Further studies are now exploring how this social support should best be implemented and similar studies will be carried out with registered nurses on continuing professional development courses to investigate if the results can be generalised.

Compeau, D. R., and Higgins, C. A. 1995. *Computer self-efficacy: Development of a measure and initial test.* MIS Quarterly, 19, 189–211.

Nass, C. I. Moon, Y. Fogg, B. J. Reeves, B., and Dryer, D. C. 1995. *Can computer personalities be human personalities?* International Journal of Human-Computer Studies, 43, 223–239.

Stokes, S. 2000. *Preparing students to take online interactive courses*. The Internet and Higher Education, 2(2-3), 161–169.

0034 Short paper | **Theme:** Four | **Session:** Technology in delivery

The role of podcasting in effective curriculum renewal

Alejandro Armellini, Ming Nie | University of Leicester, Leicester, United Kingdom

What was the contribution of podcasting to the curriculum transformation of two distance-taught Masters programmes in Occupational Psychology (OP) at the University of Leicester, UK? Both programmes attract work-based OP practitioners, most of who are in full-time employment. Challenges faced by the OP team included adding flexibility to the curricula, increasing learner engagement (both with learning materials and feedback) and reducing learner isolation. A further consideration was securing good retention rates on both programmes. As part of a coordinated enhancement effort, which included changes to curriculum design and delivery, 59 podcasts were gradually introduced into the curricula over a 12-month period. The podcasts focused on a range of topics at both module and programme levels, with many of them specifically designed to support assessment (assignments and dissertations respectively).

Qualitative and quantitative data were gathered from students and staff via different instruments throughout the study. Action research ensured a regular flow of relevant evidence informing each stage of the renewal process. Evidence suggested that the students' learning experience improved as a result of four key benefits associated with the integration of podcasting in learning design: (1) personalisation, (2) an additional and different format for providing clear and engaging guidance, support and feedback, (3) increased flexibility and mobility within the curricula, and (4) 'design once, deliver many times' with minimum adaptation. The success of this low-cost, high-value innovation in Applied Psychology is being emulated elsewhere at the University of Leicester as part of new initiatives in curriculum transformation and innovation. Practitioners from other departments are now building on the outcomes of this research with a view to redesigning their curricula.

Armellini, A., Salmon, G., and Hawkridge, D. 2009. The Carpe Diem journey: Designing for learning transformation. In T. Mayes, D. Morrison, H. Mellar, B. Peter and O. Martin (eds.), *Transforming higher education through technology-enhanced learning:* 135-148. York: The Higher Education Academy.

Salmon, G., and Edirisingha, P. 2008. *Podcasting for learning in universities*. UK: McGraw Hill.

0035 Short paper | **Theme:** One | **Session:** Changing Paradigms OERs

CORRE: A framework for transforming teaching materials into OERs

Alejandro Armellini, Emma Davies, Richard Mobbs, Samuel Nikoi, Tania Rowlett, Gabi Witthaus | University of Leicester, Leicester, United Kingdom

Openness has become a defining quality of the 21st century associated with values such as freedom, participation, empowerment, collaboration and lifelong learning (Straub 2008). In the Higher Education sector, this has resulted in the development and dissemination of Open Educational Resources (OERs). Currently there are over 3000 open access courses from over 300 universities worldwide (Yaun, MacNiel and Kraan 2008), providing flexible content that can be adapted to local needs and conditions (Downes

2006). Authoring tools such as eduCommons, LAMS, GLO Maker II, Xerte and COMPENDIUM; licenses such as Creative Commons; and repositories such as ITunes U and OER Commons enable institutions and individuals to generate and access OERs.

For many academics new to open learning, a major challenge is transforming existing teaching materials into OERs (Lane 2006). Many questions arise, including re-contextualising materials, usability under appropriate licenses, format accessibility, availability across different learning platforms and domains, and trackability. In this article we present and discuss an integrated workflow framework developed to answer some of these questions. Our CORRE framework (Content-Openness-Reuse/Repurpose-Evidence), for transforming existing materials into OERs derives from the OTTER project, one of the JISC institutional strand OER projects. CORRE has four main stages, each defined by a set of criteria matched to indicative evidence:

- Content focuses on gathering and screening existing teaching materials for turning them into OERs.
- Openness assesses the legal, pedagogical and technical perspectives of transforming existing content into OERs.
- Reuse/Repurpose, the sociocultural dimension, involves validation of transformed materials with academic partners and potential users.
- Evidence addresses questions related to sustainability in terms of the value and usefulness of an OER through a process of tracking using multiple survey mechanisms.

The value of CORRE lies not simply in its suitability as an agile method (Boyle 2006) for transforming existing teaching materials into OERs, but more importantly, in its use of indicative evidence for assessing the quality, accessibility, adaptability and potential impact of OERs.

Boyle, T. 2006. An Agile method for developing learning objects. In L. Markauskaite, P. Goodyear, & P. Reimann (Eds.) *Proceedings of the 23rd Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education: Who's Learning? Whose Technology?* (pp. 91-99). Sydney: Sydney University Press.

Downes, S. 2006. Models for Sustainable Open Educational Resources. Interdisciplinary Journal of Knowledge and Learning Objects. vol 3. 2007. pp. 29 – 44. Lane, A., (2006). *From Pillar to Post: exploring the issues involved in repurposing distance learning materials for use as Open Educational Resources.* Found at: *http://kn.open.ac.uk/public/document.cfm?docid=9724* [Accessed: 22 October 2009]

Straub, R. 2008. *Is the World Open?* Found at: *www.elearningpapers.eu.* 1 No 8. pp. 1-5. [Accessed: 19 October 2009]

Yaun, L., MacNie, S., and Kraan, W. 2008. *Open Educational Resources – Opportunities and Challenges for Higher Education.* Found at: *http://learn.creativecommons.org/wp-content/uploads/2008/09/oer_briefing_pa*

Capturing tutor expertise using video – the hands-on approach

Carol Elston, Jade Kelsall | University of Leeds, Leeds, United Kingdom

The LearnHigher Centre for Excellence in Teaching and Learning (CETL) is a partnership of 16 UK Universities committed to improving student learning through research and resource development. Focussing on 20 areas of academic skills development, from academic writing to time-management, the project outcomes include research papers, conference workshops and a coherent open access website showcasing a range of online resources for both students and staff. Entering the final year of the 5-year project, the dilemma was how to capture the expertise of the LearnHigher partners and their colleagues. The aim was to find a way to share experience, making clear connections between resources and guidance, whilst harnessing the personal communication style and expertise of the partners. This resulted in a collaborative project to develop a suite of 20 video resources designed to enable an educator, regardless of location, to deliver a student workshop covering a specific area of skills development.

Video plays a central role in communication, with each slide within the resource structured around a video clip; by capturing speech and expression the clips are personal, echoing the way in which academics share

teaching expertise and knowledge with colleagues. The resources have been developed collaboratively by educators, rather than media specialists, using video equipment, video editing software and rapid e-learning software. This collaborative DIY approach provides an innovative way to produce low cost learning resources that are engaging without being patronising.

This demonstration will promote these open access resources, providing advice and check lists for those who may want to develop similar products. Emphasis will be placed on the design and development process with group discussion focussing on the move towards 'in-house' resource development and the tools available. The demonstration will encourage participants to provide feedback on the resources and ideas on how the collection can be enhanced.

0038 Short paper | **Theme:** Four | **Session:** eBooks and Blackboard

Does the e-book reader make distance learners' life easier?

Ming Nie, Witthaus Gabi, Barklamb Kelly, Armellini Alejandro | University of Leicester, Leicester, United Kingdom

This presentation reports on the integration of e-book readers into curriculum delivery to enhance the work-based experience of learners studying at a distance. The study is part of a JISC-funded research project called DUCKLING (Delivery University Curricula: Knowledge, Learning and INnovation Gains – http://www.le.ac.uk/duckling/). DUCKLING ran within two distance learning Masters' programmes in Occupational Psychology and one in Applied Linguistics and TESOL at the University of Leicester in 2009 – 10.

Most students on the three programmes are work-based distance learners with specific flexibility requirements. They need course materials presented in formats that lend themselves to easy, clear and reliable access while on the move. To address this challenge, e-book readers preloaded with course materials and podcasts were given to 20 students on the three programmes. The purpose was to investigate whether the e-book readers help in engaging time-poor students with essential readings.

DUCKLING made use of action research methodology. Data was collected via a VLE-based survey and interviews. Cognitive mapping (Bryson et al., 2004) was used to capture a unique 'map' of a student and his or her views, perceptions and experiences of using the e-book reader. Additional qualitative data was analysed using thematic analysis (Boyatzis, 1998). Initial findings show that students highly valued the portability and flexibility that the e-book reader offers. They used their e-book readers at home, in the office, in public places (such as cafés) and on the move (on a train, bus or plane). Students found the e-readers especially useful to obtain an overview at the start of a module. However, the e-book reader hasn't changed the way that students study throughout the module. Students reported that they went back to the printed materials when they wanted to study the materials in depth, especially when doing the assignments. This presentation will provide a full picture of the key findings and main challenges identified from this pilot.

Boyatzis, R. E. 1998. *Transforming qualitative information: thematic analysis and code development.* Sage publications.

Bryson, J. M., Ackermann, F., Eden, C. and Finn, C. B. 2004. *Visible Thinking: Unlocking causal mapping for practical business results.* England: John Wiley & Sons, Ltd.

The HELLO Project – using social networks to aid retention and progression

Lucy Stone, Harry Tolley, Sarah Younie | Leicester College, Leicester, United Kingdom

The JISC funded HELLO (Higher Education Lifelong Learning Opportunities) Project is investigating the impact of using social communities on the learning experiences of 200 students studying on a range of HE in FE courses.

Following the Learning Skills Council (LSC) accommodation projects which has resulted in Leicester College having a reduction of 65% in the students' social space. This has had an adverse impact on learners' opportunities to meet and collaborate with their peers. What is more, the college's growing numbers of Foundation Degree, HNC and HND learners have expressed the view, through student focus groups, that they would like the opportunity to establish a distinctive 'HE identity' within what is predominantly an FE learning environment. The HELLO Project is seeking to address these needs by capitalizing on the potential offered by new technology, and is exploring ways in which it can promote cultural change within the college through the use of that technology to enhance the learning experiences of its students.

This demonstration will show how the desire for an HE Identity has been met by building and developing a Moodle Higher Education Student Community Site; an online space to bring together 800 staff and students. Further curriculum-led learning spaces have been developed enabling students to meet their peers online. A second element of the project is a student-driven social network which using Mahara and also links student with external stakeholders such as employers and other HEIs. Research findings will be highlighted, in particular how a tutor has used these development and "tools" to create scaffolding, online peer learning activities and new formative assessment to keep his students "warm" between lessons. Early evidence shows this has contributed to a 100% retention rate. Participant interaction will include a 'card sorting' activity which was used for focus group research as an alternative to traditional interviews. This has proven to be successful in initiating discussion about what factors dominate the learning process.

FE to HE transition: can online peer support aid and ease this phase?

Lucy Stone[1], Sarah Younie[2] | [1]Leicester College, Leicester, United Kingdom, [2]De Montfort University, Leicester, United Kingdom

HE Net is a JISC funded, collaborative research project between FE (Further Education) and HE (Higher Education) sectors. This forms part of the Benefits Realisation strand, which forms part of the HELLO Project (Higher Education Lifelong Learning Opportunities). In 2008 653 students were successful in securing places in Higher Education having previously been on HE courses in FE. Student choice of institution showed that in excess of 250 went on to their local HEI. More students are moving from the FE sector after completing a Foundation Degree to HE to "top up", often joining a third year, well established and larger group of students. The project investigates whether or not linking these FE students to existing, peer mentors at the HEI will aid and ease any anxieties about the transition.

The HELLO Project uses Mahara as the "social network" element of the project. This area is an organically grown, student-led space and is additional to the Moodle TEL (Technology Enhanced Learning) Environment which is curriculum based and tutor-led. It is on this "social network" that the FE students can find a virtual, online peer where they can post questions and get responses. Peers from the University are subject related or "generic".

We will present the key findings from the HE Net project. Focusing on cross institutional issues where historical differences were found to impact on the students' experiences. Technical issues were recorded in relation to hosting and managing external stakeholder access to data and systems. The suitability of participants was analysed with respect to who makes the most effective mentor. Is it a "traditional" or "non traditional" learner? What was the overall learner experience with regards to the project? Sharing key points of how to realise the benefits of this model across other institutions will open up discussion and debate amongst the audience regarding further roll out of this initiative.

0041 Short paper | **Theme:** Four | **Session:** Institutional practice

Lifelong learning on the open wave: casting off from the institution

Kirstie Coolin, Angela Smallwood, Phil Harley | University of Nottingham, Nottingham, United Kingdom

The UK Government is seeking to address skills shortages and promote individuals' employability to enhance Britain's international competitiveness. Higher Ambitions states that "The focus will be on a greater diversity of models of learning: part-time, work-based, foundation degrees and studying whilst at home". Governmental approaches to eLearning have hitherto been institution-based, with learners' interaction with technology confined within institutional boundaries. Today, new patterns of learning are surfacing tensions between benefits for institution and lifelong learning stakeholders. Emphasis on flexible work-based learning heralds a surge of interest in lightweight, affordable technologies among new types of user. Proponents of ePortfolio theory position the learner as central to technology and processes. Consensus sees lifelong ePortfolios as desirable (Stefani et al 2007) and that technological barriers can be overcome (Cambridge 2008).

This paper proposes that lifelong learner data and processes should be disaggregated from the institution if ePortfolio tools are to prove meaningful for lifelong learners. In practice, implementation is more problematic, ePortfolio representing "disruptive technology" (Joyes et al 2009) with practical institutional concerns taking precedence over broader individual benefits. Recent progress in developing interoperability standards and early piloting has unlocked this door; a change in institutional culture is required to push it open.

This paper presents findings from recent trials of 1000+ sponsored institution-free ePortfolios by the Centre for International ePortfolio Development to support vocational/ work-based learners within a Lifelong Learning Network. Practice-based, demand-led pilots and a flexible definition of ePortfolio, together with an institution-free system, enabled rapid uptake and accessibility, bestowing ownership on learners operating inside and outside the institution and increasing institutions' responsiveness to change. Specific examples indicated that ownership enhanced self-directed learning, and introducing wider definitions of ePortfolio-type processes enabled the sector to look beyond assessment systems. Trials indicated that longer term, implementations will allow ePortfolio-related learning activities to sit within the wider learner and institutional toolbox, integrated via interoperability standards. Modularisation of learner-owned ePortfolio processes and targeted data sharing/re-use (Kirkham et al 2009), will support lifelong learning, open standards enabling re-usable data to span education and the workplace to be used in different technological contexts.

UK Department for Business Innovation & Skills. 2009. *Higher Ambitions. http://www.bis.gov.uk/policies/higher-ambitions* (accessed February 8, 2010)

Stefani, L., R. Mason, and C. Pegler. 2007. *The educational potential of e-portfolios.* Routledge: London and New York.

Cambridge, D. 2008. *Layering networked and symphonic selves: A critical role for e-portfolios in employability through integrative learning.* Campus-Wide Information Systems.4.

Joyes, G., Gray, L. & Hartnell-Young, E. 2009 *Effective practice with e-portfolios: how can the UK experience of e-portfolio implementation inform practice?* Outstanding award conference paper presented ascilite 2009 conference, Auckland, New Zealand December 20095.

Kirkham, T., Winfield, S., Smallwood, A., Coolin, K., Wood, S., & Searchwell, L. 2009. *Introducing live ePortfolios to support self organised Learning.* Educational Technology & Society, 12 (3), 107–114.

eLuctant students: identification and support

Jon Bernardes, Emma Purnell | University of Wolverhampton, West Midlands, United Kingdom

The main aim of this project is to explore one aspect of the discussion about the 'Google Generation', that there is a proportion of 'digital natives' Prensky (2001) who are reluctant to use, or even resist using, emerging Information Technology. Currant et al (2008) identify this sub set of students as 'digital socialites' who clearly divide the formal and informal use of technologies within their social and academic lives. Learners who may own multiple mobile devices and inhabit Web 2.0 spaces with multiple digital identities but seem to be reluctant to apply personal digital literacy skills to learning technology. Such learners may be labelled as 'Digital Dissidents' or even assumed to have poor 'Digital Literacy' despite extensive personal engagement in online social networking and related technologies.

The authors attempt to identify and explore possible frameworks to support these 'eLuctant' learners. To what extent do this sub set of digital natives exist quietly in undergraduate cohorts undetected between the digital enthusiasts and the digitally anxious/ fearful? The landscape of the digital student is in flux and moving away from cultural analogies such as immigrant and native towards much more complex gradations. Currant et al (2008) in their typology of digital learners have started to identify, breakdown and map these complexities. The typology provides a 'digital socialite' quadrant describing learners positioned here as having high levels of experience with technology but a low degree of educational contribution, a position the eLuctant students we describe would fit into perfectly. The question for this project is how many of these learners exist and are there strategies that could be developed to engage them with institutional technologies? Initial work looked at a group of 30 students, a preliminary survey looked at a group of 100 students, and a more major study looked at a group of 200+ 1st year undergraduates.

Currant, N. et.al. 2008, *Defining Generation Y: towards a new typology of digital learners*. in Pieterick, J., Ralph, R. & Lawton, M. EFYE Conference Proceedings 2008,

Prensky, M. 2001. *Digital Natives, Digital Immigrants*. In On the Horizon, October 2001, 9 (5). Lincoln: NCB University Press.

Ian Rowlands at al. 2008. *The Google Generation: the information behaviour of the researcher of the future;* Aslib Proceedings: New Information Perspectives, Vol. 60 No. 4, 2008, pp. 290-310.

Up stream, down stream and out of stream: the institutional challenge of redesigning for quality blended learning

Mark Brown | Massey University, Palmerston North, New Zealand

This paper is set in the backdrop of the carefully phased implementation of a new Virtual Learning Environment (VLE) in a dual mode university. It describes how the transition from WebCT to Moodle (aka Stream) has been the catalyst for a number of first and second order changes, including the implementation of a new quality enhancement framework. Although the definition of quality in university-level education is highly contestable, the paper reports the development of a formal peer review system for teaching which aims to scaffold quality reflections and pedagogical conversations about learning design.

Implicit throughout the paper is the question: What does quality blended learning look like and how do you promote it? The lesson illustrated through several examples is that the goal of quality blended learning is dynamic, continuous, context-specific and must be locally owned –for better and worse. In swimming against major structural barriers, the paper reflects on the challenges of building a scalable and sustainable culture of innovation and excellence in teaching.

0048 Poster | **Theme:** Two

A rich and strange journey of involvement, influence and change in five HEIs

Paul Bartholomew[2], Claire Eustance[1], Rebecca Freeman[2], Pam Parker[5], Amyas Phillips[3], Susannah Quinsee[5], Duncan Reeder[1], Georgia Slade[4] | [1]University of Greenwich, London, United Kingdom, [2]Birmingham City University, Birmingham, United Kingdom, [3]University of Cambridge, Cambridge, United Kingdom, [4]Cardiff University, Cardiff, United Kingdom, [5]City University London, London, United Kingdom

Drawing on the experiences of five university-based projects funded under JISC's Institutional Approaches to Curriculum Design programme, this poster will convey how learning professionals in the five HEIs are attempting to respond to and shape lasting and effective institutional change through participatory design of technology-based solutions to complex multi-stakeholder problems. This poster will analyse the similarities and differences between the 5 HEIs .

A number of areas are considered for comparison and contrast.

Background: How are the HEIs responding to calls for greater flexibility in the curriculum in a changing context, for example in the light of tougher financial constraints and changing demographic patterns?

Description of approach: How do the consultative and collaborative approaches the 5 HEIs are adopting with stakeholders differ and how are the HEIs attempting to effect technology based change in their institutions in a climate where this is acknowledged generally to be challenging?

Results of work done so far: How do hew proposals emerging from the 5 projects for technology-based solution for more effective practice in curriculum design differ?

The poster offers conference delegates some insights into the opportunities and challenges presented by the development of technology based solutions for more effective curriculum design in HEIs, as well as sharing a range of methods for involving stakeholders in the development of these solutions.

Conole, G. & Dyke, M. 2004 *What are the affordances of information and communication technologies?,* ALT-J 12 (2), 113-124.

Hall, R & Harding, H. 2000. *Driving departmental change through evolutions; some outcomes and problems',* ALT-J 8 (1), 19-29.

0049 Short paper | **Theme:** Three | **Session:** New structures and new products

New structures and models: from TEL at the fringes to TEL at the core

Stephen Woodward, Haydn Blackey, Trevor Price | University of Glamorgan, Wales, United Kingdom

This paper outlines the sea-change taking place at the University of Glamorgan as we move from technology enhanced learning at the fringes to technology enhanced learning (TEL) as a core element of our learning, teaching and assessment activity. The University engaged with a range of projects funded to support TEL at an individual level. It initiated a three year Blended Learning Project (2005-08) which was "an important precursor to the institutionalisation phase of blended learning development" (Mistry, 2008 p.123) – a phase characterised by the 'ownership' of TEL initiatives by the faculties with ongoing support from the central TEL team.

The vehicle for this significant institutional sea-change is the University's participation in the Higher Education Academy's Gwella programme (Gwella being the Welsh term for 'enhancement'). The Gwella Project programme was funded by the Higher Education Funding Council for Wales (HEFCW) to support institutional responses to the HEFCW strategy 'Enhancing Learning & Teaching Through Technology: A

Strategy for Higher Education in Wales.' (2008).In order to access the Gwella programme funds, each participating institution had to engage with the Higher Education Academy's e-Learning Benchmarking programme. The University carried out benchmarking in 2007 and is using Gwella to enhance several of the areas highlighted by this exercise.

This paper reports the findings of the institutional context by using a methodology based on participants' observation rooted in the Social Science tradition of phenomenology. It is based on a model of evaluation that uses networks of internal and external stakeholders to monitor the impact of the Gwella project. The findings indicate that the enhancement activity has achieved significant change in institutional practice including the implementation of online assessment submission (where we have gone from non-engagement to 80% engagement within 18 months), use of online assessment and social software in learning, teaching and assessment. This paper outlines and evaluates a transformative sea-change from existing pockets of good practice to TEL as common institutional practice.

Mistry, V. 2008 *Evaluation of the Blended Learning Project,* CELT, University of Glamorgan

HEFCW 2008 *Enhancing Learning and Teaching through Technology: a Strategy for Higher Education in Wales,* HEFCW

E-cards from Plymouth: considering the practical and socio-cultural experience of international students

Chelo de Andres Martinez, Diana Masterson, Patrick McMahon | University of Plymouth, Plymouth, United Kingdom

This short paper will present the socio-cultural perspective adopted to design an interactive multimedia orientation programme for Chinese students who come to Plymouth for the final year of their degree. Students from China have limited time to assimilate and adapt to cultural and academic change. They often struggle and their achievements suffer as a result. We apply the glocalisation (Doherty: 2005) concept to their experience by facilitating exposure to local versus national information via online resources. The student voice has been accessed via questionnaires and interviews that have informed the content and design of our e-cards. E-cards are reusable learning objects (using Xerte and Flash) that integrate audio, text, image and video to illustrate practical aspects of living and studying at Plymouth from an international student perspective.

E-cards present strategies to broaden students' social activities and offer practical language advice following technology enhanced learning principles. The working hypothesis behind the design to create the e-cards proposes that using interactive multimedia tools will help this cohort of students to familiarise themselves with Plymouth and its university before or soon after arrival. Preliminary findings of our prototype evaluation and recommendations will be disseminated locally and nationally. We will welcome participants to discuss the impact of e-cards on our future plans.

By exploring the campus and the city from an informal learning perspective before they arrive for their study, we aim to reinforce these students' sense of belonging. It is anticipated that interpersonal and communication skills will be strengthened and they may become better equipped to overcome the initial uncertainties associated with cultural shock and academic change.

This project has been funded by a Teaching Fellowship grant from the University of Plymouth. Evidence of the impact on future cohorts will be monitored and disseminated in future research.

Doherty, C. and Singh, P. 2005. *How the West is Done: Simulating Western Pedagogy in a Curriculum for Asian International Students;* in Internationalizing Higher Education: Critical Explorations of Pedagogy and Policy, edited by Peter Ninnes, Meeri Hellstén; CERC Studies in Comparative Education, 16,

0053 Short paper | **Theme:** Four | **Session:** Learning practice

Embedding learning design processes: responding to context

Rebecca Galley[5], Maria Papaefthimiou[2], Phil Alberts[1], Anu Sharma[1], Natalie Parnis[1], Ruth Brown[3], Amyas Phillips[4] | [1]Brunel University, London, United Kingdom, [2]University of Reading, Reading, Berkshire, United Kingdom, [3]London South Bank University, London, United Kingdom, [4]Cambridge University, Cambridge, Cambridgeshire, United Kingdom, [5]The Open University, Milton Keynes, Buckinghamshire, United Kingdom

Learning design approaches can structure informed decision-making concerning tools, activities and pedagogy. In addition, they can make our design problems and solutions explicit so that they can be more effectively shared with our learners and peers. They can support significant increases in effectiveness, innovation, productivity and quality of teaching and learning practices. However, the challenges and issues associated with embedding these approaches into practice are complex and multi-faceted – both for individuals and institutions (see Beetham and Sharpe 2007; Lockyer et al. 2008 edited collections; and Conole 2009).

In this short paper we will review how the Open University Learning Design Initiative (OULDI) methodology has been introduced to five different UK HE institutions with a focus on the approaches and tools that were used, and the challenges identified in those settings. We will indicate ways in which these challenges are being addressed through a series of co-created and contextualised interventions, and provide a brief review of initial findings. In addition we will introduce the project's open toolbox (approaches, tools and resources).

Beetham, H. Sharpe, R. 2007. *Rethinking Pedagogy for a Digital age:* Designing and Delivering E-Learning. New ed. London: Routledge

Conole, G. 2009. *Capturing and representing p*ractice. In A. Tait, M. Vidal, U. Bernath and A. Szucs (Eds.) Distance and E-learning in Transition: Learning Innovation, Technology and Social Challenges. London: John Wiley and Sons.

Lockyer, L., Bennett, S., Agostinho, S. and. Harper. B. 2008. *Handbook of Research on Learning Design and Learning Objects: Issues, Applications and Technologies.* Hershey: IGI Global.

0054 Short paper | **Theme:** One | **Session:** Measurement and feedback

Using screen capture software in student feedback for technology-based assignments

Rebecca Summers[1], Paul Summers[2] | [1]University of Wolverhampton, Walsall, West Midlands, United Kingdom, [2]Birmingham City University, Birmingham, West Midlands, United Kingdom

Recent results from a number of sources including the NUS Student Experience Report 2008 indicate that students are unhappy with their feedback for assessments (NUS 2008). Feedback has traditionally been, and remains predominately written. Technology based degrees, for example Multimedia and Music Technology, are practical. They use computer software programs to produce their work, such as web design software and digital audio workstations (DAWs). The students often submit files such as websites and music files rather than a written piece of work. Students still receive written feedback though, which can be difficult for the student to follow, as it introduces an unnecessary level of abstraction of the ideas from the work with which they are associated, (Tempelman-Kluit 2006).

This paper looks at using screen capture technology to record the software programs, recording all movements of the mouse and audio commentary. The lecturer is able to use the software programs' controls just as if they were sat with the student showing their recommendations and changes. This method of feedback is evaluated using Kirkpatrick's (1959) four levels of evaluating learning. Questions mapped to the first three levels (reaction, learning and behaviour) address issues such as their level of satisfaction with the feedback method, its perceived value as a learning tool and how it has affected their behaviour in the future. Online questionnaires and focus groups have been utilised to address these levels.

Evaluation against these levels indicates that the majority of students preferred receiving video feedback when compared to traditional methods. The students noted an improvement in understanding and through this adapted their behaviour. Of particular note is the feedback from a dyslexic student who indicated that the mode of deliver was more suited to their needs. The feedback from the cohort suggests that more work should be done to establish whether their perceived improvement in learning is supported by empirical evidence. It is hoped that this innovative method of feedback will pave the way for future assessment feedback that uses a variety of software programs, as well as be used for online learning.

Kirkpatrick, D. 1959. *Techniques for evaluating training programs.* Journal for the American Society of Training Directors.

National Union of Students 2008. *NUS Student Experience Report*

Tempelman-Kluit, N. 2006. *Multimedia Learning Theories and Online Instruction.* College & Research Libraries, 67(4), 364 – 9.

Proceedings paper | **Theme:** One | **Session:** Australasian integration **0055**

Strategies for mlearning integration: evaluating a case study of staging and scaffolding mlearning integration across a three-year bachelor's degree

Thomas Cochrane, Roger Bateman | Unitec, Auckland, New Zealand

This paper outlines the third iteration of integrating mobile Web 2.0 within a Bachelors level course. An analysis and comparison of the impact of mobile Web 2.0 across all three years of the 2009 course enables the development of implementation strategies that can be used to integrate mlearning into other tertiary courses, and inform the design of further Product Design mlearning integration iterations.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Short paper | **Theme:** Five | **Session:** Institutional design **0056**

The programme-design sabbatical: an institutional strategy to mainstream technology-enhanced learning

Colleen Connor | University of Wales Institute Cardiff, Cardiff, United Kingdom

This paper seeks to make a contribution to the evidence regarding strategic approaches to the adoption of learning technologies by focussing upon one institution's approach to the implementation of the Welsh national initiative aimed at accelerating the mainstreaming of technology-enhanced learning (TEL) in higher education institutions. It will describe how a specific institution has approached this challenge by directly supporting the development and ongoing evaluation of TEL within normal quality processes for course design and review.

In particular this paper will highlight the institution's adoption of a novel means of encouraging the wider implementation of TEL by positioning such development as the equivalent to research. This aspect of the institutional approach entails inviting programme directors to apply for a 'programme design sabbatical' to re-design elements of existing programmes. The award of such sabbaticals creates a culture which raises the academic status of teaching innovation in general and increases collaboration between lecturers, educational developers and learning technologists in particular.

The paper will offer some examples of this effect in practice from subject areas across the entire institution. An important feature of this 'sabbatical' is in the way it reveals how learning technologies have the potential to either cohere or further divide the various academic and support tribes that exist within the university.

Multi-professional working, with shared understandings and commitments, has provided an effective method of utilising the respective skills of different staff groups and, in common with Davis and Fill (2007) and Friel et al (2009), collaborative activity is viewed as a critical success factor in the process.

Davis, Hugh C. and Karen Fill. 2007. *Embedding blended learning in a university's teaching culture: Experiences and reflections.* British Journal of Educational Technology 38, no. 5: 817-28

Friel Terri, Jody Britten, Beverly Compton, Amy Peak, Kurt Schoch and W. Kent VanTyle. 2009. *Using pedagogical dialogue as a vehicle to encourage faculty technology use.* Computers & Education 53, no.2 (September): 300-7

0062 Poster | **Theme:** Five

Sharing to learn: using a Learning Repository to share and manage your VLE's learning and teaching objects

Jon Fletcher, Vicki McGarvey | Nottingham Trent University, Nottingham, United Kingdom

Nottingham Trent University Online Workspace (NOW), a VLE from Desire2Learn, has a fully integrated Learning Repository (LR) which can be utilised by academic and professional services (support) staff to host searchable learning objects. Various partitioned LRs allow learning objects to be linked or downloaded to University courses, and this poster details my pilot to share generic information literacy content across science courses – this was undertaken to reduce the administrative workload on staff and improve the end user experience.

This poster illustrates how the LR was piloted - as part of JISC funded project SHARE (cf. the SHARE website) – by Library and Learning Resources at NTU, with the overall aim to harness a repository for the enhancement of teaching and learning.

In line with the generally accepted practice of designing and using sound learning objects (cf. Commonwealth of Learning), I designed some objects which could be widely re-used and easily managed, before devising a coherent practice which allowed these resources to be found and used by anyone at NTU. Screenshots can be found on the poster (along with explanations) of:

- the learning objects designed;
- publishing the learning object;
- searching for/ retrieving the learning object;
- embedding/ managing the learning object.

My pilot concluded that there are real potentials for using an LR for sharing and managing resources as well as providing well-designed and useful services to users. Such an approach has a great many transferable uses in an academic environment, which extends beyond the delivery of information literacy resources. Whilst I undertook this research on an institution-specific repository, the underlying theory is the same for anyone with access to a repository and a VLE, and this work can be widely replicated.

Commonwealth of Learning. Designing Learning Objects.
http://www.col.org/resources/publications/trainingresources/ knowledge/Pages/designLO.aspx.

SHARE. Supporting, Harnessing and Advancing Repository Enhancement. *www.ntushare.org.*

The use of video-conferencing to deliver lectures and practical demonstrations to learners at remote educational sites

Jeffrey Lewis | UWIC, Cardiff, South Glamorgan, United Kingdom

The aim of this project was to determine whether the students' learning experience using a blended learning approach would be comparable to that of traditional cohort that attended University on a part-time basis. Demand for this project came following a decline in educational providers and to develop work-based learning provision.

A blended learning model for the delivery of dental technology was developed following a successful UWIC Learning and Teaching Fellowship project in 2007. Students were enrolled onto the programme and received live lectures, practical demonstrations and review sessions via web-based video conferencing (Adobe Connect Pro ©). The University of Wales Institute, Cardiff worked in collaboration with Bristol Dental Hospital to provide resources for students and employers, including mentor training for employers. The poster style will mimic the video-conference environment used.

All students involved successfully passed all assessment items. Students felt involved in the meetings, were happy using the technology and would rather this method of delivery than have to travel. Students suggested that more dedicated time was needed at the workplace to complete assignments. Because they did not physically leave their place of employment, their university work was often dismissed or given a lower priority by some employers. Employers need to be made aware of the amount and depth of material being studied and that dedicated time is needed to carry this out.

Delivery of this type of programme can be considered successful using this system when compared to a traditional cohort of students on the same programme. There is no evidence to suggest that the student learning has been compromised either from the evaluation results, or the academic performance of this group. Work has already begun to investigate the use of this model regarding CPPD provision to geographically remote groups who find it difficult to attend traditional CPD venues. Opportunities exist to use such a facility with students (or staff) that may be on placement, on secondment, in vocational training, or require regular supervisory meetings.

Welsh Assembly Government. Department for Children, Education, Lifelong Learning and Skills. 2008. *Transforming Education and Training Provision in Wales: Delivering skills that work in Wales.*

Higher Education Academy. 2008. *Work Based Learning Costing Study.* York publications.

Higher Education Academy. 2008. *Work Based Learning Impact Study.* York publications.

Quantity and quality? Using site metrics to measure VLE adoption and inform planning

Carol Shergold, John Davies | University of Sussex, Brighton, United Kingdom

This paper examines how site metrics from an institution's Virtual Learning Environment (VLE) have been used to inform and focus planning at departmental level and with individuals. The context of our work is a UK University in which the VLE (based on Moodle 1.9) has been available for use on an opt-in basis by all teaching staff since autumn 2006. Previous literature demonstrates that VLE site metrics based on site characteristics and student activity can been used to supplement data collected as part of surveys and studies (e.g. Black, Dawson, and Priem 2008). Relatively few studies have, however, explored how this data can be used to inform planning and the allocation of support resources (Beer, Jones, and Clark 2009).

At the University of Sussex, a small central team comprising IT and Education Development staff are responsible for ongoing technical and pedagogic enhancements to the VLE. Since this team is not able to review every site individually, could a metric-based approach highlight underlying patterns that would help to focus finite resources on particular areas? What would be the limitations of using automatically gathered quantitative data to build a picture of site quality?

Since its launch, adoption of the VLE has spread so that for autumn term 2009, 70% of courses (modules) offered within the University had an associated VLE site. Taken at face value, this suggests that take-up has been favourable. The extent to which adoption varied across departments and the structure and quality of these sites was, however, difficult to determine given that around 650 new sites were created in autumn 2009.

This paper reports on the ways that different metrics were developed and tested, the way that metrics were combined together to build site or departmental profiles, and perhaps most importantly on the various initiatives taken forward with departments. Its findings will contribute towards an understanding of how institutions can use 'data for free' (Black, Dawson, and Priem 2008) to target the enhancement of e-learning reduce the need for time-expensive surveys of hard-pressed students and busy academics.

Beer, C, Jones, D., and Clark, K. 2009. *The indicators project identifying effective learning: Adoption, activity, grades and external factors.* In Same places, different spaces. Proceedings ASCILITE Auckland 2009. Black,

Erik W., Dawson, K.,and Priem, J. 2008. *Data for free: Using LMS activity logs to measure community in online courses.* Internet and Higher Education 11: 65-70.

0065 Short paper | **Theme:** Two | **Session:** Measurement and feedback

Capturing and sharing learning in practice: applying a successful dissemination model

Rachel Scudamore, Alison Clark | University of Nottingham, Nottingham, United Kingdom

Dissemination of good practice aims to facilitate the process of change for academic staff. However, case studies of successful teaching can be difficult for readers to turn into a tangible framework for applying a principle or practice in their own teaching. The University of Nottingham's PESL (Promoting Enhanced Student Learning) initiative has developed a successful model for disseminating colleagues' teaching practice that allows the reader to resonate with the teaching issue addressed and critique the approach being taken before adopting/ adapting the practice for their own context . PESL videos produced using this model are widely used by staff at the university and across UK HEIs.

This session shows how an educational resource was created using this model to show the principles and process of mentoring students who require practice experience as part of their curriculum. Two mentors and two students were filmed in interview and when planning and developing a 6 week practice experience. Footage was edited to create 14 short videos covering 5 key aspects of the mentoring process. Clips also illustrate how the lecturer supports the mentors and students in their learning through shared learning sets, where they come together to discuss recent practice experience and capture their learning. In learning from peers from different departments and agencies who work with similar client groups, the qualified staff and students share a context of practice: its culture, values and beliefs underpinning practice and how it reflects the taught curriculum context. The videos are used across disciplines and are being incorporated into structured training sessions for mentors with potential impact across the school.

Video production considerations include highlighting clearly transferable elements of practice, foregrounding the academic voice, and maintaining the credibility of the teaching situation and the participants. In practice

this informed the choice of appropriate videoing locations, the preparation of participants, interviewing technique, setting the on screen "scene", use of camera angles and editing techniques. Video production was funded by the Centre of Excellence in Practice Placement Learning.

The session will include an analysis of the relationship between the dissemination model and the video production techniques.

Using real data in teaching to give social science students real skills for the workplace

Sarah Currier[2], Jackie Carter[1] | [1]University of Manchester, Manchester, United Kingdom, [2]Sarah Currier Consultancy Limited, Glasgow, United Kingdom

Giving undergraduates opportunities to develop high-level skills relevant to the 21st century workplace is a key government priority (UK CES 2009). However, a quantitative skills deficit is evident in many discipline areas, including the social sciences (ESRC 2009; MacInnes 2009). Traditionally, teaching the theory and practice of a discipline involves use of pre-prepared teaching datasets, invented scenarios, and simulations. Students can be left with a false sense of how real-world data relates to academic theories, research, and workplace practice. National data centres Edina and Mimas give Web-based access to valuable datasets (e.g. up-to-date IMF, World Bank and OECD economic data; satellite geographical data; recent census data), primarily for research. How can teachers use these services in classroom-based exercises and assignments? And how does this help students develop high-level skills?

In 2009 Mimas carried out an initial study of the use of real-world data in learning and teaching in the social sciences. Eleven practitioners and four students took part in semi-structured interviews about their use of data services in learning and teaching, and narrative case studies were developed. The focus was on gathering qualitative evidence about how real-world data services are utilised within taught courses, and how they impact on the student experience. Three resulting case studies are presented:

- ESDS International service, used by Manchester and Loughborough Universities' economics departments, for undergraduate and taught Masters econometrics.
- Census Dissemination Unit's services, used by Leeds University's School of Geography, for teaching undergraduate research methods; the modifiable areal unit problem; and ethnic populations.
- Landmap services, used by Sheffield Hallam University's School of Geography, where student field trips supported learning about 'ground-truthing' of digital elevation models and viewsheds.

Key benefits for students uncovered by the study included:

- Deep learning is enhanced by grounding key discipline theories in activities students can relate to as "real";
- Students' feedback included words like "fun" and "enjoyable" for courses traditionally seen as difficult, e.g. econometrics;
- General ICT skills/confidence are developed by dealing with idiosyncrasies of different systems and data;
- Students' employability is enhanced through project work and portfolio development.

Economic & Social Research Council. 2009. *Building a world class social science research base in quantitative methods: a national strategy.* ESRC Society Today. *http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/Images/AQM%20flyer_tcm6-34272.pdf*

MacInnes, Jo. 2009. *Proposals to support and improve the teaching of quantitative research methods at undergraduate level in the UK.* ESRC Society Today. *http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/Images/Final%20Report_%20Strategic%20Adviser%20for%20Quantitative%20Methods_tcm6-35465.pdf*

UK Commission for Employment and Skills. 2009. *Ambition 2020: world class skills and jobs for the UK:* the 2009 report: key findings and implications for action. *http://www.ukces.org.uk/tags/key-findings/ambition-2020-key-findings*

0069 Short paper | **Theme:** Four | **Session:** Mobile devices

"Before I begin, can I ask all students to switch their mobile devices ON?"

Sian Lindsay[1], Nitin Parmar[2], Mike Cameron[3], Kate Reader[1], Ajmal Sultany[1] | [1]City University, London, United Kingdom, [2]University of Bath, Bath, United Kingdom, [3]Durham University, Durham, United Kingdom

Students today live in an 'always connected' culture which has been facilitated by a surge in the development and uptake of mobile technologies. As mobile technologies continue to thrive, their use in education has been placed at the fore (Johnson et al., 2009). The challenge now is to understand how mobile technologies can provide an environment that is conducive to student learning.

For any mobile technology learning initiative to work and to meet the changing expectations and needs of students, it must make use of devices that they have in their pockets (Attewell et al., 2009). Providing students with institutional mobile technologies for learning can be restrictive as they are often later replaced with newer, better versions.

The financial and support cost to the institution might also be a barrier to uptake. There are also practical considerations to take into account, particularly in the case of Electronic Voting Systems (EVS) where lecturers have cited the time wasted in distributing and collecting EVS handsets as a major obstacle for EVS use (Davenport, Hayes & Parmar, 2009). This is unfortunate as the pedagogical benefits of EVS have been widely demonstrated (Russell 2007, Draper 2009).

This paper considers whether student mobile devices (including smartphones and laptops) can be used as voting handsets to overcome some of the practical issues of traditional EVS. This paper analyses the observations of several lectures at two universities that used EVS software, ResponseWare Web (RWW) for voting using mobile devices. Essentially, RWW enables lecturers' Microsoft PowerPoint slides with voting questions to be displayed on a website that students can access using their mobile devices. This paper analyses the interview transcripts of the students and teachers involved to identify potential learning gains. It argues whether students engage in learning within an environment which is familiar and easily to hand, and if teachers appreciate the practical convenience of such a system. We also explore how offering feedback following each question can improve the depth to which the question is examined and engaged with.

Attewell, J., Savill-Smith, C. & Douch, R. 2009. *The Impact of Mobile Learning*. London: LSN.

Davenport J.H., Hayes A. & Parmar N.R. 2009. *The use of an Electronic Voting System to enhance student feedback.* In the proceedings of: 4th Plymouth e-learning Conference: Boundary Changes: Redefining Learning Spaces.

Draper, S.W. 2009 *Catalytic assessment: understanding how MCQs and EVS can foster deep learning,* British Journal of Educational Technology, 40: 2, pp. 285 - 293.

Johnson, L., Levine, A., & Smith, R. 2009. *The 2009 Horizon Report. Austin, Texas:* The New Media Consortium.

Russell, M. B. 2008. *Using an electronic voting system to enhance learning and teaching,* Engineering Education Vol 3, Issue 2. 2008

0070 Proceedings paper | **Theme:** Five | **Session:** Mobiles and tablets

Interactive learning with Tablet PCs: tips for teachers

Daphne Robson, Dave Kennedy | Christchurch Polytechnic Institute of Technology, Christchurch, New Zealand

Tablet PCs were used for interactive learning activities in mathematics classes at a polytechnic in New Zealand. Pairs of students answered questions on the Tablet PCs and sent their answers via a wireless network to the teacher's machine. The teacher displayed the students' answers to the class so that they could be discussed and feedback given. Students were surveyed to find their views on advantages and

disadvantages of these learning activities. A three-minute movie demonstrating how the Tablet PCs were used in classes will be shown and the presentation will then focus on the main issues raised by students and the lessons learnt by teachers.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Poster | **Theme:** One **0072**

What's so special about Tablet PCs?

Daphne Robson, Dave Kennedy | Christchurch Polytechnic Institute of Technology, Christchurch, New Zealand

Much potential has been seen for Tablet PCs to enable interactive learning. Many studies have confirmed this potential with reports of improvement in student engagement (e.g. Mauch 2008) and student learning (e.g. Linnell et al. 2007). Learning benefits for students include immediate feedback, ease of note-taking and learning from peers.

This poster illustrates how Tablet PCs are being used interactively in lectures and identifies learning benefits. The purpose of the poster is to prompt discussion about whether Tablet PCs are necessary to achieve these benefits. To help viewers understand the benefits, the poster illustrates an interactive learning activity in which pairs of students in a mathematics lecture use Tablet PCs connected wirelessly to an instructor's Tablet PC. The events that make up this interactive learning activity are shown by a sequence of large photographs.

Interactive learning activities are included at appropriate points in each lecture at a polytechnic in New Zealand (Christchurch Polytechnic Institute of Technology). In these activities, the instructor sends a question to the students' Tablet PCs and also displays it at the front of the class using a data projector. Students, working in pairs, use the electronic pen to write or draw their answer on the Tablet PC before submitting it anonymously to the instructor. Next, the instructor leads a class discussion while selecting, displaying and annotating student answers. Finally, students annotate their own answer and save it for later study.

A combination of student surveys and instructor reflections were used to identify the main benefits, which were student engagement, peer instruction, and feedback about the answers that are selected for display to the class from the instructor. The poster identifies these benefits and concludes by asking whether there are other ways of achieving these benefits or whether Tablet PCs offer something special.

Linnell, N. Anderson, R. Fridely, J. Hinckley, T. Razmov, V. 2007. *Supporting classroom discussion with technology: A case study in environmental science.* Paper read at 37th ASEE / IEEE Frontiers in Education Conference, at Milwaukee, WI. Mauch,

Holger. 2008. *Tablet PCs: Impacting student learning in computer theory instruction.* Paper read at Workshop on the Impact of Tablet PCs and Pen-based Technology on Education, at West Lafayette, IN.

Demonstration | **Theme:** Two | **Session:** Assessment and feedback **0073**

eAssignment: an institutional submission and management system for assessment of open-ended assignments

Trevor Bryant, Peter Gibbs, Martin Chivers, Peter Silvester, Alex Furr, Gary Jones | University of Southampton, Southampton, United Kingdom

We are developing an institutional system to provide an on-line environment for administration, marking and feedback of electronically submitted open-ended student assignments, these are typically essays but any digital document that can be uploaded could be assessed using this system. The benefits are quality improvement in the assessment process by providing access to assignment criteria, marking descriptors,

assignments results and faster feedback, anytime anywhere. There are environmental benefits by elimination of the need for students to submit at school offices, reduced paper usage and reduced use of internal and external mail systems.

The eAssignment system goes beyond those provided by most VLE's in that it provides for any number of documents of defined format type to be uploaded, pre-submission questions, integrity and 'documents are correct' declarations, single or double marking, moderation and external examiner access, criteria based marking using descriptors with a choice of grades or percentages. As the system is developed using common standards it is not limited to a specific VLE environment.

The format of this presentation will be a brief outline of the institutional reasons for introducing the system. A demonstration of how students can submit assignments to the system, how assessors can mark the work and some of the tools available to administrators to manage the process. We will conclude with a discussion of some the challenges we have in embedding the system into the institutional processes. Participants will learn how an eAssignment system might be applicable to their institution, what impact this has on current and future institutional processes as introduction of such as system can be used to drive harmonisation of assessment procedures across an institution. The software will be made available under an open source licence to other UK academic institutions.

JISC. 2010. *e-Assignment Project http://www.jisc-ea.soton.ac.uk*

0074 Short paper | **Theme:** One | **Session:** Curriculum delivery

Transforming teaching and learning: changing the pedagogical approach to using educational programming languages

Petros Lameras[1], David Smith[2], Nektarios Moumoutzis[3], Stavros Christodoulakis[3], Emanuela Ovcin[4], George Stylianakis[3] | [1]Ellinogermaniki Agogi, Pallini, Greece, [2]Austrian Federal Ministry of Education, Vienna, Austria, [3]Technical University of Crete, Crete, Greece, [4]Consorzio per la Ricerca e l'Educazione Permanente, Torino, Italy

The aim of this paper is to explore the issues surrounding curriculum design for computer courses with a special focus on programming. Within the context of a European project exploring the development of programming skills in secondary education by means of modern educational programming languages, this paper proposes certain pedagogical methods, approaches and frameworks for enhancing the development of programming skills, thereby increasing the number of students studying computer science both at school and university level.

The pSkills project involves schools from four countries, Austria, Estonia, Greece and Italy. Examining the computer science curriculum in these countries required a common framework to standardise the different curricula and determine the various stages of schooling where the curricula was offered. The IFIP curriculum (van Weert, 2000) was selected because it provided a matrix to determine the stages of computer science delivery. Three areas were selected from the IFIP curriculum to differentiate the stages of computer science delivery; ICT Literacy, Applications of ICT and ICT specialisation.

The documentary analysis showed that the core curriculum for each country in the computer sciences is centred on computer literacy. Furthermore, the analysis revealed that teachers' pedagogical methods depended upon their confidence and each country's curriculum structure. The direction for change with computer sciences may lie in the pedagogical approach and the use of Educational Programming Languages (EPL's) (Rai, Wong & Cole, 2006). Several EPLs were shortlisted on the basis of certain criteria that ensured alignments with the core aims of the project.

Learning design software tools give computer science teachers the possibility to create teaching and learning activities that will engage student learning and at the same time position students at the centre of the design process.

Pursuing this theme, the next stage of the pSkills project is to propose a common European curriculum for computer science teachers and computer science courses while at the same time it will develop specific training scenarios for teachers and students in order to exploit the technology and pedagogical opportunities that the project may offer.

Rai, S., Wong, K.W. and Cole P. 2006. *Game Construction as a learning tool.* Proceedings of the 2006 international conference on Game research and development. Perth, Australia: Murdoch University.

van Weert T. (Ed.). 2000. *Information and Communication Technology in Secondary Education.* Available at: *http://wwwedu.ge.ch/cptic/prospective/projets/unesco/en/teachera.html* (accessed 11 December, 2009).

Pandemic planning: from paper to pixels

Jane Mooney[1], Pete Driscoll[2], Lee Griffiths[1] | [1]University of Salford, Manchester, United Kingdom, [2]Emergency Department, Salford Royal Hospital Foundation Trust, Salford, United Kingdom

Emergency Medical Planning training is generally facilitated using a problem based learning (PBL) approach where groups of medical staff carry out an investigative analysis of an emergency scenario using a physical tabletop model. This technique has been proven to be highly successful yet students feel that the "standard scenarios" offered by such training systems do not represent reality closely enough. The research presented here describes the development and use of interactive software tailored to a real world environment to facilitate PBL for major incident planning.

When the Nintendo Wii handset's infra-red tracking capability is connected to a computer and projector it is known to provide an impromptu interactive whiteboard facility comparable to proprietary wall-mounted solutions, yet readily portable and for a fraction of the cost. We developed, to be utilised with this presentation technology, a piece of bespoke Flash based software to enhance current tabletop exercises for studying pandemic Emergency Planning based on Department of Health data for influenza incidence within our Hospital Trust's own locality. Students using the software tool are faced with a scenario where parameters change in real (or accelerated) time thus mirroring a real life situation and testing their theoretical and existing practical knowledge.

Preliminary findings suggest that this form of technology mediated problem based learning is at least comparable with the physical tabletop model whilst adding an element of realism which cannot be achieved without the technology. This exercise is to be formally run later this year for the Hospital's Executive Planning Board to develop the Trust's formal Pandemic Plan and is a good example of where technology has been used to enhance an established educational technique.

In this hands-on session the authors will run through two typical planning exercises and technologies to highlight the different ways in which interactive technologies can be used to facilitate and enhance problem base learning. Through the use of an interactive table top, participants will be able to see the benefits of multi-touch environments for group work.

0077 Poster | **Theme:** Four

Using technology to meet the needs of struggling students studying anatomy and physiology

Tim Goodchild | University Campus Suffolk, Ipswich, United Kingdom

Anatomy and Physiology (A&P) is taught across several courses by a similar module team at University Campus Suffolk, including nursing, foundation degree students and other health students. Previously, A&P has mostly been taught to these groups in lectures, with presentations available via the VLE, sometimes with discussion forum support. Whilst this traditional strategy is satisfactory, it does not help to support and engage those students who struggle with A&P, who often feel isolated, and also does not cater for advanced students. To counter this, a fully blended, reusable approach has been employed in 2010, which was centred around a new A&P portal where all students who study A&P across the courses are enrolled, and a new series of face to face workshops to site alongside current delivery of lectures. Of particular success is the A&P podcast series. This offers short audio podcasts for 'strugglers' as well as interviews with subject experts. Podcasts also include screencasts discussing anatomical images and audio of workshops offered to struggling students. Students have a voice in the podcasts, and questions they send to the team often form the basis for the next podcast released. All content is available to all students, and the overarching aim is to engage and excite all students about learning A&P and to provide a thorough and appropriate educational experience.

Podcasts have an emerging track record as a learning tool (Salmon & Ediringsha. 2008; Guertin, Bodeck, Zappe & Kim. 2007; Saeed. Yang. & Sinnappan. 2009), and the team has a great deal of experience in using podcasts with very positive feedback. Online A&P videos are used widely to support learning in the classroom and often form the bedrock of lecture discussions, as well as being available in the portal. The module team are producing video, including dissection in the future as a new series of podcasts. The A&P portal and associated content is being evaluated throughout 2010, with initial results demonstrating a very positive experience for students, who are keen to see the blended methods employed to be continued in other areas of their courses.

Salmon, G., Ediringsha, P.,(Eds) 2008. *Podcasting for Learning in Universities.* Glasgow: McGraw Hill.

Nataatmadja, I. & Dyson, L.E. 2008 *The role of podcasts in student's learning.* iJIM. Vol 2. No 3. PP 17-21

Guertin L, Bodeck MJ, Zappe SE. and Kim H. 2007. *Questioning the student use of and desire for lecture podcasts* MERLOT Journal of Online Learning and Teaching 3(2) pp133-141 *http://jolt.merlot.org/vol3no2/guertin.htm*

Saeed N, Yang Y, Sinnappan S. 2009. *Emerging web technologies in Higher Education: A case of incorporating Blogs, Podcasts and social Bookmarks in a web programming course based on students' learning styles and technology preferences*. Educational Technology & Society 12(4) 98-109

HEFCE. 2009. *Enhancing learning and teaching through the use of technology: A revised approach to HEFCE's strategy for e-learning,* retrieved July 17 2009 from: *http://www.hefce.ac.uk/pubs/hefce/2009/09_12/*

0078 Short paper | **Theme:** Two | **Session:** Changing ways of working

Providing feedback using audio: disseminating practice at Coventry from the Audio Supported Enhanced Learning (ASEL) project

Mark Childs, Mark Oliver, Steve Bate | Coventry University, West Midlands, United Kingdom

As part of the JISC Widening Stakeholder Engagement call, the Faculty of Engineering and Computing at Coventry University undertook a project to disseminate the practice developed in the Sounds Good project at Leeds Metropolitan and the ASEL project at Bradford. These projects used audio recorded by lecturers to provide feedback to students. The findings were that feedback presented in this way was quicker

to produce, enabled more detail to be conveyed and students reported that it felt more personal than written feedback (Rotherham, 2009). Transferring this practice to a different institution required identifying differences in implementation due to:

- the different student base;
- different requirements of the curriculum;
- different demands of university policies and procedures.

It also required us to identify a pedagogical rationale for the use of the technology, rather than identifying a need then identifying the appropriate technology to fulfil that need. The case study provided audio feedback to 70 students, then evaluated a random sample of 35 of these students. The student experience was substantially different from those experienced in the ASEL and Sounds Good projects in that a far larger proportion did not want audio as a sole medium for feedback and if had to choose would opt for text-based. This is attributed to greater language barriers experienced by the students. Students did however appreciate the use of audio in making the online environment more personable. Plans for subsequent years involve identifying potential content for inclusion in the VLE that adds value to the student experience, but does not include essential information, so that students are personally engaged, but not disadvantaged, by the use of audio.

The presentation will therefore look at the following.

- The challenges in adapting practices to local situations with recommendations of how to achieve this.
- The particular issues faced at Coventry University in implementing audio as a form of feedback.
- Students' responses to the use of audio for feedback at Coventry University.

It is intended for educators considering the use of audio, as well as members of projects involved in building on precursor projects at other institutions.

Ice, P., Curtis, R., Phillips, P. & Wells, J. 2007. *Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students' Sense of Community.* Journal of Asynchronous Learning Networks, 11(2), 3-25, *http://www.adobe.com/education/resources/hed/articles/pdfs/v11n2_ice.pdf*

Rotheram, R. 2009 *Sounds Good Final Report http://www.jisc.ac.uk/media/documents/programmes/usersandinnovation/sounds%20good%20final%20report.doc*

Becoming virtual: presence and embodiment as prerequisites to learning in virtual worlds

Mark Childs | Coventry University, West Midlands, United Kingdom

The presentation offers a model for students' learning in immersive virtual worlds based on the degree of presence and embodiment developed by students in a series of five case studies. These stages are mapped to the five-stage model of Salmon (2004), the developing relationship with one's avatar proposed by Warburton (2008) and de Vinemont's concepts of body image and body schema. It was found that, unless students had acquired the necessary degree of presence required for the activity, then the activity was not successful. This model is intended to provide educators with an outline of progressive development of presence to support their teaching in virtual worlds. Students in a series of case studies using a virtual world as a medium for learning were asked to indicate their experience of presence and their satisfaction or dissatisfaction with the learning activity.

The results from the small sample of students surveyed for the study indicate that unless presence is experienced, students will be unlikely to learn in virtual worlds. Qualitative analysis suggest that for the

students in the case studies presence developed progressively through a number of stages, which must be attained for certain learning activities to be effective:

- Acquiring technical competence, in which the student passes from conscious incompetence to unconscious competence.
- Becoming inured to distraction, through which students play and experiment before becoming prepared to engage with the subject content.
- Developing a virtual body image. An inworld identity and social presence is a prerequisite for communication inworld.
- Developing a virtual body schema. For effective experiential learning in a virtual world requires an emotional and immediate connection a state that Thomas (2006) refers to as Metaxis. Students who make this emotional connection also develop an extended body, experiencing embodiment inworld through their avatar and these factors may be linked.
- Social identity. A social presence within the virtual world. Being aware of these stages, how to help students through them, and how to tailor learning activities to the correct level of presence and embodiment, will enable more effective learning design for activities in virtual worlds.

de Vignemont, F. 2007. *Habeas corpus: The sense of ownership of one's own body.* Mind and Language, 22(4), 427–449.

Salmon, G. 2004 *The 5 Stage model, http://www.atimod.com/e-moderating/5stage.shtml*

Thomas A. 2006 *Heteratopia and my Second Life http://anya.blogsome.com/2006/05/27/heterotopia-and-my-second-life/*

Warburton, S. 2008 *Loving your avatar: identity, immersion and empathy,* Liquid Learning, January 28th 2008, *http://warburton.typepad.com/liquidlearning/2008/01/loving-your-ava.html,*

0080 Proceedings paper | **Theme:** Five | **Session:** Professional development

Taking ownership of e-learning: a transferable mentoring model

Rachel Scudamore[1], Elaine Arici[2] | [1]University of Nottingham, Nottingham, United Kingdom, [2]Nottingham Trent University, Nottingham, United Kingdom

The School of Education at the University of Nottingham is not alone in having some staff who are active with e-learning and others who are not, or not perceived to be. Why is this so common and what can be done to improve the uptake? The ePioneers project set out to understand staff motivations in relation to e-learning and their own professional development, and to implement a scheme to support staff in contributing to the School's aim of becoming an 'e-learning school;. An initial investigation identified the main barriers to staff involvement in e-learning, and a strategy to address those barriers focussed on mentoring as a way to draw on the enthusiasms of staff and support them in achieving objectives that they felt were relevant to their own practice.

The transferable mentoring model that was developed alongside the project foregrounds the importance of individual ownership of change within a supportive environment. The roles of the mentor as a pedagogic advisor, implementation advisor, motivator and facilitator were identified as important, with individual differences and project needs determining the balance between the roles in any one staff/ mentor relationship. A connection with the wider group of participants was also key to recognising the value of individual efforts to the School.

Informal gatherings, local exhibitions, and regular reporting to a project co-ordinator all demonstrated an interest in the project developments beyond the individual academic and their mentor. An online community proved less successful, largely because the sensitive and personal nature of professional development was not suited to written exchange, composed in isolation. The face-to-face conversational opportunities were more welcomed by those involved. Alongside each staff member's specific project outcomes, wider change

has been evident. Staff have reported an increase in the confidence to assess e-learning approaches in their teaching development, and are evaluating technology's potential as a normal part of teaching development practice. The school now has a wider group of people involved in e-learning and is able to take ownership of its own e-learning developments.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Short paper | **Theme:** Five | **Session:** Development through change **0081**

eFolio: a DIY ePortfolio (or 'making the most of what you've got')

Alex Furr, Sarah Stevenage, Tom Randell, Fiona Grindley, Adam Warren | The University of Southampton, United Kingdom

The University of Southampton has a track record of delivering innovative web applications, but the implementation of an ePortfolio has presented a bigger challenge. Previous trials had suggested an 'off the shelf' system would not work, mainly due to budget constraints, but also because key systems would be being replicated in any new product.

A gap analysis of current applications showed that with some bespoke code (using open standards) and open source software (Wordpress) an ePortfolio could be created bringing together existing web applications, but also capable of linking to teaching resources such as Blackboard.

The ePortfolio was developed and trialled (n=450) and has ensured user engagement by being embedded within the curriculum via summative assessment (blog postings) and assignment submission via the portfolio. Staff and student feedback has been positive, with the interface bringing together disperse information into one 'portal'. Problems with regards to Wordpress functionality will also be discussed in this presentation.

We have shown that an ePortfolio can be delivered with limited budget by making use of existing applications and in this presentation we will detail future ambitions, which crucially include alumni access, and attempt to describe what is required to adopt a similar system at other institutions.

Short paper | **Theme:** Three | **Session:** Institutional changing paradigms **0082**

Plotting the sea-change: a longitudinal survey between 2001 and 2010 of technology-enhanced learning in UK higher education

Tom Browne[1], Roger Hewitt[2], Martin Jenkins[3], Julie Voce[4], Richard Walker[5], Hennie Yip[6] | [1]University of Exeter, Exeter, United Kingdom, [2]University of Manchester, Manchester, United Kingdom, [3]University of Gloucestershire, Gloucestershire, United Kingdom, [4]Imperial College London, London, United Kingdom, [5]University of York, York, United Kingdom, [6]University of Salford, Salford, United Kingdom

Higher education continues to experience growth and change in the implementation of technology-enhanced learning (TEL). The use, management and support of a wide range of related technologies has now been monitored by five surveys, conducted between 2001 and 2010, initially by just UCISA, then for the last 4 surveys in association with the JISC. The survey offers a longitudinal perspective of TEL developments over a 9 year period within UK HE, focusing on the provision already in place within institutions and the current, emerging and planned patterns of use and indeed of tools that are falling out of favour.

UK HEIs were invited in January 2010 to complete the TEL survey. It incorporates the core of questions from the previous surveys, in order to sustain, where relevant, a longitudinal analysis. The survey sought institutional responses to questions focusing on strategies and motivations for TEL provision and explored the extent to which this provision was embedded across an institution. It also asked what tools are currently in use both centrally and departmentally. Finally, it invited respondees to look into the near-future and to identify what tools and approaches they anticipate deploying, together with any associated challenges. The survey was then supplemented by in-depth interviews with a limited number of respondees, to ascertain the extent to which the generalised survey conclusions mirrored reality in particular institutions.

The paper will present the key findings from the 2010 survey, with key comparisons made with the previous surveys to provide some insights into how the UK HE sector is evolving in its deployment and support of TEL. Results from the earlier surveys can be accessed at: http://www.ucisa.ac.uk/groups/tlig/vle/index_html The data will provide a context to help understand the changing nature of TEL provision and use across the HE sector. This will include, for example, the evolution of the relative deployment of proprietary and open source tools and the changes in central and local support for tools. The management and support challenges that these changes are invoking should be of interest to a very wide audience.

0083 Poster | **Theme:** Five

Captivating staff development for your academics

Mark Pelling, Susan Wilkinson | UWIC, Cardiff, United Kingdom

This poster will present details of new developments in VLE training for staff at UWIC. A staff development workshop that introduces the basics of Blackboard has been developed using a blended approach involving mainly online tuition and support that is supplemented with short face-to-face workshops if necessary. This shift from VLE support to staff development and more autonomous learning has been embarked upon due to both technological advances and resourcing issues (training staff) and has led to an online self regulated training module. Staff are introduced to the basics of Blackboard using this online resource as part of their induction. More experienced users are identified and put in contact with the new staff to help with issues and they have as a buddy, or Blackboard champion. Staff can be introduced to the basics of Blackboard without necessitating the need for repetitive workshops and staff commitment.

This poster will provide the audience with information about a simple but comprehensive on-line learning programme that leads the learner from no knowledge about Blackboard to being able to create accounts, upload material (including Word, PowerPoint and .jpg files), make their course available, personalise their modules, control their teaching through adaptive release, and much more. Other institutions may realise where they could make changes to staff development events that would increase access, whilst reducing staff commitment The training module would primarily be aimed at new and experienced academic staff, academic support professionals, academic administrators and Learning Developers but would be of interest of anyone involved in the creation of Blackboard accounts or material.

0084 Poster | **Theme:** Four

Sharing experiences from the MEDEA awards

Sally Reynolds[1], Deborah Arnold[2] | [1]ATiT, Roosbeek, Belgium, [2]University Nancy, Nancy, France

In recent years there has been remarkable interest in the creation and use of digital video and audio in education, boosted by the increasing impact of multimedia and video based web sites and applications on the Internet and mobile devices. The pedagogical vision is clear: it is only when video and audio are

routine components of education and online learning that we will have an educational environment that reflects the media-rich world in which our learners now live. However for many practitioners, media-use is a relatively new practice and there is a remarkable lack of examples of good usage of media available. Getting the balance right between pedagogy and media production can be challenging and despite the vast arrays of affordable hardware and software now available, many learning professionals simply lack the skills and imagination to use media in a meaningful way to support learning. It is against this background that the MEDEA Awards were established.

In this presentation we will provide background information to this awards scheme and show several of the winning entries. We will also identify the types of media in popular use in the learning context, inviting the audience to contribute with what they consider makes for effective educational media. We will wind up with a lively discussion, identifying and addressing some of the challenges faced by those striving for excellence in this sector.

Demonstration | **Theme:** One | **Session:** Mathematics demonstrations **0085**

Maths Solutions – generating hand-written maths examples using a tablet PC and capture software

Carol Elston, Liz Meenan, Jade Kelsall | University of Leeds, Leeds, United Kingdom

Accessible e-learning resources, whether they form part of a blended programme of study or as a means of revision and reinforcement, are becoming a student expectation (Hibberd, Litton and Rowlett 2003). As part of our e-learning development we are increasingly utilising tablet PCs and capture software to record nuggets of learning that can be embedded within VLE modules or accessed from our web pages, any time any place. An ongoing project utilising these technologies is the Maths Solutions resource which brings together a whole range of solutions to common maths problems. These learning nuggets are produced as short video clips capturing voice and hand written solutions (Niess and Walker 2010). Initial student and tutor feedback is positive with students identifying the benefits of accessing clips online whilst completing assignments or revising. During this session we will demonstrate the ease with which these resources can be developed and show some examples of the solutions as well as some maths quizzes that have been developed to complement the range of maths examples. Time will be allowed for questions, discussion and sharing of experiences.

Hibberd, S., Litton, V., Chambers, C. 2003. *MELEES - Reflective overview on use of a VLE in supporting student learning.* Paper presented at HELM Conference, September 14-15 in Loughborough.

Niess, M. L., Walker, J.M. 2010. Guest editorial: *Digital videos as tools for learning mathematics*. Contemporary Issues in Technology and Teacher Education, 10(1), *http://www.citejournal.org/vol10/iss1/mathematics/article1.cfm* (accessed 24th May 2010).

Workshop | **Theme:** Five | **Session:** Innovating in teaching with an intelligent design environment **0087**

Supporting innovative teaching with an intelligent collaborative design environment

Diana Laurillard[1], Liz Masterman[3], George Magoulas[2], Patricia Charlton[2], Marion Manton[3], Dejan Ljubojevic[1], Brock Craft[1], Roser Pujadas[4] | [1]Institute of Education, London, United Kingdom, [2]Birkbeck University of London, London, United Kingdom, [3]University of Oxford, Oxford, United Kingdom, [4]London School of Economics & Political Science, London, United Kingdom

This workshop will explore the potential of a knowledge-based Web application to support teachers in planning and designing learning activities for their students. It will be facilitated by the Learning Design Support Environment (LDSE) project team. Funded by the ESRC/EPSRC TLRP Technology-Enhanced

Learning programme, we are investigating how to support teachers who wish to develop their design skills and knowledge in order to profit from the creative possibilities opened up by digital technologies.

The LDSE is underpinned by; a theoretically-informed model of learning: the Conversational Framework (Laurillard 2009), our empirical work with teaching practitioners (San Diego et al. 2007), research conducted by others (e.g. Oliver et al. 2002; Conole and Fill 2005; Koper 2006).

We aim to describe the pedagogical dynamic in a systematic way that will enable the LDSE both to support the process of design and to evaluate a given learning design against the intended learning outcomes, offering appropriate advice.

A core principle of the project is 'building on the work of others': making it productive for teachers to draw inspiration from, or repurpose, existing innovative learning designs and learning patterns which the LDSE finds for them, using its knowledge of their pedagogic intentions.

The conceptual framework supporting our approach is that of learning design as computer-supported collaborative learning (CSCL) for teachers (Laurillard and Masterman 2009). Participants will take part in a small-group role-play to repurpose an existing learning design, pass it to another group for comment and comment on another group's adaptation. Their reactions will be captured dynamically and will feed into a plenary review and discussion. Participants will:

- gain experience of, and contribute to, our evolving conceptualisation of CSCL for teachers;
- deepen their awareness of the complexity of designing for students' learning;
- gain insights into the potential role of an AI-based system in promoting greater rigour and precision in the articulation of educational concepts.

We will use Crowdvine to engage potential participants before the conference. Interested participants will be welcome to contribute to the project further e.g. by taking part in later evaluations.

Conole, G., and Fill, K. 2005. *A learning design toolkit to create pedagogically effective learning activities.* Journal of Interactive Media in Education, *http://www-jime.open.ac.uk/2005/08/.*

Koper, R. 2006. *Current Research in Learning Design.* Educational Technology & Society, 9(1), 13-22.

Laurillard, D. 2009. *The pedagogical challenges to collaborative technologies.* International Journal of Computer-Supported Collaborative Learning, 4(1), 5-20.

Laurillard, D., and Masterman, E. 2009. *Online collaborative TPD for learning design.* In J.O. Lindberg and A.D. Olofsson (Eds.), Online Learning Communities and Teacher Professional Development: Methods for Improved Education Delivery (pp. 230-246).

Oliver, R., Harper, B., Hedberg, J., Wills, S. and Agostinho, S. 2002. *Formalising the description of learning designs.* In A. Goody, J. Herrington and M. Northcote (Eds.), Quality conversations: Research and Development in Higher Education (Vol. 25, pp. 496-504). Jamison, ACT: HERDSA.San Diego, J. P.,

Laurillard, D., Boyle, T., Bradley, C., Ljubojevic, D., Neumann, T., Pearce, D. 2007. *Towards a user-oriented analytical approach to learning design.* ALT-J,. 16(1),15-29.LDSE project website: http://www.ldse.org.uk

0088 Demonstration | **Theme:** Two | **Session:** Mobile learning demonstrations

The Magic Pens Project

Paul Mahoney, Helen Hewertson, James Gotaas | University of Central Lancashire, Preston, United Kingdom

Digital pen technologies offer interesting possibilities for university teaching, where presentation software is used in nearly every classroom, but is often limited to electronic text. Pen technology can increase access to graphical information and facilitate the sharing of content in real time between students and lecturer. (Abowd 1999; Anderson et al 2004; Iles et al 2002; Motoki et al. 2007).

In the academic year 2009/10 the University of Central Lancashire (UCLan) has trialled the use of digital pens with staff based in each of its eighteen schools. The type of pen used is notable in that it writes like a

conventional pen on ordinary paper, but the movement is picked up by a receiver unit which can store and display the note as a digital file. The project is evaluating whether the use of these devices can positively affect the following:

- Classroom interactivity: Pens can be used by students/ syndicates to record answers to questions for display and discussion by all.
- Digitisation: Encoding software can be used with the pens to create simple narrated animations explaining processes and diagrams. These can be used in class or made available electronically.
- Sustainability: Digital pens can perform the same function as traditional flipcharts whilst using a fraction of the paper.
- Feedback: The pens can record handwritten notes whilst away from a PC.

We will introduce the specific digital pen hardware and highlight the differences to comparable hardware on the market. We will also briefly explain the supporting software. The demonstration will focus on different uses of the pen supported by examples provided by academics at various schools within UCLan. The session will also cover the practical implications of setting up such a cross university project by a centralised learning technology team.

The session hopes to demonstrate how the adoption of simple and inexpensive hardware for the classroom may engage not only students and academic enthusiasts but also novice users with the rich world of technology enhanced teaching.

Abowd, G. 1999. *Classroom 2000 - An experiment with the instrumentation of a living educational environment.* IBM Systems Journal, 38:(4), 508–530.

Anderson, R.J. Hoyer, C. Wolfman, S.A. Anderson, R.A. 2004. *A Study of Digital Ink in Lecture,* presented at CHI, April 24–29, Vienna Austria. *http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.76.5897&rep=rep1&type=pdf* (Accessed January 29th 2010)

Iles, A., Glaser, D., Kam, M. & Canny, J. 2002. *Learning via distributed dialogue - Livenotes and handheld wireless technology.* Proceedings of CSCL 2002, 408–417. *http://www.cilt.org/seedgrants/assessments/Canny_Final_Report_2002.pdf* (Accessed January 29th 2010)

Miura, M. Kunifuji, S. Sakamoto, Y. 2007. *AirTransNote - An Instant Note Sharing and Reproducing System to Support Students Learning.* ICALT 2007, 175-179. *https://dspace.jaist.ac.jp/dspace/bitstream/10119/7791/1/A11259.pdf* (Accessed January 29th 2010)

Poster | **Theme:** One **0089**

Maths Solutions – generating hand-written maths examples using a tablet PC and capture software

Carol Elston, Liz Meenan, Jade Kelsall | University of Leeds, Leeds, United Kingdom

Accessible e-learning resources, whether they form part of a blended programme of study or as a means of revision and reinforcement, are becoming a student expectation (Hibberd, Litton and Rowlett 2003). As part of our e-learning development at Skills@Library we are increasingly utilising tablet PCs and capture software to record nuggets of learning that can be embedded within VLE modules or accessed from our web pages, any time any place. An ongoing project utilising these technologies is the Maths Solutions resource which brings together a whole range of solutions to common maths problems. These learning nuggets are produced as short video clips capturing voice and hand written solutions (Niess and Walker 2010). Initial student and tutor feedback is positive with students identifying the benefits of accessing clips online whilst completing assignments or revising.

Hibberd, S., Litton, C. Chambers, C. 2003. *MELEES - Reflective overview on use of a VLE in supporting student learning.* Paper presented at HELM Conference, September 14-15 in Loughborough.

Niess, M. Walker, J. 2010. Guest editorial: *Digital videos as tools for learning mathematics.* Contemporary Issues in Technology and Teacher Education, 10(1), *http://www.citejournal.org/vol10/iss1/mathematics/article1.cfm* (accessed 24th May 2010).

0090 Poster | **Theme:** One

Supporting online communication – a series of e-learning resources to help students and tutors manage interpersonal skills in an online environment

Carol Elston, Julia Braham, Jade Kelsall | University of Leeds, Leeds, United Kingdom

From pre-arrival discussion rooms aimed at undergraduates to synchronous chat rooms for postgraduates, it is clear that the student journey through higher education is changing and is increasingly involving online interaction (Dawson 2009; McInerney and Roberts 2004). As new technologies combine with shifting pedagogies, online students and tutors are becoming jointly responsible for knowledge construction and for building and sustaining communities of practice. This journey however is not without pitfalls; the lack of non-verbal and visual cues in online interaction can increase the need for effective communication and interpersonal skills.

This poster introduces an ongoing project that involves the design and development of a range of innovative e-learning resources. The resources are aimed at both students and tutors, regardless of institution, level or discipline. They aim to address the challenges of interpersonal communication in an online situation through a series of interactive activities. At this early stage in development the activities range from developing online profiles, comparisons between face-to-face conversations and online versions, to the use of emoticons. The activities will be demonstrated via a laptop.

Dawson, S. 2006. *A study of the relationship between student communication interaction and sense of community.* Internet and Higher Education 9, no.3: 153-162.

McInerney, J. and Roberts, T 2004. *Online learning: Social interaction and the creation of a sense of community.* Educational Technology and Society, 7, no 3: 73-81.

0091 Poster | **Theme:** Five

Capturing tutor expertise using video – the hands-on approach

Carol Elston, Jade Kelsall | University of Leeds, Leeds, United Kingdom

The LearnHigher Centre for Excellence in Teaching and Learning (CETL) is a partnership of 16 UK Universities committed to improving student learning through research and resource development. Focussing on 20 areas of academic skills development, from academic writing to time-management, the project outcomes include research papers, conference workshops and a coherent open access website showcasing a range of online resources for both students and staff.

Entering the final year of the 5-year project, the dilemma was how to capture the expertise of the LearnHigher partners and their colleagues. The aim was to find a way to share experience, making clear connections between resources and guidance, whilst harnessing the personal communication style and expertise of the partners. This resulted in a collaborative project to develop a suite of 20 video resources designed to enable an educator, regardless of location, to deliver a student workshop covering a specific area of skills development. Video plays a central role in communication, with each slide within the resource structured around a video clip; by capturing speech and expression the clips are personal, echoing the way in which academics share teaching expertise and knowledge with colleagues. The resulting resources are open access and available via the internet. This poster will promote these award winning resources.

The use of technology to address workforce development support issues

Andrew Haldane, Richard Stanifirth | University of Wales Institute Cardiff, Cardiff, United Kingdom

Drawing on experiences gained within a current JISC project, this paper addresses specifically the use of technology to support delivery of a portfolio of services to employers and employees such as those examined in the QAA publication employer-responsive provision (QAA, 2010). The focus is on supporting an offer to the workforce that may include;

- the provision of bespoke or tailored programmes/courses that meet the needs of; particular employers or sectors;
- the development of (small unit) credit-based learning opportunities;
- the accreditation of prior and experiential learning (APEL);
- the recognition of in-house training;
- learning situated in a workplace or based around a work situation.

The paper will focus on what is distinctive about work-based learning (HEA, 2007, Haldane and Wallace 2009) notably the integration of knowledge acquisition and its practical application. The personalisation of learning and curriculum negotiation that may be necessary when a generic framework is applied in a learner's unique context as defined by their job role, the organisation within which they are working, current challenges faced and professional development needs identified are seen as key issues that technology can help address.

Specific solutions/ issues discussed include:

- the application of the XCRi standard in relation to;
  - the use of professional practice accreditation frameworks,
  - the development of bespoke WBL provisiono the development of personal learning plans;
  - potential support for the APEL process.
- the use of Expo-XL and Pebblepad to;
  - support the creation and execution of individual learning planso develop reflective accounts as part of the evidence of achievement
- engagement with 'dormant' and prospective learners; issues related to the use of Blackboard in this context
- The scope for using tools such as Adobe Connect and Presenter for integrating synchronous and asynchronous learning experiences for workforce development.

The paper concludes that appropriate deployment of learning technologies by contributing to both the quality of the student experience and the effective deployment of staffing resources can impact positively on HE workforce development provision.

Haldane, A. Wallace, J. 2009 *Using Technology to Facilitate the Accreditation of Prior and Experiential Learning in Developing Personalised Work-based Learning Programmes* European Journal of Education, Vol. 44, No. 3, Part I: 369-383

Higher Education Academy. 2008 *Work-based learning: Workforce development: Connections, frameworks and processes.* See *http://www.heacademy.ac.uk/assets/York/documents/workforce_development.pdf:*

The Higher Education Academy. Quality Assurance Agency for Higher Education. 2010 *Employer-responsive provision survey, A reflective report.* See *http://www.qaa.ac.uk/employers/effectiveprovision.pdf*

0093 Short paper | **Theme:** Four | **Session:** Student voice expectations

Mobile engagement or miss-dial? A multi-institution survey interrogating student attitudes to mobile learning

Kate Reader[1], Mike Cameron[2], Sian Lindsay[1], Hilary Griffiths[3], Ajmal Sultany[1] | [1]City University London, London, United Kingdom, [2]Durham University, Durham, United Kingdom, [3]University of Bristol, Bristol, United Kingdom

The 2009 Horizon Report suggests that mobile devices will be widely adopted for learning in the next year. This study conducted at three UK HE Institutions highlights that a high percentage of our students now carry smart devices (like iPods and Blackberrys) with features like web browsing, running of diverse applications and location awareness becoming standard. There are already numerous commercial and institutional e-Learning packages and 'apps' for students to install and access on the go. Just as educators have been keen to exploit the 'sea-change' that saw social networking mushroom, institutions are now co-opting students' mobile devices. As with Web 2.0 tools, we need to consider both the pedagogic potential, and the degree to which students are both willing and able to put their gadgets to this purpose. Mobiles were previously reserved for personal and social use only.

This study investigates whether students are willing to compromise by combining social use of their mobiles with formal education and draws together online surveys of students at three UK universities with different educational strategies, together with a review of existing literature. The paper seeks to establish the willingness of students to use their mobile devices for learning and in which contexts. We explore what devices, contracts and skills students have and consider how we might use them effectively for blended learning and more interactive face to face teaching. Are students willing to use their mobile devices to access learning materials or send and receive texts with classmates and lecturers? Will students use their credits to vote in class and bandwidth to view educational multimedia? Or will students view their mobile devices, like some Web 2.0 sites, as 'their environment, not ours'? Many students counter, "if they go on to Facebook, I'm moving out" (Salmon, quoted in Swaine, 2007). Will students also switch off their mobiles to education?

Understanding ownership, skills and attitudes to mobile learning can guide institutional approaches to adoption. Can we make productive and effective use of mobiles to meet student expectations and provide more interactive, time and location-sensitive learning? Or are we dialling a wrong number?

Kennedy, G. 2008. *First year students' experiences with technology: Are they really digital natives?,* Educational Technology 24, no. 1 (2008): 108–122.

Harriet, S, 2009. *Networking sites: Professors - keep out - Technology & Gaming, Student Life*. The Independent, *http://www.independent.co.uk/student/student-life/technology-gaming/networking-sites-professors--keep-out-397100.html.*

Horizon Report. 2009, *http://wp.nmc.org/horizon2009/.*

0094 Proceedings paper | **Theme:** Two | **Session:** Human aspects

Where angels fear to tread: online peer-assessment in a large first-year class

Markus Mostert, Jen Snowball | Rhodes University, Grahamstown, Eastern Cape, South Africa

In the context of widening participation, large classes and increased diversity, assessment of student learning is becoming increasingly problematic. Due to the sheer volumes of marking required, the traditional essay format proves to be particularly onerous, but becomes even more labour-intensive when formative feedback is provided. Many lecturers respond to these challenges by simply abandoning the essay in favour of assessments comprising MCQs, thereby depriving students of valuable formative feedback and opportunities for improving their writing, which becomes even more crucial in the context of increased

diversity. Although the value of peer assessment has been well documented in the literature (see, for example, Boud, Cohen, and Sampson 1999; Race 2001; Rust 2001) the associated administrative burden and issues related to anonymity and ownership of student work makes this option less attractive, particularly in large classes.

The Workshop module of the Learning Management System (LMS) Moodle, automates the peer-assessment process from submission of essays to anonymising and distribution, calculation of marks and making feedback available. However, despite the potential of this module for alleviating the administrative burden associated with peer assessment, the uptake thereof within higher education seems to be insignificant, probably due to its sophisticated nature.

This small scale case study reports on a peer assessment assignment using the Moodle Workshop in a first year introductory macroeconomics course with 800 students at Rhodes University, South Africa. Data were collected through an end-of-course evaluation and a survey aimed at eliciting tutor perceptions on the peer assessment exercise. In addition, a sample of pre- and post-peer assessment submissions will be compared to ascertain the effect of the student feedback on the quality of the final submissions of both the assessors and the assessed.

Initial analysis of the data revealed that students value peer assessment more for the feedback that they provided than for the feedback that they received. Switching roles from the assessed to the assessor forced students to engage with the assessment criteria more deeply than they would normally do when writing their essays. For this reason, and contrary to suggestions in the literature, peer assessment seems to have value at first year level.

Boud, D, Cohen, R. Sampson, J 1999. *Peer Learning and Assessment.* Assessment & Evaluation in Higher Education 24, no. 4 (December): 413.

Race, P. 2001. *A Briefing on Self, Peer and Group Assessment.* Resources. *http://www.heacademy.ac.uk/resources/detail/SNAS/snas_901.*

Rust, C. 2001. *A briefing on assessment of large groups.* LTSN generic centre assessment guides series No 12.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Short paper | **Theme:** Five | **Session:** Changing staff development **0095**

Joining the dots: using technology to strengthen and connect teaching communities

Lindsay Jordan | University of the Arts London, London, United Kingdom

This is a case study of an attempt to address fragmentation in a diverse and dispersed Higher Education institution through the development of blended (online and face-to-face) staff communities. This work-in-progress incorporates a number of events and online spaces designed to increase communication between individual members of staff and existing isolated communities. One particular aim is to uncover areas of duplicated practice and shared interest, and to support staff in collaborative projects.

The approach taken so far has included the introduction of a series of online seminars related to learning and teaching. The 'Learn at Lunch' seminars are delivered through live webconferencing by teaching staff from across the University and the content of the programme is purposefully technology-neutral. The intention is to cast our net beyond those individuals with an existing interest in online collaboration and to introduce participants to new ways of communicating online by embedding it into the process, rather than making it the focus of the content. Another initial strategy has been to channel staff through a dedicated

online space while in the process of gathering feedback on the use of the VLE and other online learning and teaching tools. Future plans include a series of face-to-face social media roadshows to raise awareness of the role of Web 2.0 technologies in learning, and the development of an online 'sister' space to connect staff interested in using teaching and learning tools outside the VLE.

By analysing data on attendance at the various online and face-to-face events, and subsequent attendances and activity within the online spaces, we are building up an interesting picture of how successful the different events, initiatives and approaches are at attracting staff into communities and encouraging active participation. The presentation will focus on these connections, which should be of interest to anyone involved with staff development and/ or organisational effectiveness.

0096 Poster | **Theme:** Five

Changing the way we see test-items in a computer-based environment: screen design and question difficulty

Matt Haigh | Cambridge Assessment, Cambridge, United Kingdom

This poster illustrates research investigating the effect of screen design features on the difficulty of a computer-based test item. The research emerges from an increased drive in the UK context to utilise computer-based testing in the high-stakes examination system (Ofqual, 2005). In addition, Higher Education and Further Education practitioners are making more use of computer-based assessment in their educational programmes (Conole & Warburton, 2005). Research emphasis has been focussed on demonstrating the equivalence of computer-based and paper-based forms of an assessment, (e.g. Clariana & Wallace, 2002). However, there is little literature relating to the precise features of computer-based tests that may affect the way a student performs. Of particular importance is the potential impact of the screen environment on test-item difficulty. The aim of the study is to investigate this relationship.

With the majority of research in computer-based testing emerging from Higher Education contexts, this study takes the opportunity to provide additional evidence from secondary education; six English secondary schools were recruited for the study, and the research was conducted with students undertaking a GCSE Science course. The findings largely relate to assessment design aspects, so are relevant to those using computer-based assessment in all educational contexts.

In line with dominant methodologies in educational measurement, this study took an experimental design approach. Two parallel forms of a computer-based science assessment were developed. For specific test-items, the screen layout or student interaction was modified in the second of the parallel forms. The test forms were randomly assigned to the sample of students and measures of test-item difficulty were established. Analysis identified where significant differences in test-item difficultly occurred in the parallel forms.

This poster provides a clear visual display of the parallel forms of each test item. This graphical component is supplemented with the analysis of item difficulties of each version and a commentary on the possible causes of significant differences. The poster also provides suggestions for future best-practice in test-item writing for computer-based assessments in educational contexts.

Clariana, R. Wallace, P. 2002. *Paper-based versus computer-based assessment: Key factors associated with the test mode effect.* British Journal of Educational Technology, 33(5), 593-602.

Conole, G. Warburton, B. 2005. *A review of computer-assisted assessment.* ALT-J. 13(1), 17-31

Ofqual. 2005. *Drivers and barriers to the adoption of e-Assessment for UK Awarding Bodies.*

Navigating through the storm – using theory to plan mobile learning deployment

Tamsin Treasure-Jones[1], Kate Murphy[1], John Cook[2], Gareth Frith[1], Abdul Kapdi[1], Jill Taylor[3] | [1]University of Leeds, Leeds, United Kingdom, [2]London Metropolitan University, London, United Kingdom, [3]Leeds MET University, Leeds, United Kingdom

This workshop will investigate how the Socio-cultural Ecology typology (Pachler, Bachmair & Cook, 2010) can be used to understand and plan m-learning deployment. It will draw on the practical experience of the Assessment and Learning in Practice Settings (ALPS) programme. There is concern that student expectations about the provision of ICT in university are not being met (Cooke, 2008). The technology which students use in earlier education and everyday life is widely believed to be more advanced than that provided in Higher Education Institutions (HEIs). As HEIs have realised this, strategies are being reviewed and m-learning projects implemented. For ALPS, this included the use of mobile technology to enhance student work-based learning and we have rolled out a large-scale m-learning programme involving 900 devices, 16 different health and social care professions and 5 HEIs.

We will demonstrate how we have used the Socio-cultural Ecology typology (Pachler, Bachmair & Cook, 2010) to analyse and learn from our practical experience. The analysis will draw upon the experiences (Dearnley et. al. 2009) of academics, health & social care practitioners and IT professionals, involved in the ALPS mobile implementation, to identify key learning points.

Workshop participants will then use the same typology to analyse their own educational contexts and m-learning plans; considering learners' capacity to act on the world (agency), the digital tools and media available (structures) and the routine practices the users engage in within education and everyday life (cultural practices). This analysis should identify factors/ issues to consider in project planning and opportunities to assimilate informal practices into learning at HE level.

At the end of the workshop participants should have:

- a better understanding of the benefits/ risks of using mobile technologies to support work-based learning;
- an understanding of how they can use the typology to help identify and plan m-learning opportunities;
- some initial analyses of their own m-learning plans produced using the typology.

The workshop will also operate as a test and critique of the typology, enabling participants to evaluate its use as a practical planning and analysis tool and to make recommendations for enhancements to the model.

Cooke R. *On-line Innovation in Higher Education,* Submission to the Rt Hon John Denham MP, Secretary of State for Innovation, Universities and Skills, 8 October 2008.

Dearnley, C., J.D. Taylor, J.D., Hennessy, S. Parks, M. Coates, C.A. Haigh, J. Fairhall, J. Riley, K. and Dransfield. M. 2009. *Using mobile technology for Assessment and Learning in Practice Settings: Outcome of Five Case Studies*. International Journal on E Learning. 8 (2).

Pachler, N, Bachmair, B. & John Cook. J. 2010. *Mobile Learning*. Springer.

0099 Short paper | **Theme:** Three | **Session:** Effectiveness in delivery

Can the computerized peer-assessment of digital stories fully assess student subject knowledge?

Phil Davies | University of Glamorgan, Pontypridd, United Kingdom

This presentation details the development of a student-based Digital Story as an alternative to producing an essay in assessing their knowledge in a particular subject area (e.g. Accessible Web Page Design). It also reports upon the use of the CAPODS (Computerized Assessment by Peers of Digital Stories) tool as a means of developing and assessing student reflective higher order skills. For peer-assessment to be considered effective then students will be rewarded in a qualitative manner for showing consistency and critical awareness in providing both comments and marks to their peers (semi-automatic via the CAPODS system).

The development of a personalized Digital Story provides the student with a way of expressing their understanding of a particular problem whilst including appropriate academic references to support their views. Digital Stories have in the past mainly been used in the area of social reflection (2 to 3 minutes in duration) where individuals tell their own stories making use of various media resources. The key to this study is that the Digital Story produced is intended via 'technological role-play' to place the student in the position of an individual and then tell the story as if it were their own (e.g. a student suffering from colour blindness). An example will be presented with the final mark allocated to the student being an amalgamation of their peer-generated mark, a grade for performing the peer marking/ commenting in a qualitative manner and finally a tutor generated grade for their final submission.

The development of this personalized Digital Story requires the student to fully understand the needs of an individual placed in a given scenario and all of the associated problems and possibilities, which may not have been the case if they merely developed an essay. The use of the peer-assessment aspect of the CAPODS system enhances the reflective and evaluative skills of the student within the assessment process.

0100 Short paper | **Theme:** Two | **Session:** Changing curriculum development

Engendering digital sharing cultures in higher education: a university wide approach

Angela Trikic, Vicki McGarvey, Jon Tepper, Anna Armstrong, Jon Fletcher | Nottingham Trent University, Nottingham, United Kingdom

Promotion of open educational resources (OERs) is an important feature of the online learning landscape. This is supported in the UK by JISC's repository programme for technical infrastructure and resource sharing initiatives for institutional and OER repositories. A JISC funded review reports an emerging picture across the Higher Education sector revealing issues relating to policies and procedures that has impacted on teaching staff involvement in a culture of sharing. In order to maximise use of its learning and teaching online assets Nottingham Trent University (NTU) is engaged in a University wide Supporting, Harnessing, and Advancing Repository Enhancement (SHARE) project funded in partnership with JISC and Desire2Learn. The project is developing a framework for integrating the VLE's learning repository into teaching practice and encouraging staff to share learning content with colleagues within and beyond the University. This paper outlines:

1. How the design of the repository was modelled to support academic sharing of resources;
2. The adaptation of design decision to improve ease of deposit and access for staff;

3. The use of the project as a vehicle to engage staff across the University;
4. The use of workshops and case studies to promote the benefits of resource re-use.

Embedding of support for repository use and access to OERs in existing job roles is underway to ensure the sustainability of the work. Facilitating a cultural shift entails working with early adopters, who can see early benefits of resource sharing and implementation of training and support programmes. Synergies derived from sharing generic online information literacy and study skill resources are emerging with easy access to this content for re-use or repurposing. Piloting processes to support deposit and ongoing maintenance illustrate effective, efficient learning and teaching practices. Additionally, issues relating to copyright and ownership are reported as they have prompted a review of the University's Copyright license policy and consideration of Creative Commons' licenses. This provides a legal framework for sharing resources across the university and enabling the safe sharing of content for reuse in external repositories. In summary this paper addresses multi-dimensional support needed for a repository infrastructure and good transformative academic practices.

Charlesworth, A. Ferguson, N. Schmoller, S. Smith, N. and Tice, R. 2007 *Sharing eLearning Content – a synthesis and commentary.* Project Report for September 2007, *http://ie-repository.jisc.ac.uk/46/* (Accessed 19th February 2008).

Margaryan, A. Milligan, C. and Douglas, P. 2007. *Deliverable 9 Structured Guidelines for Setting up Learning Object Repositories.* Project Report for JISC April 2007, *http://ie-repository.jisc.ac.uk/106/* (Accessed 20th August 2008).

HERE'S WAVING AT YOU KID – a conversational framework for using Google Wave for peer-to-peer feedback and collaboration

Paul Lowe, Lindsay Jordan | University of the Arts London, London, United Kingdom

On a variety of courses and projects at the University of the Arts London (UAL) Wave has been used as a 'brainstorming' space to share ideas with peers and receive critical feedback and support, creating what Google has described as "conversations as documents". Based on our experiences, this workshop will explore how to set up and use Wave for collaborative projects. One idea that has been particularly successful is to have a weekly 'Wave day' where students and staff regularly check in with wave to respond to each others comments and responses, making Wave an almost real time experience and creating powerful feedback loops. Wave's temporality as somewhere between synchronous and asynchronous makes it more immediate yet more reflective than either real-time web conferencing or discussion forums, and the ease of introducing media into waves means that a wide variety of research materials can be combined easily and quickly, creating artifacts that can be referred back to in the future. The re-playability of Wave also allows for the research to be unpacked, giving unparalled insights into the thought processes of students.

In our use of Wave we observed that students interact with one another's ideas in a critically supportive environment, where the depth of response is greater than in traditional group tutorial settings, where students rely almost entirely on the tutor for validation of their ideas and guidance on how to proceed. However, with Wave, peer-to-peer support and feedback becomes as important as that from the tutors in shaping and forming participants' project ideas.

The workshop will introduce Wave, set up each participant with a Wave account and explain some of the uses that educators have developed for it including a detailed examination of how we have used it in our own teaching practice. Attention will be paid to some useful tips and tricks that can make Wave easier to use and organize. The workshop will use Wave for a live brainstorming session in a 'world café' style format, before concluding with a mass 'Mexican wave' where we will attempt to interact with a larger audience outside of the conference.

0102 Short paper | **Theme:** Three | **Session:** Organisational landscapes

3C: What's in IT for me?

Peter Duffy | The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

This paper describes an institutional project at the Hong Kong Polytechnic University. The '3C project: A Strategic Approach to Enabling Integrating and Enhancing Blended (E)Learning within an Institutional Framework'. The broad aim of this project is to 'enhance the blended learning culture' within the University and the approach used to address this is through the use of three concurrent foci of collaboration, community and context (3C). Suggested is that blended learning can be the centre of an evolutionary transformation of teaching and learning in this university context. However, transformational growth can only be sustained with a clear understanding of the nature of cultural change (and associated innovation diffusion within a community); an awareness and sensitivity to the context of the change occurring; and, also a consideration of the relationships and perceptions of the stakeholders/ people or community involved in this transformational educational collaboration.

Technology has transformed, or is transforming, most of society. However, as Wrench, Hayslett, O'Sullivan, & Schweiizer (2010) identify, "although the trend toward incorporating blended learning into higher education is evident, its use is as of yet fairly limited". A transformation of teaching and learning is inevitable with the use of technology, in particular web-based technology used to facilitate online learning. Blended learning is a coherent design approach that openly assesses and integrates the strengths of face-to-face and online learning to address worthwhile educational goals. Suggested is that a fundamental redesign based on blended approaches to teaching and learning can represent the means to address the challenges associated with providing a quality learning experience in this 21st century higher education context.

Presented in this paper will be an overview of the approach used within the 3C project; a description of the various 'deliverables' used to achieve the aims of the project and a grounding of the framework from a literature and methodological perspective including some generalizations that emerged within an evaluation of the framework and in particular the goal of 'enhancing the blended learning culture' and intercultural considerations within the Hong Kong context.

Wrench, J. Hayslett, C. O'Sullivan, E. Schweiizer, H. 2010. *Faculty Development in the Use of Blended Learning.* In C. Crawford et al. (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference 2010 (pp. 975-978). Chesapeake, VA: AACE.

0103 Short paper | **Theme:** Five | **Session:** Institutional design

Infinite space: an innovative and collaborative e-learning approach to large cohort delivery

David Fevyer, Brian James, Kathryn Cheshir | Bournemouth University, Poole, Dorset, United Kingdom

This presentation will discuss the development of a focused but multi-faceted e-learning resource to deliver a complex unit across multiple subject frameworks within the School of Conservation Sciences at Bournemouth University (BU). The Academic Practice unit is delivered to all undergraduates throughout their first year and is designed to provide the academic skills necessary for working at degree level as well as provide support for their developing research interests. The project has involved collaboration between academics, post-graduate research students, Subject Librarians and Learning Technologists. A key project goal was to meet the challenges of ongoing institutional change with resulting delivery of courses to large cohorts and an increased focus on independent learning, in addition to the broader context of changing student expectations.

The adoption of frameworks at BU and a move towards common cross-framework and cross-school units, including the Academic Practice unit, has led to student cohort sizes in excess of current lecture theatre capacities. This was overcome through an innovative use of several different techniques and technologies, including pre-recorded lectures digitally streamed from myBU, the University's Virtual Learning Environment, and the creation of online multimedia worksheets containing student managed tasks submitted via the VLE. This approach also met student expectations of a flexible 'on-demand' educational experience allowing them to manage their own time and revisit resources at any time. This feature of the unit was enhanced by an innovative approach to adaptively releasing resources so that students could easily identify which activities related to each week's topic. Regular formative feedback was provided by post-graduate students, again via the VLE, ensuring students were informed about their progress successfully despite the size of the cohort.

The project has also supported key organisational changes by effectively developing and enhancing collaboration and synergies between the academic staff within the school and the Learning Technologist and Subject Librarian teams. Students have responded positively, and their feedback used to develop the unit for the long-term. The model is scalable and can be adapted to fulfil the requirements of similar units across Bournemouth University.

Do tutors make good learning designers? Large-scale evaluation of e-learning resources produced by tutors

Richard J. Windle[1], Heather Wharrad[1], Claire Bradley[2], Raquel Morales[3], Dawn Leeder[3], Tom Boyle[2] | [1]Centre for Excellence in Learning and Teaching for Reusable Learning Objects (RLO-CETL), University of Nottingham, Nottingham, United Kingdom, [2]Centre for Excellence in Learning and Teaching for Reusable Learning Objects (RLO-CETL),London Metropolitan University, London, United Kingdom, [3]Centre for Excellence in Learning and Teaching for Reusable Learning Objects (RLO-CETL),University of Cambridge, Cambridge, United Kingdom

This paper explores the design of learning resources in relation to expressed pedagogical intention and learners' evaluations. The RLO-CETL has developed a community of practice approach that enables tutors to design learning objects that address the specific pedagogical requirements of their students. Here we present the evaluations of 12 projects deploying approximately 130 learning resources with 2,250 students yearly, across three HE institutions.

We have analysed the extent to which the pedagogical imperatives of the tutors were represented in their designs and the students' evaluation of the resultant resources. Tutors expressed a range of pedagogical drivers for the development and deployment of learning objects. These were categorised into four thematic areas; the development of students' understanding, adoption of particular learning approaches, support for student-centred learning and the need to address tutor-centric issues, such as large group sizes. The development framework (Boyle et al. 2007) allowed for considerable design flexibility in the completed resources. These were analysed using the LOAM tool (Windle et al. 2007) which consists of a series of scorable pedagogical attributes based on IMS learning design (IMS 2005). Clear differences in the design of resources existed between projects and institutions. This was particularly evident in the use of media, interactivity, assessment, feedback and degree of contextualisation. Parallels between the pedagogical intentions of the tutors and the design of the resources were evident in some, but not all cases. For example, tutors who expressed a desire to deepen understanding tended to design resources with a greater level of contextualisation, interactivity and self direction.

Despite the differences in the design of the resources, they were evaluated very positively across all subject areas, with over 90% of students indicating that they had found their resources helpful or very helpful for

their learning. Students' qualitative comments aligned with the pedagogical decisions made by their tutors. This indicates that learning objects are effective across a range of subject areas and are capable of meeting diverse pedagogical needs. Moreover, tutors were able to make effective and differential learning design choices through this format that supported the specific learning requirements of their students.

Boyle, T., Cook, J., Windle, R. J. , Wharrad, W. , Leeder, D and Alton. R. 2007. *An Agile Method for Developing Learning Objects*. In 23rd annual conference of the Australasian Society for Computers in Learning in Tertiary Education: Who's learning, whose technology? Ed. L. Markauskaite, P. Goodyear and P. Reimann. *http://papaya.edfac.usyd.edu.au/ascilite_papers/p64.pdf (accessed February24, 2010).*

IMS. 2005. *IMS Global E-learning Consortium*. *http://www.imsglobal.org/* (accessed February24, 2010).

Windle, R., Wharrad, H., Leeder, D. and Morales. R. 2007. *Analysis of the Pedagogical Attributes of Learning Objects in an attempt to identify Reusable Designs*. In Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications (pp.2676-2685), ed. C. Montgomerie, and J. Seale. Chesapeake, VA: AACE.

0105 Demonstration | **Theme:** Two | **Session:** Copyright and advertising on line

A presentation, demonstration and discussion on the introduction of online advertising to selected university applications as a potential source of revenue.

Ian Heath, Alex Norris | Cirriform Media Limited, Leeds, United Kingdom

The advertising marketing in the UK was worth £18.6 Billion in 2008 (Anon, 2010). Online advertising overtook television in 2009 (Sweney, 2009) and is now second only to press advertising in terms of value. Advertising to students in the UK is well established with many companies offering products and services to reach the student audience – goody bags, flyers, posters and direct promotions are all on offer. The key driver for the student segment is their current and future value. Students are tomorrow's leaders and high earners, so creating positive messages for brands remains a key objective for business leaders from a range of industries, from mobile telecommunications, to retail and banking.In order to proceed successfully, one needs to introduce advertising on to key applications within the University network. It is best to focus on 'landing' and navigation pages that do not distract from the learning experience, but do have a high number of visitors.

Advertising revenue is generated directly from the number of people viewing a page, with a fee paid for every thousand 'impressions' recorded. Initially, campaigns will command a low 'network' fee, but if the sector cooperated in a shared initiative, larger fees will be paid to reach this unique audience. A cost per thousand of 50p will rise to £5.00 and beyond if universities drive students to online services, and a substantial part of the sector takes part in a single initiative. Such a collective effort has a real prospect of making online advertising the channel to students in the UK, with annual revenues of five or six figures possible for each university.

A reasonable and socially responsible advertising model requires some essential characteristics; a Code of Conduct that governs the overall approach and sets clear boundaries on what is acceptable content within the Higher Education sector; technology flexible enough to deliver this; robust processes that will ensure adherence with the Code of Conduct and be reactive enough to remove advertising that causes an adverse reaction. Consultation with Student Union representatives will of course be essential in any initiative.

A combination of formal presentation and on-screen demonstration will hopefully lead to a lively debate for participants.

Anon. 2010. *Advertising Industry Statistics* [online]. Advertising Association. Available from: *http://www.adassoc.org.uk/aa/index.cfm/adstats/* (Accessed: 25th February 2010)

Sweney, M. 2009. *Advertising Industry Statistics* [online]. Guardian. Available from: *http://www.guardian.co.uk/media/2009/sep/30/internet-biggest-uk-advertising-sector* (Accessed: 25th February 2010)

Poster | **Theme:** Two **0106**

Efficiency with flexibility: connecting the VLE to the curriculum

David Fevyer, Tim Galling | Bournemouth University, Poole, Dorset, United Kingdom

This poster will demonstrate the development of an administrative system, known as the VLE Data Management System (DMS) which was designed to provide integration between Bournemouth University's source systems. This system draws data from the HR records system (HRInfo) and the student records system (UNIT-e) in order to populate curriculum data, student enrolment and staff assignments within myBU, the University's VLE (Blackboard). The systems origins lie in the need to provide efficiencies and remove redundancy by synchronizing the VLE with source systems whilst also recognizing the need to provide flexibility for online unit delivery.

Our journeythrough scoping the requirements of this project revealed not only the current transitional structure of our formal curriculum but also the realisation that our units were not always delivered in the exact structure specified in the student records system. Ever increasing pressure for efficiencies were leading some units to be merged to enable delivery to a wider audience whilst others needed to be specialised for a specific pathway and audience. The DMS enables this flexibility whilst supporting the automation of online unit delivery as well as providing administrative control over other Blackboard activities.

This project was delivered through formal project management involving collaboration between learning technologists, academics, school administrators and information systems to ensure that needs were met across various levels of the institution and that the curriculum structure was accurately manipulated and replicated within myBU.

Outcomes of the project have included improvements to the efficiency and effectiveness of administrative processes and integrated BU systems relating to myBU, and increased robustness of myBU to facilitate continued extension of the use of the system, resulting in an enhanced student experience. In the future the system can be developed for example to facilitate the transfer of student assessment data within myBU units to UNIT-e.

Short paper | **Theme:** One | **Session:** Lecture capture **0107**

Refreshing the classroom – using lecture capture to deliver a novel blended-learning strategy in the sciences

Eoin McDonnell, Brendan Curran | Queen Mary University of London, London, United Kingdom

An educational environment characterised by high student numbers and limited teaching space presents frustrations for both academic staff and learners. Traditional teaching methods were strained – valuable contact time between academic staff and learners had become less interactive as a natural response to growing class sizes. Opportunities for learners to question and criticize become less frequent and so their skills in these essential areas fail to flourish. To meet these challenges, sweeping changes were made to refresh valuable face-to-face time and to encourage learners to critique and analyze the information presented to them. This project formed part of those changes.

We aimed to build on previous work carried out in the BioSciences (Holbrook and Dupont 2008, Gann 2007) and used a lecture capture system to record and distribute the didactic content of sections of the curriculum. This freed up valuable lecture time for academic-led seminars based around the pre-recorded material. Student progress was tracked by formative assessment and students were placed in online working

groups where they discussed the videos and assessments. They agreed upon and posted questions to their lecturer to highlight topics to be addressed in the face-to-face workshops. This saw a notable shift in the approach of learners - they themselves argued that "the idea is that we think for ourselves".

The impact of this blended approach is being assessed using students' feedback collected through surveys and focus groups, and their academic progress on both the blended and traditional sections of the course. This will allow an analysis of this strategy, and will also identify areas requiring further focus or revision before end-of-year exams.

To date 90% of learners find the approach valuable and a high majority state that the method should be used in other modules. The project also raised issues surrounding Intellectual Property Rights, Data Protection, employee protection legislation and issues of consent that are relevant to any educational institution. We will contribute to existing research within higher education (Wells 2009) to build a cohesive and informed approach to these technologies. In this presentation we will share our evaluation of this model for exploiting lecture capture to support and not replace classroom activity, how this project has informed wider institutional practice and how we plan to continue.

Hobrook, J and Dupont, C. 2008. *Profcasts and Class Attendance - Does Year in Program Matter?* Ontario: Bioscience Education Journal.

Gann, A. 2007. *Podcasting is Dead. Long Live Video!* UK: Bioscience Education Journal.

Wells, J. 2008. *Copyright Answers to Campus.* California: Accessible Technology Initiative.

0108 Symposium | **Theme:** One | **Session:** New bottles, old wine?

New bottles, old wine? A debate on the ethics of educational interventions in popular digital technologies

John Traxler[1], Frances Bell[2], Andy Black[3], Mark Childs[4], Steve Wheeler[5] | [1]Learning Lab, Telford, United Kingdom, [2]Salford University, Salford, United Kingdom, [3]Becta, Coventry, United Kingdom, [4]Coventry University, Coventry, United Kingdom, [5]Plymouth University, Plymouth, United Kingdom

Educators have started using popular digital technologies, including mobile phones and media players; social networking sites like Facebook; blogging sites such as Twitter, immersive virtual environments, mainly Second Life; and online gaming platforms such as World of Warcraft and connected mainstream console based games. This is a significant development, a distinct departure from the use of technologies that are purely educational or institutional such as e-portfolios or VLEs, where educators and their institutions control the technology and impose the rules. Where popular digital technologies, are used beyond the walled garden of the institution, other rules have already begun to emerge.

These technologies are creating more places and modes that people can inhabit, where communities can form and disband, where ideas, images and information can be produced, stored, shared, tagged, discussed, transmitted and consumed and where diverse expectations have developed about language, humour, posture, taste, fashion, etiquette and behaviour. They are like foreign countries, ones where we take our students or ones where we hope to find students, ones where we must learn the rules, where the inhabitants and communities each have their own ideas of what constitutes 'identity', 'consent', 'privacy', 'harm' or 'risk'. There are no easy 'for' and 'against' formulations; different technologies are used in different ways with different students and in different contexts. The speakers come from social media, gaming, immersive virtual worlds, mobiles and transnational perspectives.

This debate draws on a range of strongly held opinions emerging from within a newly formed HEA SIG exploring the ethics of educational interventions, both teaching, evaluation and research, in popular digital technologies. We hope delegates will join the SIG and continue to be involved as discussions and

understandings evolve. We hope to identify important and over-arching issues and approaches for educators, in order to support and protect their students, and to enhance their institutional procedures and inform the development of relevant professional frameworks.

Anderson, T. Kanuka, H. 2003. *e-Research - Methods, Strategies and Issues* .A. E. Burvikov, Ed.. . 1st.. Boston, MA: Allyn and Bacon.

Benford, S. 2005. *Future Location-Based Experiences.* JISC: Technology & Standards Watch. Bristol: Joint Information Services Committee. Available online at: *http://www.jisc.ac.uk/uploaded_documents/jisctsw_05_01.pdf*

Buchanan, E. .Ed... 2004. *Readings in Virtual Research Ethics - Issues and Controversies.* London: Information Science Publishing.

Hewson, C. Yule, P. Laurent, D. Vogel, C. 2003. *Internet Research Methods.*

N. G. Fielding & R. M. Lee, Eds... London: SAGE Publications. Hine, C. 2000. *Virtual Ethnography.* London: SAGE Publications.

Junglas, I. Spitzmuller, C. 2005. *A research model for studying privacy concerns pertaining to location-based services.* HICSS '05: Proceedings of the 38th Hawaii International Conference on System Sciences, 2005, track 7 vol. 7. Washington: IEEE, p. 180.2.

Lange, P. 2007. *Publicly Private and Privately Public: Social Networking on YouTube.* Journal of Computer-Mediated Communication 13.1..

Minch, R. 2004. *Privacy Issues in Location-Aware Mobile Devices.* Proceedings of the 37th Hawaii International Conference on System Sciences, 2004, track 5, vol. 5. Washington: IEEE, pp. 50127.2 Also available online at: *http://csdl.computer.org/comp/proceedings/hicss/2004/2056/05/205650127b.pdf*

Palen, L. Dourish, P. 2003. *Unpacking privacy for a networked world.* CHI '03: Proceedings of the SIGCHI conference on human factors in computing systems. New York, NY: ACM Press, pp. 129–136.

GLO Maker: a tool for easily authoring generative learning objects (GLOs)

Claire Bradley, Tom Boyle | Learning Technology Research Institute, London, United Kingdom

The benefits to students of having access to rich multimedia, interactive learning objects are widely known, as are the time and costs involved in producing such resources. A range of skills are also required to design and author quality learning objects, from the underlying pedagogical design, through to the creation of images and/or multimedia components, and authoring of the design and its components. To simplify this process, the CETL for Reusable Learning Objects has created a generative learning object authoring tool, GLO Maker.

The traditional approach to the reuse of learning objects has been to separate content from context in order to make the content reusable. However, it is not content but the quality of the learning design that is most important for effective learning. The generative learning object (GLO) approach thus inverts the traditional approach. It extracts successful pedagogical designs and makes these the basis for reuse. These designs are built into the GLO Maker authoring tool. A teacher can then add content to produce learning objects based on successful designs to meet their specific needs and preferences.

The tool has a number of built-in components for adding media files, interactive elements and self-assessment activities. These components make it easy for users of the tool (including tutors) to design and create GLOs, as the component also adds in the required coding for it to function. It is thus possible to create a GLO without the need for complicated authoring tools or knowledge of programming.

This poster will provide an overview of the GLO Maker tool, and will also present user statistics and evaluation feedback. In the first 6 months of its release, GLO Maker has been downloaded over 750 times, in over 50 countries. We are currently conducting an evaluation with registered users, and data will be available to present as part of the poster. Users will be able to try out the tool during the poster session.

GLO Maker website: *http://www.glomaker.org*

GLO Maker community wiki: *http://glomaker.wetpaint.com*

0110 Workshop | **Theme:** Two | **Session:** GLO Maker 2 authoring tool

GLO Maker 2 – a free, user-friendly authoring tool for creating rich, multimedia learning objects

Tom Boyle, Claire Bradley | Learning Technology Research Institute, London, United Kingdom

This workshop addresses the conference themes of 'increasing productivity and effectiveness' and 'enhancing design skills and knowledgee'. Arising from the extensive experience of the CETL for Reusable Learning Objects, the GLO Maker 2 authoring tool enables teachers to develop interactive multimedia objects based on successful pedagogical patterns. The tool is based on a fusion of ideas from generative linguistics and constructivist pedagogy (Boyle, T. 2006).

The 'generative' model provides a principled structure for linking underlying (deep structure) designs to the (surface structures) forms (e.g. screen layouts) that realise these designs. The specific pedagogical insights captured in the tool are derived from intensive design workshops with HE and FE teachers. Learning objects created with the tool are highly adaptable, so that local teachers can modify the learning objects to meet their needs and preferences. GLO Maker version 2 was released in August 2009. The authoring tool is free and open source. In the eight months since its release it has been downloaded over 1100 times in over 50 countries. There is a full supporting website, http://www.glomaker.org from which the tool can be downloaded, and a Wiki, glomaker.wetpaint.com around which a very active community of users has formed. A new feature of the Wiki is a "Gallery" section that encourages the sharing of generative learning objects (GLOs) created using the tool. It is being used in a number of universities to develop GLOs – see the 'Users' page on the Wiki for examples.

This workshop will begin with a 10 minute introduction and demonstration of GLO Maker 2. There will then a 30 minute hand-on session in which participants will create learning objects using the tool. The session will culminate with the groups demonstrating and getting feedback on the prototype learning objects that they have created. The groups will have full post-workshop backup support provided through the GLO Maker website and Wiki. The workshop participants will acquire skills and confidence in creating multimedia learning objects. The participants will understand how to relate pedagogical design to working multimedia learning objects. A poster is also available [ID number 0109] to provide a focus for wider discussion outside the workshop.

Boyle T. 2006 *The design and development of second generation learning objects.* In E. Pearson and P. Bohman (Eds) Proceedings of Ed-Media 2006, World Conference on Educational Multimedia, Hypermedia & Telecommunications, June 26-30 2006; Orlando, Florida.

0111 Demonstration | **Theme:** Two | **Session:** Copyright and advertising on line

"Copyright's not a problem. I deliberately chose an obscure journal to take it from..."

Julian Tenney, Patrick Lockley | The University of Nottingham, Nottinghamshire, United Kingdom

A new generation of tools are changing the e-learning landscape and empowering non-technical people to create high quality content as never before, and many of the problems associated with the authoring of content have been very much reduced. However, for many, the production of high quality media remains a challenge and mastery of the necessary tools with which to produce good quality graphics, sound and video remains out of reach. Consequently text tends to be over-used and the full benefits of multimedia resources are not always being realised without recourse to various media specialists.

Copyright presents a serious problem for institutions as staff re-use resources from the internet, and understanding of the legal implications amongst staff remains variable. Good collections of good quality content appropriately licensed for reuse do exist, and increasingly those collections provide an Application Programming Interface (API) to allow the collection to be searched and items and associated meta data to be retrieved. Flickr is a good example of a sizable collection of visual resources that can be reused in learning materials.

This demonstration will show how current work at the University of Nottingham is developing a search engine using the Flickr API to search for images licensed for reuse, and to retrieve the information necessary for attribution. The search functionality can be used standalone, making it simple to include properly attributed resources in new learning materials, and is also being integrated with our authoring software Xerte Online Toolkits, providing an effective workflow for content developers looking to reuse visual resources in their projects.

Supporting lifelong learning: enhancing the value of interactive 3D chemistry

Kirsty Barnes, Nick Greeves, Neil Berry, Nick Bunyan, Janet Strivens | University of Liverpool, Liverpool, United Kingdom

A JISC funded project has been investigating the current use of an interactive, freely available, resource providing 3D simulations and animations modelling the structure and reactivity of organic molecules. The development of ChemTube3D is generally highly appreciated by its users with many saying it is beneficial to their learning. The principle phases of the iChem3D project are:

1. Investigation into the current use;
2. Development of new learning approaches;
3. Evaluation and testing of new approaches and
4. Refining the new approaches in light of feedback received.

Responses from our users led to a number of approaches being investigated in the development of new learning designs, through existing freeware. The highly customisable freeware used can be tailored (for non-chemists) to include information on any subject. Details will be given on the poster as to where to download the freeware. A step-by-step approach has been used to guide students through a range of topics to help clarify any issues, whilst self-assessment activities have been made to test the students understanding. Images of both designs will be included and a laptop can be used to show how easily the designs can be produced and how they work.

This poster will explain the background to the project with information on who uses the resource and why they use it along with the methodology used to produce the major outcomes of the project (the new learning designs). The final versions of all designs will be available to users of the resource and the view is to have partners implementing the new designs either within their courses or as additional study material. The principals of the designs achieved through the project are transferable to other educational contexts, due to the ability to include information on any topic. Encouraging students to engage with additional online resources to help them with their studies is important across all HE departments. More and more students are using computers to help them learn and by using these new learning designs we hope they will be able to interact with material in a more user friendly and fun way.

0114 Demonstration | **Theme:** Four | **Session:** STEM demonstrations

Supporting lifelong learning: enhancing the value of interactive 3D chemistry

Kirsty Barnes, Nick Greeves, Neil Berry, Nick Bunyan, Janet Strivens | University of Liverpool, Liverpool, United Kingdom

Interactive simulations are becoming an increasingly important component for learning in the Physical Sciences. They can be used very effectively in traditional lecture demonstrations but are also invaluable for individual study in a personalised learning environment. Interactive computer generated simulations offer the opportunity for uniquely informative, enjoyable, and lasting learning. Until recently, they required specialised software but now a high quality experience is possible using only a web browser and the free open source molecular viewer applet Jmol http://jmol.sourceforge.net/. The objectives of this project include an investigation into the use of ChemTube3D and the development of learning designs to support effective use of the site. The learning designs have been created using available freeware, which can be customised to include information on any topic from any discipline.

This session will look at the concept, design and development of the learning based activities that have been created as part of the iChem3D project. The learning designs are structured to guide students through material, highlighting key points along the way. Followed by separate self-assessment based activities, designed to test the material that has been shown. The way the self-assessment activities are structured they could either be used along side the shown material or independently.

The demonstration will begin with a short introduction to the project and its research aims and objectives. This will be followed by a demonstration of the developed learning designs, illustrating the processes of creating them and also highlighting the transferability of the principles behind the designs to other educational contexts. An example will be shown based on a non-chemistry related topic to show how a wider audience and not just chemists can use this approach. Concluding remarks will include staff and student feedback on the ChemTube3D resource in general and also the new approach of blended learning. A poster proposal to supplement this demonstration [ID number 0113] can also be viewed.

Participants will gain an understanding of the freeware that is available to support different types of interactive learning. The demonstration will show how existing software can be used in an innovative way and for alternative purposes.

0115 Demonstration | **Theme:** Five | **Session:** STEM demonstrations

Medical and healthcare scenarios in Second Life

Sheetal Kavia, Luke Woodham, Emily Conradi, Trupti Bakrania, Terry Poulton | St George's University of London, London, United Kingdom

St George's University of London (SGUL) has explored the use of the virtual world 'Second Life' (SL) to deliver Problem-based Learning (PBL) scenarios to medical and healthcare students. The interactive and dynamic nature of virtual worlds holds potential for enhancing scenario-based learning, with increased immersion and realism compared to traditional text-based scenarios. Furthermore they can provide a safe environment for skills rehearsal which could be valuable for many disciplines. Developing educational content in virtual worlds is often perceived as expensive and time consuming, resulting in a resistance to the take-up of the technology and the limited availability of such content.

Over the last three years SGUL has developed both Paramedic and Medical problem based learning scenarios within Second Life. These scenarios use an open source tool called PIVOTE in their creation, and are freely available. Seven scenarios in total have been developed within SL. Relevant environments (e.g. GP surgery) and objects (e.g. Ultrasound machine) have been developed for context and to increase interaction with the virtual patient case. Students can take a history, conduct a physical assessment, and conduct tests on the patient to reach a diagnosis and begin patient management. This work builds on existing web-based Virtual Patient cases and adapts them for SL using PIVOTE. PIVOTE is a web-based application that keeps the majority of the case content external to SL. This allows new scenarios to be developed quickly and easily, decreasing the dependence on the SL platform.

This demonstration will showcase both the Paramedic and Medical scenarios. The different ways in which students can interact with the patient within the context of their Problem Based Learning sessions will be outlined by conducting a live demo within the virtual world. The participants will be asked to play the role of the Paramedic/ GP treating the patient, and suggest patient management steps which will be demonstrated live within Second Life. By the end of the session participants will have a better understanding of the problem-based learning scenarios developed in SL. Participants will gain an understanding of how they can begin to implement such scenarios themselves.

E-qualification certificate system for e-Portfolios

David Argles, Lisha Chen-Wilson, Tao Guan | School of ECS, University of Southampton, Southampton, United Kingdom

Personal e-Portfolio Systems are becoming more popular, with the expectation that such systems should ultimately replace paper-based ones (Chen-Wilson et al, 2008). However, because of the difficulty of authenticating the evidence in e-Portfolio and engendering trust in on-line versions of qualification records, current initiatives tend to avoid the problem of inter-institutional certification – either the issue is ignored, or e-Portfolio award certification is included but presented as being "non-authoritative". In order to address this issue, an electronic version of qualification certification (e-Certificates) has been designed and implemented in the 'eCert' project sponsored by JISC (Chen-Wilson et al, 2010).

The aim of this workshop is to enable participants to engage with the ideas behind the e-Certificate system, to debate the potential benefits it offers, and to work through the potential practical issues that might be encountered in the introduction of such a system into their own institution.

We will begin the workshop with a short presentation about the eCert system. After a brief opportunity for clarification, the participants will be divided into groups to discuss three questions relating to the potential benefits of the system to students, the benefits to the institution, and the likely barriers to implementation in their own institution. Each group will be asked to record the key points of their discussion, for example on a flipchart. The workshop will conclude with a feedback session where each group will report on their discussion to the other groups. This feedback will be recorded and distilled into the workshop report.

The potential participants could be either from the system design and administration field who are more interested in pursuing a pragmatic solution, or from the view point of domain users (e.g. students, institutions, companies), who are more interested in the implications for improving the student experience.

Chen-Wilson, L. et al 2008. *Secure Certification for e-Portfolios,* in ICALT: International Conference on Advanced Learning Technologies. IEEE: Santander, Spain.

Chen-Wilson, L. et al 2010. *Towards a Framework for a Secure E-Qualification Certificate System,* International Conference On Education Technology And Training, IEEE: China

0117 Poster | **Theme:** Five

A student's experience of producing an effective online intervention with Articulate Presenter for a Master's dissertation project

Avril Causer, Heather Wharrad, Richard Windle | University of Nottingham, Nottingham, United Kingdom

Students have a limited time to carry out their dissertation projects particularly in vocational courses like nursing so developing an online intervention as well as testing its effectiveness is often out of the question. However tools such as Articulate Presenter allow 'rapid development' and for this reason it was used by an undergraduate Master's student to develop an online package (APP) on 'Preparing for your paediatric oncology placement' before testing the effectiveness of the package in a controlled trial with knowledge and self efficacy as outcome measures. The comparison package (CP) had been recommended to the student prior to placement on a paediatric oncology ward. This online resource whilst having some pedagogical attributes such as exercises, was very long, text based and too advanced for an undergraduates, hence the need to develop a resource more aligned to students' needs.

Content development using Articulate Presenter was carried out by the student within a validated methodological framework to ensure quality and accuracy of the final learning package. The RLO-CETL development and evaluation framework was chosen because it has been used for nearly five years and incorporates expert, technical and user review stages (Boyle et al, 2007). As well as guidance on how to use Articulate Presenter, tutorials between the supervisors and student focused on pedagogical design (IMS 2005) including for example the use of appropriate media and self-assessment to facilitate learning.

Thirty students were randomly allocated to complete the APP or CP packages. Knowledge and self efficacy questionnaires were completed pre- and post-intervention. A summative evaluation of APP was also completed by the experimental group. Whilst both packages increased knowledge and self efficacy scores, APP increased knowledge scores by a mean of 1.6 (±0.8) marks more than CP ($p<0.05$).

Students valued the interactivity and multimedia elements of APP. Rapid elearning tools guided by pedagogical and quality frameworks can be used by dissertation students to produce effective learning resources.

Boyle, T., Cook, J., Windle, R., Wharrad, H. J., Leeder, D., & Alton, R. 2007. *An Agile Method for Developing Learning Objects.* In: L. Markauskaite, P. Goodyear, & P. Reimann. (Eds), 23rd annual conference of the Australasian Society for Computers in Learning in Tertiary Education: See *http://papaya.edfac.usyd.edu.au/ascilite_papers/p64.pdf*

IMS Global E-learning Consortium 2005 *Who's learning, whose technology?* Retrieved 24 February 2010, from *http://www.imsglobal.org/*

Articulate Presenter 2009 *http://www.articulate.com/products/presenter.php* (accessed February 26th 2010)

0118 Short paper | **Theme:** One | **Session:** More changing staff development

Online teaching of ICT skills within subject content – resolving the tensions

Marion Hall | Open University, Milton Keynes, United Kingdom

To conform with concepts of 'graduateness' and meet employer requirements, graduates should have acquired and be able to demonstrate information literacy and computing (ICT) skills. These skills are usually taught in isolation from the subject matter of undergraduate courses, so students often see them as irrelevant or find them difficult to learn. Previously, integrating ICT skills teaching into subject contexts has not been seen as an option, for several reasons. 'Subject' teachers tend to regard teaching and assessment of ICT skills as competing with teaching and assessment of their subject. They may not have expertise or

confidence to teach ICT. If ICT skills teaching is embedded in course materials, students already having the necessary skills may resent working through it simply to acquire the subject knowledge they need. Finally, ICT learning materials need frequent updating, placing an extra burden on teachers.

A new, second-level, distance-learning module, being developed for presentation in October 2010 as a core part of a health and social care degree, aims to solve all these problems. The module is structured around a series of online activities, many of which demand the use of ICT. Students without the necessary skills are sent 'at point of need' to an ICT skills activity, maintained in the faculty's online 'resource bank'. These skills activities can be used for any module and previously were made available to all students simply as 'optional extras'. Each activity is, however, designed so students can complete it using a subject-specific task set in their module, thus eliminating duplication of effort.

To satisfy teachers' desire to assess content over skills, 'light-touch' skills assessment is also being adopted. This involves assessing outcomes of activities rather than skills per se. Plans to evaluate this novel approach to ICT skills teaching include investigating the impact on student and staff perceptions and experiences via questionnaires and interviews, measuring ICT competency at course start and end and analysing assessment scores to look at effects on student attainment. I expect increased use of ICT skills activities, increased competence in ICT and greater appreciation of the relevance of ICT to work and study.

Short paper | **Theme:** Five | **Session:** More curriculum development **0119**

Transitioning from traditional to online teaching: making sense of changes in learning environments

Bob Barrett | American Public University, Charles Town, WV, United States

This paper will focus on the use of online learning technology as a vehicle to help prepare instructors for online teaching opportunities and will consist of four major elements. Firstly, an overview of the recruiting, hiring, and training aspects of the online teaching environment. Secondly, an overview, as well as lead into an open discussion session among the participants to see what other educational institutions are doing in their recruitment and training of online instructors. Thirdly, a brief discussion of technological and skill requirements of online instructors. Finally, a good networking effort for current and potential online instructors to meet others interested in online teaching.

The presenter will overview how one online university has approached online teacher training for both experienced and new instructors as they prepare for the change from traditional to online teaching. While many graduates have learned in traditional learning settings, there is a growing number of adult learners obtaining their degrees from online universities. Thus, there is a growing need for more instructors with online teaching skills.

Symposium | **Theme:** One | **Session:** Framework for digital literacies **0120**

Applying a development framework for digital literacies

Helen Beetham[1], Rhona Sharpe[1], Fred Garnett[2,3] | [1]Oxford Brookes University, Oxford, United Kingdom, [2]JISC, Bristol, United Kingdom, [3]Institute of Education, London, United Kingdom

In reviewing research on learners' experiences of e-learning, we have proposed a framework to help understand and support learners' changing requirements (Sharpe and Beetham 2010). A version of this framework has also been used to describe the development of digital literacies (Beetham et al. 2009). The framework focuses on the development of learners towards using technology in creative ways to meet their

own personal and situational needs. It is now being applied in practice, first as a tool for whole-institution approaches to digital literacy provision, and second as a frame through which to interpret the findings of research.

This symposium brings together those who have been using the development framework to understand and support learners and to evaluate the impact of their provision. This will include representatives from:

The case study sites from the JISC funded study of how institutions are supporting effective learners in a digital age. These institutions have been selected for the work they are doing in translating learner experience research findings into teaching and learning practices.

The ESRC's Teaching and Learning Research programme – Technology Enhanced Learning (TLRP-TEL), where the development framework is being used as a lens through which the programme findings can be reviewed and shared on a project-by-project basis. The aims are to broaden the range of programme outcomes and also inform the TEL aspiration regarding Education 2.0 (Barton & Gillen, 2010; Selwyn, 2008).

The focus of the symposium is: how are institutions creating and enabling opportunities that promote the development of effective learning in a digital age and how can research inform such institutional practices?

This will be an active, engaging symposium, where participants will have the opportunity to discuss and use tools and outcomes currently being developed and tested in a range of institutional and research contexts. After a brief introduction, participants will hear how literacies are being developed at two institutions. They will discuss how research findings are refining our understanding of digital literacies. Ultimately, participants will assess the potential of the developmental framework in specifying, investigating and promoting learners' effective technology mediated practices.

Barton, D. Gillen, J. 2010 *Digital Literacies. A research briefing.* Institute of Education, University of London: TLRP-TEL.

Beetham, H., McGill, L. Littlejohn, A. 2009. *Thriving in the 21st Century: report of the Learning Literacies in a Digital Age project.* London: JISC.

Selwyn, N. (ed). 2008. *Education 2.0? Designing the web for teaching and learning.* Institute of Education, University of London: TLRP-TEL.

Sharpe, R. Beetham, H. (forthcoming) *Understanding students' uses of technology: towards creative appropriation.* In R. Sharpe, H. Beetham and S. de Freitas (eds.) Rethinking Learning for a Digital Age. Routledge. London and New York.

0121 Short paper | **Theme:** One | **Session:** Changing curriculum development

Personal inquiry in formal and informal settings: nQuire for scripting interactions

Eileen Scanlon[1], Mike Sharples[2], Paul Mulholland[1], Members PI Team[1] | [1]Open University, Milton Keynes, United Kingdom, [2]University of Nottingham, Nottingham, United Kingdom

This talk will report on some of the activities of the Personal Inquiry (PI) project which is funded by the ESRC/ EPSRC Technology Enhanced Learning programme, and is research jointly conducted between the University of Nottingham and the Open University in which young people aged 12 – 15 undertake evidence based inquiry learning across formal and informal settings. The project is designed to engage young people by building upon their personal experiences and enthusiasm to make their inquiries contextualised and personally relevant. Our Personal Inquiry learning approach involves students in collaboratively solving problems and reflecting on their experiences. Our emphasis is on inquiries of personal meaning to the students and on collaborative development of their inquiry topic, rather than addressing problems of professional or workplace practice as in problem based learning or the challenging real life settings dealt with in scenario based learning.

We want to understand how effective learning can be enabled with technology across these settings and have conducted case studies with young people over the past three years supporting the development of evidence based inquiry skills in both formal and informal settings. We are applying design based research methods to the design and development of our interventions and we have taken a socio-cultural approach to the analysis of our case studies involving two schools and more than 200 young people conducting inquiries on a wide range of topics including healthy eating, urban heat islands, microclimates, the link between exercise and heart rate, food packaging, and noise pollution. We have supported the transitions which students have made between classroom, field trips, after school clubs and home enabled by mobile technology.

The PI toolkit developed to support this work has been informed by the views of participants and an advisory group of stakeholders. It consists of nQuire, a web-based activity guide that supports students' progress through their scientific inquiries and a range of data gathering equipment. nQuire runs 'scripts' that guide the learners through a process of gathering and assessing evidence and conducting experiments. This will be presented together with examples from our case studies to illustrate the potential for wider adoption.

Short paper | **Theme:** One | **Session:** Changing Virtuality **0122**

e-Learning – the next wave

John Traxler | Learning Lab, Telford, United Kingdom

This presentation looks beneath the perpetual choppiness of the e-learning seascape and discerns deeper currents. Large-scale e-Learning in institutions can be conceptualised as the industrialisation of learning. This presentation argues that this is useful and provocative, and in particular will help institutions engage positively with the changing technical, social and economic environment.

We are near a point where the 'first generation of industrial learning' has delivered all it can and we see signs of an emergent 'second generation'. The first generation was characterised by inflexible 'Fordism', the production line; it was driven by institutions, and it managed change from the top. The institutions acted as custodians and gatekeepers to learning and technology, especially for the disadvantaged, and they targeted mass markets, by 'massification' and 'commodification' (Willmott 1995). Digital divides were simple and soluble. The first generation was characterised by an emphasis on (the lack of) evidence for policy and for the deployment of technology in learning; increasingly now, technology has become the ubiquitous norm, digital divides are complex and counter-intuitive and the role of evidence is changed (or removed)!

We argue that we are now at the start of a second generation and need to adopt post-Fordist ideas, look at 'flexible manufacturing' and use 'mass customisation' to reach the 'long-tail' of learners' preferences and needs. This generation will be user-driven and institutions must respond to unmanaged pressure from outside. Increasingly, technology happens outside institutions, inside which students now claim to they are forced to 'power down'. Technology was 'other', was a dumb conduit and a dumb container for learning; it merely 'enhanced' or 'supported' learning. Now technology is socially transformative; technology 'is us'. The first generation was Web 1.0, the web as centralised broadcaster and students as readers; the second generation must be Web 2.0, everyone writers and readers. In terms of ideology, social constructivism was the dominant espoused pedagogy, behaviourism probably the dominant enacted pedagogy. Education,

psychology and computing were the foundations of e-learning. The second generation must develop new ideologies, perhaps 'connectionism' or 'navigationism' for the 'epistemological revolution'; e-learning must engage with sociology.

Amin, A. 1994 *Post-Fordism: models, fantasies and phantoms of transition,* Post-Fordism: A Reader, 1–39

Brown, J.S. & Adler, R.P. 2008 *Minds on fire: Open education, the long tail, and learning 2.0,* Educause Review, 43.1., 16

Brown, T.H. 2005 *Beyond constructivism: Exploring future learning paradigms.* Education Today, issue 2 of 2005, Aries Publishing Company: Thames, New Zealand

Brynjolfsson, E., Hu, Y. and Smith, M. D. 2006 *From Niches to Riches: Anatomy of the Long Tail,* MIT Sloan Management Review .Summer 2006.

Da Silveira, G., Borenstein, D. & Fogliatto, F.S. 2001 *Mass customization: Literature review and research directions.* International Journal of Production Economics, 72.1., 1-13Des

Bordes, A. & Ferdi, S. .2008. *Do Knowledge and New Technologies Need a New Epistemology?* Proceedings of BOBCATSSS 2008 Providing Access to Information for Everyone, Zadar, Croatia. available online at *http://edoc.hu-berlin.de/conferences/bobcatsss2008/*

Eaton, B.C. & Schmitt, N. 1994 *Flexible manufacturing and market structure,* The American Economic Review, 84.4., 875-888

Gilmore, J. H. and Pine, B. J. .nd. *The four faces of mass customization,* Harvard Business Review V 75, N 1, p: 91

Ivan, I. 1971 *Deschooling Society,* Open Forum

Rettie, R. 2005 *Presence and Embodiment in Mobile Phone Communication.* Psychology Journal 3.1.: 16-34.

Siemens, G. 2004 *Connectivism: A Learning Theory for the Digital Age.* International Journal of Instructional Technology and Distance Learning, January 2005, Vol 2 Number 1

Tait, A. 1993 *Systems, values and dissent: Quality assurance for open and distance learning,* Distance Education 14.2.: 303-314

Teichler, U. 1999 *Massification: A challenge for institutions of higher education,* Tertiary Education and Management, Issue Volume 4, Number 1/ March, 1998

Traxler, J. 2008 *Modernity, Mobility and the Digital Divides* in M. MacPherson .ed.., Research Proceedings of ALT-C 2008, Oxford: Association for Learning Technology

Willmott, H. 1995 *Managing the Academics: Commodification and Control in the Development of University Education in the UK*, Human Relations, 48, 9: 993-1028

0123 Symposium | **Theme:** Two | **Session:** What went wrong

What went wrong?

Tom Franklin[1], Su White[2], Hugh Davis[2], Maggie McPherson[3] | [1]Franklin Consulting, York, United Kingdom, [2]University of Southampton, Southampton, United Kingdom, [3]University of Leeds, Leeds, United Kingdom

Many projects fail to deliver everything that they originally intended to. There are many reasons for this, but there are differing perspectives on what a project should deliver, so that the project holders may see it as a success while the funders might not. This symposium will explore some of the ways in which projects go wrong from a variety of different perspectives including those of project manager, funder and user. Tolstoy almost said "Successful projects are all alike; every unsuccessful project is unsuccessful in its own way". However, there are common patterns that lead to projects being less successful than hoped for. These include: mismatch of expectations between different stakeholder groups, mismatch between development and service delivery, changes in the technological or political environment, the nature of the funding and being over- or under-ambitious.

We will present some of the reasons that projects fail, and canvas further reasons from the audience in order to identify important causes that can be addressed in order to ensure projects go right. While the symposium presenters are all from Higher Education the examples will be drawn from research council, JISC and European funded projects, and the lessons are applicable everywhere.

Starting with brief presentations from different perspectives (programme manager, project holder, user) we will outline some of the common, and preventable, reasons for projects to fail. (20 minutes).Following this we will invite the attendees to present their own stories of projects that have not met their expectation, and why this was so. Speakers will able to do this anonymously if they so wish.Together we will look at some of these and how the problems might be overcome. (30 minutes). Finally, we will work together to learn lessons and understand how we can overcome some of the problems that have been encountered in order to deliver more successful projects. (30 minutes).

Participants will have been able to reflect on some of the causes of project failure and identify some methods for addressing these in order to ensure that their projects are more successful and not examples for a future 'What went wrong?' symposium.

Developing and delivering internet based careers advice, information and guidance

Graham Attwell[1], Jenny Bimrose[2], Sally-Anne Barnes[3] | [1]Pontydysgu, Pontypridd, Wales, United Kingdom, [2]Institute for Employment Research, University of Warwick, Coventry, United Kingdom, [3]Institute for Employment Research, University of Warwick, Coventry, United Kingdom

This paper is based on research carried out in autumn 2009 into the impact of technologies and particularly Web 2.0 on the future of careers information, advice and guidance in the UK.The research was based on a literature review, interviews with managers and Careers Personal Advisers (P.A.s) and on focus groups with young people.The research indicates that technology has already influenced, not only the ways in which guidance services are accessed by clients, but how they are used by them.The research examined the skills and competencies that will be needed by P.A.s to develop their practice in the area of internet-based guidance and gave young people a voice to identify how they wanted guidance services to use technology in the future.The research suggest that although Web 2.0 has changed the way people interact and has profound implications, potentially, for the delivery of guidance, it has barely begun to impact on the way guidance services are delivered.The need to begin to align new technologies with service delivery is becoming more urgent.

This paper examines demand from young people for internet-based guidance, looks at the current use of internet-based guidance services and examines a range of Web 1.0 internet-based services that are, or could be, used to deliver guidance, including email, webchat, SMS messaging, mobile phones, software and video conferencing. It goes on to consider possible Web.2.0 services, including collaborative community developed content and data mash ups.

The research concludes that an important first step in delivering effective and efficient internet-based guidance services would be agreement about a common language to describe exactly what it comprises. Organisational support is necessary to support effective internet-based guidance. Whilst the development of the skills, competencies and confidence of P.A.s may be a necessary pre-requisite for the introduction of effective internet-based guidance services, it will not be sufficient. Particularly important is clarity of objectives: which internet-based guidance services are to be delivered, by whom, to which groups of young people and for what purpose? Also critical is a genuine commitment from senior management and a technological infrastructure that is fit for purpose.

0126 Short paper | **Theme:** Four | **Session:** More curriculum development

Voice over the internet: user perspectives on voice tools in language learning

Teresa MacKinnon | University of Warwick, Coventry, United Kingdom

This paper looks at an empirical study carried out within the University of Warwick Language Centre. A group of language tutors trialled process tools to add voice to their online provision. The wimba voice tools used included voice boards, voice email, podcasters and oral assessment tools. Tutors were able create resources and integrate these within their online provision for students. Technical support and a screenshot booklets were provided. An experienced language teacher adopted an interpretive paradigm using Steiner Kvale's "traveler metaphor" (1996) to examine the experiences of colleagues. There are significant challenges presented by the deployment of such tools. Central to these is the tutor's perception of their role in the language learning process. Extensive reading from the fields of second language acquisition and CALL point to a "double hit" of affective factors when computer mediated communication is employed to support language learning. These factors relate to:

- tutor expertise in the choice and deployment of the technology;
- learner engagement with the provision.

Qualitative data gained through one to one walkthroughs and interviews revealed tutor concerns rooted in both pedagogical and technological areas. However quantitative data showed that, given the right support and time to reflect upon their interventions, usage of the tools increased and affordances were valued by both tutors and learners. It would appear from this study that practitioners are able to harness these tools to deliver additional speaking and listening opportunities which are well received by their students. The study points to two critical factors for success: understanding of the affordances of CMC and reflection upon the role of the voice tools within one's teaching approach.

Computer mediated communication is particularly important given that the locus of communication for our students has significantly moved towards Crystal's prediction: "In a statistical sense, we may one day communicate with each other far more via computer mediation than in direct interaction." Crystal (2001, p241). This presentation will highlight the best practices for language teachers implementing the use of voice in online support for language learners. It is significant especially given the increased importance placed upon practical language skills by employers within today's global workplace.

Crystal, D. 2001. *Language and the internet*. Cambridge: CUP.

0128 Short paper | **Theme:** One | **Session:** Changing pedagogy

Changing our models of curriculum design: personalised curriculum creation through coaching

Janet Finlay[1], Dawn Wood[1], Margaret Christian[2], John Gray[3], Tam Mason[2] | [1]Old School Board, Leeds Metropolitan University, Leeds, United Kingdom, [2]CCDU Active Learning, Headingley Campus, Leeds, United Kingdom, [3]JRG Consultancy, Manchester, United Kingdom

A strategic priority for many institutions is widening participation through an increase in part-time work-based learners, as highlighted by the Leitch review (HM Government 2007). This includes professionals, such as teachers, seeking higher qualifications, who form the user group for this study. Traditional curriculum design, with its focus on institutionally-defined content, will not necessarily meet the requirements of such learners, who expect provision that can be rapidly adapted to their and their employer's particular requirements. These expectations require changes to our institutional structures to allow genuine flexibility and personalisation in the curriculum. Learners need to be able to propose their own curriculum and access

provision at the level and within the time frame they need. However, many learners will be unfamiliar or uncomfortable with such personalisation, potentially leading to incoherent or inappropriate curriculum combinations. An effective support framework is therefore essential. We offer this through coaching (Whitmore 2002). Coaching is a non-directive, learner-focused, personal support process, which enables learners to assess their own learning needs and identify their own solutions. Through the coaching process the learner also develops as an autonomous adult learner.

The JISC-funded Personalised Curriculum Creation through Coaching (PC3) project has developed a framework that places coaching at the heart of personalised curriculum design. Learners can select provision suitable to their needs, construct appropriate curriculum combinations, access resources and learning support, and negotiate assessment, with structured support from a personal coach. The PC3 Framework facilitates this through embedding the process into a credit-bearing M-level distance-learning module, through which learners' access coaching and appropriate learning support. The module is offered through the institution's virtual learning environment, supported by an ePortfolio (Pebblepad), web-conferencing (Elluminate), a social network (Ning) and open educational resources, delivered via our institutional repository (Intralibrary). This solution has been developed with CCDU Active Learning, a company who provide professional development for teachers and school leaders, for the National College for Leadership and the Teacher Development Agency.

This paper reports on our pilot delivery of this programme to a cohort of ten aspiring head teachers and educational leaders. We evaluate the effectiveness of coaching for supporting the students' development in learning, self-assessment, self-direction and personal curriculum design and of the technology infrastructure for enabling this, through a combination of pre- and post- surveying of students, reflective diaries and interviews with students and coaches. We also consider the potential for roll out to other discipline areas, the institutional changes implied by this approach and the challenges these bring. We conclude with observations on how other institutions might adopt this approach in curriculum design.

HM Government. 2007. *World Class Skills: Implementing the Leitch Review of Skills in England. http://publications.dcsf.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=Cm+7181&*

Whitmore, J. 2002. *Coaching for Performance.* 3rd ed. London: Nicholas Brealey.

Challenging exclusionary practices in digital inclusion projects: a call for redress and "passionate outrage"

Jane Seale | University of Plymouth, Plymouth, United Kingdom

Digital inclusion is broadly understood as a phenomenon whereby disadvantaged or marginalised learners are able to meaningfully participate in learning, employment social and civic opportunities, through access to digital technologies. Digital divide statistics are complex and reveal that while the gap is reducing for some of the larger disadvantaged groups, most notably older or disabled people, it is not reducing for many of the "smaller groups, most notably travellers, young children, and children in care" (Digital Inclusion Team, 2007). Furthermore, the assumption that the digital divide can be reduced simply by providing access to technologies is now not universally accepted. This means that how people choose to engage with technologies and the implications this might have for those who fund, manage and support digital inclusion initiatives is a growing issue.

This paper draws on a recent review of digital inclusion research and practice (Seale, 2010) to discuss ways in which educational digital inclusion projects can potentially be exclusionary, and therefore counter-

productive. The potential for such exclusion will be illustrated using two examples drawn from different education contexts: adult and community education and gypsy and traveller education:

- When digital inclusion projects ignore the affective and personal goals of learners.
- When the provision of technology fails to address deep and structural inequities and prejudices in the education system.

Exploration of the first example reveals problems related to fundamental differences between stakeholders (including learners) in what is regarded as a successful outcome of digital inclusion projects. Exploration of the second example reveals problems related to technological determinism and therefore a lack of acknowledgement of the complexity of digital exclusion.

This paper will conclude by arguing that we need to address the potentially exclusionary aspects of digital inclusion projects by engaging in research and practice that is underpinned by an inclusion and social justice framework (Freire, 1970; Barton, 2007) that:

1. Seeks to give voice to learners so they are empowered to set their own goals and make choices about why and how they use technology.
2. Challenges discrimination using a stance that stems from 'passionate outrage' rather than 'dispassionate interest'.

Barton, L. 2007. *Developing an emancipatory research agenda: possibilities and research agendas.* In Articulating with Difficulty: Research voices in inclusive education. Ed. P.Clough and L.Barton, 29-53 London: Sage

Digital Inclusion Team. 2007. *The Digital Inclusion Landscape in England: Delivering Social Impact Through Information and Communications Technology, http://www.epractice.eu/files/media/media1881.pdf*

Freire, P. 1970. *Pedagogy of the oppressed.* New York: Seabury Press.

Seale, J. 2010. *Digital Inclusion.* A research briefing by the Technology Enhanced Learning Phase of the Teaching and Learning Research Programme *http://www.tlrp.org/docs/DigitalInclusion.pdf*

0131 Workshop | **Theme:** Four | **Session:** C-link

C-Link: a new tool to support students' information searches

Peter Hartley, Stephen Remde, Peter Cowling | Bradford University, Bradford, United Kingdom

The workshop enables participants to use a new search tool (C-Link) which finds paths between concepts. Students and staff can improve their information searches by exploring the relationships between concepts. This provides an accessible way of exploring subject areas which can then be shared/ manipulated through concept mapping. We know that students have difficulties evaluating sources and information when searching the internet (Walraven et al, 2009) and that we need interventions to improve their awareness and understanding of information searching (Shanahan, 2008). We also know that existing tools such as Google Search are the typical student's first port of call but may not help them develop the necessary critical perspectives (Rowlands et al, 2008). C-Link makes a significant practical contribution in this area by offering an approach which highlights relationships between concepts and thereby stimulates dialogue and (based on limited observations to date) a more critical perspective. C-Link can also help us to explore important research findings (e.g. that students may employ a "distinctive form of information-seeking behaviour", Nicholas et al, 2009) and issues such as the nature of effective strategies for information literacy (Rowley and Urquhart, 2007)

This workshop has 4 parts:

1. Introductory input: the tool will be introduced, describing what it does, how it does it, and most importantly our motivation for the project in terms of potential impact on and implications for student learning. We will also summarise the evaluation data we have collected so far, including the results of a recent experimental survey on students which clearly shows the usefulness of the tool in comparison to other methods.
2. Demonstration/application: the tool will be briefly demonstrated. Workshop participants will then be able to join in, doing their own searches and exploring the results. And we will comment on how tutors can use C-Link within their teaching and not just as out-of-class support).
3. Concept mapping: participants will be shown how to export searches into concept mapping software (C-MAP).
4. Discussion: we invite comments and suggestions from participants, both in terms of technical features and developments/applications in learning and teaching.

Nicholas, D et al .2009. *Student digital information-seeking behaviour in context.* Journal of Documentation, 65, 1, 106–132.

Rowlands I et al .2008. *The Google generation: the information behaviour of the researcher of the future.* Aslib Proceedings, 60, 4, 290-310.

Rowley, J and Urquhart, C .2007. *Understanding student information behaviour in relation to electronic information services: Lessons from longitudinal monitoring and evaluation, Part 1.* Journal of the American Society for Information Science and Technology, 58, 8, 1162-1174.

Shanahan, M .2008. *Transforming information search and evaluation practices of undergraduate students.* International Journal of Medical Informatics, 77, 8, 518-526.

Walraven, A, Brandgruwel, S, and Boshuizen, H .2009. *How students evaluate information and sources when searching the World Wide Web for information.* Computers & Education, 52, 1, 234-246.

Do you like books or do you like reading?

James Clay | Gloucestershire College, Gloucester, United Kingdom

eBooks and eBook Readers bring new challenges and new opportunities for learning technologists. Sony has the eReader, Amazon the Kindle and now Apple has the iPad. Publishers are now offering more titles as eBooks. There is a huge growth and interest in this new medium. Some learners prefer physical books and the feel of paper, but do eBooks have the potential to offer more to the reader? Are eBooks a new way for learners to access information and learning? Are they just a digital version of print, ignoring the affordances of new technologies? This symposium will explore the potential of eBooks, the role of eBook Readers for learning, and the ways in which learning technologists can utilise eBooks to enhance and enrich the learning experience.

The panel consists of: educators who have used eBooks with learners; researchers who have researched the use of eBooks in education by learners; publishers who have designed and developed eBooks; and learning technologists. Each member of the panel brings their experience of embedding the use of eBooks with learners. These experiences have been through using eBooks in the classroom and in the library with learners. Researching user behaviour in the use of eBooks and designing eBooks for learners.

The session will commence with an overview and introduction of eBooks and eBook technologies, through mobile devices such as the iPad and using the browser. The members of the panel will each deliver a presentation on their view of the future of eBooks. They will pose questions to the audience to stimulate debate and discussions. Panellists with the audience will debate the strengths and weaknesses of eBooks and the various eBook Readers available. They will discuss whether eBooks offer new pedagogies or reinforce existing ones.

By the end of the debate participants will have had an opportunity to discuss the advantages and challenges that eBooks bring to education and the role they could play in the enhancement and enrichment of learning.

JISC. 2009. *JISC national e-books observatory project: Key findings and recommendations* Available from *http://www.jiscebooksproject.org/reports/finalreport*

CIBER. 2008. *Information behaviour of the researcher of the future.* A CIBER briefing paper. Available from *http://www.jisc.ac.uk/whatwedo/programmes/resourcediscovery/googlegen.aspx*

Browne, T., Hewitt, R., Jenkins, M. and Walker, R. 2008. *Survey of Technology Enhanced Learning for higher education in the UK.* Oxford: UCISA. Available from *http://www.ucisa.ac.uk/publications/tel_survey.aspx*

Wong, W., Stelmaszewska, H., Bhimani, N., Barn, S. and Barn, B. 2009. *User Behaviour in Resource Discovery: Final Report.* JISC.

0136 Short paper | **Theme:** Four | **Session:** International perspectives

Transactional learning at a distance: the ANU Legal Workshop Integrated Learning Environment project

Aliya Steed | Australian National University, Canberra, ACT, Australia

Professional legal education has long wrestled with the challenge of creating practical, authentic, close to real-world learning experiences, while protecting students (and clients!) from the pitfalls of learning on-the-job. Many students undertaking professional learning are already working in related fields, have lengthy University experience and complicated personal lives; and designing a learning program becomes a difficult balance of flexibility, diversity and authenticity. Traditionally, this often results in a blend of decontextualised, modularized "content", skills-oriented workshops and an awkward approach to assessment.

Over the past year, the ANU College of Law has transformed its practical legal training degree, the Graduate Diploma in Legal Practice, bringing together its traditional strength of online flexibility, and a simulation-based approach to professional learning, where students learn through conducting authentic legal transactions as members of a virtual law firm. Through 'transactional learning' and the open-source software developed by The SIMPLE project (http://simplecommunity.org), simulation learning has moved outside the classroom and into a more authentic online "virtual office" environment (Maharg 2007). Student 'firms' act as lawyers advising and representing clients, in property, commercial and civil litigation legal proceedings. They must also keep their own house in order, advising Senior Partners on ethical matters and managing their own work time, communication and professional relationships.

The fully-online, distance-learning environment has a profound impact. While many elements were directly translatable from SIMPLE, parts of the model required significant adaptation, and the development of a complex web of supporting educational technology. Students work in virtual firms with mentors who are distributed across a nation (and in some cases, overseas), using a range of technologies, agreed protocols and sometimes almost painfully-determined practices. Gone are the "informal between-spaces", the corridor-conversations and the end-of-class clarifications. Such communication and expectation-setting now needs to be built explicitly into the learning activity. Guiding students through the unfamiliar and sometimes confrontational landscape of a simulation is challenging, requiring a shift in teacher roles and a careful constructed online space. This presentation will explore the ongoing work of the Integrated Learning Environment project and lessons learned about conducting simulation learning in the broader practical context of professional legal education.

Hughes, M., Gould, H., McKellar, P., Maharg, P., Nicol, E. 2008. *SIMulated Professional Learning Environment (SIMPLE): Programme Final Report,* The Higher Education Academy, JISC & University of Strathclyde. *http://simplecommunity.org*

Maharg, P. 2007. *Transforming legal education: learning and teaching the law in the early twenty-first century.* Aldershot: Ashgate Publishing Co.

Is OER a long-term goer? An investigation into the viability of sustainable OER networks

Dawn Leeder[1], Chris Pegler[2] | [1]University of Cambridge, Cambridge, United Kingdom, [2]Open University, Milton Keynes, United Kingdom

Collaborative models of cross-institutional content production have proved successful in facilitating sharing of resources and practical expertise (UCeL, RLO-CETL, SLOHSIG), as has the OU model of collaboration with multiple contributors within course teams (Scott, 2009). Both shift the model of resource generation from the solitary academic to a community of practice (CoP) approach. Meanwhile the wide-scale sharing of Open Educational Resources (OER) offers a different promise of global collaboration, with participants working remotely, also to develop and use the same resources.

Models for OER production have recently been explored across 29 projects within the HEFCE/ JISC/ HEA UK OER pilot 2009/10 (JISC, 2008) to discover their applicability at institutional, programme and individual levels. Both OER and CoP approaches offer promising solutions to mitigating current shortages in HE and promoting sharing of resources and best-practice on a scale hitherto unrealised. But to what extent can OER CoPs (instructional designers, developers, academics) be encouraged and supported to achieve OER uptake across and beyond institutional boundaries? Can the OER model be sustainable? If so how?

A clear objective, identified by UCeL (Leeder et al, 2004) and RLO-CETL (Boyle et al, 2006), was the need to engage all levels of staff in both the problem and the solution. Sustainable solutions require complete buy-in by all stakeholders; both a 'top-down' and 'bottom-up' approach are required. This session considers outcomes of a six month fellowship (May - October 2010) funded by the Support Centre for Open Resources in Education (SCORE). The project builds on existing work around RLO-CETL collaborations and OER sharing across the UK OER projects. The project used an intensive participatory action research approach (Lewin 1946; Corey, 1949; Carr & Kemmis, 1986) to explore the impact of direct CoP interventions supporting OER co-creation and sharing. The project draws on quantitative and qualitative evidence collected from existing CoPs of academic- and developer-practitioners (RLO-CETL, ALT/CMALT, SCORE, UK OER, SLOHSIG, Subject Centres) and interviews with senior staff (PVCs, Faculty Heads, HELF etc) to determine what examples of sustainable OER networks are emerging and viable. This paper presents preliminary conclusions and recommendations as the project draws to a close.

Boyle, T., Windle, R., Leeder, D., Wharrad, H., Alton, R. & Cook, J. 2006. *An Agile method for developing learning objects* Proceedings of the 23rd annual Ascilite conference: Who's learning? Whose technology? Sydney, December 2006

Carr, W. & Kemmis, S. 1986. *Becoming Critical. Education, knowledge and action research,* Lewes: Falmer Press. JISC .2008., HEFCE/ Academy/JISC Grant Funding 14/08

Leeder, D., McLachlan, J., Rodrigues, V., Stephens, C., Wharrad, H., & McElduff, P. 2004. *Universities' Collaboration in eLearning* . UCeL: a virtual community of practice in health professional education IADIS Web-based communities 2004 pp. 386–393 Ed. Kommers, P., Isaias, P. & Nunes, M B. IADIS Press 2004

Lewin, K. 1946. *Action research and minority problems.* J Soc. Issues 2.4.: 34-46.

Scott, S. 2009. *Team working: an anathema to academics?* In Practice Issue 21, Leadership Foundation in Higher Education, *http://www.lfhe.ac.uk/publications/inpractice21.pdf* .Accessed online: 28 Feb 2010.

Seeding the cloud: using Cloudworks for resource management for the ELESIG community of practice

Helen Whitehead[1], Rhona Sharpe[2], Rebecca Galley[3], Juliette Culver[3] | [1]Freelance, Nottingham, United Kingdom, [2]Oxford Brookes University, Oxford, United Kingdom, [3]Open University, Milton Keynes, United Kingdom

ELESIG is an international community of practice (CoP) of over 770 researchers and practitioners from higher and further education (and other learning contexts) who are involved in investigations of learners' experiences using technology in learning (Sharpe & Mackness. 2010).Part of the sea-change in creating CoPs is to make them technology-independent. ELESIG's community model [(Whitehead & Cable. 2008) is based around interactions between the members and the knowledge and practice they share, in a Ning hub, and in the varied online and offline spaces inhabited by members.

In partnership with Cloudworks (Conole & Culver. 2010), an innovative open access 'social object' oriented social network, ELESIG has explored the potential for collecting, collating and making meaning from a shared repertoire of resources generated by ELESIG members and the community. Resources, e.g., bibliographies, papers, photos, videos, slides and recordings, are physically held across the Web, including in password-protected spaces, research-specific repositories and as user-generated content. Managing resources in this way is more fluid than using a conventional repository and requires a new approach to or model of the storage of information, its ownership, and its permanence.

In this workshop we will explore ways in which information relating to research and practice can be held in the cloud (across the web) and shared, interpreted, contextualised and opened to discussion for the benefit of a CoP and of the wider education sector, using Cloudworks. (10 minutes); presentation on ELESIG and Cloudworks (5 min); discussion on the types of resources and where to store them (15 min); Cloudquest: a hands-on exploration of ELESIG's Cloudworks and file-storage sites (30 min); group work setting up clouds and cloudspaces using the model ending with a discussion.

Participants will be encouraged to suggest their own resources and uses for cloudscapes as well as using ELESIG's resources as examples. By the end of the workshop participants will:

- be familiar with the principles behind Cloudworks and its use by ELESIG;
- have used various online tools for storing and making available different types of information;
- have applied a model of cloud-based information management to design and setup of cloudscapes to share information.

Conole, G. & Culver, J. 2010. *The design of Cloudworks: Applying social networking practice to foster the exchange of learning and teaching ideas and designs.* Computers and Education, 54(3), 679–692.

Sharpe, R. & Mackness, J. 2010. *Evaluating the development of a community of e-learning researchers: from short term funding to sustainability.* International Journal of Web Based Communities, 6(2). 148-163

Whitehead, H, & Cable, L. 2008. *If you build it will they come? A model for sustainable online community networks for practitioners.* Short paper presented at ALT-C 2008, Rethinking the Digital Divide, September 9-11 in Leeds, UK

Revolutions in Australian school infrastructure: are the people with us?

Elizabeth Hartnell-Young | Department of Education and Early Childhood Development, Melbourne, Victoria, Australia

This paper discusses the effects of two recent Australian Government initiatives that should have the potential to create a sea-change in schools and communities. The Digital Education Revolution (DER) is an investment of $AUD2.2 billion (£1.3bn) across Australia over six years for high speed broadband, devices for secondary students in years 9 – 12, and online resources for learning. At the same time, Victoria is introducing the Ultranet, a state-wide learning environment for students, teachers and parents. Building the Education Revolution is also part of the Australian government's response to the global financial crisis: a $AUD14.7 billion (£8.7bn) investment in new learning spaces across Victoria. It includes new libraries in primary schools; new science or language learning centres in secondary schools; and funding for maintenance and minor building works. This, together with 'place-based' approaches to school and community regeneration, has raised awareness of the importance of building design and ICT capability in the processes of teaching and learning, and in community engagement.

New spaces and technologies disrupt the old modes of teaching and learning as they are often premised on a deliberately flexible, student-centred approach involving new conceptions of time and space for learning. The Victorian Department of Education and Early Childhood Development (DEECD) is well aware of the important roles students, teachers and parents play in the successful uptake of large-scale innovations. It also has to focus on the learning outcomes and targets, and has commenced a program of research into the impacts of these top-down revolutions, from a socio-cultural perspective. While there have been some studies relating technology-supported spaces and learning outcomes in the US (Oblinger 2006), and the UK (DCSF 2008), this is an area that has been relatively neglected, as it falls between communities of designers, technologists and educators. This paper will briefly describe the new environments and the efforts made to encourage their acceptance, and will present early findings of the research.

DCSF. 2008. *Evaluation of Building Schools for the Future: 2nd Annual Report. http://www.teachernet.gov.uk./_doc/13240/2ndannualreport.pdf*

Oblinger, D. 2006. (Ed.) *Learning Spaces. Boulder,* CO: Educause.

Evaluating student expectations online through 'SUE @ BU'

David Fevyer, Susan Deane | Bournemouth University, Poole, Dorset, United Kingdom

In order to gain feedback on units of delivery at Bournemouth University (BU) students are provided with the Student Unit Evaluation (SUE) to complete. This mechanism enables the University to review the effectiveness of their units of delivery under several frameworks and programmes. The SUE project has involved investigation into appropriate technologies, such as the use of the Blackboard and Waypoint survey tools, to support the process during the last three years of implementation, resulting in a transition away from traditional paper based survey methods to completion in an online environment that mirrors the world that will be encountered in the NSS.

The Procurement process in early 2009 resulted in the use of Waypoint for a second consecutive year. The 2009/ 2010 academic year has also seen a greater emphasis on increasing SUE response rates, and the Learning Technologists were crucial in providing support for the project. Notably this was in providing support in lab sessions. In addition internal restructuring at Bournemouth University has led to an increased opportunity to work collaboratively. Those Learning technologists supporting SUE have become part of

a wider team as part of Library and Learning Support. This means that Learning Technologists are able to work in conjunction with Subject Librarian teams to support students completing SUEs and promote the importance and value of doing so, with the aim of increasing response rates as a result.

In order to increase the accuracy of data, the University is discussing the possible development of an in-house system for 2010. The benefits of an in-house solution complement the reporting requirements of key stakeholders within the Schools. It will provide potential opportunities to increase efficiency and flexibility in deploying surveys whilst being grounded within the continuous evaluation of the SUE process across the University. This poster will demonstrate the transition through the different stages of our project designed to improve student response and the quality of the information gathered.

0142 Short paper | **Theme:** Five | **Session:** Designing pedagogy

eLM – an eLearning mapping tool

Peter Duffy | The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

Many staff, whilst broadly acknowledging the benefits of eLearning, struggle with the broad range of possibilities and their application to teaching and learning. This paper describes the development, applied use by academic staff and evaluation of an online visualization tool for pedagogic planning. The eLearning mapping tool (eLM) is an online pedagogic planner to help academic staff quickly cut through the morass of blended learning options to hone in on a practical, effective learning design suitable to their context and concerns. Designed to be useful and used, it is based on the learning triad of technology, activity and learning outcomes (Ehrmann 1998) and heavily influenced in design by Chickering and Erhmann's (1996) article, 'Implementing the Seven Principles: Technology as Lever.'

The eLM offers both flexible and guided paths through the planning process and guides academic staff through the construction of an eLearning map in order to plan the inclusion of blended learning approaches within a specific subject. This planning process allows staff to create an eLearning map using one of three different foci as the starting point. Staff can initiate the creation of an eLearning map starting from a focus on 'learning outcomes'; a 'teaching approach or challenge' for example, scenario based learning or dealing with large classes; or a focus on a particular technology, for example; Discussion Forum, Second Life.etc. Presented will be an overview of this resource and evaluation results of a pilot conducted with academic staff.

Chickering, A and Erhmann, S. 1996. *Implementing the Seven Principles: Technology as Lever,* AAHE Bulletin, October 1996, 3-6.

Ehrmann, S.C. 1998. *Studying Teaching, Learning and Technology: A tool kit from the Flashlight Program.* Active Learning, IX (December 1998), pp. 38-42.

0143 Demonstration | **Theme:** Four | **Session:** Supporting learning demonstrations

A co-generative toolkit: e-enabling work-based learning

Martin Jenkins[1], Phil Gravestock[1], Shane Sutherland[2] | [1]University of Gloucestershire, Cheltenham, United Kingdom, [2]Pebble Learning, Telford, United Kingdom

Higher Education provision for work-based learning (wbl) typically follows a traditional paradigm, one criticised by employers for not demonstrating understanding of their needs and language. The Business Community Engagement policy agenda has expectations for flexible delivery and involvement of employers through curriculum co-generation. This session will demonstrate the outcomes from Co-genT (Co-generative Toolkit), a JISC Lifelong Learning and Workforce Development project and provide participants the opportunity to have hands-on exploration of these tools with a view to how they might be used in

their context. Co-genT has established processes and tools to provide flexible forms of delivery and co-generation of curricula. The toolkit, which includes vocabulary and outcome builders, enables interaction between academia, employers and students in the development and delivery of negotiated curricula, translating employer requirements into academic outcomes.

The vocabulary and outcome builders are principally concerned with facilitating dialogue and capturing and sharing practice. The vocabulary (http://www.pebblepad.co.uk/cogent) provides a tool to map and align learning needs to academic level descriptors. It has been created through the aggregation of level descriptors from three national qualification frameworks. The outcome builder allows academic terms to be generated as context specific learning outcomes helping to maintain an employer's while ensuring that the academic level has been identified.

Outcomes can be generated across a range of levels and form the basis for generating an individual learner profile. In addition to the outcomes a simple configurable toolkit enables curriculum designers, working with employers in a co-generative curriculum design process, to select skills, attributes, and/or outcomes that are automatically translated into learning profiles for curriculum design and personalised pathways for curriculum delivery. Drawing upon learning design frameworks the learner profile will make explicit to learners, through a visual representation, the support and resources available to support their specific learning activities; in effect creating a student's individual programme specification. Participants in this session will have the opportunity to:

- Consider how the curriculum generation process relates to their own context;
- Evaluate the applicability and utility of the CogenT toolkit;
- Discuss issues surrounding the responsive curricula agenda.

Short paper | **Theme:** Four | **Session:** Sectoral differences **0146**

Is exposure to technology translating to better ICT skills in an academic environment?

Oduronke Eyitayo, Balu Grand, Wole Olatokun | University of Botswana, Gaborone, Botswana

Students entering university today are logically expected to have more computing experience than students of years past. They have vast experience in online chat, web browsing, social networking etc. These students are often refereed to as 'digital natives'. Bennett, Matson and Kervin (2008) in reviewing the debate on digital natives proposed that there is need for a measured and disinterested approach to investigate them. This research contributes in this respect to understanding the changing environment and exploring whether the exposure to technology is translating to a better use of productivity tools in the academic environment.

In order to ascertain the Information Communication and Technology (ICT) literacy levels of students, a two part study was carried out using year one (freshmen) and year four (final year) students in the University of Botswana. To study the trend across several faculties and departments, computer self efficacy instrument was used. The test assumes that the respondents understand the term and answered correctly. Prior to administering the questionnaire, a pilot test was conducted and reliability and validity tests were done. The results of the study revealed that students were lacking in skills needed specifically for academic research and that there is not much difference between freshmen and final year students.

The results are in consonance with previous studies (Kaminski, Switzer & Gloeckner 2009; Caruso & Salaway 2007). These findings suggest that the skills that digital natives have may not translate to increased proficiency in productivity tools for academic purposes. This will imply that students do waste a lot of time in producing their reports when they could have spent such time improving on their academic work. There is therefore the need for deliberate education and counselling in the university to train students in the use of

these tools in academic environment. The research can be extended to other universities to find out if the same trend does exist. This research addresses the theme raised in the main track, "Into something rich and strange" and specifically discusses the sea-change in students' experience with digital technologies and the fact that this is not reflected in the students' knowledge of productivity tools.

Bennett, S., Maton, K., and Kervin, L. 2008. *The 'digital natives' debate: A critical review of the evidence.* British Journal of Educational Technology 39, no. 5 (2008): 775-786.

Caruso, J. B., and Salaway, G. 2007. *The ECAR Study of undergraduate students and information technology,* (Key Findings). EDUCASE, 2007: 1-15, September 2007.

Kaminski, K., Switzer, J. and Gloeckner, G. 2009. *Workforce readiness: A study of university students' fluency with information technology.* Computers & Education 53 (2009): 228-233.

0147 Short paper | **Theme:** Two | **Session:** Changing ways of working

Staff engagement with changing ways of working: a small-scale repository project

Juliun Ryan, Mandy Motley | Sheffield Hallam University, Sheffield, United Kingdom

This short paper will present the methodology and discuss the outcomes of a study into the introduction of a small-scale repository to support learning and teaching in the faculty of Health & Wellbeing at Sheffield Hallam University. The authors are responsible for an institutionally-funded project which sought to establish more widespread use of repository software that integrates with the institution's VLE. Although available prior to the project's outset, this functionality was little-known and under-used within the faculty and across the institution as a whole. The subject-focus of the project, clinical skills, provided an appropriate level of depth and scale for the two-person project team to contend with in addition to a 'target audience' of a range of staff and students from the Allied Health Professions areas.

The authors will provide an overview of the project's evolution. The approach to the design and delivery of associated staff development and awareness-raising activities aimed at establishing and sustaining the project will be discussed. This involved some change agency on the part of the project's founders given the implicit shift in emphasis from the culture of locally-stored and individually-authored to the publicly-shared and collaborative. In terms of the project's evaluation, headlines from relevant literature on the use of repositories to support learning and teaching will be outlined. The authors will go on to provide an overview of their action research (undertaken between January and May 2010). An analysis of the findings of interview data with staff exploring factors governing engagement with the repository and the impact and experience of its use on staff and students will be shared.

Was the project a successful proof of concept, providing evidence in favour of similar implementations elsewhere? Indications from a preliminary analysis of usage statistics along with anecdotal evidence suggest a lower-than-anticipated level of engagement. We will seek to shed light on the reasons for this given the apparently-persuasive arguments in favour of engagement.

0148 Poster | **Theme:** Two

Design of a question design support tool

Silvester Draaijer, Judith Schoonenboom | Vrije Universiteit Amsterdam, Amsterdam, Netherlands

A software program to support teachers in higher education to design and develop closed questions has been developed. The program enables instructors to enter questions in a database whilst the program provides them with supporting information and just-in-time prompts.

Based on general design process characteristics, the information and development process is divided into the phase to think-up questions (diverging) and the phase to refine questions (converging). The diverging information consist of information for creative and systematic question generation, it provides example questions and concept mapping facilities. The converging information consists of guidelines to ensure that questions do not violate generally accepted question design guidelines as described by for example Haladyna (2004). Common question design problems are detected by simple text-string recognition and prompts will be displayed on screen accordingly. For example, when a teacher enters the word 'not' in the question, the program displays a text stating: "We found the word 'not' in your questions text. Please be aware that negatively stated questions can cause confusion and make it harder to answer the questions correctly. Please consider revising this question". The unique features of the online tool are the option to access information alongside and inline with the data entry form.

To identify the effect on the question design process, an experiment was conducted. Participants were assigned the task to think up as many different high quality questions as possible in a time-span of two times one hour, on the basis of a given piece of instructional text.

The experimental condition (participants using the software program) had a positive effect on paraphrasing of the given piece of text (which is important for question design), making improvements to the stimulus of the questions between the converging and diverging phase and making more important changes. No effects were found with respect to the number of violations of question design guidelines. The participants rated the prompts as a valuable addition to the design process.

Haladyna, T. M. 2004. *Developing and Validating Multiple-Choice Test Items.* Third Edition. London: Lawrence Erlbaum Associates.

Hewett, T. 2005. *Informing the design of computer-based environments to support creativity.* International Journal of Human-Computer Studies 63, no. 4-5: 383 - 409.

Coaching as student support via Elluminate

Dawn Wood, Janet Finlay | Leeds Metropolitan University, West Yorkshire, United Kingdom

The JISC-funded project Personalised Curriculum through Coaching (PC3) uses coaching to enable work-based learners to identify and define their learning needs and build a personalised curriculum. This new approach arises from the changing expectations and needs of work-based learners and their employers. Although popular for professional development in business, development coaching remains a rarity in higher education (Griffiths 2005). From an educational perspective, coaching has the potential to raise student self-awareness, to support them tackling areas they find challenging and to place ownership of their learning firmly in their hands.

Coaching is a simple skill to pick up and a hard one to master. It requires the coach to be attentive to the coachee, while at the same time remaining objective and unbiased in their questioning. To do this a coach uses a wide range of skills and tools, such as active listening, including observing tone and body language, perceptive questioning, psychometric tests and 360 degree feedback (Rogers 2008). Coaching is usually done face-to-face, although the telephone interview has also been used for many years. While this is relatively successful, it reduces the conversation to voice-only and limits the opportunity to use many coaching tools. To address this while supporting the fact that work-based learners are often location- and time-tied, the online conferencing tool Elluminate was employed. This tool enables voice and video communication as well as the use of an interactive whiteboard.

This paper examines the impact of Elluminate on the coaching process, evaluating it in a pilot study with 10 M-level students, who are being coached as part of their course. We evaluate the effectiveness of Elluminate in supporting the coaching process through post-coaching reflections from, and interviews with, coaches and students. Initial results indicate that while the students had little prior experience of online conferencing,

they have been able to engage effectively with the system. Coaches, however, had mixed feelings: some felt they needed a face-to-face session to enable early rapport-building before proceeding with online coaching. Bandwidth was also an issue for some. Finally we present recommendations for the use of such tools in coaching.

Griffiths, K. 2005. *Personal coaching: A model for effective learning.* Journal of Learning Design 1, no. 2: 55-65. *http://www.jld.qut.edu.au/publications/vol1no2/documents/authentic%20learning.pdf* (accessed May 24th, 2010).

Rogers, J. 2008. *Coaching Skills: A Handbook.* 2nd ed. Maidenhead: Open University Press.

0150 Short paper | **Theme:** One | **Session:** Mobile devices

What is there to talk about? An analysis of microblogging between peers and tutors within a postgraduate cohort

Alex Moseley, Jo Badge, Alan Cann, Stuart Johnson | University of Leicester, Leicester, United Kingdom

A small group of postgraduate students taking a project module in Museum Studies at the University of Leicester were issued with iPod Touch devices, and asked to post regular updates on their activity via the microblogging service Twitter. The background, technical details, and quantitative analysis of the overarching project across undergraduate and postgraduate cohorts is described in Cann, Badge, Moseley & Johnson 2009; but the postgraduate group revealed less frequent, but more focussed microblogging in the areas of project organisation, professional networking and information sharing.

A qualitative analysis of the 'tweets' (presented in this paper) reveal a surprisingly developed support and shared learning network between the students; and also give rise to issues of modified/ monitored behaviour. The latter aspect was revealed in both tweets between students and the module tutor, and in informal discussions following the project. In addition to exploring these issues, the paper will describe models for the use of microblogging or similar communication technologies within focussed or professional cohorts; and suggest the efficiencies and affordances which such a communication network could provide.

Cann A., Badge J., Moseley A. & Johnson S. 2009. *Twittering the student experience.* ALT-N #17, Oct 2009. Available: *http://newsletter.alt.ac.uk/17qtuceyiq3imsphpsy77s* (accessed: 25/2/2010).

Ebner M., Lienhardt C., Rohs M., & Meyer I. 2010. *Microblogs in Higher Education - A chance to facilitate informal and process-oriented learning?,* Computers & Education, Vol 55, No 1, August 2010, pp92-100.

Honeycutt C. & Herring S. 2009. *Beyond Microblogging: Conversation and Collaboration via Twitter.* Hawaii International Conference on System Sciences 0:1-10.

0151 Demonstration | **Theme:** One | **Session:** Mobile learning demonstrations

Mobile learning lessons from Africa, America and Europe – contrasting international case studies to highlight current trends

Geoff Stead | Tribal, Cambridge, United Kingdom

Like a Swiss army knife, mobile phones are already being used across the planet to solve many everyday problems. From vote monitoring in Nigeria to micro-loans in South America. From parenting advice in China to sex education in India.

Educators are slowly starting to adopt the same mobile ideas to enhance learning, and a growing number of m-learning projects in both UK and Europe are showing marked successes in reaching new learners.

Despite these successes, there is no simple formula for ensuring an m-learning project will succeed. Equipment vendors are often biased. Technical solutions are often locked to a specific device or supplier. Many of the current UK m-learning projects use non-standard solutions that make it hard for another institution to build on those for themselves.

This session will take a step back to look at m-learning solutions from across the world and draw out key success criteria, as well as exploring some of the more significant differences to see what the UK can learn from our international friends.

The authors have been actively involved in a broad range of mobile learning programmes across countries (USA, Africa, UK, Europe), sectors (schools, work-based, FE, military, charitable) and languages. They will be demonstrating some of the technologies and pedagogies used, as well as providing unique insights into both their successes and their failures. Projects covered will include:

- m-uBuntu: working with impoverished South African schools to improve English Literacy (so successfully that students and teachers were invited to the USA to share their knowledge with the Whitehouse and US schools)
- Bloom: working with taxi, bus and truck drivers across Europe to deliver multilingual, mobile access to learning
- US Military & Mobile Health: working with multiple nations and agencies to provide mobile learning about health issues at the point of need to relief workers and other remote learners.

Active participation will be encouraged!

Ally, M., ed. 2009. *Mobile Learning – Transforming the Delivery of Education and Training.* AU Press, Issues in Distance Learning series.

Attewell, J., Savill-Smith, C., Douch, R. 2009. *The Impact of mobile learning.*

Traxler, J. 2009. *Current State of Mobile Learning. Chapter 1 of Mobile Learning – Transforming the Delivery of Education and Training,* ed. Ally, M. AU Press, Issues in Distance Learning series.

Cultivating a digital habitat: developing the e-flective practitioner by creating a virtual collaborative learning environment

Paul Lowe, Lindsay Jordan | University of the Arts London, London, United Kingdom

The online Masters in Photojournalism at LCC operates entirely virtually utilising a variety of web 2.0 and social networking approaches, creating a 'learnscape'; a series of overlapping interactive spaces that act as a 'virtual commons' replicating the physical spaces in a face-to-face environment. Informed by Wenger's ideas of Communities of Practice and his newer ideas on creating 'Digital Habitats', the course also draws on Eskow's concept of e-learning, which argues that the power of experiential learning can be amplified by the affordances of e learning and in particular social media, by unpacking and opening up the process of learning and sharing it easily with others. This creates self-reflective 'scholar practitioners', and, in our reworking of Schon's idea, 'e-flective practitioners', who use social media to debate, discuss and deconstruct their learning with their peers in an ongoing, iterative process. Central to this is the notion that we are all learners; in the fast changing world of digital media, we are all, staff and students, endeavouring to understand and evaluate the evolving landscape of practice.

We collaborate with the students in identifying the pedagogic goal(s) we need to achieve, such as enhanced collaboration, or developing the critical judgment necessary to assess one's own practice. We then collectively experiment with various solutions, thereby co-creating the learning space, trialling and exploring ideas to find the best ones for the group by using the most suitable available technologies to address

current pedagogic issues, moving to better alternatives as they emerge. Our learning design philosophy thus becomes a 'living curriculum' maintained in conjunction with the students, so that together we are constantly engaged in developing a virtual collaborative learning environment (CLE) that blends together a variety of different social media platforms, with different temporalities that allow learners to interact in ways that suit them, rather than ways that are dictated to them by a more closed system such as a traditional VLE. The CLE is thus an organic, fluid space, in which peer-to-peer support and engagement is central, and in which the goals are to collaboratively enhance the group and individual's digital literacies.

Schon, D. 1983. *The Reflective Practitioner.* New York: Basic Books.

Wenger, E., McDermott, R., & Snyder, W. 2002. *Cultivating Communities of Practice: a guide to managing knowledge.*

Wenger, E. 2009. *Digital Habitats, stewarding technology for communities,* CPSquare, Portland OR

0153 Short paper | **Theme:** Four | **Session:** Meeting expectations by curriculum development

Opening up the conversation: creating a OPEN-i, an online community of practice for the photojournalism industry

Paul Lowe | University of the Arts London, London, United Kingdom

This presentation outlines an ongoing project to build a virtual community of practice called OPEN-i, an online learning and networking space for the photojournalism industry. OPEN-i is an international network, linking photographers, agencies, publications and educational institutions together with the aim of engendering a debate and discussion about the future of the medium in the world of Web 2.0. The network was established by a team from the London College of Communication, University of the Arts London, and supported by a grant from the JISC Business and Community Engagement programme. The project is underpinned by Wenger's model of how to cultivate a virtual community of practice by creating a 'digital habitat' (2002, 2009).

OPEN-i runs a series of live webinars and discussion sessions using Wimba, presented by leading industry professionals to an invited audience of peers, academics involved in the critical debate around images, aspiring photojournalists from the majority world, and masters level students of photography. One need that was absolutely key was to make the forum for debate global, and to involve practitioners from the majority world as well as from the West. The webinars are supported by a social networking group on the Ning platform with discussion forums and personal pages. All the presentations are archived and available for later viewing online.

Several types of live sessions have been developed, including panel debates, presentations by individual photographers on their work, regional presentations highlighting developments particularly in the majority world, and 'working party' sessions where smaller groups 'roll up their sleeves' and work on a particular issue or problem in a workshop format. One notable feature of the sessions is the almost instinctive way that the text box has been used as a 'backchannel' to amplify and comment on the presentations by the audiences. Without the intensity, flexibility and spontaneity delivered by live web conferencing this innovative model would not have been possible.

The presentation will explore how we built the community and continue to evaluate and develop it, and will explore the role of the 'technology steward' (Wenger, 2009) as a key member of any online community

Wenger, E., McDermott, R., & Snyder, W. 2002. *Cultivating Communities of Practice: a guide to managing knowledge.*

Wenger, E. 2009. *Digital Habitats, stewarding technology for communities,* CPSquare, Portland OR

Employing personal learning spaces to facilitate APL processes: the TELSTAR project

Garry Watkins, Beverly Leeds, Amy Wright | UCLan, Preston, United Kingdom

The current financial environment dictates that alternative approaches to providing higher education need to be considered in terms of both funding and delivery, with suggestions that greater financial burden could fall upon employers to support staff throughout their studies. Shell frameworks provide a flexible approach to provision that could prove more attractive to employers than traditionally structured courses, permitting students to tailor their personal program of learning to their individual needs and experience. Consisting of a number of core components together with greater choice and space for negotiated learning, such frameworks could pave the way for a move toward work-based learning. This approach would inevitably lead to a greater emphasis on APL and related systems, as learners look to acquire academic credit for their prior learning, whether accredited or experiential. Most institutions will already have processes in place to support APL applications; however, uptake may vary greatly. Ensuring that these systems are able to cope with increased demand presents a key challenge to the implementation of new models of work-based learning.

TELSTAR is an ongoing project with the intention to develop and implement a flexible framework within which work-based learners can gain HE awards. Central within this objective is the employment of technology to streamline existing APL procedures and ensure that systems are sufficiently robust to cater for a potential increase in demand. Working in tandem with other institutions to provide solutions to a common problem the project has adopted a personal learning space (PebblePad) to facilitate APEL processes. The personal learning space provides a user friendly environment within which learners can accumulate evidence and work together with university staff to prepare and present applications for APEL.

A range of methods will be employed to evaluate all aspects of the program.

ICT's participatory potential in higher education collaborations: reality or just talk

Rosalind James, Belinda Tynan | University of New England, NSW, Australia

Our presentation will give a brief overview of the current higher education context and how collaboration is encouraged as the backdrop for the following discussion. The various types of available ICT, and Web 2.0 tools in particular, will be reviewed in relation to their usefulness in collaborative approaches. The evidence available from higher education collaborations in Australia regarding which ICTs collaborators are using and how will be presented to address the question of whether ICTs and Web 2.0 are being appropriated to foster and support collaboration. Demonstrated applications of ICT use in e-collaborations will be drawn from our experience in the DEHub Research Institute. We will sum up by outlining possible future research directions.

0156 Workshop | **Theme:** One | **Session:** Back three spaces and roll again

Back three spaces and roll again: using game-based approaches to assist with course design

Alex Moseley[1], Juliette Culver[2], Nicola Whitton[3] | [1]University of Leicester, Leicester, United Kingdom, [2]Open University, Milton Keynes, United Kingdom, [3]Manchester Metropolitan University, Manchester, United Kingdom

Engagement with academic courses, and particularly those covering induction, research or other key skills, is a perennial problem in higher education; as student skill sets and expectations change, different design techniques are needed to motivate learners and meet their expectations. Course design skills are often specialised or time consuming, but there are some emerging games-based techniques which can provide a useful way to engage and inspire both course leaders and students. This workshop will introduce the concept of game-based approaches to course design in higher education. Gaming and competition approaches to both subject specific, and generic skills training or induction, have been used to improve motivation and engagement within several existing courses (Moseley et al 2009, Whitton 2009).

Through a simple game-based activity, this workshop will allow participants to experiment with new approaches, swap and share ideas, and collect new models and methods to use in their own context. The activity will lead to the creation of a number of course designs within the workshop, which will be discussed in detail at the end of the session. Participants will leave the workshop with:

- an understanding of the benefits of game-based approaches to learning design
- an awareness that effective game-based activities can be produced without technical expertise
- ideas and methods for creating game-based designs in their own context.

The workshop leaders are:

- Alex Moseley (University of Leicester): course designer and game-based researcher, creator of the Great History Conundrum game-based research skills course, and a boardgame to teach course design approaches.
- Juliette Culver (Open University): online games designer for entertainment and education, project leader for the Operation: Sleeper Cell charity alternative reality game.
- Nicola Whitton (Manchester Metropolitan University): researcher in online games and game-based approaches, and creator of the ARGOSI game-based course for student induction.

Moseley A., Culver J., Piatt K. & Whitton N. 2009, *Motivation in Alternate Reality Gaming Environments and Implications for Learning.* 3rd European Conference on Games Based Learning, FH JOANNEUM University of Applied Sciences, Graz, Austria, 12-13 October 2009.

Whitton, N. 2009. *Learning with digital games: a practical guide to engaging students in higher education.* London: Routledge.

0158 Short paper | **Theme:** One | **Session:** Pedagogic paradigms

#tagginganna: creating pedagogic models around searchable tags and reader-commentaries on e-Texts

Alex Moseley, Mark Rawlinson, Stuart Johnson | University of Leicester, Leicester, United Kingdom

The College of Arts, Humanities and Law at the University of Leicester ran a 6 month research project on the use of 'text tagging' or markup tools on online texts, exploring the pedagogic opportunities, and technical feasibilities, of the use of such tools for commentary, analysis, reflection and shared meaning across undergraduate (third year English) and postgraduate (distance learning) cohorts.

Using a range of tools (including Diigo and Digressit), and working within the Virtual Learning Environment where possible, the project generated a number of interesting pedagogic models (covering modes of study, disciplines and types of media), which will be described as generalisable instances backed up by quantitative and qualitative analysis from the case studies. Affordances included the extension of seminar-quality communal working beyond the classroom time, supporting students' close attention to artifacts (a difficult hurdle in the study of literature), and providing a platform to practice writing in a range of modes (including informal, imitative registers); the project team are now finalising models and drawing final conclusions and these will be reported within the paper.

The usefulness of such tagging tools and methods will be discussed from campus-based, blended and distance learning perspectives; and practical advice in the choice and implementation of technologies and pedagogic strategies within different contexts will be provided.

SimSafety: sailing in new waters

Denise Carter, Charlie Cordeaux | University of Hull, Hull, United Kingdom

SimSafety is a completely new and innovative approach to Internet Safety. Developed by a number of European partners, and using an enclosed OpenSim platform, it harnesses a 3D virtual world for teaching and learning. As well as offering a unique vision of the complex nature of internet safety the project has begun to identify a number of socio-psychological, pedagogical and technological challenges in providing such a complex learning environment. For example:

- presenting knowledge in authentic contexts and settings;
- presenting learning as a process of social participation;
- creating situations where students can work on problems before they fully understand them;
- creating a stable platform.

The SimSafety project actively seeks to develop a usable, recognisable design framework model incorporating pedagogic principles, analysis, design, development, quality assurance as well as implementation. The project considers the work of Druin (2002) and Prensky (2008) among others, allowing us to synthesise what we already know about the concepts of mini-games, complex games, edutainment and design into the conceptual framework of the SimSafety platform. This will impact on the more general research and development around educational games of interest to other conference attendees.

SimSafety will also provide a framework for 'transference' across national borders, and will largely address the problem of 'static content' – i.e. subjecting all students to the same pedagogical experience, regardless of economical and cultural differences and their personal abilities and learning requirements. This will impact on research and development around complex learning environments especially for primary and secondary education in various European countries (see Rubens et al 2005). This deeper digital divide/ differentiation perspective is being explored, negotiated and incorporated into the pedagogic design frameworks of the SimSafety project.

This short paper highlights and discusses the issues that are emerging from classroom trials with the SimSafety beta version, supporting them with real life experiences and case studies provided by the participants. These participants are drawn from a number of schools across Europe, and include both teachers and their students aged 9–11 years.

Druin, A. 2002. *The Role of Children in the Design of New Technology.* Behaviour and Information Technology 21, no 1: 1-25.

Prensky, M. 2008. *Students as designers and creators of educational computer games: Who else?* British Journal of Educational Technology 39, no 6: 1004–1019.

Rubens, W, Emans, B., Leinonen, T., Skarmeta, A.G. and Simons, R.J. 2005. *Design of web-based collaborative learning environments: Translating the pedagogical learning principles to human computer interface.* Computers & Education 45, no 3: 276–294.

0161 Short paper | **Theme:** Five | **Session:** Learning practice

Approaches to history taking in medical education

Niall Watts | University College Dublin, Dublin, Ireland

Many medical students find it difficult to take patient case histories. This is particularly the case when dealing when sensitive areas such as mental health and fertility. Traditionally in this university taking of case histories was taught by clinical teaching. Recently, a blended approached has been introduced integrating lectures, clinical teaching and online learning.

The effectiveness of small group clinical teaching depends on the availability and consent of patients at the time of teaching. This difficulty can be overcome by using virtual patients to teach clinical decision-making skills (Round et al, 2009). They are particular popular in psychiatry where students can practise asking sensitive questions and responding to difficult situations before meeting patients. They can also see a lengthy case unfold in a short period of time (Round et al, 2009). Virtual patients can be designed using either a problem-solving or narrative approach (Bearman et al, 2001). The project team designed two virtual patients. Both made extensive use of video clips where actors played the role of patients. Students answer open and closed questions, record their observations, reflect on their learning and communicate with their tutor in a virtual notebook. The virtual patients were implemented in the university VLE. In psychiatry, the VP was designed as an aid to teaching history-taking. A narrative approach was taken to the VP design as this is more suited for teaching communication skills (Bearman et al, 2001). Video clips are of the doctor-patient interaction. In gynaecology, the VP takes a problem solving approach to the causes of infertility. This is best suited for teaching clinical reasoning and diagnosis (Bearman et al, 2001). Video is of the patient responses only.

Tracking statistics from the VLE show that students used both virtual patients extensively. According to feedback, students found the VPs to be useful. The lecturers also gave positive feedback. Further virtual patients are being developed. Based on experience, the team has changed authoring tool and is increasing the use of standards. SCORM will give greater feedback on individual elements in the VPs while the MedBiquitous standard (Ellaway et al, 2008) will facilitate exchange.

Bearman, M et al. 2001 *Random comparison of `virtual patient' models in the context of teaching clinical communication skills,* Medical Education; 35:824±832.

Ellaway, R et al. 2008 *Building a virtual patient commons,* Medical Teacher; 30:2,170 — 174. Round, J et al. 2009. Training Staff to Create Virtual Patients. Medical Teacher 31: 764–769.

0162 Short paper | **Theme:** One | **Session:** Curriculum delivery

No problem: the case for supporting active learning through technology

Julie Usher, Wayne Britcliffe | The University of York, York, United Kingdom

Problem-based learning (PBL) as a pedagogic approach is not new, although it has increasingly come into focus in recent years in response to current issues in the sector. PBL has the potential to address both the ''growing dissatisfaction with the traditional teacher-centred paradigm'', and also the need for students to develop higher-order skills relevant to employment and life-long learning (Savin-Baden and Major 2004). Alongside this, the increasing focus on the use of technology in supporting independent and active learning across the curriculum has led to an emerging evidence base for how we support the learner experience through effective design and support for online activities (Savin-Baden and Wilkie 2006; Donnelly 2010).

This paper looks at the integration of online activities into a PBL programme for Law - a potentially transformative approach to the delivery of a traditionally lecture-based programme. The York Law School has adopted a problem-based learning approach across all of its programmes, encouraging self-directed and collaborative learning through the provision of authentic, open-ended problems. This paper will discuss the transfer of the problem-based approach, which had previously been delivered in a face-to-face setting with undergraduate students, to a new blended LLM course, providing opportunities for collaborative research and report writing online, and allowing a more flexible mode of study for a geographically dispersed cohort of postgraduate students. The design of the LLM course, which began in October 2009, included the introduction of Web 2.0 tools (blogs and wikis) into four modules on the new programme.

Following a face-to-face session where students identified learning outcomes and tasks, the tools were used to support discussion and sharing of research outside the classroom, and the production of a collaborative response to each problem. This paper will present findings from a mixed-mode evaluation of the first delivery of this course, carried out through survey and activity logs, combined with focus groups and interviews with the course leader and online facilitator. We will discuss the successes and challenges raised by the project, as well as future developments, and potential wider implications in terms of the creation of an instructional framework on PBL design.

Donnelly, R. 2010. *Harmonizing technology with interaction in blended problem-based learning.* Computers & Education 54: 350-359.

Savin-Baden, M, and Howell, C Major. 2004. *Foundations of Problem-Based Learning.* Maidenhead: Open University Press.

Savin-Baden, M, and Wilkie, K. 2006. *Problem-Based Learning Online.* Maidenhead: Open University Press.

Placing the student at the heart of the process: using student lifecycle relationship management and service design techniques to enhance the student experience

Sharon Perry, Paul Hollins | University of Bolton, Bolton, United Kingdom

This presentation describes how the small-scale efforts that can be made, improve an institution's effectiveness in enhancing the student experience. It will demonstrate how techniques, more traditionally associated with customer relationship management in the commercial sector, can be used at various stages of the student lifecycle to meet the changing expectations of the student. Rather than simply explain the benefits of this approach, it will focus on the practical aspects and will provide examples of some of the agile interventions that can be made, based on the research conducted as part of the JISC Relationship Management Programme. As the accompanying paper has been written at the end of this Programme, prior to all the qualitative data being drawn out from it, an update will be given on the success of this approach and of the interventions made.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0164 Short paper | **Theme:** Four | **Session:** eBooks and Blackboard

Building an e-Book Access Bridge: an outline of a small scale project to provide generic guidance to the publishing industry on accessibility issues

Alistair McNaught, Simon Ball, Shirley Evans | JISC TechDis, York, United Kingdom

Well crafted e-book platforms can offer immensely personalised access to students. If a mainstream product can meet the study needs of disabled students, the organisation can support students more effectively and comply with disability legislation more easily (Newland et al. 2009).

JISC and The Publisher's Licensing Society funded a small scale project to create good practice guidance based on the benefits and barriers identified by robust testing using real people with disabilities. A range of access technologies were used including keyboard only; mouse only; voice recognition only and screen reader only. In addition colour, contrast, low vision issues and accessibility statements were also examined. Each tester was asked to complete a series of tests that replicated typical student activities such as logging on to the platform, browsing to a book and extracting a quote. Nine platforms were tested. An e-Book Access Bridge model was developed to illustrate the stages involved in accessing an e-book. The stages ranged through navigating to the instructional learning platform, opening an e-book and exporting quotes to an assignment.

Analysis of the data indicated three types of barriers:

- Perceptual barriers were those where the users were unable to find a feature that was both present and accessible to their technology, examples included text zooming and changing font colours.
- Usability barriers occurred where access was possible but impractical - browsing to a book and reading three pages took over 100 keystrokes on two platforms..
- Technological barriers were due to incompatibilities between thee-book platform and the user's assistive technology - e.g. text not being readable by their screen reader.

The research enabled the project team to develop guidelines for making e-books accessible. It also provided a starting point from which a wide range of stakeholders including publishers, educationalists, and librarians, can develop new knowledge of the issues, a common purpose in resolving them and new skills to apply to emerging technologies. In conclusion there are no serious technical reasons why e-book platforms should not revolutionise access to text for disabled students and in the process give a much enhanced experience for all users.

Newland, B., Boyd, V., and Ball, S. 2009. *Inclusive Technology. http://www.psychology.heacademy.ac.uk/networks/sig/itech.asp.*

0166 Short paper | **Theme:** Four | **Session:** Changing Virtuality

Virtual fieldwork for sustainable enhanced student learning

Simon Davis, David Barrett | University of York, York, United Kingdom

Fieldwork seeks to offer a "substantive experience of the world outside of the classroom" (Dykes, Moore, Wood, 1999). However the logistics associated with increasing student numbers, health and safety concerns and sensitivity to the environmental impact of visiting remote locations, threatens the amount and quality of field work that can be offered.

This paper addresses the design, development and delivery of virtual fieldwork and other ecologically sustainable teaching approaches, responding to the changing expectations of learners and needs of society and employers. While delivering enhanced active student centred learning opportunities, these approaches also present new possibilities for summative assessment activities and pedagogic design.

Drawing on the iterative developments of a number of undergraduate modules within the Department of Environment, this paper presents the development of virtual fieldwork resources created from a variety of learning objects including digital images, several different forms of videos, flash interactions and quizzes. These allow the utilisation of real life settings and expertise required for this discipline, overcoming barriers such of space (distance required to travel), time (demonstrating geotemporal phenomena such as erosion) and availability of personnel (capturing expertise of key on-site experts).

Virtual fieldwork and other sustainable teaching approaches such as remote delivery by guest lecturers will be evaluated alongside traditional 'physical' alternatives by colleagues in the Stockholm Environment Institute. The paper will include a comparative carbon equivalence report for the two approaches, responding to the University of York's key strategic aim of sustainability.

Drawing on student focus groups and surveys, activity logs and instructor interviews, the paper will present preliminary findings as part of ongoing research into the impact of virtual fieldwork on learning and teaching. Virtual fieldwork has supported the completion of students' final summative assessments. The real life experiences and examples provided by virtual fieldwork engaged students with, and supported understanding of background reading essential for a critique of scientific papers required for assessed coursework. Audio, video and data resources contained within virtual fieldwork were also important learning and revision tools, supporting constructivist approaches for answering exam essay questions examining experiential understanding of the subject.

JISC infoNet. *Effective use of VLEs: Designing for sustainability.* JISC. *http://www.jiscinfonet.ac.uk/InfoKits/effective-use-of-VLEs/designing-for-sustainability.*

Dykes, J. Moore. K and Wood, J. 1999. *Virtual environments for student fieldwork using networked components.* International Journal of Geographic Information Science 13: 397-416.

How teachers use Blackboard: an institution-wide evaluation study on functionality types, user profiles, and the influence of attitude

Judith Schoonenboom, Linda Mebus, Victor Maijer | VU University Amsterdam, Amsterdam, Netherlands

In 2009, VU University Amsterdam, a research university in the Netherlands with approximately 23,000 students, conducted an institution-wide evaluation of attitudes towards its VLE Blackboard system and how much use is made of it. This paper presents the evaluation's principal findings that relate to university teachers.

An online questionnaire was filled in by 341 teachers (21% of the total). Factor analyses were used to identify the underlying constructs. Several multi-level models were tested with departments as clusters. A cluster analysis was performed on the log files for teacher usage during the most recent semester. Supplementary interviews were held with 13 teachers from 10 of the university's 14 departments.

The functionalities of Blackboard fall into four categories: providing information, handling assignments, administering tests, and facilitating group work. The log files reveal one category of basic users who use Blackboard mainly for providing information, and three categories of more advanced users who make use of various additional functionalities.

The relationship between the following constructs was investigated:

- Satisfaction: attitudes to working in Blackboard and satisfaction with the results.
- Motivation: the use of Blackboard due to the expectations of others (external motivation), and/or due to its perceived role in improving teaching quality (internal motivation).
- Barriers: the perceived difficulty of using Blackboard and the amount of assistance needed.

Initial results indicate that internal motivation is a decisive factor. Although external motivation influences the number of courses in which Blackboard is used, it has no influence whatsoever beyond this. Internal motivation influences both satisfaction and barriers, and it is the only construct that impacts on the intensity of Blackboard use.

This study confirms and refines the existing divisions of VLE functionalities. It shows that internal motivation, which was part of the original Theory of Planned Behaviour, but not of the widely used Technology Acceptance Model, cannot be ignored. It is internal motivation, rather than ease of use, which influences the adoption of technology. Furthermore, results indicate that the decision of teachers to use technology is more rational than often assumed, as it is largely determined by the extent to which they expect their teaching to improve by using Blackboard.

Ajzen, I. 1991. *The theory of planned behaviour.* Organizational behaviour and human decision processes: a journal of fundamental research and theory in applied psychology 50, no. 2: 179.

Davis, F.D. 1989. *Perceived usefulness, perceived ease of use, and user acceptance of information technology.* Mis Quarterly 13, no. 3: 319-40.

Ellis, R.A., Ginns, P. and Piggott, L.. 2009. *E-learning in higher education: Some key aspects and their relationship to approaches to study.* Higher Education Research & Development 28, no. 3: 303 - 18.

Lonn, S. and Teasley, S. D.. 2009. *Sakai multi-institutional survey initiative (MISI) selected results.* Ann Arbor, MI: University of Michigan, Usability, Support, and Evaluation (USE) Lab. *http://confluence.sakaiproject.org/display/UDAT/2009+MISI+Selected+Results.*

Mebus, L. Jonker, H. Kuijs, H. Maijer, V. Pang, S. and Zondervan, K. 2009. *Verkenning Next DLO VU; evaluatierapport Blackboard 2009,* Learning / Community System [Exploration Next VLE VU: Evaluation report Blackboard 2009, Learning / Community System]. VU University Amsterdam.

Sharpe, R., Benfield, G and R. Francis. R 2006. *Implementing a university e-learning strategy: Levers for change within academic schools.* ALT-J: Research in Learning Technology 14, no. 2: 135 - 51.

0168 Short paper | **Theme:** Five | **Session:** Learning practice

Digital responses: themes emerging from the setting of digital media-enhanced learning assignments

Andrew Middleton, Oksana Fedotova, Richard Mather, Cathy Malone, Diane Ruston | Sheffield Hallam University, South Yorkshire, United Kingdom

Student generated digital media assignments have the potential to heighten learner engagement by taking advantage of new accessible technologies such as phone memo tools, MP3 recorders, and pocket-sized video cameras as well as simple audio, screencasting and video software. These technologies allow the academic pioneer to extend the learning environment and the methods available to them in supporting deeper learning. At the same time they can help to address the needs and expectations of students preparing for a world which values digitally fluent graduates.

This paper compares the experience of four modules which have each taken innovative approaches to running digital media assignments. In each case the learners' capacity to respond in an academically meaningful way will be considered and the academic's capacity to devise, support and deliver the assignments will be reviewed. The presenters will report on the practicalities, risks and benefits of setting innovative digital media assignments and identify common emerging themes from setting, marking and offering feedback on the student work. The four case studies that inform this paper involve a digital storytelling assignment in Computer Science, an assignment that requires the student production of

supplementary digital media to a written report on Virtual Reality Applications, a narrative machinima assignment for Game Design students, and a digital poster assignment for a Business module on emerging markets.

Findings in this ongoing work indicate that a lack of precedent necessitates a further layer of academic resourcefulness, risk and commitment, especially in relation to working with existing technical infrastructure and support. A well articulated assignment brief, tutor modelling, and proactive and reactive guidance are needed. However, it is clear that a variety of assessment methods that include digital media assignments allows some students to flourish.

Modes of video production and delivery for learning and teaching

Wayne Britcliffe, Simon Davis | The University of York, York, North Yorkshire, United Kingdom

This paper compares three different approaches to production of video resources by academic departments in support of learning and teaching activities. The paper also covers the institutional infrastructure that has been developed to support the deployment of video through a bespoke streaming service, which has been fully integrated with the institutional Virtual Learning Environment (VLE).

The projects, which we will discuss, incorporated video for quite different pedagogic purposes and audiences. With reference to frameworks discussed by Thornhill, Asensio and Young three main models of production will be explored briefly with varying requirements for support, budget and equipment and also appropriateness of use for different purposes:

- Broadcast quality, 'high stakes' video. Case: information for students/ international students transitioning to York/ HE environment (Central Support Services);
- Higher end academic produced video – experiment technique and lab safety (Chemistry and Biology), virtual field trip (Environment);
- Informal staff or student video – student presentation critique, student developed teaching resources (Educational Studies).

An interpretive research approach was adopted to home in on how students used and reacted to the use of online video in their course materials. This drew on multiple data collection methods (qualitative and quantitative) to provide a picture of student usage. This involved utilising exit surveys, activity logs and interviews with focus groups. Staff interviews and support requirements have been considered in relation to the aims of videos produced. The preliminary findings have highlighted not only the perceived value in developing and deploying audio visual course materials but also the importance of considered institutional support and appropriate infrastructure for the deployment of such resources.

Preliminary findings point to enhanced student learning opportunities; particularly in the areas of academic skills development, laboratory work and presentation critique with feedback from both instructors and students showing that video has significantly enriched the learning experience. Similarly, the various models of use made by staff has allowed us to shape; infrastructure development (integrated streaming), a framework to promote staff engagement and best practice advice on developing/ deploying video resources.

Thornhill, S., Asensio, M. and Young, C. 2002. *Video streaming: a guide for educational development.* Available from *http://web.archive.org/web/20060821182004/www2.umist.ac.uk/ isd/lwt/clickgo/the_guide/Video_Streaming-The_Guide.pdf*

0170 Workshop | **Theme:** Two | **Session:** Effective audio feedback

Audio feedback: designing feedback methods that are meaningful, manageable and media rich

Andrew Middleton | Sheffield Hallam University, Sheffield, South Yorkshire, United Kingdom

This workshop will reflect on the use of digital audio, screencasting, and video as media that can be designed to ensure feedback given to students is rich, personal, timely and above all meaningful (Rotheram, 2009). It will draw upon Nicol and MacFarlane-Dick's (2006) seven principles for effective feedback and a set of design factors identified by the presenter (Middleton & Nortcliffe, 2010). Participants will consider how a designed approach to using the recorded voice, in some cases accompanied by visual information, can be used to increase the meaningfulness of feedback without adding to the academic workload.

Following an introduction to current innovative approaches from across the sector, participants will work in small groups to devise appropriate feedback methods in response to situations described on 'scenario cards'. In doing so, they will make decisions informed by a set of design variables, and other factors which they determine to be significant. The proposed variables will include: the nature of the voice(s) heard, the size of the cohort concerned, timing, media, technologies, assignment type, formality and feedback purpose.

Participants will identify a number of challenges whilst designing appropriate feedback methods for each of the scenarios, perhaps relating to the need for staff development, access to technologies, and encouraging formative engagement by students. Scenario solutions and their associated challenges will inform a structured discussion on meaningful and manageable digital media-enhanced feedback.

Participants, whatever their prior level of experience with designing feedback or using digital media, will develop their understanding of feedback as something that is empowering for both the teacher and the learner when adaptive, digital age technologies are used to mediate significant, formative dialogues in and around the formal curriculum.

Middleton, A. and Nortcliffe, A. 2010. *Audio feedback design: Principles and emerging practice.* Int. J. Continuing Engineering Education and Life-Long Learning X, 000–000 (forthcoming).

Nicol, D.J. and Macfarlane-Dick, D. 2006. *Formative assessment and self-regulated learning: a model and seven principles of good feedback practice.* Studies in Higher Education 31(2) 199 - 218

Rotheram, B. 2009. *Sounds Good: reflections, challenges.* Keynote: A Word In Your Ear 2009, Sheffield Hallam University, 18 December 2009

0171 Short paper | **Theme:** Five | **Session:** Development through change

UsPaCe: the use of Web 2.0 to enhance the support of foundation degree students undertaking work based learning

Neil Witt, Anne McDermott, Rob Stillwell | University of Plymouth, Plymouth, Devon, United Kingdom

New and emerging Web 2.0 technologies have the potential to enhance and transform the learner experience and to develop the 21st century employability skills of communication, participation, networking and sharing (e.g. Committee of Inquiry into the Changing Learner Experience, 2009; Bradwell, 2009). The JISC funded UsPaCe project worked with HE in FE students and staff at local partner colleges to develop and trial a personalised environment aimed at supporting foundation degree students undertaking work based learning. Work based learners are often spread over thousands of square miles in the South West and, as such, are isolated from peers, tutors and resources.

The UsPaCe project has brought together a variety of Web 2.0 technologies to address these issues. This has the advantage of, amongst other things, being flexible to the needs of learners and tutors and uses applications with which many internet users are familiar and comfortable. It is also able to provide cross-institutional delivery and seamless lifelong learning environments. UsPaCe integrates the Web 2.0 technologies of social bookmarking, social networking and personalised web browsing pages incorporating gadgets and RSS feeds to create a tool for communication, personal development planning (PDP), group work and resource sharing. A crucial aspect is that it is learner centred giving a high degree of flexibility in terms of access, and control of access rights of others, to their information, content and ePortfolio.

This paper will describe:

- the project's use of rapid prototyping to involve learners, tutors and support staff in its development;
- successful and less successful methods of deploying the various elements;
- focus group feedback and survey information that challenges the idea of the 'Google Generation' and the existence of digital natives and immigrants (Prensky, 2001).

Bradwell, P. 2009. *The edgeless university: why higher education must embrace technology.* London: Demos. *http://www.demos.co.uk/files/Edgeless_University_-_web.pdf*

Committee of Inquiry into the Changing Learner Experience. 2009. *Higher Education in a Web 2.0 World.* Bristol: JISC. *http://www.jisc.ac.uk/media/documents/publications/heweb20rptv1.pdf*

Prensky, M. 2001 *Digital Natives, Digital Immigrants.* On the Horizon 9 no. 5: 3-6. *http://www.marcprensky.com/writing/Prensky - Digital Natives, Digital Immigrants - Part1.pdf*

Short paper | **Theme:** Four | **Session:** Friend or Folio **0172**

The design and implementation of an e-portfolio based pedagogy to enable work-based learners

Alison Felce, Emma Purnell | The University of Wolverhampton, Wolverhampton, United Kingdom

A JISC funded action research project at the University of Wolverhampton has developed models and resources for an e-portfolio based pedagogy for work-based learners within Small and Medium Enterprises (SMEs). Key innovative features concern the identification of processes and resources for translating a negotiated curriculum with SMEs into e-portfolio supported modules; such negotiation takes account of the particular conditions of SME employers and learners, namely: shortage of time; prior informal learning, need to match individual learning with performance needs of SME; need for flexible delivery, distance learning; reflexive learning; opportunities to record achievement; and the need for easily accessible e-learning and feedback. This project has also explored and reported on the processes that enable a smooth and timely passage from curriculum negotiation to quality assured, flexible delivery. In addition, it is addressing the development needs of academics involved in the negotiation and delivery of SME learning.

The e-portfolio is used to support learning and reflection and for summative assessment through a patchwork text methodology (Winter 2003). Web-folios are created to house learning content and links to on-line resources and a series of three blog functions are used to record activity responses, reflection and collaborative activities providing the three domains identified by Garrison, Anderson and Archer (2000) to enable learners to construct meaning: teaching, cognitive and social. Early evaluation of the pedagogy through structured interviews with learners has identified a positive learning experience and full engagement with the e-portfolio.

This paper will present the action research method (Coghlan and Brannick 2005) and emergent pedagogic principles from the completed pilot units. Key to the methodology was the use of three curriculum design and development retreats and subject-based e-mentors (Hay 1999) to start to build intellectual capacity across the university. The 5 pilot 5 credit units ran consecutively to enable evaluations to feed into the development of the subsequent pilots; the benefits of this approach will also be explored. Future plans for the e-portfolio based pedagogy for lifelong learning and workforce development will also be addressed.

Coghlan, D. Brannick. T. 2005. *Doing Action Research in your Own Organisation.* London: Sage.

Garrison, D. R. Anderson, T. and Archer, W. 2000. *Critical inquiry in a text-based environment: Computer conferencing in higher education.* The Internet and Higher Education 2(2-3): 87 - 105.

Hay, J. 1999. *Transformational Mentoring. Creating Developmental Alliances for Changing Organisational Cultures.* Watford: Sherwood Publishing.

Winter, R. 2003. *Contextualising the patchwork text: addressing problems of coursework assessment in higher education.* Innovations in Education and Teaching International 40(2): 112 - 122.

0173 Short paper | **Theme:** Three | **Session:** Site wide VLEs

Making the strategic learning environment a virtual reality: implementing a new approach to educational technology

Susannah Quinsee, Neal Sumner, Annemarie Cancienne, Olivia Fox, Stef Smith, Anise Bullimore | City University London, London, United Kingdom

This paper builds on work presented at ALT-C 2009 which outlined City University London's approach to evaluating our virtual learning environment and the creation of a vision for a Strategic Learning Environment (SLE). We are now one year into our implementation of Moodle, which is acting as the cornerstone of our SLE. Over this year, the SLE vision has started to become a reality. More than just the implementation of Moodle, our vision for how we wish to implement, run and manage educational technologies now encompasses our portal, collaboration tools (blogs, wikis etc), more than five different learning technologies and our web redesign project. It is now driving the way that the University supports our core strategic objective to offer a high quality educational experience.

Our approach has been an incremental one, which built on the coalition of Schools and Central Services created during the evaluation of our strategic learning technologies in 2009. By developing a partnership model of working with Schools, which has devolved much of the responsibility for implementation, planning, support and development to Schools, co-ordinated by a strong commitment from Information Services and led by the Learning Development Centre, we have been able to engage staff in the development of a shared vision. Central to this has been a robust governance structure which enables transparency, decision making and clear responsibility. Rather than forcing different projects to engage with the SLE, we have demonstrated the opportunities that this model offers as well as its flexibility and priority of the student experience at its core.

In this session we will outline our approach and achievements in the following areas as well as identifying the key challenges we are facing:

- Stakeholder engagement
- Change management
- Development and training
- Planning and implementation

We will also consider the inevitable culture change issues that accompany the move from a proprietary to an opensource system.

Participants in this session will gain an understanding of the approach taken to embedding educational technologies in a strategic framework. They will also receive ideas and our lessons learnt on a set of key topics.

Piloting the use of synchronous web conferencing for flexible curriculum delivery

Timos Almpanis, Eric Miller, Margaret Ross, Darran Price, Richard James | Southampton Solent University, Southampton, Hampshire, United Kingdom

This paper will report on a pilot project on the use of innovative web technologies – web-conferencing or else virtual classrooms – to enhance the teaching and learning experience. Web conferencing systems are the digital alternative of a class meeting and they can bring together a group of geographically dispersed students. This project focuses on the use of web-conferencing systems with adult, part-time learners who are studying for a postgraduate qualification; this particular student cohort is comprised by busy professionals who are working full-time and have minimum physical presence on campus – nine residential weekends per year.

The selected course has been identified as the most suitable course for this pilot and could be a model of integrating innovative learning technology to redesign the curriculum; as more blended/ distance learning courses are going through validation in various departments of the University, it is anticipated that this course could be the model for the deployment of synchronous tools and a great opportunity has presented itself for synchronous online communications to be explored and exploited.

The MSc programme has been running since January 2008 and student feedback indicates that isolation and lack of study support in between the residentials are the key barriers to their learning. Hourly, timetabled, fortnightly sessions spread in between two residential sessions would possibly increase students' engagement with their studies and would give them an opportunity to discuss with their tutors any course-related questions in real time. The short, scheduled web tutorials have been delivered every other Sunday since February 2010.

Qualitative methods – interviews and focus groups - have been utilised for gathering data as they are seen as fit for purpose. The limited number of informants (3 lecturers + 13 students) does not allow for generalisations to be made from the findings; however, they are highlighting some of the affordances and limitations of synchronous virtual classrooms and they might be of interest to anyone who has utilised or is planning to utilise synchronous web conferencing to support students' learning.

Chen, Nian-Shing, Ko, Kinshuk and Lin, Taiyu 2005. *A model for synchronous learning using the Internet.* Innovations in Education and Teaching International, 42:2, 181 - 194

0176 Proceedings paper | **Theme:** One | **Session:** Learning environments

Empirically based recommendations related to the use of virtual worlds in education

Trevor Barker | University of Hertfordshire, Hertfordshire, United Kingdom

For the past two years, final year undergraduate Computer Science students at the University of Hertfordshire have been involved in a project using the Second Life virtual environment to support their learning. The support provided included presenting textual, audio and video learning and teaching materials, delivering virtual lectures, simulations and group working areas.

We have also used the virtual environment for groups of second year Computer Science learners following an interaction and games design course to develop small multi-player games based on real world game they had developed. Last year, at ALT-C 2009 the author presented a study related to the affordance of the Second Life system for group working and for delivering lectures. In the paper presented here a fuller account of this work is described. One aspect of this research has been an evaluation of the Second Life system by learners and teachers, including a comparison of other systems, such as the MLE, two dimensional virtual environments and the real world. Findings from this research are presented and a set of recommendations for the use of three dimensional virtual worlds in education is discussed.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0177 Proceedings paper | **Theme:** Four | **Session:** Meeting changing student expectations

Software to support student team project working: evaluating a prototype

Janice Whatley | University of Salford, Manchester, United Kingdom

In higher education team projects are good learning activities for helping to develop team working skills and IT skills, in order to prepare students to be "employable" graduates. Students experience difficulties with team working that sometimes prevents them from gaining the best from the experience. Existing software, such as groupware and virtual learning environments, provide support for the task roles of a team project, but limited support for the maintenance roles.

In this presentation the results of a case study evaluation of a software tool to help students with the maintenance roles of team working is provided. The software includes functions for helping to make decisions on allocating tasks to individual team members, and for agreeing ground rules for the team. The particular benefits of this system to the students in the study are presented, together with students' suggestions for improving the system and for extending the functionality beyond the starting stage of a team project. It is anticipated that this sort of software could be added to existing student support systems, and the presentation will be used as an opportunity to hear delegates' views on the usefulness of this sort of software.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Open Educational Resources (OERs) in HE – trends and scenarios

Li Yuan[1], Sheila MacNeill[2], David Kernohan[3], Heather Price[3] | [1]JISC CETIS, IEC, University of Bolton, Bolton, United Kingdom, [2]JISC CETIS, CAPLE, University of Strathclyde, Glasgow, United Kingdom, [3]JISC, Bristol, United Kingdom

This workshop will draw on the concept 'content as infrastructure', exploring how the rapid development of the Open Educational Resources movement globally can be used as a strategic approach to stimulate innovation in higher education. A HEFCE sponsored JISC/HEA Pilot Programme on Open Educational Recourses was launched in the UK in 2009 (and a second phase of UKOER programme is being planned) which is intended to build a professionally organised open resources infrastructure to support innovation in higher education. However, it is unlikely that educational content freely available on its own will make significant impacts without changing the traditional structure of HE and the practice in institutions. In this workshop, we will use a scenario-based approach to look at issues in a holistic way, considering how the full potential of OERs could become realised. Four scenarios have been structured and will be explored at the workshop:

Scenario 1: the status quo model in which OERs reach the mainstream; high quality teaching and learning resources are available free of charge, however, the focus is on content rather than changing the process and practice of teaching and learning in institutions.

Scenario 2: the add-on 'credits' model in which institutions are encouraged to explore new ways of assessment and accreditation so that self-learners can gain a university degree through use of OERs.

Scenario 3: the emerging partnership model in which institutions share teaching and learning resources and costs, nationally and internationally, through developing cooperative university partnerships.

Scenario 4: the radical change model in which a global university appears to serve the different needs of the learners through open access to course materials, learner support and assessment.

A brief description for each scenario will be presented. Participants will be invited to work in groups to discuss drivers, possibilities, barriers and conditions for enhancing or realising these scenarios, then meet together to identify which scenario is the most desirable and which the most probable. We hope this workshop will provide opportunities for the OER community to share ideas on future trends and uncertainties surrounding OERs and suggest actions to bring innovations in future higher education.

Creating the right conditions for the use of mobile technology in learning: requirements for strategy and policies in post-compulsory education

Nigel Ecclesfield, Fred Garnett | London Knowledge Lab, London, United Kingdom

Over the last three years, researchers and funding agencies have been paying increasing attention to the use of personal mobile devices to support learning across the educational spectrum from primary education to support for work-based learning in higher education. This interest is evidenced by large scale projects across the world funded by Government, public agencies and the private sector including MoLeNET in the UK and the many examples from Europe, Asia, Australasia, the US, Africa and Latin America.

With the economic downturn across the world, Government and specialised funding and research agencies have been reviewing and updating their forecasts for the period 2011 to 2015 both to take account of

developments in mobile technology in the contexts of teaching and learning and exploring the potential impact of economies that might be achieved by moving the focus of provision of technology within institutions from the provision of devices for users to services and infrastructure and the interface between users own devices and the institution. Such a shift in the use of technology throws into relief the tensions explored by the authors and others such as Salisbury and Jephcote: in national and institutional policies that are not developed to take account of the needs interests and capabilities of practitioners, learners and other stakeholders such as communities and employers in framing and delivering responses to rapidly changing circumstances e.g. those occasioned by reductions in funding for education from both public and private sources.

Drawing on their previous work and that in progress, the authors will, with researchers, practitioners and policy makers, explore the nature of strategic responses open to provider institutions in post-compulsory education over the next five years through the use of mobile technologies and the possibilities of developing collaborative networks of institutions to respond more appropriately to the wide-ranging needs of communities at local, regional, national and international levels, in the context of globalisation and environmental concerns.

Garnett, F and Ecclesfield, N. 2008 *Colloquium: Developing an organisational architecture of participation.* British Journal of Educational Technology 39: 468-474

Jephcote, M and Salisbury, J. 2008. *Being a teacher in further education in changing times.* Research in Post-Compulsory Education 13: 163-172

0181 Short paper | **Theme:** One | **Session:** Web 2.0 Paradigms

The use of a Web 2.0 tripartite model of assessment feedback to support face-to-face tutoring

Mark Kerrigan, Mark Clements, Andrew Bond, Yanitsa Nedelcheva, Federica Oradini, Gunter Saunders | University of Westminster, London, United Kingdom

Increasing class sizes, Government-led efficiency demands and competition through league tables has increasingly caused staff and students to view assessment as a means of determining hierarchal performance rather than as an integral part of the learning process. At the same time, students want better value for money, more personalised support and more effective coursework feedback (Rowntree 1987). With these diametrically opposed constraints driving curriculum development, institutions need to take a step back and review the fundamentals of assessment and feedback and how, in such challenging times, effectiveness can be maximised whilst maintaining efficiency (Higgins 2001).

Last year, as part of a JISC funded project (eReflect), a process for enhancing student use of feedback via a tripartite feedback model that combined subject, operational and strategic themes, was developed (Kerrigan et al., 2009). Following the return of a piece of coursework, students complete an online reflective, diagnostic questionnaire (via mobile devices or PC) for each piece of coursework, which culminates in a report that graphs progress and suggests actions to improve subsequent performances. Students then complete a reflective online journal (blog) using the questionnaire-generated report as a prompt and their personal tutors then comment on this.

The project has now been refined to use freely-available Google Apps, linked to the student-record system to support all first year students (~400) in the School of Life Sciences via an easily scalable, and transferable technological solution that maximises efficiency whilst supporting sustainable change. By linking this process to the face-to-face tutoring scheme, staff are better informed about their students' performance and the information provided by eReflect can enhance individual tutorials for both the tutor and student. Data show that students develop skills in reflection and better understand their own learning approaches.

Here we will provide an evidence-based report on how this process has been received by both staff and students and how it is possible to enhance the student experience and effectively tutor students despite increased numbers, by maximising the efficiency of staff time.

Rowntree, D. 1987. *Assessing Students: how shall we know them.* (London, Harper and Row).

Higgins, R., Hartley, P. & Skelton, A. 2002. *The Conscientious Consumer: reconsidering the role of assessment feedback in student learning.* Studies in Higher Education. 27: 53 – 64.

Kerrigan MJP, Clements M, Bond A & Saunders G. 2009. *eReflect – Making Assessment Count.* Proceedings of the Fourth International Blended Learning Conference: 219-232.

Making a splash with technology enhanced learning

Jackie Carter[2], Louise Egan[2], Matt Ramirez[2], Christine Rees[1], Laura Shaw[2], Nicola Siminson[2] | [1]University of Edinburgh, Edinburgh, United Kingdom, [2]University of Manchester, Manchester, United Kingdom

Jorum is a JISC-funded national repository for learning and teaching resources, enabling the sharing of free resources which are created and contributed by teaching staff from UK Further and Higher Education Institutions (F&HEIs). Jointly run by the UK National Data Centres, Mimas and EDINA, Jorum enables practitioners to access, contribute and share resources that are suitable for use in any post-16 educational environment. Jorum contributes to increasing productivity whilst mitigating risk – by providing resources which can be used and repurposed. Terry Anderson (2009) comments: "It's becoming to [look to] me as [if] you are almost a negligent academic if you don't go out and look for the OERs [Open Educational Resources] before you start developing things".

Whilst Jorum is having a growing impact on the amount of resources available for sharing, a key challenge is discovering the impact of these resources for both teachers and students. Jorum provides two collections: JorumUK offers resources from those creators/ owners who need to restrict the availability of their work to UK F&HEIs; JorumOpen provides access to open educational resources freely available for anyone, anywhere, to use and download. Jorum is adding to the range of online tools and services which are being utilized by practitioners, enhancing the changing design skills and knowledge needed to support learning and teaching with technology. This includes the Jorum Community Bay, which supports knowledge exchange and discussion on all aspects of sharing, re-use and repurposing of learning and teaching resources.

This will be an evidence-based demonstration, showcasing real success stories via a series of multimedia snippets, featuring users who will bring to life the ways that they have used Jorum resources. These clips will be supplemented with a presentation of quantitative and qualitative data, highlighting Jorum's usage and its engagement with individuals, collaborative groups and communities. Participants attending this demonstration will gain:

- an awareness of the types of resources in Jorum, and how these are being used by practitioners;
- an understanding of the benefits of Jorum – and the value of sharing resources;
- an insight into Jorum's perceived impact on technology enhanced learning.

Anderson, T. 2009. ALT-C 2009 *Keynote speech.* Speech presented at the 2009 conference of the Association for Learning Technology (ALT), Manchester.

0186 Short paper | **Theme:** One | **Session:** International perspectives

Forging meaningful, equal partnerships in open educational resources between the UK and Africa

Steve Stapleton, Andy Beggan | The University of Nottingham, Nottingham, United Kingdom

Open Educational Resources (OER) can play a central part in the changing landscape of UK higher education. There are many benefits for institutions to realise when publishing open resources, including efficiency savings, promotional opportunities and improving the student experience. Open Educational Resources are also playing a part in improving the education provision across Africa.

Through the BERLiN project, a 12 month JISC/ HEA Academy funded project, the University of Nottingham investigated factors fundamental to the success of OER initiatives with the findings highly relevant to UK and international contexts. Exploring academics attitudes towards OER through focus groups revealed a number of significant barriers to be addressed, and it was identified that developing meaningful partnerships between suppliers and potential users of OER would create a compelling case for University staff and contextualise the use of OER. To this end, Nottingham collaborated with OER Africa and the UK National Commission for UNESCO (ISWG) to establish a framework allowing educators in Africa to request open resources from UK HEI.

In 2009 and 2010 requests were made to all projects involved in the JISC/ HEA Academy UK OER programme asking for submissions of resources to support a number of African education projects. The UK response was good, with a number of resources being supplied for consideration for inclusion as part of curriculums. The framework was mutually beneficial with the focus strongly on collaboration. OER Africa provided invaluable advice on long term sustainability models, the structure of open resources and open resource repositories and the mainstreaming of OER within institutions.

This presentation provides an overview of the learning's and outputs from the collaboration and will be interesting to anyone involved in OER activities. Specifically it covers:

- African education projects supported by UK OER;
- How UK OER has been used in African education contexts;
- OER deemed most valuable by African educators.

This presentation also includes an overview of education projects currently being supported by OER Africa/ UK OER community with an invite being extended to attendees to join the collaboration.

0187 Poster | **Theme:** Five

VLab: virtual machines as learning objects for ICT teaching

Graham Alsop, Luke Hebbes, David Livingstone, Paul Neve | Kingston University, Kingston, Surrey, United Kingdom

In ICT subjects, practical lab work is essential for students to achieve their learning objectives. In disciplines such as IT security, interactive web design or database administration, a technical infrastructure problem is presented: in order for the student to practice what they have learned they need administrative privileges. In an ideal scenario each student would be provided with an individual server on which they would work, but clearly this is impractical. Virtualisation is now well established as a means of addressing these issues (e.g. Gaspar 2007; Sun, Katta, Krishna and Sekar 2008).

Projects that have deployed virtualisation to assist ICT teaching have, for the most part, concentrated primarily on the infrastructural issues that the technology solves. Such approaches are, by nature, narrow in

their pedagogical scope, targeting specific elements of a syllabus (for instance, security-related subjects have been well-travelled).

This poster will introduce the VLab project at Kingston University, and the subsequent work being undertaken as part of a MSc dissertation. It will illustrate how VLab is evolving from a solution to an infrastructural quandary, to a project that explores the use of virtual machines as learning objects. A blended learning paradigm is leveraged in which students are set practical lab exercises in the form of workshops. These workshops include both conventional teaching material (e.g. static PDFs or even HTML-type hypertext) and a number of 'milestone' VM states. As the student passes each milestone stage, the complementary static materials associated with these stages change accordingly.

This poster will visually illustrate this progression with a cogent example, and equipment will be available for demonstration purposes. The VLab environment has been successfully deployed at Kingston University on a number of heavily technical ICT-related modules, and has met with success in terms not only in resolving the infrastructural issues, but also providing a distance learning option. Future work will examine the effectiveness of incorporating the pedagogic concepts outlined above. It is hoped that conference participants who are involved in similarly technical subjects or non-ICT disciplines requiring ICT key skills or training might wish to involve themselves or their institution in such work.

Gaspar, A. 2008. *Virtual Machine Technologies in the Undergraduate IT Curriculum.* IEEE IT Pro volume 9 4:10-7

Sun, W. Katta, V. Krishna, K. Sekar, R. 2008. *V-NetLab: An Approach for Realizing Logically Isolated Networks for Security Experiments.* Paper presented at CSET '08 in San Jose, California, USA.

Proceedings paper | **Theme:** One | **Session:** Mobiles and tablets **0188**

An analysis of first-year business students' mobile phones and their use for learning

Claire Bradley[1], Debbie Holley[2] | [1]Learning Technology Research Institute, London, United Kingdom, [2]London Metropolitan Business School, London, United Kingdom

Student appropriation of their mobile phones for learning is the focus of this presentation. A survey has been conducted with an incoming group of first-year business studies students over a five-year period. The first part of the presentation covers key results and trends from the survey data, and will lead into the issues raised by the analysis. The second part of the presentation will explore what students are choosing to do with their mobile phones, and how they are appropriating the technology for a variety of contexts. This will then lead into the discussion and questions section of the presentation time. We will also be able to report on the outcomes of the follow-up, in-depth research with students, which will have been undertaken by then.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Short paper | **Theme:** Two | **Session:** Effectiveness in delivery **0189**

INVISQUE - INteractive VIsual Search and QUery Environment

Raymond Chen, William Wong | Middlesex University, London, United Kingdom

Users of most electronic resource discovery systems (ERDS) are often faced with difficulties in making sense of the massive amounts of bibliographic data. Currently most ERDS present the search results in lists. Users have to scroll through a lot of pages and click on a lot of links to find the results they want. At the end, they often come to the problem of 'what was I looking for?' or 'getting lost in navigation'. This is a common issue in both academic and Internet resource discovery systems.

The INVISQUE project, (Wong, et al, 2010a) was conceived to develop an interactive visualisation user interface to facilitate sense-making, query formulation, and information search showing in visual representations to support information search and retrieval tasks in large, loosely-coupled data sets, enabling the users to find relevant scholarly resources and to see the search process visually.

Studies show that undergraduates, postgraduates and researchers find academic ERDS too complicated and difficult to use (Wong, et al, 2009). Therefore, many turn to Internet search engines to find scholarly articles. While Internet systems can provide quick search results, they do not offer analytical representations of the relationships between the data and can lead users to unreliable results (Jaccs, 2009).

We investigated the problems that most ERDS have (Wong, et al, 2009). Novel concepts and ideas such as interactive visualisation, proximity to show associations between data, information layers to segregate search results, and visual workflow support for collating results were developed in a prototype to assess their feasibility in addressing the shortcomings (Wong, et al, 2010b). This new and potentially more intuitive way of searching is expected to help users learn from the searching process and to allow librarians and academics to discuss searching as part of the information skills learning process. The interactive functions in the system will allow the users to learn from relationships and associations (Palmer, 1994), retrieving and exploring on information which they might not know before. Collaborative functions will also allow the users to collaborate with others to learn, comment, share information and to solve the issues they encounter when searching.

Jacso, P. 2009. *Google Scholar's Ghost Authors, Lost Authors, and Other Problems.* Newswire Analysis. Available from *http://www.libraryjournal.com/article/CA6698580.html* (Accessed 23 March 2010).

Palmer S. E. and Rock I. 1994. *Rethinking perceptual organization: the role of uniform connectedness.* Psychonomic Bulletin and Review, vol. 1. (RAYMOND: page numbers, pls)

Wong, W., Stelmaszewska, H., Bhimani, N., Barn, S. and Barn B. 2009. *User behaviour in Resource Discovery: Final Report,* Nov 2009. JISC Ref. CSSERSA2/SERV ENHANCE. Report prepared for the JISC User Behaviour Observational Study Programme. 92 pages.

Wong, W., Bhimani, N., Byrne, E., Kodagoda, N., Ham, D-H., and Khan, N., 2010a. *INVISQUE INteractive VIsual Search and QUery Environment: Final Report* Jan 2010. Report prepared for the JISC Rapid Innovation Programme. 104 pages.

Wong, W., Stelmaszewska, H., Chen, R. and Attfield, S. 2010b. *Electronic resource discovery systems: from user behaviour to design.* Proceedings of NordiCHI 2010 (submitted).

0190 Short paper | **Theme:** Four | **Session:** Student voice expectations

Students' perspectives on the sea-change: the experience of taught postgraduates

Liz Masterman | University of Oxford, Oxford, United Kingdom

Taught postgraduate students have been somewhat overlooked in learner experience research, perhaps on the assumption that they can automatically cope (O'Donnell et al., 2009). To address this imbalance, and following on earlier research into learners' experience of e-learning (Creanor et al., 2006; Conole et al., 2008), the JISC-funded Thema project followed 23 students on nine Master's programmes at the University of Oxford. Key areas of interest included:

- the 'significant moments' in students' experience;
- patterns in students' use of digital technologies;
- attitudes towards Web 2.0 applications.

This paper will examine how far our findings support the notion of a 'sea-change' in the role of digital technologies in students' lives. We gathered qualitative data over a nine-month period using a 'pen-pal'

technique, a variant of the e-interview (Bampton and Cowton, 2002) culminating in a face-to-face interview. We adopted a holistic approach, focusing on students' activities rather than making technology the starting-point of every enquiry.

Data indicative of a sea-change included extensive ownership of mobile technologies and dependence on a constant internet connection. Interestingly, some students did not consider themselves 'tech-savvy', even though they could find, evaluate and use a wide range of applications. Advances in software usability may thus have helped to facilitate the sea-change.

Although students generally expanded their use of digital technologies, restraining factors included time, pragmatism and the benefits of non-digital mediation in cognitive activities such as note-taking and knowledge-building. Within students' overall experience, technology was overshadowed by greater concerns, particularly the transition to graduate study. Moreover, significant learning experiences were largely associated with inspirational teachers, opportunities for active learning and personal conceptual breakthroughs.

The data thus suggest that it is not yet time to redesign learning on the assumption that students will have laptops to hand. We also recommend that students be introduced to productivity aids such as calendars and bookmaking tools early in their courses.

In summary, students blend technologies and interactions in the online and real worlds according to their personal disposition, the activity and the affordances of each tool. The picture yielded by Thema was thus rich, but not altogether strange.

Bampton, R. & Cowton, C.J. 2002. *The e-interview.* Forum: Qualitative Social Research, 3.2.. *http://www.qualitative-research.net/fqs/.*

Conole, G., Delaat, M., Dillon, T. & Darby, J. 2008. *'Disruptive technologies', 'pedagogical innovation': What's new?* Findings from an in-depth study of students' use and perception of technology. Computers & Education, 50.2., 511-524.

Creanor, L., Trinder, K., Gowan, D. & Howells, C. 2006. *LEX: The Learner Experience of e-Learning. Final Project Report. http://www.jisc.ac.uk/uploaded_documents/LEX%20Final%20Report_August06.pdf.*

O'Donnell, V. L., Tobbell, J., Lawthom, R. & Zammit, M. 2009. *Transition to postgraduate study: Practice, participation and the widening participation agenda.* Active Learning in Higher Education, 10.1., 26-40.

A strategy for supporting academic staff in the design, development and delivery of flexible CPD courses in Higher Education

Cath Ellis, Sue Folley, Helen Harris | University of Huddersfield, Huddersfield, West Yorkshire, United Kingdom

According to Darby & Williams (2009) even though United Kingdom Higher Education Institutions (HEI) have only between 5-9% of the Continued Professional Development (CPD) market they have significant potential to increase their market share. Doing so would have the dual benefit of providing HEIs with a wider variety of income streams while also making a valuable contribution to government targets of higher-level skills development. To successfully achieve these outcomes, however, HEIs need to do more to meet CPD clients' needs. Well established undergraduate teaching models (with their heavy reliance on face-to-face learning environments, and on modular course structures which follow the traditional academic year) are unlikely to be attractive to most CPD clients.

Achieving greater flexibility in CPD course structure, delivery, access and timing is therefore vital if HEIs are going to successfully achieve these goals. A key element of successfully achieving this goal will be supporting academic staff in the development of the necessary skills for designing, developing and delivering flexibly delivered CPD courses. This paper presents on a strategy developed as part of a HEIF project at the University of Huddersfield to support academic staff through this process. Specifically it outlines the

structure of a one-day workshop and follow-on activities which have been designed to guide course teams in the rethinking of flexibly delivered CPD programmes. It goes on to discuss the key priorities of the workshop design – including the building of a shared vision and the focus on increasing both the quality and efficiency of curriculum delivery – and the use of the student-centred learning design methodology developed by Barry Harper, Ron Oliver et al. It concludes by showcasing some examples of key successes of this strategy.

Darby, J., & Williams, K. 2009. *Online Continuing Professional Development - Why Universities are Missing Out,* ALT-C, 8 -10 September 2009, University of Manchester. Harper, B., et al. Learning Designs *http://www.learningdesigns.uow.edu.au/index.html*

0192 Short paper | **Theme:** One | **Session:** Mobile paradigms

Exploring the potential of mobile devices to support e-portfolio development in work based learning

Huw Richards, Elizabeth Symonds | University of Worcester, Worcester, United Kingdom

The Certificate and Intermediate Certificate in Substance Misuse was developed collaboratively between the University of Worcester and Herefordshire Primary Care Trust, through Strategic Health Authority project funding. The qualification is delivered across a diverse range of the workforce, spanning a number of local authorities and non-statutory agencies, therefore needing to be flexible and accessible to an increasingly diverse workforce.

A constructivist blended learning approach is adopted which actively facilitates students to access resources at a time and place convenient to them and therefore encourages participation and engagement with their negotiated learning outcomes.

Part of the assessed component for this qualification involves reflection on work based activities and the sharing of thoughts and experiences between their peer group, their tutors and work-based mentors and associates. The utilisation of electronic methods to assist reflection is becoming encouragingly more prevalent within a variety of schemes of learning that have sought to promote student autonomy and personalised learning (Duncan-Pitt, Sutherland, 2006). Furthermore, the underlying constructivist pedagogy of e-portfolio use places students at the centre of their own learning experience and actively encourages initiative (Stefani, Mason and Pegler, 2007). This project extends traditional boundaries of learning by providing the students with 'anytime anywhere' access to their e-portfolios in the form of electronic hand-held devices and therefore facilitate, immediacy for reflection, which would not otherwise be available.

Indications within the literature are suggesting that student achievement, retention and progression are enhanced through the use of e-portfolio approaches (Blake Yancey 2009). Mobile learning is a relatively new concept, so the evaluation of the outcomes of this project will serve to inform further developments and recommendations for this type of delivery.

Blake Yancy, K. 2009. *Reflection and Electronic Portfolios. Inventing self and reinventing the University.* In Cambridge, B, Cambridge, B and Yancey, K. Eds Electronic Portfolios 2.0. Emergent Research on Implementation and Impact. Stylus Publishing. Sterling Virginia.

Duncan-Pitt, L, Sutherland, S. 2006. *An introduction to the use of e portfolios in professional practice.* Journal of Radiotherapy in Practice. Cambridge University Press

Stefani, L, Mason, R, Pegler, C. 2007. *The Educational Potential of E-Portfolios.* Routledge. London.

A tempest in a teacup: increasing student participation by offering a special 'blend'

Ida Kemp, Jennifer Parr | University of Leeds, West Yorkshire, United Kingdom

As the use of Virtual Learning Environments (VLEs) becomes embedded in education and industry, there has been little examination of the additional advantages that the medium can bring in terms of participation. This paper looks at initial research carried out at the University of Leeds which compares student participation rates between 'live' events and VLE asynchronous events. Excellent work has already been undertaken to explore the advantages of providing asynchronous mediums of expression, allowing for reflection and giving students time to consider their input. This research aims to identify whether the same students participate in discussions or whether different environments allow new voices to be heard.

Students were monitored in both 'live' seminar events and asynchronous VLE events. Student participation rates were quantified and compared. The data included the number of times that students participated in the 'live' event as well as the number of times that students participated in the VLE discussion. There was limited gender analysis, and no analysis as to the 'usefulness' of contributions, only an exploration of whether the different environments encouraged different students to participate. Two cohorts of students have been examined thus far. A final year Law cohort and a postgraduate intercalated medical cohort.

Initial results indicate that different students participate in each medium. We find that students who participate in a 'live' event are not generally the same as those who participate in an asynchronous event. Providing both mediums of expression allows more students to participate, and thus hopefully, engage in course discussion and material. In addition, initial data supports previous findings that gender and discipline also impact on participation rates.

Earlier research suggests that the VLE offers students a way to augment their discussions by providing a medium which allows for additional information in the form of web links or references. The asynchronous medium allows considered reflection and response, which appeals to certain students.

This research suggests that having a blended approach to participation modes could also enhance student engagement. Ideally, students would access both mediums. The research suggests that more students are likely to participate and engage if both environments are provided. Further, the research carried out thus far suggests that more students will participate in an asynchronous event than in a 'live' event. Further work is due to be carried out in the coming academic year to expand the data set.

Haythornthwaite, C. 2007. *Social networks and online community.* In Joinson, A.N., McKenna, K.Y.A., Postmes, T., and Reips, U-D. (eds) The Oxford Handbook of Internet Psychology (pp. 121 – 137). Oxford University Press.

Heckman, R. and Annabi, H. 2002. *A Content Analytic Comparison of FTF and ALN Case-Study Discussions.* Proceedings of the 35th Hawaii International Conference on System Sciences – 2002. The Computer Society. ISBN 0-7695-1874-5/03.

Meyer, K.A. 2003. *Face-to Face Versus Threaded Discussions: The role of time and Higher-order Thinking.* Journal of Asynchronous Learning Networks, 7:3, 55-65.

Steiny, D. 2009. *Unsocial Networks – restoring the social in social networks.* Proceedings of the 42nd Hawaii International Conference on System Sciences – 2009. The Computer Society. ISBN 7695-3450-3/09.

Tu,C. -H. and McIsaac, M. 2002. *The Relationship of Social Presence and Interaction in Online Classes.* American Journal of Distance Education, 16:3, 131-150.

Garrison, D.R. 2007. *Online Community of Inquiry Review: Social, Cognitive and Teaching Presence Issues.* Journal of Asynchronous Learning Networks, 11:1, 61-72.

0194 Workshop | **Theme:** One | **Session:** Beyond training

Beyond training: staff development for lecture capture

Amanda Hardy, Juliet Hinrichsen | Coventry University, Coventry, United Kingdom

Lecture capture is being rapidly adopted in higher education throughout the UK and around the world. The benefits to students are clear: it is useful to non-native language speakers and those with illness, travel issues, and work commitments (McElroy and Blount 2006), provides access and support to students with disabilities and medical conditions (Williams and Fardon 2007), and is used as a note-taking and review aid for all students (Brotherton and Abowd 2004). This does not mean that the choice to adopt the technology is easy for practitioners, or the ways in which to use it are clear. With the push to adopt and integrate new technologies, practitioners can feel that they are not supported technically. Lecture capture offers a tempting 'no training required' approach, where most systems are automated to a large degree. Despite this, we find that there are staff development issues which often go unaddressed because they are "hidden" behind this idea of technical ease. Practitioners express a range of concerns with the adoption of this new tool, which can make them unwilling to use it.

This workshop is an opportunity for those involved with lecture capture (lecturers thinking about or already using it and people responsible for teaching and learning such as staff developers) to explore the range of issues raised with the adoption of lecture capture. By anticipating and providing for the support needs and pedagogic impact of new technology like lecture capture, it can be adopted more effectively (Burnett and Meadmore 2002).

In this workshop, participants will have an opportunity to explore how different institutional and teaching contexts affect the adoption of lecture capture, and to develop a personal profile and direction for the use of the technology in their own teaching. As outcomes of this workshop, participants will:

- identify their own questions and needs regarding lecture capture;
- increase awareness of the scope of impact of lecture capture;
- develop understanding of strategies of adoption and approaches to pedagogy;
- develop an action plan for their own use of lecture capture.

Brotherton, J. A. and Abowd, G. D. 2004. *Lessons learned from eClass: Assessing automated capture and access in the classroom.* ACM Transactions on Computer-Human Interaction 11, no.2: 121-155.

Burnett, B. M. and Meadmore, P. J. 2002. *Streaming lectures: Enhanced pedagogy or simply 'bells and whistles'?* In Proceedings Australian Association for Research in Education 2002, ed. P.L. Jeffery. http://www.aare.edu.au/02pap/

McElroy, J & Blount, Y. 2006. *You, me and iLecture.* In Proceedings of the 23rd Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education: Who's learning? Whose technology?, ed. L. Markauskaite, P. Goodyear, and P. Reimann, 549-558. Sydney: Sydney University Press.

Williams, J and Fardon, F. 2007. *Lecture recordings: Extending access for students with disabilities.* In Beyond control: learning technology for the social network generation. Research Proceedings of the 14th Association for Learning Technology Conference (ALT-C 2007), ed. Wheeler, S. Whitton, N. 139-148. Totton, England:

0195 Short paper | **Theme:** Five | **Session:** Mobile devices

E-learning standards for an m-learning world – informing the development of e-learning standards for the mobile web

Geoff Stead, Geoff Martin, Frances Wade | Tribal Group plc, Cambridge, Cambridgeshire, United Kingdom

Mobile platforms are pervasive, and according to recent research have become the globally dominant ICT technology. In early 2009 there were over 4 billion active mobile phone subscriptions across the globe, and approximately 5% of the world's population had access to a mobile broadband connection (ITU 2009). In

the light of this it is hardly surprising that there has been an upsurge in interest in mobile (m-) learning. At the beginning of 2010, many commentators predicted this would be the year that m-learning would become mainstream (NMC and Educause 2010, Brown 2010, Quinn 2010), and leading up to this time there have been reports from many trailblazing m-learning projects (Ally et al. 2009).

It is striking that many examples of m-learning best practice have not involved VLEs or standards-based approaches. Indeed Traxler (Ally 2009, 9-24) identifies six categories of emergent m-learning, of which only one – "miniature but portable e-learning" necessarily falls into the standards-based camp. This leads inexorably to the question of whether existing e-learning standards readily transfer into m-learning scenarios.

Tribal's Digital Learning Studio (DLS) have partnered with ADL to consider this issue. Our research, running from January till the middle of 2010, will draw together examples of best practice in e- and m-learning. Approaches for each will be placed into a comparative matrix, allowing their key characteristics and differences to be identified. The results of this analysis will be used to inform our conclusions on how existing standards may be moved forward for use in m-learning.

The outcomes of this work will be presented in our final paper at Alt-C 2010. Since the work is being undertaken with ADL, the application of SCORM within m-learning will be a prominent aspect of our discussion. However, we will also consider wider e-learning standards including those put forward by IMS GLC, and also the role of server-side platforms such as commonly used VLEs.

Ally, M., ed. 2009. *Mobile Learning – Transforming the Delivery of Education and Training.* AU Press, Issues in Distance Learning series.

Brown, J. *mLearnopedia blog. http://mlearnopedia.blogspot.com/2010/01/2010-forecasts.html.* Accessed February 25, 2010.

International Telecommunication Union (ITU). 2009. *Measuring the Information Society – The ICT Development Index.*

New Media Consortium (NMC) and Educause. 2010. *The 2010 Horizon Report.*

Quinn, C. *Learnlets blog. http://blog.learnlets.com/?p=1405.* Accessed February 25, 2010.

Viewpoints: encouraging creativity and reflection in the curriculum

Alan Masson, Catherine O'Donnell, Karen Viripen, Fiona Doherty | University of Ulster, Jordanstown Campus, United Kingdom

It can be challenging for practitioners to identify and agree high-level educational objectives to inform curriculum planning. Capturing, illustrating and sharing how a curriculum is planned across a student learning timeline at course and module level can help.

This workshop will stimulate constructive dialogue between practitioners; fostering collaboration and creativity, helping groups build ideas towards a radical student-centred curriculum design model. It shows how teams can be assisted by simple prompts including innovative timeline worksheets and best practice cards to prompt creativity and incorporate cutting-edge pedagogic best practice research into their teaching and learning plans.

It has been designed by Viewpoints, a JISC-funded Curriculum Design project with a remit to pioneer a series of inventive, user-friendly reflective tools in both workshop and online format to promote and enhance good curriculum design, by focusing curriculum planning around different perspectives to ensure a more engaging student experience. The project is helping the University of Ulster address strategic goals "to enhance the quality of the student learning experience" and "to promote and foster creativity and innovation in the curriculum" (Teaching and learning Strategy).

The tools help staff consider leading-edge areas such as assessment and feedback, information skills, student interactions and creativity and innovation while putting the learner at the heart of planning. They are underpinned by approaches, such as the REAP Assessment Principles and SCONUL Seven Pillars Model for Information Literacy.

Groups will be given the opportunity to gain first-hand experience of using one Viewpoints tool. Tasks and prompts will be provided. The workshop will be guided but flexible as teams must plan how they might use or adapt ideas to meet given objective(s). There will be opportunities to share experiences and compare outputs. The project team has been using rich media to capture outputs from workshops via 'digital stories', photos, video and audio to help share good practice and illustrate different approaches to curriculum planning in a user-friendly way.

This workshop will demonstrate how the innovative use of technology and an interactive approach to using structured data can promote reflection, discussion, strategic planning and creativity within the curriculum development process.

0198 Workshop | **Theme:** Five | **Session:** Fun with 'Faux-positories'

Fun with 'Faux-positories': easy educational resource sharing for non-technically-minded practitioner communities

Sarah Currier[2], Cherie Woolmer[1] | [1]University of Strathclyde, Glasgow, United Kingdom, [2]Sarah Currier Consultancy, Glasgow, United Kingdom

With ever-evolving funding priorities, short-term contracts, and project-based approaches to educational initiatives, practitioners often find themselves part of temporary communities of interest, practice and inquiry. The pressure to manage information, learn quickly, and disseminate to fellow professionals and stakeholders can feel overwhelming (Currier 2009c; JISC Emerge 2009).

Educational repositories once promised easy development, sharing and dissemination of resources and practice (Margaryan, Milligan and Douglas 2007). But do formal repository developments offer the kind of usability and flexibility people are now used to on social media sites?

For a new, non-technically-minded, geographically distributed, professionally diverse, short-term community of practice working across Scottish HE supporting employability, finding a way to share and recommend resources was an urgent priority, and not one that could wait (or pay) for a formal repository (Currier 2009a). So, they developed a "faux-pository" using free Web tools Diigo and Netvibes. In one year they provided key reference points for themselves and their varied stakeholders:

- public and private group spaces for resource sharing, discussion and recommendation on Diigo;
- a Netvibes site, 'Employability Resources for Higher Education in Scotland' (ECN 2010), dynamically displaying their Diigo bookmarks, discussions and recommendations alongside a variety of live topical newsfeeds.

Evaluation has demonstrated a high level of satisfaction among the community itself and their stakeholders with the finished site (Currier 2009b). It has also provided evidence of the community's increased confidence across a number of axes related to their proficiency in resource discovery, sharing and recommendation; and in their understanding and use of Web 2.0. A group who previously had not used anything more technical than email lists to communicate and share resources now support and manage their Netvibes-based site, and are using the lessons learned within their own studying, institutions and other activities.

This workshop will give participants a chance to work hands-on with Diigo and Netvibes to develop their own resource sharing and dissemination sites for their departments, communities, or classes. Instruction

on how to design their site and dynamically display resources from other sites, formal repositories, digital libraries, and Web 2.0 sites such as YouTube, Flickr and Scribd, will be given.

Currier, S. 2009a. *SHEEN Sharing benchmarking and final requirements report.* Higher Education Academy. *http://www.scribd.com/doc/16529191/SHEEN-Sharing-Benchmarking-and-Requirements-Report-Final-Public-Draft*

Currier, S. 2009b. *SHEEN Sharing Evaluation Event, September 16 2009, Glasgow.* Higher Education Academy. *http://www.scribd.com/doc/27024854/SHEEN-Sharing-Evaluation-Event-September-16-2009-Glasgow*

Currier, S. 2009c. *SHEEN Sharing review.* Higher Education Academy. *http://www.scribd.com/doc/16529201/SHEEN-Sharing-Review-Report-Final-Public-Draft*

ECN. 2010. *Employability resources for higher education in Scotland.* Higher Education Academy. *http://www.netvibes.com/Employability*

JISC Emerge. 2009. *JISC Emerge: a user-centred social learning media hub: supporting the Users and Innovation R&D Community Network.* JISC. *http://reports.jiscemerge.org.uk/Publications/*

Margaryan, A., Milligan, C. and Douglas, P. 2007. *CD-LOR Deliverable 9: Structured guidelines for setting up learning object repositories. http://www.academy.gcal.ac.uk/cd-lor/documents/CD-LOR_Structured_Guidelines_v1p0_000.pdf*

Flip it, the use of Flip video cameras to support and enhance learning, teaching, and assessment.

Karen McCourt, Karen Robins, Amanda Relph | University of Hertfordshire, Hatfield, United Kingdom

The research aim was to investigate Business School practices in the use of advanced technologies in teaching and learning with a focus on Flip video cameras. Students are already engaged with the technology and are able to use and learn from this form of delivery (Hürst & Waizenegger, 2006). Beilke et al. (2008) note benefits of video in a multicultural settings as students practice English, as well as incorporating their authentic identities and colloquial speech, which is a step towards tutors' accepting other forms of language.

The methodology used primary and secondary research to ensure the results were valid and reliable. The secondary research aimed to establish the use of this technology in HEI's including a review of Flip video usage at the presenters' University. The sample used in the primary research was self selected to allow academics the freedom to decide when and how to use the technology. At the end of the research period, interviews, questionnaires, and focus groups were conducted with staff and students to evaluate the use and benefits.

Initial results showed staff used the Flips in several ways including the production of vodcasts, for their own research purposes, and to video student presentations in order to provide formative and summative feedback. The students use included recording meetings, interviewing local businesses, and as an alternative method of presenting. Interestingly staff mainly used Flips as a teaching aide to provide information, whereas students wanted to use them in group work and assessments.

Feedback showed both staff and students want to use the cameras again next year. Agreeing they are great for reflective practice and the cameras are easy to use. However some subject groups chose not to participate, the reasons for this were wide ranging. There also appeared to be more engagement by academics delivering first and second year modules.

Session participants will gain a good understanding of how and when to use this technology. Including a review of the project outcomes and ways Flip cameras can be used to improve teaching, learning and assessment, thus encouraging staff to consider different approaches to learning.

Beilke, J.R. Stuve, M.J. & Williams-Hawkins, M.A. 2008. *Clubcasting: educational uses of podcasting in multicultural settings*. Journal of Multicultural Education & Technology. 2(2): pp107-117.

Hürst, W. & Waizenegger, W. 2006. *An overview of different approaches for lecture casting*. IADIS Multi Conference on Computer Science and Information Systems. 22 July. Amsterdam: IADIS. *Available at: http://people.cs.uu.nl/huerst/Publications/2006_ml.pdf* (Accessed: 1 July 2009).

0200 Proceedings paper | **Theme:** Two | **Session:** New productivity

Electronic resource discovery systems: do they help or hinder in searching for academic material

Hanna Stelmaszewska, B.L. William Wong, Balbir S. Barn, Nazlin Bhimani | Middlesex University, London, United Kingdom

Higher Education libraries are spending a significant proportion of their learning materials budgets on electronic resources: e-books, full-text databases and back copies of e-journals. However, the use of these resources is relatively low among the undergraduate students; instead students are increasingly using external resources such as Google and YouTube to help them start in their searches. This paper describes the qualitative study of students and researchers in Business and Economic using institutional electronic resource discovery systems (ERDS) when searching for quality academic material. In addition, it discusses which resources are most popular and why as well as the difficulties and challenges the current ERDS present to users. Based on the findings of the study, recommendations for resource discovery systems will be presented in order to improve the use of these resources by higher education students and staff.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0201 Short paper | **Theme:** Five | **Session:** Development through change

Supporting the transition from the physical to the virtual classroom

Darren Gash, Ian Gardner | BPP College of Professional Studies, London, United Kingdom

This paper outlines the introduction of a staff development programme at BPP that seeks to develop tutors' skills in conducting synchronous online classes using Wimba Classroom TM. The programme aims to assist teaching staff with the shift from physical to virtual classroom environments, taking into account ways in which teachers and students interact online and the implications this has for the way teachers facilitate learning between groups of students in an online classroom. By formulating a programme of set steps BPP aims to encourage real innovation, as opposed to previous ad hoc training and the replication of traditional practice on online platforms. The programme encompasses a number of stages as follows:

1. Participants are initially asked to research and review the theory and practice of online teaching and learning, and reflect on the implications this has for techniques and strategies for both teaching and learning. Articles, and best practice for online communication, which are considered included the likes of Salmon (2003), Mabrito (2004) and Green (2010).
2. Leading on from these discussions, teachers take part in a synchronous online session as students. The session is moderated by a member of the staff development team and divided into two stages:
   (a) Participants familiarise themselves with the technology used to interact in a virtual classroom.
   (b) Participants are divided into 'break out' groups to reflect on their experience as students in an online session.
3. Each participant then plans and implements a brief online session, with other participants playing the role of students.
4. Archived sessions are subjected to a process of self and peer review leading to further discussions. The focus is on encouraging innovative learning design and best teaching practice to meet the demands for highly flexible programmes. This peer review of online teaching also encouraging tutors to become more reflective as identified by Wood & Friedel (2009) and others.

Feedback received from tutors who have gone into the programme will be discussed, including lessons learned, which will be of interest to other staff development teams supporting and managing similar transitions.

A qualitative study of staff perceptions of Second Life as an effective environment for learning and teaching

Rose Heaney, Megan Arroll | University of East London, London, United Kingdom

This paper describes a qualitative, phenomenological study of academic staff's experience of Second Life (SL) as an environment for effective learning and teaching in higher education. Teaching staff took part in semi-structured interviews pre- and post- their SL session to elicit their preconceptions and actual experience of teaching in SL. By the time of the conference, interviews will have been subject to Interpretative Phenomenological Analysis (IPA) (Smith & Osborn, 2003) which uses a case-by-case technique followed by comparison across cases to uncover themes within the data.

Emerging super-ordinate themes within the pre-teaching interviews centre on the barriers and, conversely, the advantages of using SL as a teaching medium. Barriers include the technological and training requirements of using SL as a teaching environment, both for the academic staff and the students, issues surrounding the navigation of SL and difficulties therein (including 'motion sickness') and debate on how to ensure student up-take of the virtual classes. With regard to the positive aspects of using SL as a learning environment, participants noted that the virtual context of SL could benefit distance learners and those with physical disabilities, the anonymity of the virtual world which may allow students to feel more confident in class interaction and the flexibility that SL affords for lecturers.

Post-teaching interviews highlight the importance of structured recruitment for the virtual sessions, positive feedback from students following the tutorials and discussion of how to integrate this technology in higher education. Hence, we hope to have reached some tentative conclusions as to the suitability or otherwise of SL as a teaching medium in a context where other media (virtual and physical) are also available. A secondary focus is to establish the support needs of staff teaching in such environments for the first time.

This paper should be of interest to anyone considering synchronous group teaching activities in virtual worlds such as SL, particularly informal tutorial or seminar sessions. It will also be of interest to those who are involved in researching the educational merits of virtual worlds and those interested in IPA as a methodology to investigate educational activities.

Smith, J. A and Osborn, M. 2003. *Interpretative phenomenological analysis*. In J A Smith (ed) Qualitative psychology: a practical guide to research methods. London: Sage Publications.

First steps to Second Life: learning to simulate and simulating to learn

Bob Hallawell, Jenny Prior, Patrick Lockley | University of Nottingham, Nottingham, United Kingdom

Second Life presents challenges to the academic when it comes to adoption. Technical requirements can inhibit the ability of Second Life to present an immersive environment. Removing these barriers allows the student to focus on how to perform their role as required, without these issues. When developing the Virtual Maternity Ward at the University of Nottingham, a question is how much of the simulation should be code, and how much of it should be provided by actors. Interactions around coded solutions are limited to basic natural language processing, or button based solutions, which would undermine the environment. In developing the Maternity ward, key considerations were given to what actions, processes and objects needed to be put in place to simulate the environment. Due consideration was given to the way in which these objects and processes could be best modelled so as to make them accurate and usable, without

making them complicated. The development process is akin to theatre, where accuracy of portrayal and the dropping of character impact and effect on the learning process. What parts of the birthing process can be represented need to be balanced with what level of both accuracy and simplicity this representation can be achieved.

Rogers, L. 2009 *Simulating clinical experience: Exploring Second Life as a learning tool for nurse education*

Diener, Windsor and Bodily 2008 *Design and development of clinical simulations in Second Life*

0206 Short paper | **Theme:** One | **Session:** Mobile paradigms

Mobilising remote student engagement on field trips

Tim Linsey, Ann Ooms, Stuart Downward, Ken Field, James O'Brien | Kingston University, London, United Kingdom

The Mobilising Remote Student Engagement Project (MoRSE) is a JISC funded project jointly hosted by Kingston University and De Montfort University. The aim of the project is to develop a situated understanding of the impact of mobile and personal technologies on student practice, beyond the institution. The project focuses specifically on field trips and placements, with this paper reporting on the fieldtrip components.

Ooms and Downward (2009) concluded that the use of technology to support student learning on fieldtrips is an under-researched area, though there are indications of the positive role that mobile technologies can play in field based situated learning (e.g. Pfeiffer et. al. 2009). Specific issues include: integration of fieldwork and other aspects of the curriculum; coordination and collaboration amongst staff and student groups distributed over a study area; sharing resources and; access to resources, real-time databases, 'experts' and support from the field.

Mobile and personal technologies studied have included mobile phones, cameras, portable PCs and applications including micro-blogging, blogging, photograph sharing, video streaming and tracking and mapping tools. The fieldtrip team have developed learning activities that build in the use of mobile and personal technologies (e.g. geo-coded field observations via Twitter) as well as using pre-fieldtrip induction events to demonstrate to students how these technologies can be used to enhance standard fieldtrip practice. An evaluator has attended most fieldtrips and pre-, during and post- fieldtrip surveys and focus groups have been run.

This paper will report on the emerging findings including the apparent reluctance of students to use personal technologies as part of learning activities unless prompted, the positive role of student mentors, and staff concerns over the possible negative impact on the quality of observations and reflections recorded in the field notebook.

Ooms, A. and Downward, S. 2009 *Educational Use of Mobile Technologies: a review of the literature.* Presentation at the Annual Meeting of the Association of American Geographers, March 22-27 in Las Vegas, USA. (*http://www.slideshare.net/morse1/educational-use-of-mobile-technologies-a-review-of-the-literature*).

Pfeiffer, V. D. I. Gembella, S. Jarodzka, H. Scheiter, K. Gerjets, P. 2009. *Situated learning in the mobile age: mobile devices on a field trip to the sea,* ALT-J, 17: no. 3, 187-199

Shifting themes, shifting roles: the development of research blogs

Rebecca Ferguson, Gill Clough, Anesa Hosein | The Open University, Milton Keynes, United Kingdom

The study described in this paper investigated the use of research blogs by postgraduate students over a four-year period. An initial, one-year, pilot using grounded theory focused on the research blogs of three first-year doctoral students (Ferguson et al. 2007). Analysis indicated that blogs were used to promote a community where students were encouraged to reflect and share ideas, skills and stories of research life. The blogs also acted as memory repositories and encouraged collaboration.

The main study followed the students' blogs for another three years, as they became members of an academic community of practice (Wenger 1998), completed their doctorates and took jobs as researchers. Using participant observation, coupled with thematic analysis using the themes identified in the pilot study, it investigates changes in the use and content of research blogs during this period. All three students continued to make use of their blogs for reflection over this period, and they became more expert in the new literacies associated with this practice (Burgess 2006; Lankshear and Knobel 2008). Once the students had made the transition to early-career researchers, the nature of their blog use changed and began to fragment. This was due, in part, to issues of confidentiality, and data protection associated with their employment (Walker 2006). While they continued to use their original research blogs to promote community and collaboration, the constraints of their work meant that new posts were often posted in closed blogs, or were marked as protected. At the same time, they were required or encouraged to make use of project-related blogs as part of a planned communication strategy by their employers.

The findings of this longitudinal study clarify the changing expectations and needs of learners, employers and society in relation to researchers' blogs, and identify skills, awareness and knowledge needed to support the use of blogging by research students.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Burgess, J. 2006. *Blogging to learn, learning to blog.* In Uses of blogs, eds Bruns, A and Jacobs, J, 105-14. New York: Peter Lang.

F**erguson, R. Clough, G. Hosein, A.** 2007. P*ostgraduate blogs: Beyond the ordinary research journal*. In Proceedings of the 14th association for learning technology conference (ALT-C 2007) beyond control: Learning technology for the social network generation, eds Wheeler, S and Whitton, N, 179-89.

Lankshear, C. Knobel, M. eds. 2008. *Digital literacies: Concepts, policies and practices.* Oxford: Peter Lang.

Walker, J. 2006. *Blogging from inside the ivory tower.* In Uses of blogs, eds Bruns, A and Jacobs, J, 127-39. New York: Peter Lang.

Wenger, E. 1998. *Communities of practice: Learning, meaning and identity.* Cambridge: Cambridge University Press

Trialling e-readers as a green alternative to paper: changing behaviours and maintaining effectiveness

Mary Dean, Lindsey Martin, Laura Chambers | Edge Hill University, Lancashire, United Kingdom

The UK Higher Education sector has made only limited progress in reducing its paper consumption. Despite paper having high costs both environmentally and financially, HE is estimated to print on average 10,000 sheets per person per annum (James & Hopkinson 2009a, b). Advantages of paper are portability and ease of reading compared to a computer screen, attributes also provided by e-readers which have a smaller environmental footprint than printed material (James & Hopkinson 2009a, b).

Students liked the lightness of e-readers compared to traditional textbooks, but lack of 'search' and annotation features hindered their usefulness (Rickman et al. 2009). For tutors marking electronically

submitted assessments stored on e-readers lightness was advantageous and they reported less eyestrain compared to VDU, however there were drawbacks to this method (Liversidge et al. 2009).

This JISC funded e-reader demonstrator project will involve senior university staff who will become e-reader experts by trialling the potential for print substitution by using e-readers in two institutional committee meetings and other work situations. The initial evaluation of readily available e-readers selected the 'best fit' model, the Sony Touch Edition e-reader, for the one year pilot. The aim is to determine if current generation e-readers, with annotation features, are a viable substitute for paper in such meetings. The key to the success of this project is recognition of the need to understand, adapt and evaluate individual motivations and behaviours around the introduction of new technologies.

This paper discusses the methodology for benchmarking of e-readers against criteria for committee usage; user needs analysis to assess both experience and feelings towards the e-reader before the start, ongoing observations and criteria for the green assessment. This paper will share results of the ongoing e-reader evaluation and results of the ongoing trial within committees, reflecting the initial challenges of the behavioural changes and the coping strategies adopted by participants, with lessons learned so far, including the potential that e-readers may offer for shaping the university as a workplace. As leaders of change participants are able to promote appropriate teaching and learning uses for e-readers.

James, P. and Hopkinson, L. 2009a. *Energy Efficient Printing and Imaging in Further and Higher Education.* A Best Practice Review prepared for the Joint Information Services Committee (JISC). (Online) Available at: *www.susteit.org.uk* (Accessed 15 October 2009).

James, P. and Hopkinson, L. 2009b. *Sustainable ICT in further and Higher Education:* A report for the Joint Information Services Committee (JISC), SusteIT. *http://www.susteit.org.uk/uploads/DOCS/55-SustainableICTreport_final.pdf*

James, P. and Hopkinson, L. 2009a. *Energy Efficient Printing and Imaging in Further and Higher Education.* A Best Practice Review prepared for the Joint Information Services Committee (JISC). (Online) Available at: *www.susteit.org.uk* (Accessed 15 October 2009).

James, P. and Hopkinson, L. 2009b. *Sustainable ICT in further and Higher Education:* A report for the Joint Information Services Committee (JISC), SusteIT. *http://www.susteit.org.uk/uploads/DOCS/55-SustainableICTreport_final.pdf*

Liversidge, T., Hall, A., Walton, T, Gill, A. 2009. *Using e-book readers in student assessment,* JISC TechDis. *http://www.techdis.ac.uk/index.php?p=2_1_7_26_22*

Rickman, J. T., Von Holzen, R., Klute, P. G., Tobin, T. 2009. *A campus-wide E-textbook initiative.* Educause Quarterly 32(2) *http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/ACampusWideETextbookInitiative/174581*

0212 Proceedings paper | **Theme:** One | **Session:** Human aspects

SWIFT-ly enhancing laboratory learning: genetics in the virtual world

Paul Rudman, Suzanne Lavelle, Gilly Salmon, Annette Cashmore | University of Leicester, Leicester, United Kingdom

SWIFT (Second World Future Immersive Technology) is a three-year research project funded by the Higher Education Academy, lead by National Teaching Fellows Prof. Annette Cashmore and Prof. Gilly Salmon at the University of Leicester.

Within the genetics department, there are increasing issues of space, time and resources that lead to limitations on what can be taught effectively in laboratory practical classes. These classes are essential for students to engage fully with the theoretical content of their modules and also help students to develop problem-solving skills, team-working and experimental design skills.

We are investigating the effectiveness of offering students additional laboratory time within a simulated genetics laboratory, using the 3D Multi User Virtual Environment (MUVE) of Second Life®. This virtual space enables students to explore, experiment and conduct laboratory-based learning activities in risk-free, interactive ways, and at much lower cost. Previous work (Cobb et al. 2009; Conradi et al. 2009) suggests that this approach could dramatically improve the overall laboratory learning experience of undergraduates.

This first activity in the SWIFT virtual laboratory comprised a Health and Safety induction for 1st year Biological Science undergraduates, and familiarisation with items of equipment. This was in addition to their

regular genetics laboratory use as part of their course. Participants accessed the virtual laboratory using a standard computer. On-screen, the student is represented by an avatar that can move around the virtual world, carry out activities, and interact with other participants' avatars in group situations.

Since participants' interaction with the virtual laboratory is mediated by the computer, we are able to implement pedagogic models not practical in the real world. For example, virtual items of equipment can 'hand out' usage notes, high-risk actions can be demonstrated and concepts can be directly related to learners' actions.

We report on the main challenges encountered, and benefits observed, of creating and operating a virtual genetics laboratory, as well as the students' experiences and views of learning in this virtual space.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Cobb, S, Heaney, H. Corcoran, O Henderson-Begg, S. 2009. *The learning gains and student perceptions of a second life virtual lab.* Bioscience Education 13, (5), 10.3108/ beej.13.5.

Conradi, E. Burden, D. Rice, A. Woodham, L. Beaumont, C 2009. *Virtual patients in a virtual world: Training paramedic students for practice.* Medical Teacher 31, (8): 713-20.

Peer assessment in a Web 2.0 world: revisiting the 'big ideas'

Geraldine Jones, Gabriele Edwards | University of Bath, Bath, United Kingdom

The participatory practices (Jenkins 2009) surrounding Web 2.0 services at first site appear attractive to harness for the purposes of peer assessment (Falchikov 2007). But specifically what practices act as enablers for effective feedback (Nicol & MacFarlane-Dick 2006) and what tensions occur when Web 2.0 practices for peer assessment are introduced into formal teaching and learning settings?

This paper seeks to shed light on these questions through presenting, analysing and discussing the findings from a small scale participatory study in which two cohorts (n=18, n=15) of first year undergraduate students created, peer reviewed and assessed each others' digital story (McDrury & Alterio 2003) productions using the voicethread Web 2.0 service (http://voicethread.com). A key component of this innovative assessment practice (now in its second year) is the central role of the student, specifically in negotiating appropriate assessment criteria.

A critical evaluation of data from student surveys, focus groups and comments left as peer feedback will be used to discuss insights into:

- The impact on the student experience of adopting Web 2.0 practices for assessing their peers.
- The extent to which the affordances of the Web 2.0 service enabled or constrained the assessment.

In the light of the findings from this study the paper will conclude by exploring the usefulness of the concepts outlined in the 'big ideas'(Anderson 2007) in guiding the adoption of Web 2.0 practices for peer assessment and whether any reinterpretation is helpful when deploying Web 2.0 services for assessment in formal academic contexts.

Anderson, P. 2007. *What is Web 2.0? Ideas, technologies and implications for education.* JISC Technology and Standards Watch.

Falchikov, N. 2007. *The Place of Peers in Learning and Assessment. In Rethinking Assessment in Higher Education: Learning for the Longer term.* Eds. D. Boud and N. Falchikov, 128-143. Oxon: Routledge.

Jenkins, H. 2009. *Confronting the Challenges of Participatory Culture.* USA: MIT Press.

McDrury, J. & Alterio, M. 2003. *Learning Through Storytelling in Higher Education: using reflection and experience to improve learning.* London: Kogan Page.

Nicol, D, J. & Macfarlane-Dick, D. 2006. *Formative assessment and self-regulated learning: A model and seven principles of good feedback practice,* Studies in Higher Education, 31(2), 199-218

0214 Proceedings paper | **Theme:** Four | **Session:** Tablets and feedback

e-Feedback and students' changing needs and expectations

Yuhua Hu, Paul McLaughlin | The University of Edinburgh, Edinburgh, United Kingdom

This study is about the impact of an e-marking practice on first-year undergraduate biology students' learning experiences and their perceptions, needs and expectations of feedback on written assignments. The presentation will first give a brief description of how the e-marking system works, and it will then focus on the qualitative study conducted with groups of voluntary students who had received e-feedback for a course essay assignment. The findings about the students' changing perceptions, needs and expectations of feedback will be highlighted. The presentation will finally conclude with some implications of the findings in relation to using computer technologies to enhance the efficiency and quality of feedback on assignments.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0215 Short paper | **Theme:** One | **Session:** Mobile paradigms

Immersed in the digital: networked creativity through mobile content production

Helen Keegan | University of Salford, Salford, United Kingdom

This is an action research study of the development of multimodal literacies (Jewitt, 2003) through mobile/ networked user-generated content (UGC) production.

Audio and Video Technology students worked in groups to produce short practice-based films shot entirely on their mobile phones, exploring the creative affordances and constraints of the technology and developing imaginative and innovative filming techniques. Wikis were used to document the research and production processes and present the final project report. A visual diary of the making of each film was presented in Flickr, alongside textual commentary which linked to the corresponding wiki, offering the viewer a rich insight into their creative and technical processes. The films were presented in a 'mini film festival', while full assignments were submitted as QR codes which linked to their work online (Video, Wiki, Flickr). Through using multiple media across a range of platforms the students immersed themselves in the technologies as mobile and networked learners and content producers.

The group developed an understanding of successful UGC (including ethical issues) along with skills in mobile content production – increasingly important as new literacies which require effective communication across a range of digital media (Keegan, 2009). The main challenges/ difficulties were the shifts from high to low production values and from narrative to editorial thinking. The student experience was evaluated through focus groups, interviews and questionnaires. The response was overwhelmingly positive; after initial scepticism at the project brief they appreciated the extended scope for creativity and imagination as they developed their work beyond the constraints of conventional practice. They also welcomed the 'new way of working', which allowed them to connect, collaborate and present across multiple platforms.

While there are many related studies and initiatives (JISC, 2009; Kukulska-Hulme & Traxler, 2005) what is unusual about this project is the focus on discontinuity as a productive learning experience through methods which run counter-cultural to the discipline. The project required the students to explore mobile film-making as an emerging genre, challenging their assumptions about film-making by creating engaging content using the devices in their pockets, which led to the learners' acceptance of alternative approaches and developing an openness to rethinking their practice.

As an exercise in situated, experiential and social learning (Conole, 2008), we found that student-generated content production across mobile internet devices proved technologically accessible, motivating and

engaging. We are now integrating the approach into other modules/ disciplines, including research data collection and producing artefacts for class-based discussion.

Conole, G. 2008. *New schemas for mapping pedagogies and technologies,* Ariadne article, July 2008, *http://www.ariadne.ac.uk/*

Jewitt, C. 2003. *Reshaping learning: new technology and multimodality.* International Journal of Learning 10: 2652-60.

Keegan, H. 2009. *Preparing learners for a digital world*, in Effective Practice in a Digital Age, .Ed. Smith, R., 1st edition, JISC, UK

Kukulska-Hulme, A., & Traxler, J. 2005. *Mobile Learning: A Handbook for Educators and Trainers*. London: Routledge

JISC. 2009. *Digital Media,* InterMedia *http://www.jiscdigitalmedia.ac.uk/pdf/intermedia001.pdf*

Lecture capture: rich and strange, or a dark art?

Jane Secker, Stephen Bond, Sonja Grussendorf | London School of Economics, London, United Kingdom

This paper will discuss student and staff usage of, and attitudes towards, lecture capture at the London School of Economics and Political Science (LSE).

Echo360 is a comprehensive lecture capture system which represents the latest and most large-scale approach to recording lectures at LSE. Most classrooms are now equipped for audio and slide capture, and all lecture theatres are equipped for video recording. The background to the choice of Echo360 is published elsewhere (UCISA 2007). Its use by teaching staff is voluntary, nevertheless over 140 courses used the system in 2008 – 2009 and usage has increased this year, giving a large population to study.

Existing research indicates that staff attitudes towards this technology are polarised, with some seeing the immediate value to students as a tool for revision and to help those whose first language is not English, while others are more sceptical, citing concerns about intellectual property and academic freedom. There are also common concerns about the impact of lecture capture on attendance at lectures (Davis et al. 2009; Chang 2007). Student attitudes towards the system, however, are very largely positive (Veeramani & Bradley 2008; Von Konsky et al. 2009).

To complement this research, we wished to study the use of the system at LSE, in order to better understand local staff and student needs, and to provide improved advice and guidance. The findings will also inform the debate within LSE on the pros and cons of lecture capture and inform future decisions regarding investment in this technology.

We have undertaken focus groups and interviews with staff and students, to explore the differing attitudes towards the service, and to identify the modes and motives for its use amongst both groups. The interviewees comprised staff who do not use lecture capture as well as those who do.

The paper takes a qualitative approach, to investigate these questions in greater detail and with less ambiguity than would be possible with a simple survey. We will present findings from this research, and ask wider questions on the value of lecture capture in qualitative and quantitative subjects in the social sciences.

Chang, S. 2007. *Academic perceptions of the use of Lectopia: A University of Melbourne example.* In ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007. Available at: *http://www.ascilite.org.au/conferences/singapore07/procs/chang.pdf*

Davis, S. J., Connolly, A. and Linfield, E. 2009. *Lecture capture: making the most of face-to-face learning.* Engineering Education: Journal of the Higher Education Academy Engineering Subject Centre, Vol 4, No 2

UCISA. 2007. *Award for Excellence: To develop an integrated, scalable cost effective video lecture capture and podcasting service.* Available at: *http://www.ucisa.ac.uk/~/media/Files/members/awards/excellence/2007/lse.pdf.ashx* (Accessed 20th May 2010)

Veeramani, R. and Bradley, S. 2008. *Insights regarding undergraduate preference for lecture capture.* Available at: *http://www.uwebi.org/news/uw-online-learning.pdf*

Von Konsky, B. R., Ivins, J. and Gribble, S. J. 2009. *Lecture attendance and web based lecture technologies: A comparison of student perceptions and usage patterns*. Australasian Journal of Educational Technology. 25(4), 581-595. Available at: *http://www.ascilite.org.au/ajet/ajet25/vonkonsky.pdf* (Accessed 20th May 2010)

Pushing the boat out: using multiple hooks to improve student engagement

Dragos Ioan Ciobanu, Paul Arnold | University of Leeds, Leeds, United Kingdom

Ever wonder what your students are thinking? Constantly trying out new things to encourage your students to make the transition from passive to active learners? This demonstration illustrates how a blended learning approach involving several interactive technologies was applied to a 3rd year undergraduate module in Medical Imaging Science, resulting in increased student engagement and better grades.

With the objective of fostering active learning constantly in mind, the module in question was redesigned based on research into learning styles, multiple intelligences, brain-based learning and neuroscience. Learning technologies were then carefully selected to support the learning outcomes and a balanced blend of online and face-to-face engaging activities was implemented. Our approach was informed by the latest studies in using Participant Response Systems (PRS) and mobile technologies over GPRS networks and WiFi, and the final implementation took account of practical issues such as appropriateness, availability and user-friendliness of technology.

We integrated a PRS in the face-to-face sessions, a technology which follows principles of game-based learning, has been proven to increase student engagement and addresses four of the seven principles of good practice in undergraduate education (Chickering & Gamson, 1987). Moreover, the PRS was seamlessly blended alongside remote tablets which support collaborative and active learning. The PRS was also used to inform the structure of the online component of the module, represented by blogs and interactive online Articulate presentations. The new module design provided opportunities for all students to experience, reflect, conceptualise and experiment in an interactive and collaborative environment.

In our demonstration we will have a boatful of tips and tricks related to the design of the module, as well as its evaluation through both end-of-module questionnaires and focus groups. This technology hooked students from the beginning, inspiring competition and enthusiasm. Moreover, given that this module involves several tutors, we will also discuss how a focus group revealed a change of attitude towards using technology to enhance learning and teaching. In addition, we will also outline our research into porting some of the good practice which our initial implementation highlighted to an interactive online classroom environment.

Caldwell, J. E. 2007. *Clickers in the large classroom: current research and best-practice tips.* CBE—Life Sci. Educ. 7, 9-20

Chickering, A. W., & Gamson, Z. 1987. *Seven principles for good practice in undergraduate education.* AAHE Bulletin, 40.7., 3-7.

Markett, C., Arnedillo Sánchez, I., Weber, S., & Tangney, B. 2004. *"PLS Turn UR Mobile On": Short message service .SMS. supporting interactivity in the classroom.* In Kinshuk, Demetrios G. Sampson, & Pedro Isaias .Eds.., Cognition and exploratory learning in digital age .pp. 491-494.. Lisbon: International Association for Development of the Information Society.

Preszler, R., Dawe, A., Shuster, C. B., and Shuster, M. 2007. *Assessment of the effects of student response systems on student learning and attitudes over a broad range of biology courses.* CBE Life Sci. Educ. 6, 29–41.

Scornavacca, E., Marshall, S. 2007. *TXT-2-LRN: improving students' learning experience in the classroom through interactive SMS,* Proceedings of the 40th Annual Hawaii International Conference on System Sciences, p.5, January 03-06, 2007

Why waste a good crisis? Delivering an exclusively online international academic conference

Terese Bird, Simon Kear, Richard Mobbs, Emma Davies | University of Leicester, Leicester, United Kingdom

Between 7 and 14 January 2010, the University of Leicester's Beyond Distance Research Alliance hosted the Learning Futures Festival Online 2010, an exclusively online academic conference on the topic of learning futures. This conference was an online gathering of a community of practitioners of the type described by Mobbs and Dence.

This paper will describe how Beyond Distance put the conference together and, by making the case that an online academic conference is an advantageous alternative to the traditional face-to-face conference, offer a template for others to follow.

Early in 2009, Beyond Distance decided that, due to the economic downturn, its next annual conference would be held completely online. In keeping with the department's innovative philosophy, it was further decided to use the opportunity to explore and implement the advantages of an online conference.

These advantages include the ability to: invite more participants from further afield; hold a longer conference (no room bookings to pay for); invite more keynote speakers, and from further afield; invite more paper presenters, thereby maximising academic input and impact; attract very busy participants (no travel required); record all parts of the conference; and give participants more direct access to speakers and to each other.

The conference was a success by virtually every measure: participants from 22 countries enjoyed 8 keynote speakers, 24 papers, 14 workshops (synchronous and asynchronous), and 16 Second Life sessions – over 50 hours of live conferencing. Although there were some client-side issues running the conference software, the obvious problem with time zones and delegates trying to "attend" a conference during the working day, the attendees' feedback (spontaneous, Twitter tweets, and our own post-conference survey data) was very positive, and there was evidence of excellent participant networking. The conference even made a modest profit.

Lessons learned included the importance of: carrying out a suitable risk analysis; informing relevant University services in good time; adequate preparation of the speakers in the use of the software; and – not surprisingly – adapting as situations arise during the conference itself.

Mobbs, R. and Dence, R. '*Perspectives on the nature of communities and their needs – conceptualising and researching potential wiki use at UoL',* Beyond Distance Research Alliance Working Paper 2007/ 01. Available at *https://lra.le.ac.uk/handle/2381/4402*

DAT's the way to do it? Medical students and Learning Technologists working together at Peninsula Medical School

Sally Holden, Russell O'Brien, Zac Gribble, Paul Russell, Carmen Mallett, Robin Oswald | Peninsula College of Medicine and Dentistry, Plymouth, Devon, United Kingdom

The student selected component of Peninsula Medical School's (PMS) innovative curriculum covers a wide and diverse 'portfolio' of Special Study Units (SSUs). This allows students to self-select areas of study across various curriculum themes that represent the breadth and diversity of modern healthcare. The GMC in their document Tomorrow's Doctor's (2003) recommended that as much as 33% of the undergraduate curriculum comprises the student selected options. PMS more than realises this vision.

A key SSU is the Doctor as Teacher (DAT) SSU which helps students understand the importance of doctors as teachers and life-long learners, in both clinical and non clinical contexts.

In 2009 the eLearning support group (else) delivered guidance, advice and online resources as part of students' DAT induction. This initial contact has led to collaborative (student: eLSG) development of two Reusable Learning Objects to be accessed through their eResources Gateway. The design and development process is proving to be of mutual benefit to all including the students' recognition of their future responsibilities as teachers and resource developers.

This short paper considers issues arising from the development of eResources with such a high level of end-user engagement. These include copyright, quality, plagiarism, design principles, educational theories, reusability, evaluation and ethics.

0221 Short paper | **Theme:** One | **Session:** Changing pedagogy

Discovering and developing communities of e-learning practice

Peter Maloney[1] | [1]Chelsea College of Art and Design, London, United Kingdom, University of the Arts London, London, United Kingdom

This short paper reports on a one-year teaching fellowship undertaken at The University of the Arts London. There are two elements to the fellowship. The first is to explore the range of e-learning implementations across the five constituent colleges that make up the institution. The second is to consider the development of a community of e-learning practitioners across the dispersed sites of the University using the theories of Communities of Practice by Wenger (1998) and Wenger, McDermott and Snyder (2002). The fellowship to date has uncovered a range of innovative approaches to e-learning practice across a range of disciplines in Art and Design at both undergraduate and postgraduate level. The focus of the initial study is on implementations that foster collaboration, cross-disciplinary practice and community to effectively enhance learning using both blended and online approaches, such as blogs, wikis and the development of open software tools.

The paper will present case studies from Fine Art, Digital Arts, Graphic Design, Fashion and Photography at both undergraduate and post graduate level. These will detail both student and staff initiated implementations and will discuss their responses in terms of the changing roles and expectations in relation to existing pedagogic research.

The aim of the initial survey is to collate the range of practice and to document it as an online resource to act as an initial focus to bring together a community of practitioners with an existing and emerging commitment to these implementations. The paper will report on the process of designing an online resource to both document existing practices and to encourage the development of a community of e-learning practitioners through support, collaboration, dialogue and the sharing of experiences.

Wenger, E. 1998. *Communities of practice: learning, meaning, and identity.* New York: Cambridge University Press.

Wenger, E. McDermott R., Snyder W. 2002. *Cultivating communities of practice: a guide to managing knowledge.* Harvard Business School Press.

Web-based collaboration in Higher Education: small steps towards adoption

Tim Neumann[1], Caroline Bell[2], David Flanders[3], Kit Logan[1], Sarah Sherman[2], Nick Short[2], Kim Whittlestone[2] | [1]Institute of Education, University of London, London, United Kingdom, [2]Royal Veterinary College, London, United Kingdom, [3]JISC, London, United Kingdom

This paper reports on the early adoption phase of Google Docs as a web-based collaborative tool across six institutions in a concerted effort. The adoption approach was based on a custom framework in order to focus on users and their actual needs, and the adoption was driven by a small project team as opposed to institutional managers. This study therefore reports on suitability and value of the custom framework and on issues of innovation adoption originating from the institutional periphery.

Users were reporting a high satisfaction with the tool, and findings show that the use of the tool enhanced collaboration significantly, in turn improving the quality of student learning. The main concern of this paper, though, is the evaluation of the custom adoption framework. This framework is based on the idea of not overwhelming users by introducing small, gradual steps with a technological innovation that is appropriate for their needs. Based on a review of existing adoption models, we attempted to address common issues of individual-based adoption models in our given context.

Overall, the framework was successful but needs adaptation. Concepts such as technological gaps do not always align to user perceptions. With some suggested adaptations, though, this framework can be used in similar scenarios.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

Guerilla narratives of personal media creation, public media sharing: a 21st century show and tell

Helen Keegan[1], Frances Bell[1], Josie Fraser[1], James Clay[1] | [1]University of Salford, Salford, United Kingdom, [2]josiefraser.com, Leicester, United Kingdom, [3]Gloucestershire College, Gloucester, United Kingdom

Mobile devices in educational settings are powerful tools for supporting and recording learning, but have had mixed reactions from students. Some students see educational media such as podcasts as an intrusion into their personal use of technology; others who are given standard mobile devices for a project don't relate to them as 'personal' devices. Staff wishing to harness mobile learning technologies in their productive engagement with students can get distracted by the provision of technologies rather than focusing on learning outcomes.

This practical workshop will introduce participants to a range of ideas for using personal technologies to enhance the teaching and learning experience through student-generated content production and geo-location services. The emphasis is on pragmatic and resourceful practice by students and staff in using platform-agnostic media and services to support the learning process. Participants will be introduced to new narratives using the mobile phone as a tool for data recording, media production and content sharing, and emerging web services as means of aggregating content from multiple platforms. Geo-location services will be introduced from the perspective of using hyper-local mobile phone applications in education, in order to give participants an idea of how these techniques could be used more widely in a learning context.

Taking a 'guerilla narrative' approach to rapid learning design, participants will then work in groups to produce learning activities which take advantage of the devices in students' pockets. Each group will produce 3 'snapshot' ideas – audio, image and video – for using mobile technologies in the classroom. Using their own mobile phones participants will record their snapshots/ learning activities, producing media artefacts which can then be uploaded and shared with the wider community via the session wiki. By the end of the session participants will:

- have developed a conceptual understanding of a 'guerilla EdTech' approach to activity design;
- be able to upload media from internet mobile devices to web sites, including geo-location services;
- have acquired a range of sample media artefacts and learning activities for their students.

De Souza E Silva, A. and Hjorth, L. 2009. *Playful Urban Spaces.* Simul. Gaming 40, 5 (Oct. 2009), 602-625.

Casey, S., Kirman, B., and Rowland, D. 2007. *The gopher game: a social, mobile, locative game with user generated content and peer review.* In Proceedings of the international Conference on Advances in Computer Entertainment Technology (Salzburg, Austria, June 13 - 15, 2007). ACE '07, vol. 203. ACM, New York, NY, 9-16.

0225 Poster | **Theme:** One

Open Educational Resources – a force for change

Tracey Madden | UK Physical Sciences Centre, Hull, United Kingdom

Skills for Scientists was a project within the Academy/ JISC funded Open Education Resources (OER) Programme, comprising over twenty project members from over fifteen universities, and two professional bodies, collectively exploring the work involved in turning learning and teaching resources into OER and using this to support the wider community to do likewise.

The project tracked the project members, all with differing levels of experience, as they took learning and teaching resources and used them to produce OER. As well as seeing the practical challenges this work brought, we also saw how this work could be a catalyst to change, bringing the issue of open education and related topics (e.g. IPR, accessibility) to colleagues, a department or a whole institution, raising its awareness, highlighting opportunity and promoting change.

The poster will focus on a diagram of the process whereby a learning and teaching resource becomes an OER, indicating the points of interaction between the individual academic and other agencies, e.g. their university or professional body, the issues that are raised along the way and the potential benefits beyond the OER itself.

The project has resulted in our being able to produce high practical guidance on the production of OER for anyone regardless of previous experience based on our in-depth study of the work undertaken by our project partners to produce OER. The work has highlighted what are potential barriers to becoming involved with the production and sharing of OER, either on an individual or institutional level, but also the potential benefits and the change that can and has taken place.

Being involved in OER for an individual academic can have consequences beyond the project itself to one's whole academic practice. Having individual staff involved in OER within an institution (university or professional body) can stimulate change within other staff members or a whole institution.

'Your answer was not quite correct, try again': making online assessment and feedback work for learners

Sally Jordan[1], Phil Butcher[1], Sarah Knight[2], Ros Smith[3] | [1]The Open University, Milton Keynes, United Kingdom, [2]JISC, Bristol, United Kingdom, [3]GPI Solutions, Gloucestershire, United Kingdom

The search for new markets and sources of funding means that more academic institutions will be exploring partial or entire delivery of courses online or exploring the potential of technology to enable more efficient methods of assessment. Larger group sizes and the drive towards globalisation are additional drivers behind the search for effective new approaches. But how skilled are course designers in generating online assessments that will both measure and prompt deeper learning?

Online assessments that rely on multiple-choice or multiple-response questions test the extent of learners' knowledge, but may fail to assist them in taking the next step towards deeper understanding. Moreover, for many, there is an inherent conflict between the constraints of online assessment tools and the pedagogic role of assessment as a meaningful interaction between the learner and the course objectives.

This demonstration will illustrate some of the design features that can make interactive computer-marked assignments (iCMAs) a powerful aid to learning. At the UK Open University, iCMAs are being used widely to help adult distance-learners to select their next choice of course and to complement more traditional forms of assessment. Work done in the Centre for Open Learning of Mathematics, Science, Computing and Technology (COLMSCT) has increased the richness of question types that are available. For example, the level 1 module 'Exploring science', studied by around 4000 students per year, now includes iCMA questions requiring students to enter their answer as a free-text phrase or sentence of up to 20 words. Students are given three attempts at each question, with increasing feedback.

A range of iCMA question types will be demonstrated, in the context of their diagnostic, formative and summative use in 'Exploring Science'. In addition, the open source software used to provide answer matching rules for short-answer free text questions will be demonstrated, giving participants the opportunity to consider how they might use similar technologies and learning design in their own practice.

The work demonstrated forms one case study in the newly launched JISC publication 'Effective Assessment in a Digital Age'. Copies of the publication will be available.

Embedding innovative ways of working in learning and teaching: implications for staff and organisations

Diane McDonald[1], Donna Cullen[1], Lesley Gourlay[2] | [1]University of Strathclyde, Glasgow, United Kingdom, [2]SEDA, UK, United Kingdom

For many educators, emerging technologies such as Web 2.0 are inspiring, offering new opportunities and better ways of supporting development of independent learners. However, for others emerging technologies challenge both their digital competency and their cognitive approach, roles, relationships and core ethos as an educator. For example, effective use of Web 2.0 technologies requires a cognitive shift from using information as a primary resource to embracing social network approaches. Lack of appreciation of this cognitive shift is exacerbating digital literacy divides amongst educators. Further, where not effectively supported and managed, introduction of such technologies into the learning experience can lead to poor educational experiences and disenfranchised staff, impacting institutional effectiveness and reputation. The adoption of emerging technologies and associated innovative practices into the educational experience therefore present challenges to institutions as well as individual academics.

Many of the challenges, especially relating to digital literacies of students and staff, eLearning support and change management are well known. However, these issues are still not adequately addressed nor are solutions effectively embedded across the sector. A key factor has been the failure to adopt a sufficiently holistic approach, which takes into account organisational and staff development and their interdependencies (McDonald, Cullen and Comrie 2009). Add to this the need to support educators in adopting cognitively different approaches and it is clear a new, arguably transformative, approach that encompasses professional and organisational development is required.

This paper provides an overview of an innovative approach to professional and organisational development adopted by the JISC Embedding Work-with-IT project, which partnered with professional bodies such as SEDA, HEA and the Leadership Foundation. The approach draws on activity theory, to develop a professional and organisational development support framework and toolkit which applies social constructivism and action learning techniques to help institutional managers, staff and educational developers and academic and support staff to understand, assess the implications of, implement, and embed innovative technology-enhanced working practices. The paper will:

- critically discuss the issues involved in successful embedding of this kind;
- introduce the Framework and associated theoretical background;
- stimulate reflection on appropriate organisation development approaches.

McDonald, D, Donna Cullen, D and Comrie, A. 2009. *Final report of Work-with-IT:* JISC Study into Evolution of Working Practices. JISC.

0229 Proceedings paper | **Theme:** One | **Session:** More Changing pedagogy

Out there and in here: design for blended scientific inquiry learning

Anne Adams, Sarah Davies, Trevor Collins, Yvonne Rogers | Open University, Milton Keynes, United Kingdom

One of the benefits of mobile technologies is to combine 'the digital' (e.g., data, information, photos) with 'field' experiences in novel ways that are contextualized by people's current located activities. However, often cost, mobility disabilities and time exclude students from engaging in such peripatetic experiences. The Out There and In Here project, is exploring a combination of mobile and tabletop technologies in support for collaborative learning. A system is being developed for synchronous collaboration between geology students in the field and peers at an indoor location. The overarching goal of this research is to develop technologies that support people working together in a suitable manner for their locations. There are two OTIH project research threads; the first deals with disabled learner access issues, these complex issues are being reviewed in subsequent evaluations and publications. This paper will deal with issues of technology supported learning design for remote and co-located science learners. Several stakeholder evaluations and two field trials have reviewed two research questions:

1. What will enhance the learning experience for those in the field and laboratory?
2. How can learning trajectories and appropriate technologies be designed to support equitable co-located and remote learning collaboration?

This paper focuses on describing the iterative linked development of technologies and scientific inquiry pedagogy. Two stages within the research project are presented. The 1st stage details several pilot studies over 3 years with 21 student participants in synchronous collaborations with traditional technology and pedagogical models. Findings revealed that this was an engaging and useful experience although issues of equity in collaboration needed further research. The 2nd stage, in this project, has been to evaluate data from over 25 stakeholders (academics, learning and technology designers) to develop pervasive ambient technological solutions supporting orchestration of mixed levels of pedagogy (i.e. synthesis to specific

investigation). Middleware between tabletop 'surface' technologies and mobile devices are being designed with Microsoft and OOKL (a mobile software company) to support these developments. Initial findings reveal issues around equity, ownership and professional identity.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

A Second Life pilot in two online M-level programmes

Gabi Witthaus, Alejandro Armellini, Kelly Barklamb | University of Leicester, Leicester, United Kingdom

This paper reports on two Second Life (SL) interventions that were conducted in Masters' programmes at the University of Leicester, as part of a JISC-sponsored project by the Beyond Distance Research Alliance (BDRA). The aim was to find ways to enhance the delivery of the curriculum for work-based, distance learners.

For the first intervention, BDRA piloted a component of the Computer-Assisted Language Learning module on the Online TESOL and Applied Linguistics programme. (For an example of the use of SL in language teaching, see Edwards et al., 2008). Four students engaged in a series of e-tivities in which they observed classes at a language teaching school in SL, and reflected on their observations. The e-tivities were designed following Salmon's (2002) five-stage model, and involved a combination of asynchronous discussions on Blackboard, two optional synchronous training sessions in SL, and individual visits to SL.

For the second intervention, the Occupational Psychology (OP) Course Team explored the possible benefits of using SL in helping students to acquire skills and knowledge by providing access to simulated work environments. (For examples of educational uses of simulated environments in SL, see Boulos et al., 2007; Hudson and deGast-Kennedy, 2009.) This paper reports on the case study of a simulated evacuation of an oil rig that was developed in SL, to allow students to take part in activities that they may later be required to carry out as practising Occupational Psychologists, such as planning work and developing training programmes.

Preliminary findings show that it is possible to create very flexible and cost-effective learning experiences using the affordances of SL. Used with well-structured tasks, and in combination with an asynchronous discussion forum, SL can add a useful dimension to distance courses. In addition, although the studies only attracted small numbers of volunteers, there were high levels of commitment and enthusiasm from those who completed the activities. Further findings, including an indication of the perceived value added by SL in distance education, the reasons for the low take-up rate, and challenges and possible implications for future educational interventions using virtual worlds, will be discussed in the presentation.

Boulos, M.N., Hetherington, L. and Wheeler, S. 2007. *Second Life: an overview of the potential of 3-D virtual worlds in medical and health education.* Health Information and Libraries Journal, 24, 233-245.

Edwards, P., Dominguez, E. & Rico, M. 2008. *A second look at Second Life: Virtual role-play as a motivational factor in higher education.* In K. McFerrin et al. (Eds.), Proceedings of the Society for Information Technology and Teacher Education International Conference 2008, 19(4) (pp. 2566-2571). Chesapeake, VA: AACE.

Hudson, K. and deGast-Kenndy. 2009. *Canadian Border Simulation at Loyalist College.* Journal of Virtual Worlds Research, 2(1). Accessed online May 14 2010, from *http://jvwresearch.org/index.php?_cms=1249023516*

Salmon, G. 2002 *E-tivities: The Key to On-Line Learning.* London and New York: Routledge.

0231 Short paper | **Theme:** Five | **Session:** Friend or Folio

Tutors' early experiences of an e-portfolio system and their perceptions of the benefits to learners

Emma Heron, Sue Bamford, Richard McCarter | Sheffield Hallam University, Sheffield, United Kingdom

The focus of this short paper is to present a number of findings from a pilot study on the use of e-portfolios to support student learning in selected subject areas of the Faculty of Development and Society (FDS) at Sheffield Hallam University. The findings represent an evaluation of eleven tutors' experiences, which were captured in semi-structured interviews, lasting between 30 and 60 minutes. The interviews were undertaken in June and July 2009. The tutors were interviewed from the following subject areas within FDS: Sociology, Politics, Psychology, Education and CPD and Urban Regional Studies. Those interviewed represent module leaders and supporting tutors at all levels (4, 5, 6 & 7).

The evaluation provides an insight into some of the teaching practices of staff using the PebblePad e-portfolio application within FDS and creates a voice for staff views about how, and if, this portfolio application enables tutors to teach the things they want in the ways that they find appropriate. The evaluation explores tutors' views about the students' learning experience of using e-portfolios, highlighting areas where the processes could be changed and engagement improved.

Three distinct tutor/ practitioner groups emerged from the evaluation; Advocates (keen to advance the use of PebblePad and practice), Emerging Practitioners (those who realise the potential and possibilities but who need extra confidence to utilise PebblePad more fully) and finally Reluctant Practitioners (whose negative views about PebblePad outweigh the positive). The results also show that there are a number of interlinks between students studying both non-vocational and vocational courses and the need for tutors to be clear about the purpose of the portfolio of work.

As a pilot study, the findings suggest that:

- E-portfolios need to be embedded more into the teaching & learning culture if it is to be seen by students and staff as being a meaningful tool;
- If embedded, e-portfolios add value to the student experience;
- There is a need for staff development and training opportunities for both current users as well as new staff wishing to embed the use of e-portfolios their courses.

Botterill, M., Allan, G. & Brooks, S. 2008. B*uilding community: Introducing ePortfolios in university education* In Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008. *http://www.ascilite.org.au/conferences/melbourne08/procs/botterill-poster.pdf*

Stefani, L. Mason, R. and Pegler, C. 2007 *The educational potential of e-portfolios.* Routledge, London and New York

0234 Short paper | **Theme:** Four | **Session:** Meeting expectations by curriculum development

Collaboration through Google Apps

Emma Duke-Williams, Emily Bennett, Susan Gibbs | University of Portsmouth, Portsmouth, United Kingdom

Since October 2009, students at the University of Portsmouth have had access to Google Apps. Initially, this was promoted as a replacement email system, with Docs/ Sites being an added bonus. However, a number of staff, many of whom had already been using Google Docs or Sites with students, realised that there was now a powerful tool that could be used with students to encourage a much greater range of activities, in particular those that foster collaboration.

While these tools have been used with several different groups across the University, we focus initially on one project in particular that is using Google Apps to tackle the issue of making assessments 'realistic' or 'authentic'. This is a unit called 'Disability and Stigma in Education', taken by Education and Sociology undergraduates.

Previously students have had an essay for their coursework. To try to make this a more "real" assessment, students have been asked create a website using Google Sites, in pairs. Their websites aim to raise awareness of the issues faced by disabled students amongst education professionals. Each pair is allocated a target audience and disability, for example, 'secondary school teachers supporting visually impaired pupils'. Crucially, a requirement of their coursework is that students consider accessibility and ensure that their website can be used by people with a range of disabilities. This provides students with valuable practical and real-life experience of meeting the needs of people with disabilities. This is emphasised further by the fact that this unit is popular with students who have disabilities; this year one hearing impaired and two partially sighted students are taking the unit. The websites were shared and assessed during an in-class presentation, and they will be published as part of a 'Special Educational Needs' website.

We have gathered feedback from both students and lecturers, which was generally positive, though there were some issues. Google Apps has also been used with other students round the University, from whom we have feedback, and we shall contrast the experiences of different groups of students.

Can student use of Flip camcorders enhance learning with large cohorts?

Elisabeth Dunne, Laura Taylor, Dale Potter, Jennifer Wren, Karen Leslie | University of Exeter, Exeter, United Kingdom

The presentation will address the challenge of how students in large, diverse classes can become effectively engaged in their learning through the support of Flip camcorders. It will describe two phases in the implementation of a first year module (Theory of Management) in the University of Exeter Business School wherein a total of 440 students, half of whom are international, have been involved in using Flip camcorders to video their own group presentations, and to watch and learn from the videoed presentations of others. Aspects of the processes of using Flip camcorders, including difficulties with the technology and with the organisation of student recording and uploading, will be highlighted.

Methods of data collection and student outcomes and perceptions will be discussed, along with the potential of using a small number of students to take a leadership role in the management of Flip camcorder use.

The main benefits – in terms of attendance, group cohesion and quality of work - will be discussed in the context of supporting large international cohorts. Overall, the presentation will allow the audience to be better informed on what works well and on the kinds of problem that might be met in implementing this technology.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0236 Poster | **Theme:** Five

Are you on-board with Open Educational Resources?

Chris Taylor, Terry McAndrew | Centre for Bioscience, Higher Education Academy, West Yorkshire, United Kingdom

The Open Educational Resources initiative has been identified as a means to reduce barriers for efficient, effective sharing and further development of educational resources; but will it work? Is it realistic? Is it possible to change academic culture to work more effectively to produce suites of learning materials which can be further developed? Are learning technologists left to the mercy of the currents and not at the helm?

The UK Centre for Bioscience Open Educational Resources pilot project is a subject-strand project specifically designed to find the barriers and opportunities for Open Educational Resources in the bioscience disciplines, while providing a pragmatic solution to the lack of materials in many common themes taught in practical modules. These subject-strand projects will be completed by April 2010. Potential users are not making best use of repositories of materials. Neither are the producers.

Our project has identified organisational, technical and social barriers which can be reduced and lead to more effective solutions by working in conjunction with appropriate repositories by adopting new strategies. This poster will identify the main issues raised through working with 10 institutions to create and publish OER. By selecting a deliberately diverse range of resource types specifically designed to enhance students development of practical skills in the biosciences we have identified:

- the real barriers to developing Open Educational Resources in the current academic culture;
- where the support structures need to make changes to enable the community to become involved; and
- seven 'radical' proposals to enable a 'sea-change' to come about.

We will propose ways to improve the re-usability of educational resource, raise the profile of the developer(s) and their institution, raise the profile of their discipline, increase uptake and adoption of the existing materials, and help form communities that can support each other in their use. Further advantages include an increase in relevant skills, better discipline-based networking and awareness, and an improved role for learning technologists.

0241 Poster | **Theme:** One

Harnessing a quickly shifting tide – a case study of supporting staff in pedagogical change through digital video

Mary Jacob | Aberystwyth University, Aberystwyth, United Kingdom

The author's institution, like most others, is experiencing exceptional tidal variation with rapid change in the technological environment and funding climate. In order to support innovation in teaching with technology, the E-learning Team must not only ride the tide but harness its power in order to do more with less. This poster provides a case study demonstrating how responding to changing needs rapidly and flexibly allowed an institution to promote widespread good practice without an excessive cost outlay. The example given is the use of Flip digital camcorders.

This poster will present a visual depiction of the dramatic uptake of digital video in teaching in less than a year together with the mechanisms that made this possible. Examples of video clips created by students and tutors as well as online support material will be shown on a laptop computer, while the institutional expert on digital video pedagogy will explain the support processes that enable staff to use the technology effectively. A handout will detail the range of actions taken.

This poster identifies key factors contributing to the dramatic uptake. The Flip camcorder is a small mobile device, simple and easy to use even for staff who are not especially tech-savvy. The cost is low enough not to be a barrier. A tool itself, however, is insufficient. For meaningful and widespread pedagogical change it is necessary to be aware of what students need; to be flexible enough to adapt to that need and to act quickly to support it. The E-learning Team recognised that the 'YouTube Generation' is accustomed to the idea of self-created video and responded when staff expressed their students' desire for visual learning. Institutional processes, including Gwella funding, enabled the team to act quickly to put both promotion and support for the use of digital media into place. This was only possible with the support of senior management through streamlined and integrated processes.

The team uses technology to leverage pedagogical change, encouraging reflective practice and student-centred, active learning. It is hoped that other institutions will benefit from this model when examining policy and practice.

'The tide is turning': approaches to learning environment evaluation

Susannah Quinsee[2], Carol Higgison[1], Maureen Readle[1], Mark Gamble[3], Richard Walker[4] | [1]University of Bradford, Bradford, United Kingdom, [2]City University London, London, United Kingdom, [3]University of Bedfordshire, Bedfordshire, United Kingdom, [4]University of York, York, United Kingdom

This session explores and debates the effectiveness of different approaches undertaken by UK HEIs to reviewing and evaluating the 'fitness for purpose' of their institutional VLEs. It is estimated that around 30 UK HEIs are undergoing or about to undergo a wide scale evaluation of their VLE and/ or other learning technologies. LERSIG (the ALT Learning Environment Review Special Interest Group) and HeLF (the Heads of E-Learning Forum) are promoting a joined up approach to this activity. Panel members from four HEIs will outline the drivers prompting their evaluations and the methodologies used to engage their institutions in the evaluation process, comparing and debating approaches and contrasting outcomes.

Institutions undertake learning environment reviews for different reasons. Institutional culture and circumstance lead to different drivers and each institution will approach this activity in a unique manner. However, the experiences in undertaking such an evaluation leads to a series of lessons learnt that can be invaluable to other institutions.

In this session four HEIS at different stages of their reviews will explore the following issues:

- Drivers promoting the review including scope and strategic fit
- Methodology approached
- Leadership challenges
- Stakeholder engagement
- Lessons learnt
- Next steps

The session will enable participants to question panel members on the rationale behind the adoption of particular methods and activities, debate the benefits and appropriateness of different approaches and provide ideas and support for planning their own evaluations.

Participants will have the opportunity to learn from colleagues who may be at different stages in the process. They will be exposed to a range of ideas and approaches and be given practical examples of how to apply these in their own institutions. Leadership and management issues will be explored in relation to strategic approach and the session will enable participants to engage in a network of colleagues facing similar challenges, to learn from one another and collaborate on formulating and identifying effective evaluation methods, approaches and processes.

0243 Short paper | **Theme:** Four | **Session:** Meeting expectations by curriculum development

Learning activity, coordination and curriculum design: some insights from emerging disciplines

Damien Markey, Adam Isherwood | University of Bolton, Bolton, United Kingdom

As University curricula seek to keep pace with fast emerging professional areas, courses are emerging whose offer to learners is based around innovative activity designs rather than the repackaging of traditional learning content. This shift, we argue, puts a new spotlight on the role of activity in learning. We argue that critical thinking about activity unites deep thinking about knowledge with more 'prosaic' issues relating to student motivation and retention. From a technological perspective, focus on activity is consistent with learning activity coordination technologies (for example, technologies based around IMS Learning Design), and with recent work on AJAX technologies (for example, the Wookie Widget Server). Our critical inquiry sheds new light on the relevance of these technologies.

As a case-study, we consider the emerging domain of 'Special Effects production'. Learners on the University of Bolton's Special Effects degree course work in teams based around multi skilled, mixed experience production groups where there is an inbuilt opportunity to learn from observation of more experienced artists on working productions. The course demonstrates high student retention and motivation, often from students who might be considered 'at risk' of dropping-out of traditional courses. Activity, we argue, plays a key role in providing a context both for this enthusiastic engagement, and the vicarious learning that characterises much of the educational experience.

Through the design and development of a variety of online image based peer review and feedback activities, utilising a combination of widgets integrated with the VLE and other technologies related to Learning Design, we draw attention to the ways in which technology allows off-site experts to support teachers as mentors to individual students. Through combining specific 'Special Effects' activities with widget-based reflective activities a context has been created where learners have produced a visual journey of their development with mentors offering assistance/development support online.

In conclusion, we argue that activity design – at least for special effects courses, but probably in other domains too – concerns the creation of an online context within which meaningful learning communications become more probable. Given this insight, the pedagogical significance of Learning Design can be articulated more clearly.

0244 Short paper | **Theme:** Five | **Session:** Institutional design

Captain, Navigator, Surgeon and Cook: balancing leadership and support in educational change management – a case study from legal education

Jonathan Powles, Aliya Steed | Australian National University, ACT, Australia

Recently, the fully-online Graduate Diploma in Legal Practice at the Australian National University underwent a major transformation. The curriculum was restructured; the fundamental learning paradigm was shifted from individual, essentially transmission-based learning to group-based transactional and simulated learning; and there was a dramatic overhaul of the online technologies used to teach students distributed all over Australia and often, overseas. Integrating a simulation-based approach to professional learning required a significant shift in philosophy, as well as practical changes, which affected almost every staff member in the organisation. The implementation of this new degree was achieved in under a year.

Achieving educational change at this 'program' level required complex and clearly articulated management structures. Vital to the project was the development of a shared vision, co-ordinated action and communication, and management of the inevitable tension and disruption that accompanies change. A crucial part of the management process was articulating and reinforcing the role of the team of educational design and project management staff, none of whom were subject specialists and the way in which this team was able to work both alongside but also as part of the leadership to translate the vision of simulation learning into a practical reality.

The paper will reflect on this experience and address the fundamental leadership question that arose: How must leadership, academic and support staff work together to create change? The paper will draw on concepts from the extant literature on managing educational change in both traditional (e.g. Ramsden) and emerging (e.g. Salmon, Bates) contexts. The nature of the categories 'leadership', 'academic' and 'support' may not even remain consistent with traditional work roles; perhaps new structures and roles are required to support staff through major change, and to support the ongoing delivery of experiential, simulation-based and transactional learning.

Finding my way...

Flea Palmer | University of Plymouth, Plymouth, United Kingdom

Despite many students having grown up surrounded by technology, the web to them is still fairly unchartered territory. Yes, there are pretty lights (camera and action!) as anyone can be an author, director, entertainer and/ or critic...but they are often not aware of the 'dark side'...the 'footprints' they leave behind; they're naive about what they're saying to whom; are unknowingly vulnerable to attack.

Increasing numbers of students use social networking sites to share personal information, websites to shop and enjoy online banking. As Higher Education facilitates personal development planning (Dearing, 1997 & Burgess, 2007 Reports), we are encouraging them to further build their online identity." We are commited to develop graduates who are readily employable, and well-equipped, through direct work experience or volunteering, for lifelong learning and the professional world and are ready to take their place as active, co-operative and responsible citizens in local and global society." The University of Plymouth's Teaching and Learning Strategy 2009 -2014.

In order to become active and responsible global citizens, students need to know how to interact within this new environment – become 'streetwise'. Placed in a diagram, these types of interaction divide into four strands: identity management (self-promotion, digital footprints), digital literacy, legal issues (copyright & IPR) and security. This diagram became the basis for developing 'myBrand', a collection of resources which aim to raise awareness and support students in these areas, with additional links to free Web 2.0 tools.

As a Learning Technologist, I'm involved with promoting the use of PebblePad to support PDP. I therefore created myBrand as a 'webfolio', demonstrating how PebblePad could be used. This year long project was the result of a Teaching Fellowship Award and is still very much in development at the time of writing. Like a lighthouse, it aims to illuminate some of the larger issues and provide some immediate guidance. Each area could be researched and developed much further in collaboration with experts.

0247 Symposium | **Theme:** Two | **Session:** Educational and Organisational benefits of the cloud

Educational and organisational benefits of the Cloud

Diane McDonald[1], Caroline Breslin[1], Archie MacDonald[1], Rob Bristow[2] | [1]University of Strathclyde, Glasgow, United Kingdom, [2]JISC, UK, United Kingdom, [3]University of Southampton, Southampton, United Kingdom

Cloud computing – where flexible cost-effective computing resources are delivered on-demand over the Internet by external service providers – is increasingly of interest to institutions as ICT budgets become more constrained as a result of the recent economic downturn. As a recent JISC survey illustrates, to date most use within the HE and FE sector relates to outsourcing of email provision (McDonald, Breslin and MacDonald 2010). However as the recent move by the Open University to Google Apps for Education illustrates, cloud services can also support academic performance. Cloud computing may also be directly harnessed to improve the learning experience. For example, institutions may contract with cloud suppliers to provide limited access to specialised software and applications that were previously too costly to be made available for teaching. Further, in a similar vein to open source software clouds like Drupal, open educational resource clouds which allow institutions or individuals to dynamically incorporate OERs could emerge. These cloud-based resources could be incorporated into institutional Virtual Learning Environments (VLEs) or along with cloud-based communication and collaboration tools into student-constructed Personal Learning Environments (PLEs). Thus cloud computing has the potential to affect delivery methods and potentially afford innovative dynamic educational services to learners.

Based on the findings of a cluster of JISC initiatives exploring cloud computing within HE and FE, this symposium will explore such possible scenarios for future use of cloud computing to support learning and teaching. Specific questions include:

- What range of educational and support services could cloud computing facilitate in future?
- What specific educational advantages might the cloud afford?
- What is the business case for using the cloud to support student learning?
- Is there a case for development of private academic sector educational cloud services?

This symposium will:

- introduce participants to the potential educational applications of cloud computing and how these might be employed to increase productivity and effectiveness whilst mitigating risk;
- give participants an overview of the legal, policy, organisational and technical issues involved in using cloud computing services within education;
- stimulate deeper reflection regarding appropriate educational applications of cloud computing.

McDonald, D, Breslin, C and MacDonald, A. 2010. *A review of the political, economic, social, legal and environmental implications of cloud computing for institutions.* JISC.

0248 Poster | **Theme:** Three

‘Open the pod bay doors, please, Hal’: narratives of crisis in managing e-learning

Jonathan Powles, Aliya Steed | Australian National University, ACT, Australia

The idea of ‘competing narratives’ is a central one in the contemporary literature on change management. Before any major change project within an organization there is likely to be significantly differing views on how, why and when to change, and, of course, whether to change at all. During the turbulent change process, different stakeholders report quite different perceptions even of what it is that is, in fact, occurring.

Afterward, competing perceptions remain as to what, if anything, has changed; and if it has, whether for better or for worse.

Allowing dissonant world-views and competing narratives to co-exist in a relationship of trust is a crucial component of effective change management, and this is as true of the education innovation and e-learning context as of any other (Boddy and Paton, 2003). Such circumstances are familiar anecdotally and in the professional experience of many who work with educational technology and change. They are also familiar in the literature surrounding change in higher education. For instance, Taylor (1999) identifies distinct types of 'academic tribes' – interest groups within universities. These tribes may be based around discipline, around academic/administrative divides, around managerial responsibility, or around educational values. Whatever their basis, the function of academic tribalism is to produce rifts, conflicts, and obstacles to change.

This paper explores five different 'narratives of crisis' which inform the politics surrounding e-learning in universities: the need to defend against external threat; the need to preserve academic standards and traditions; the privileged status of face-to-face interaction over that mediated by technology; the requirement to demonstrate efficiency and effectiveness of learning strategies; and the opportunities for design and creativity in learning afforded by new technologies. Each of these narratives has value in the dialogue of organizational change; but each, too, can be the source of blockage and entrenched conflict in the change management process. What then becomes important is the establishment of a genuine dialogue between narratives. 'Dialogue differs from the more common "discussion," which has its roots with "percussion" and "concussion," literally a heaving of ideas back and forth in a winner-takes-all competition.' (Senge 1990, 10)

Boddy, D and Paton, R. 2003. *Responding to competing narratives: lessons for project managers.* International Journal of Project Management. 22:225-233

Senge, P. 1990. *The fifth discipline: The art and practice of the learning organization.* Doubleday: New York

Taylor, P. 1999. *Making Sense of Academic Life: Academics, Universities and Change*. Open University Press.

A classification of Web 2.0 approaches: identifying the role of Twitter and other technologies in Higher Education

Guy Saward | University of Hertfordshire, Hatfield, United Kingdom

The exponential rise in the use of Web 2.0 technologies, as noted in JISC's report (2009), is part of the sea-change in the structure and use of the Internet that is the conference theme. Practitioners responding to these developments must rise to the challenge identified by JISC of being at the centre of developing new approaches. Early adopters are clearly engaged in this process, but new or established practitioners can struggle to develop knowledge, understanding of and competencies in the wide range of available technologies.

While criteria exist for the selection of specific products (e.g. accessibility), we are concerned with the selection of classes of technology. We present a classification of Web 2.0 technologies using communication and content as independent, orthogonal characteristics. This approach bypasses the perennial question of blogging versus wikis and goes beyond treating communication and content as opposite ends of a spectrum (Vrasidas, 2000) or considering which is 'king'. Our classification allows assessment and comparison of the relative merits of different technologies in order to assess their use in supporting particular learning activities, e.g. contrasting the use of blogs, with tumblogs or microblogging.

Our approach is currently being trialled with new lecturers as a method of making sense of available technology, whether a constructivist or objectivist approach is taken to learning design. Staff are asked to map technologies onto the classification scheme as a self-diagnostic/ awareness tool, before being asked to select technologies that may be suitable for a specific activity or to reinforce a particular characteristic of a

learning interaction. The latter can be used in conjunction with different educational frameworks, such as the Community of Inquiry model (Garrison, Anderson, and Archer, 2000) with its natural affordance with Web 2.0 socially generated content, or principles of good curriculum design. Follow-up is planned to investigate whether learners have benefited from an improved understanding by staff in the selection and use of technologies to support learners.

The intend outcome is to enable staff to address the question identified by JISC of the selection of Web 2.0 technology and pedagogy appropriate to the learning objectives being pursued.

JISC. 2009. *Committee of Inquiry into the Changing Learner Experience*. Higher Education in a Web 2.0 World

Vrasidas, C. 2000. *Constructivism Versus Objectivism: Implications for Interaction, Course Design, and Evaluation in Distance Education.* International Journal of Educational Telecommunications, 6 (4): 339-362.

Garrison, D. R., Anderson, T. Archer. W. 2000. *Critical inquiry in a text-based environment: Computer conferencing in higher education.* The Internet and Higher Education 2 (2–3): 1–19.

0250 Workshop | **Theme:** Two | **Session:** Justifying the costs of LT

Justifying the cost of learning technology: a workshop to develop the business case for investment

Caroline Breslin, Diane McDonald, David Nicol | University of Strathclyde, Glasgow, United Kingdom

The Further and Higher Education sectors continue to witness significant investment in ICT to support education. Investments can range from general developments in underlying ICT infrastructure to the ongoing support and maintenance of specialist eLearning applications.

Particularly in the current economic climate with an expected reduction in HE funding, it is becoming increasingly important for educational institutions to demonstrate value for money and to justify the costs of services. Expected improvements in learning may constitute a business case for new investments and it is prudent that future investment decisions are based on an informed understanding of the impact of prior investments.

The JISC-funded Benefits of Investment in ICT Landscape Study (BIILS) explored current evaluation practice within the educational sector via survey, interview and case study development, and investigated approaches used in other sectors. The main output was an Evaluation Toolkit (Breslin et al. 2008) designed to aid managers and practitioners in the sector to compare and contrast evaluation techniques that can be applied to inform decision making on appropriate approaches for different types of investment.

This workshop will draw on the BIILS work above as well as a range of other related work (e.g. Nicol and Coen 2003) in order to explore appropriate evaluation techniques which managers, policy-makers and practitioners in the field of learning technology can use to assess the costs and benefits of learning technology investments.

Participants will conduct a series of activities designed firstly to explore how the full costs of a particular learning technology can be identified. Secondly, how the full range of benefits afforded by a particular learning technology can be identified and their impact assessed, and thirdly how the realisation of particular benefits can be evaluated in practice; with a focus on how different types of benefit may have to be assessed and 'measured' using different evaluation techniques.

Skills and knowledge developed as a result of the workshop can be used practically in the educational field in a decision making context to develop and evaluate business cases for investment or to retrospectively evaluate investments already made.

Nicol, D. Coen, M. 2003. *A model for evaluating the institutional costs and benefits of ICT initiatives in teaching and learning in higher education.* Association for Learning Technology Journal 11.2: 46-60

Breslin, C., Coen, M., Nicol, D. and Cullen, D. 2008 *BIILS: Benefits of ICT Investment – Landscape Study.* An Evaluation Framework and Toolkit. University of Strathclyde, Glasgow.

Effective application of quality assurance procedures for technology-enhanced learning: a toolkit for practitioners.

Mark Gamble[1], Maria-Christiana Papaefthimiou[2], Harvey Mellar[3], Magdalena Jara[3], David O'Hare[4], Barbara Newland[5], Helen Barefoot[6], Judith Kuit[7], Eileen Webb[8] | [1]University of Bedfordshire, Bedfordshire, United Kingdom, [2]University of Reading, Reading, United Kingdom, [3]Institute of Education, London, United Kingdom, [4]University of Derby, Derby, United Kingdom, [5]Glasgow Caledonian University, Glasgow, United Kingdom, [6]University of Hertfordshire, Hertfordshire, United Kingdom, [7]Sunderland University, Sunderland, United Kingdom, [8]Teesside University, Teesside, United Kingdom

In the context of major changes in HE, including the increased use of the Internet, changing learner's expectations and an uncertain financial climate, HEIs are called on to provide effectiveness and productivity, whilst assuring and continually enhancing the quality of learning provision. The HE sector is moving towards a position where learning technology is increasingly pervasive and embedded within standard academic practice, yet the implementation of technology-enhanced learning (TEL) generates challenges for the application of Quality Assurance processes. Issues persist in both the understanding and the appropriateness of internal QA processes to support TEL, particularly the insufficient attention to the ways in which technology can enhance, rather than simply augment, teaching and learning. These issues can be exacerbated in transnational and distance learning programmes that may depend on core learning technologies for their delivery. The literature suggests that QA processes are often seen as bureaucratic and separate from enhancement activities, they are retrospective whereas enhancement is prospective and often they are separate activities.

This paper will present a practitioner's online toolkit for quality enhancement of TEL courses that is designed to provide active support for innovative curriculum design, placing emphasis on enhancement within quality assurance processes. It will provide information on the application of quality measures encouraging practitioners to take ownership of QA processes.

The online toolkit contains a range or resources that will be demonstrated during the session, including, among others, a series of downloadable case study examples showing how some UK HEIs have adapted quality assurance procedures in order to use them as tools to support the enhancement process.

This work builds on the development and delivery of the PREEL Workshops (Pathfinder Programme - Network project 'QA-QE in e-learning' 2008-09) and on recent sector consultation by the HEA funded QAQE in E-learning Special Interest Group.

0252 Short paper | **Theme:** Four | **Session:** Meeting needs by curriculum development

Scaleability and support: squaring the e-circle

Maggie Gale, Peter Radcliff | University of Derby, Derby, United Kingdom

The move towards the use of web technologies in teaching has led to the development of programmes and modules which are delivered entirely online. While this has real advantages in making HE more accessible there are inherent difficulties with online study, not least of which are the problems of isolation and attendant non-engagement and non-completion. The psychology team at the University of Derby have addressed these issues by designing a programme which places a heavy emphasis on collaborative learning including group assessment. The programme has a high enrolment of over 250 students from across the world. The programme team have addressed the challenges that such a student profile presents by attending to the design of the curriculum to encourage high quality student-to-student and student-to-staff communication, leading to a sense of cohort identity.

This strategy begins on entry to the programme where all students take part in a virtual Freshers week initiating their engagement with the technologies used in teaching and learning on the programme. This includes the requirement to engage in an asynchronous discussion chosen to promote partisan positions in which staff model the open communication style and supportive culture which facilitates collaborative working. A culture of mutual support is further promoted by the use of group activities in the early stages of the programme including assessed group wikis, collaborative empirical work, and tutor led group discussions further enhanced by online student meetings using synchronous audio/video software.

Although students are initially supported in the use of these technologies by academics and technologists, they move very quickly to an understanding of the potential of these tools to develop online friendship groups that promote good learning.

This paper discusses how careful design of the curriculum encourages high quality student-to-student and student-to-staff communication leading to a sense of cohort identity. We critically evaluate how students were able to exploit a range of technologies (blogs, discussion boards, Wimba classroom) to collaborate on an assessed group wiki to show how thoughtful use of technology can enhance the student experience, impact on retention rates and support good online teaching and learning.

0254 Short paper | **Theme:** Five | **Session:** Changing staff development

Riding the wave – keeping staff developers afloat in a sea of change (supporting staff development with the VLE)

Kirsten Thompson | University of Leeds, Leeds, United Kingdom

HEFCE's recently revised strategy for e-learning continues to emphasise the importance of technology enhanced learning within the higher education sector, with evidence suggesting that technology has the potential to positively transform education (HEFCE 2009). A blended approach to learning and teaching is currently the popular mode of delivery for higher education in the UK, and the use of institutional VLEs is the norm. Of course use of the VLE can extend beyond supporting learning and teaching provision; as staff developers hear of the successes their academic colleagues are experiencing with blended learning, they also want to harness the potential of the VLE to enhance and expand their own staff development provision, at a time when large cuts are being made to funding. The drivers for change in staff development are different to learning and teaching, as are the needs of staff developers and participants on non-assessed programmes of training, compared to faculty-based staff and students, so it is crucial to understand and acknowledge those different requirements.

This short paper reports on the work-in-progress of a small-scale action-research project, which aims to:

1. Identify the drivers for change: how to engage staff developers and course administrators with the VLE and blended staff development.
2. Enhance staff development and training provision by integrating the VLE into the re-design of existing programmes of training.
3. Bridge the gap between central VLE support services and the needs of staff developers by developing a departmental community-of-practice support model which can be adopted by others.
4. Lead by example: model the University Vision for Blended Learning.

The project addresses staff development programmes offered by a leadership and management development team (within a central staff development unit), where benefits to both participants and staff developers are being observed.

Early results indicate a support model specific to the needs of staff developers is required to make the transition of implementing blended staff development successful. So far the VLE is being positively embraced by staff developers within the team, and it is already being sought as a solution to expand and enhance provision beyond the training programmes identified at the outset.

Please see also a poster on this topic [ID number 0257]

HEFCE. 2009 *Enhancing learning and teaching through the use of technology.* A revised approach to HEFCE's strategy for e-learning.

Fresh, flashy and fun: the National Network for Interpreting online resources

Dragos Ciobanu, Svetlana Carsten, Catriona MacLeod, Tamara Bloom | University of Leeds, Leeds, United Kingdom

Despite the wide acknowledgement of the importance of language learning in today's world, the sea of online language resources has very few banks of interactive multimedia materials aimed at enthusing college students and university undergraduates to take up languages and consider the language services sector as a possible careers choice. The National Network for Interpreting (http://www.nationalnetworkforinterpreting.ac.uk/) is a UK project which has been producing extensive web packages combining multiple languages, audio and video recordings with online user-focused tasks. The aim of the project is to give teenagers a comprehensive insight into the work of professional interpreters and also have fun in the process. We will highlight how we have managed to achieve both these aims, together with the feedback we have received both from students and training organisations. Although we have used several media, rapid e-learning tools and complex authoring environments, technology is only as good as the design of the resource allows it to be. In our demonstration we will also highlight the workflows we have implemented in order to create our online resources which address a variety of topics in a variety of languages.

0256 Proceedings paper | **Theme:** One | **Session:** Learning environments

Hybrid professional learning networks for knowledge workers: educational theory inspiring new practices

Marlies Bitter-Rijpkema, Steven Verjans | CELSTEC, Open University (NL), Heerlen, Netherlands

Our presentation will focus on the key question how to support today's knowledge workers' learning as they are confronted with structural changes in their work and work related learning.

The question is how to address the specific learning needs of knowledge professionals. After all they are capable to find persons, knowledge and resources via Web 2.0 tools, using the connections in their web based personal networks.

After a short introduction we will first investigate whether the personal learning environment of a professional (PLE's) might serve his learning needs or whether a managed learning environment (MLE's), offering optimal learning support in a dedicated environment, matches the professionals learning needs.

Both options have crucial limitations to the highly contextualized teamwork of knowledge professionals. They provide too little or too specific guidance, offer a learning space too private or too public. In short they don't match with contextualized team learning. Hence the presentation concentrates on the characteristics of collaborative professional learning networks combining the best of both worlds. We show how hybrid learning networks surpass the limitations of PLE's and MLE's for knowledge workers and how they offer manageable open flexibility, connectivity and heuristic based learning strategies matching the professional' knowledge workers' needs.

Please see ALT's *Conference Proceedings* publication for the full version of this paper.

0257 Poster | **Theme:** Five

Riding the wave – keeping staff developers afloat in a sea of change (supporting staff development with the VLE)

Kirsten Thompson | University of Leeds, Leeds, United Kingdom

HEFCE's recently revised strategy for e-learning continues to emphasise the importance of technology enhanced learning within the higher education sector, with evidence suggesting that technology has the potential to positively transform education (HEFCE, 2009). A blended approach to learning and teaching is currently the popular mode of delivery for higher education in the UK, and the use of institutional VLEs are the norm. Of course use of the VLE can extend beyond supporting learning and teaching provision; as staff developers hear of the successes their academic colleagues are experiencing with blended learning, they also want to harness the potential of the VLE to enhance and expand their own staff development provision, at a time when large cuts are being made to funding. The drivers for change in staff development are different to learning and teaching, as are the needs of staff developers and participants on non-assessed programmes of training, compared to faculty-based staff and students, so it is crucial to understand and acknowledge those different requirements.

This poster reports on the work-in-progress of a small-scale action-research project, which aims to:

1. Identify the drivers for change: how to engage staff developers and course administrators with the VLE and blended staff development.
2. Enhance staff development and training provision by integrating the VLE into the re-design of existing programmes of training.

3. Bridge the gap between central VLE support services and the needs of staff developers by developing a departmental community-of-practice support model which can be adopted by others.
4. Lead by example: model the University Vision for Blended Learning.

The project addresses staff development programmes offered by a leadership and management development team (within a central staff development unit). Early results indicate a support model, specific to staff developer needs is required to make the transition of implementing blended staff development successful. So far the VLE is being positively embraced by staff developers within the team, and it is already being sought as a solution to expand and enhance provision beyond the training programmes identified at the outset. The poster will illustrate the support model and process of integrating the VLE.

Please see also a short paper presentation on this topic [ID number 0254]

HEFCE. 2009 *Enhancing learning and teaching through the use of technology.* A revised approach to HEFCE's strategy for e-learning.

What future for Open Educational Resources in UK Higher Education?

Jonathan Darby[1], Chris Pegler[1], Dawn Leeder[2], Tom Browne[3] | [1]The Open University, Milton Keynes, United Kingdom, [2]University of Cambridge, Cambridge, United Kingdom, [3]University of Exeter, Exeter, United Kingdom

Since MIT startled Higher Education by announcing in 2001 that it would be making all its courses available for free to the world, interest in Open Educational Resources (OERs) has grown. In the UK the Open University embarked on a similarly ambitious venture when it launched OpenLearn in 2006 – an initiative that not only made much of the OU's course content available for anyone to use but also provided social networking tools around the content enabling learners to work collaboratively with the resources.

In 2009 JISC, working in partnership with the HE Academy, launched the first part of what was planned to be a £25 million OER programme and HEFCE funded the national Support Centre for Open Resources in Education (SCORE). The JISC and HEFCE initiatives between them are aiming at bringing about a permanent change in attitudes and practice with respect to OERs in the HE sector, but is this realistic? This symposium will examine the case for and against sharing academic content. On the one hand, with the bulk of funding for HE coming from the public purse, it would seem self-evident that value for money will be secured by sharing content – indeed if the government has paid for it to be produced what right have HEIs to keep it to themselves? Much duplication of effort could be eliminated and the efficiency of the sector enhanced, or so the argument goes. On the other hand, at a time when government funding for HE is likely to be cut back, can universities afford to miss the opportunity to realise the commercial benefits that could accrue from commercialising their academic assets? Are there other factors that make the vision of a sharing sector unrealistic such as deep-seated notions of individual rather than institutional ownership of resources, regardless of what contracts of employment might state?

The presenters will provide contrasting perspectives drawn from their own wide experiences as OER practitioners and policy-makers. In reality the issues surrounding OER production and use are multifarious and far from black and white. There is no single approach guaranteed to succeed but there are multiple possibilities that can work in specific contexts. A particular challenge is sustaining activity once the stimulus – for example some external funding – has passed.

The symposium will involve an impromptu mini-debate with groups invited to take up opposing positions on OER practice. Out of this will be drawn a set of obstacles and solutions with examples brought out both from audience experiences and published accounts. To conclude, in this symposium, the lead presenter will attempt to pull together a picture of what might be achieved over the next few years and what we could expect to experience along the way.

0260 Demonstration | **Theme:** Four | **Session:** Mathematics demonstrations

Extending standards-based e-assessment tools to meet the needs of mathematics and science

Sue Milne[1], Leslie Fletcher[2] | [1]ELandWeb Ltd, Glasgow, United Kingdom, [2]Liverpool John Moores University, Liverpool, United Kingdom

The JISC-funded MathAssess project (September 2008 – March 2009) took existing QTI toolkits and developed them so that they provide the necessary functionality for mathematics. The new tools are Open Source (New BSD License) and conform to the QTI Version 2.1 specification. They have been enhanced as part of the FETLAR project within the HEA OER program and are now available for use in real-life teaching and learning, alongside collected OER for Mathematics in the FETLAR Virtual Appliance.

The tools are suitable for creating QTI questions in any discipline, and provide additional facilities essential to any subject involving numeracy or mathematics, ranging from science and engineering, to nursing, social sciences and business studies. These facilities are:

- display of mathematical expressions;
- manipulation of mathematical expressions;
- creation of randomised items;
- comparison of input and expected answer algebraically, not just string matching.

Adoption of the tools by users enhances the sustainability of the standards used in creating them, and hence the sustainability and interoperability of the tools themselves and of materials created with them.

Alongside these tools, FETLAR provides search facilities which improve the efficiency with which academics can gather resources for their courses. The demonstration will show how users can:

- discover OER suitable for a revision course in basic algebra;
- dssemble assessment materials, including individual questions and complete assessments, which relate to the selected resources;
- modify the assessment materials by:
  - previewing a test in QTIPlayr,
  - using Spectatus to find the test in the Minibix bank,
  - creating or amending a question using the MathQurate question editor,
  - storing the question in the Minibix item bank,
  - using Spectatus to insert the amended question back into the test,
  - storing the revised test in the Minibix+ test bank,
  - delivering that new test as part of a Moodle course.
- Demonstrate interoperability by running a question in two different renderers: JAssess and MathAssessEngine.

0261 Short paper | **Theme:** Two | **Session:** International perspectives

Full fathom five Zimbabwe's e-learning lies

Jill Jameson | University of Greenwich, London, United Kingdom

At the bottom of the metaphorical ocean of e-learning are the least digitally developed countries in the world, the lowest ranked nations in the deep undersea of a profound global digital divide. Despite impressive advances in access to information and communications technologies (ICTs) worldwide, there is

still a significant disparity between high income digitally rich countries and the least developed nations, in which affordable access to and benefit from using learning technologies is severely stunted. Critical digital divide issues affecting ICT and e-learning capability in these poorest countries include lack of an ICT-enabling culture, 'know-how', human capital, investment, electricity, equipment, software, bandwidth, pedagogical materials, and the educational readiness and technical expertise needed for capable e-learning productivity and effectiveness. Countries at the nadir of the digital divide are also disproportionately affected by poverty, illiteracy, war, corruption and disease.

Zimbabwe, ranked 104th/ 104 countries in the Legatum Prosperity Index 2009 and 132nd/134 in the World Economic Forum global ICT 'networked readiness index', with only 13.0% of its population online, faces serious challenges in implementing e-learning. Barriers to e-learning for Zimbabwean school, college and university students include a brain drain of trained teaching staff, deficits in physical access to learning technologies, unaffordable school fees, serious failures in national educational and examinations systems and the closure of whole university departments through mass migration of skilled staff. Catastrophic educational infrastructural issues led to rural schools 2009 examination results of 0% pupil achievement.

This paper recommends measures by which productivity and effectiveness in e-learning for Zimbabwe could be increased, whilst mitigating risks of educational failure and continuing brain drain. Recommendations include: improved strategic planning for national ICT connectivity and effectiveness, capitalising on the development of broadband fibre-optic links; teacher training in pedagogical e-learning usage; cost-effective, innovative low tech e-learning solutions including mobile kiosks and buses for rural areas; m-learning and podcasting for students; multimodal ICTs alongside traditional print media; community radio and virtual reality initiatives and further development of existing successful projects such as the African Virtual University (AVU), College IT Enhancement Programme (CITEP), SchoolNet Africa, the Kubatana Trust and Development Through Radio (DTR) scheme.

The changing landscape of CPD for teachers

Peter Bradshaw, Mary Hayes, Peter Twining, R.A Jeffrey | Open University, Milton Keynes, United Kingdom

This paper explores a different approach to CPD for teachers. Vital is a £5.6million DCSF funded programme, being developed and delivered by The Open University and e-skills UK. Vital is aimed at staff in schools across England, and provides courses, more informal CPD activities and peer-peer interaction. It is open to other providers, including those in ITE who are able to host or signpost their own courses, resources and activities. At a time of changing work practices teachers face reduced opportunities to attend traditional CPD courses yet employees are required to be more competent and creative in their uses of IT, and IT in society becomes more complex and varied.

Vital aims to reshape the organisational landscape of CPD by creating new ways of communicating, sharing and developing CPD collaboratively by providing a national community supported by the Open University's technical and learning infrastructures. Traditionally CPD has mainly focused on face to face interaction, courses written by external 'experts' or shared only within local communities. The philosophy underpinning Vital is that of collaboration, with teacher as both owner and consumer of knowledge. Collaboration is both between individual participants (i.e. teachers) and between CPD providers. Using the participant researcher model, teachers are encouraged to share expertise through online forums and the creation of wiki spaces.

Vital aims to meet the needs of learners through encouraging them to take control of the direction and choice of courses. It aims to respond to employers needs by transforming the uses of ICT in schools and it creates a more open approach to learning in the face of possible charges for web searching.

0263 Poster | **Theme:** Five

Social learning platforms: what are they and why do you need one?

Nancy Rubin | Learning Objects, Washington, DC, United States

2010 – 2020 has already been identified as the decade of social networking and learning. When you add the word social to learning it refers to learning which is collaborative and relevant to each student. Social learning fosters creativity, innovation, and encourages collaboration, communication and critical thinking.

How do you create a 21st century learning environment at your institution? By incorporating social learning into your eLearning environment. Today's students, and educators, need tools for collaboration, personal learning spaces for individuals to collect and reflect on their course work and personal interests, and community areas for group projects, and departmental and administrative collaboration spaces.

Personal Learning Spaces allow users to create their own Web 2.0 content and share it with instructors, peers, advisors, or anyone in the world. Personal learning spaces can be used for course assignments, as well as co-curricular and self-initiated study groups. Each user has the ability to customize their own workspace and to organize shared content alongside their own.

Course tools include wikis for collaborative projects, blogs to foster personal reflection and writing skills, and podcasts, which enable students to take their learning on-the-go. Campus Pack's unique assessment features provide the instructor with a window into the students' learning, their progress, and any potential areas of weakness that could require extra attention.

Campus Pack social learning platform provides Web 2.0 tools for users to create assignments or around personal interests, build a portfolio of academic work across time, and collaborate online with self-organized groups or campus-sanctioned organizations. Community areas provide spaces and easy-to-use social software tools that groups can use to collaborate on work, build and publish knowledgebases, and maintain websites. They provide academic and department spaces to collaborate on lessons, syllabi, and curriculum. Clubs, teams, and cohorts can share information, network with members, and coordinate activities.

Learning should not be limited to the walls of the classroom or restricted by your online environment. Free your users to collaborate the way they want to, and help them to make their educational experiences more meaningful.

0264 Poster | **Theme:** One

A language usage-based service for providing formative feedback and learner positioning

Gaston Burek[1], Gillian Armitt[2], Dale Gerdemann[1], Bernhard Hoisl[3], Robert Koblischke[3], Christoph Mauerhofer[4], Petya Osenova[5], Kiril Simov[5] | [1]Eberhard Karls Universitat, Tuebingen, Germany, [2]University of Manchester, Manchester, United Kingdom, [3]Wirtschaftsuniversitat Wien, Vienna, Austria, [4]BIT-MEDIA E-learning solution GMBH & CO KG, Graz, Austria, [5]Institute for Parallel Processing of the Bulgarian Academy of Sciences, Sofia, Bulgaria

Self-directed learners can benefit from personalised 'feedback on demand' during their learning but this is often not practical owing to tutors' time constraints. Tutors can benefit from computerised support with positioning learners and providing individualised feedback at the right level.

Language technologies (phrase extraction and Latent Semantic Analysis (LSA)) analysing speech genres (Bakhtin 1986) offer an opportunity to address these issues. Experts in a domain develop a speech genre, with characteristic phrases. Becoming an expert involves the adoption of the community's speech genre. Thus, learner knowledge can be evaluated by means of textual distance based on characteristic phrases.

Through the EU-funded LTfLL project, bespoke on-line software was designed as Service Usage Models in collaboration with a commercial training partner. Ontology and lexical resources are used to identify concepts covered by learners. Positioning is achieved through combining linguistic patterns (phrases) extraction and LSA (Burek and Gerdemann 2009) to compare learner texts with a corpus of expert texts built from IT learning materials and high quality learner texts. The software indirectly measures learners' degree of expertise by textual distance to the relevant speech genre.

The poster illustrates the feedback and positioning information provided by the user interface and how the language technology-based comparison of learner and expert texts is achieved to compare speech genres.

The poster illustrates learner and tutor views of the software. Learners receive formative feedback on the strong and weak areas of texts submitted to the system, to help them revise their texts before submission to tutors for positioning. Tutors receive a system-generated provisional grading with formative feedback and can adjust the grading and feedback. A commercial IT training company is piloting the software for short IT courses. Validation results are presented demonstrating the value of the software for supporting self-directed learning and enabling tutors to provide personalised feedback.

The software facilitates more effective learning and improves tutor efficiency through informing personalised feedback. The software is applicable to other domains through changing the expert texts to the relevant domain. Work is under way to extend the service to Medicine.

Bakhtin, M.M. 1986. *Speech Genres and Other Late Essays*. Translated by Vern W. McGee. Texas: University of Texas Press.

Burek, G.G., and Gerdemann, G. 2009. *Maximal Phrases Based Analysis for Prototyping Online Discussion Forums Postings*. In Proceedings of the workshop on Adaptation of Language Resources and Technology to New Domains (AdaptLRTtoND), RANLP Conference, Borovets, Bulgaria, 17 September, 2009.

A latent semantic analysis-based service for providing personalised formative feedback on conceptual development within PBL groups

Fridolin Wild[1], Alisdair Smithies[1], Gillian Armitt[1], Isobel Braidman[1] | [1]The Open University, Milton Keynes, United Kingdom, [2]University of Manchester, Manchester, United Kingdom

Constructivist approaches stress the importance of collaborative knowledge co-construction, for example in problem-based learning (PBL) groups (Wood 2003). PBL learners find it difficult to identify the limitations of their own understanding and topic coverage, and can benefit from personalised formative feedback (Shute 2008). Our experience indicates that tutors find it difficult to determine learners' individual conceptual understanding in group situations to inform personalised feedback.

Latent semantic analysis (LSA) uses statistical computations to analyse textual relationships. The LSA-based CONSPECT service visualises the conceptual understanding of individual learners, enabling 'on demand' probing and formative feedback on their conceptual development. The theoretical framework for the use of the service within PBL groups is Stahl's model of knowledge building (Stahl 2006), which integrates personal and collaborative "knowing".

Through the EU-funded LTfLL project, a bespoke on-line service was developed based on LSA. Learners' texts on medical topics are compared semantically with the PubMed database as background corpus. Force direction, an optimised graph layout algorithm (Fruchterman and Reingold 1991), underpins a two dimensional visualisation of the LSA output (conceptogram), demonstrating the learner's conceptual understanding.

This poster illustrates the conceptual monitoring information seen by the user, how data input is processed to achieve this, and validation results. A weblink to a short video of the software is provided. Learners

can input texts on medical topics and view the resulting conceptogram. They can compare their own conceptograms with those of other (anonymised) users to identify and then improve upon areas of weakness. Learners can release their conceptograms to peers or tutors for further feedback.

The service was piloted in a School of Medicine. Validation results, based on focus groups, interviews and a questionnaire, demonstrate the educational value of the software and the implications for managers of introducing this service.

CONSPECT can facilitate more effective learning through identifying shortcomings in individuals' conceptual understanding and topic coverage, and can improve tutor effectiveness by informing personalised feedback in group contexts. Future developments include a 'teacher console' identifying learners in need of special attention and pinpointing topics that are generally not well understood.

Fruchterman, T., and Reingold, E. 1991. *Graph Drawing by Force-directed Placement.* Software - Practice and Experience 21: 1129-1164.Shute, V.J. 2008. Focus on Formative Feedback. Review of Educational Research 78: 153-189.

Stahl, G. 2006. *Group Cognition: Computer Support for Building Collaborative Knowledge.* Cambridge: MIT Press.

Wood, D.F. 2003. *ABC of learning and teaching in medicine: Problem based learning.* British Medical Journal. 326: 328-330.

0266 Demonstration | **Theme:** One | **Session:** Feedback paradigms

Two language technology-based services for providing personalised formative feedback

Gaston Burek[1], Gillian Armitt[2], Isobel Braidman[2], Dale Gerdemann[1], Bernhard Hoisl[3], Robert Koblischke[3], Christoph Mauerhofer[4], Petya Osenova[5], Kiril Simov[5], Alisdair Smithies[2], Fridolin Wild[6] | [1]Eberhard Karls Universitaet Tuebingen, Tuebingen, Germany, [2]University of Manchester, Manchester, United Kingdom, [3]Wirtschaftsuniversitaet Wien, Vienna, Austria, [4]BIT-MEDIA E-learning solution GMBH & CO KG, Graz, Austria, [5]Institute for Parallel Processing of the Bulgarian Academy of Sciences, Sofia, Bulgaria, [6]The Open University, Milton Keynes, United Kingdom

Learners can benefit from personalised formative feedback while learning but this is often not practical owing to tutors' availability and time constraints. This demonstration provides two scenerios from the EU-funded LTfLL project of use of language technologies to provide feedback on learner texts. Both services implement latent semantic analysis (LSA) (Landauer and Dumais 1997), which uses statistical computations to analyse textual relationships and facilitate comparisons between learner and reference texts. The theoretical framework for both scenarios is Stahl's model of knowledge building (Stahl 2006), which integrates personal and collaborative 'knowing'.

Scenario 1: WP4.1 is aimed at learners where expected knowledge has boundaries, e.g. in the early stages of a learning journey. Feedback is situated within a positioning service that poses questions to be answered. Learners may know more than they actually articulate, so feedback helps them revise their texts before submission to tutors for positioning.

Scenario 2: CONSPECT is aimed at advanced learners with high degrees of autonomy regarding what they learn and when. Learners can find it difficult to determine the required depth and extent of knowledge. CONSPECT compares learner texts with those of peers and reference materials to identify gaps in conceptual coverage.

Approach

Scenario 1: WP4.1 combines linguistic knowledge and concept coverage. Learner texts are compared with expert texts by means of identifying distinctive phrases and linguistic patterns and implementing LSA (Burek and Gerdemann 2009). Ontology and lexical resources are used to identify concepts covered by learners. A commercial training company is piloting the software for short introductory IT courses.

Scenario 2: LSA is used to compare learners' texts semantically with reference texts, e.g. from peers, tutors or learning materials. Force direction, an optimised graph layout algorithm (Fruchterman and Reingold 1991), underpins an interactive two dimensional visualisation of the LSA output (conceptogram). Users interact with conceptograms to identify future areas of learning.

Session activities

Introduction to language technologies and scenarios. Hands-on activities:

Scenario 1: learners respond to a question and use feedback from the software to revise their text; tutors see and adjust feedback and provisional grading.

Scenario 2: advanced learners input text and explore the resulting conceptogram then compare their conceptogram with those of other users to identify areas for further study.

Intended outcomes

Greater understanding of the potential and limitations of language technologies for providing formative feedback.

Insight into possible changes in learning approaches.

Burek, G.G., and Gerdemann, D 2009. *Maximal Phrases Based Analysis for Prototyping Online Discussion Forums Postings.* In Proceedings of the workshop on Adaptation of Language Resources and Technology to New Domains (AdaptLRTtoND),RANLP Conference, Borovets, Bulgaria, 17 September, 2009.

Fruchterman, T., and Reingold. E 1991. *Graph Drawing by Force-directed Placement.* Software - Practice and Experience 21: 1129-1164.

Landauer, T.K., and S. Dumais, S. 1997. *A Solution to Plato's Problem: The latent semantic analysis theory of acquisition, induction and representation of knowledge.* Psychological Review 104: 211-240.

Stahl, G. 2006. *Group Cognition: Computer Support for Building Collaborative Knowledge.* Cambridge: MIT Press.

Charting the waters of technology supported work-based higher education: transforming a pilot development into a national programme

Helen Dewhurst, Rob Arntsen, Deborah Trayhurn | fdf, Lichfield, United Kingdom

Many organizations will likely place greater focus on skill development of their existing workforce, using technology supported learning as a central element of their business, seeking increasing returns on investment in training (CBI, 2009). We present a unique work based learning collaboration between two Higher Education delivery Institutions, one large employer and a commercial partner who have developed a Foundation degree programme from the workplace. The commercial company developed the technology platform to meet content and blended delivery requirements, which for the employer, included achieving practical improvements for their learners' activity in the workplace.

This paper will describe ways that the technology support enabled the development of learners' e-literacy and connections, important in growing competences. It will outline approaches taken to enable learners to work with others, sharing, questioning, and reflecting (Strong, 2009). This employer engagement includes real articulation achieved with the employers' human resources and learning development systems, also with assessment practices designed to enable authentic activity and senior staff contact from the employer. External project evaluation was undertaken for the first cohort's experiences. This covered the roles and delivery from tutor, student and employer perspectives through the Project Manager, mentors, and other often senior staff from the employer; tutors from the Higher Education providers and the commercial partner. The paper will describe outcomes considered in refining the programme, and the changes made.

The employer input will be examined in detail, and demonstrate how involving the employer in the programme design maximises the chance of the programmes' success.

The transformation steps taken to develop a national programme involving multiple Higher Education Institutions and Further Education partners and multiple employers and SMEs in the sector, will be outlined (Nunes et al. 2009). The paper will conclude with the challenges experienced in developing the programme across multiple providers to one employer with a national workforce, and the future direction of and issues associated with managing the roll-out of a national programme.

CBI 2009. *Future Fit Preparing graduates for the world of work.* CBI www.cbi.org.ukNunes, J.M., M.A.

McPherson, M. Annansingh, F. Bashir, I. and Patterson. D. 2009. *The use of e-learning in the workplace: a systematic literature review.* Impact: Journal of Applied Research in Workplace E-learning, 1, no 1 97–112

Strong, K and Hutchins, H. 2009. *Connectivism: a theory for learning in a world of growing complexity.* Impact: Journal of Applied Research in Workplace E-learning. 1, no. 1 53-67

0269 Short paper | **Theme:** One | **Session:** Institutional changing paradigms

Molenet3 at the Sheffield College – digging deeper, unearthing the network

David Kay[2], Dave Pickersgill[1] | [1]Sheffield College, Sheffield, South Yorkshire, United Kingdom, [2]Sero Consulting, Sheffield, South Yorkshire, United Kingdom

The Sheffield College reported at ALT-C 2009 on the use of CAMEL methodology (http://www.jiscinfonet.ac.uk/camel) to support staff development in its Molenet2 project. The college has since been privileged to secure a further round of investment. Its Molenet3 project has focused on spreading the net, by reaching more practitioners and subject areas across the college and by introducing mobile learning to Sheffield secondary schools partnering with the college in the 14–19 Diploma in Business Administration & Finance. Our 2009 paper described opportunities afforded by the project to address the technical, financial and safeguarding challenges of developing sustainable student access to the online world.

In the 2010 project, we have been considering the same issues with the benefit of:

- wider staff involvement;
- a broader range of learner backgrounds, expectations and experiences;
- continued use of personal devices over an extended period;
- comparative contexts in partner institutions working with 14-19 learners.

In this paper we consider our findings in relation to such questions as:

- Is the reality of this anything more than more access to the web and to cameras?
- Are mobile devices being used to enable new modes of learning and teaching or simply to 'spice up' traditional pedagogies?
- Do teachers welcome devices for their specialist value or for their popular appeal?
- Can this year's personal portfolios become next year's learning content?
- What is the direction of travel relating to ownership of mobile devices and the opportunity for students to use their own devices in organised learning activity?

Finally we consider a meta-proposition. If delivered through collaborative staff engagement, does mobile technology have value above and beyond direct benefits to teaching and learning? That value may be in liberating practitioners to think in fresh ways about key issues and historic barriers such as their relationship with institutional IT services, their attitude to personal professional development, the common ground across departmental boundaries, the compelling desire to share something that feels like 'my own'. Does mobile technology liberate and network the staff in the same way that we expect it to liberate the learner?

International benchmarking of practitioner ICT capability in Further Education – pilot study

David Kay[1], Seb Schmoller[1], Kevin Donovan[1], David Jennings[1], Angela Saunders[2] | [1]Sero Consulting, Sheffield, South Yorkshire, United Kingdom, [2]Becta, Coventry, Warwickshire, United Kingdom

Becta commissioned research and other studies suggest that, used properly, technology improves teaching, learning and business processes; learners are more motivated, potentially making faster progress and getting better results; learning providers are more efficient and can offer better services. Learners and employers increasingly expect technology to play a major role in learning.

For learners to make the most of technology in their learning, the education workforce requires up-to-date skills and knowledge, comparable with their counterparts in other countries. This small scale benchmarking pilot, undertaken by Sero Consulting on behalf of Becta, arose from those ambitions. Focused on teaching staff in general FE institutions, the 2010 pilot survey engaged over 2000 practitioners from the FE and Skills sectors in England, Austria, Denmark, Portugal and Sweden.

The survey took account of indicators used in broader exercises assessing such as institutional e-maturity and system-wide ICT focus as well as frameworks for 21st Century skills and UNESCO standards for teachers use of technology. Importantly, the indicators and data gathered are intended to provide comparisons and add value to the local and national findings of the annual Becta and Lifelong Learning UK surveys and to the Generator leadership tool.

This paper, drawing on the Becta report (June 2010) examines the evidence from this significant comparative research exercise and suggests new approaches to developing capability in the UK. Findings of relevance to teaching practitioners, managers and curriculum designers in FE will be presented – some as applicable in HE and in schools as they are in Fete presenters will focus on the relationships between personal capability and the various influences of the learners, the curriculum and the institution. Is practitioner capability in itself enough? How do practitioners learn and develop their ICT skills? Is learner readiness perceived to be a factor in the successful uses of technology for learning? To what extent is effective use of ICT also dependent on critical factors such as subject area, institutional culture and support? Do the developmental factors differ from country to country? Not least, is the use of ICT regarded as professionally helpful in different contexts and settings?

Using a graphical user interface for generating reports from a complex curriculum knowledgebase

Tim Cappelli | University of Manchester, Manchester, United Kingdom

University programmes are complex bodies of information; curricula, and associated pieces of data that constitute a complete programme are characterised by many inter-related elements. Administration and maintenance of a programme is similarly difficult when successful management is often dependent on extracting single data points and extrapolating connections to other parts of the programme. To assist with this, the institution has created a curriculum knowledgebase that stores and connects curriculum elements based on a data model. However, difficulties arise in visualisation and navigation of the different elements since the complexity of interrelationships makes it impossible to view all the connected instances for any given element; for example, the interrelationship between learning outcomes, activities and assessment. This

has led to the development of a graphical user interface to visualise and navigate the various elements. The creation of this Java interface was designed as a context-neutral application that could be used with any data model. Thus, the model has been used on a number of other knowledgebases and could theoretically be used with any model based dataset.

Once implemented and applied to real data, it was realised that the interface had the potential to provide a user-friendly mechanism for report generation. Creating reports from complex datasets is dependent on the inclusions of pre-scripted queries being built into the application and/or providing users with a report-builder. However, report builders frequently require users to have a knowledge of the data elements and their legal connections or expose the user to SQL code or Expressions. The GUI we created offers a visual mechanism for report building that makes such requirements redundant. The interface allows a report to be created incrementally using a series of images and tick boxes, with users choosing to filter at each stage of the process until a very specific report is created. This tool has great potential in that allows naive users the ability to easily interrogate any complex set of data, as long as the basic data model exists. This makes information far more accessible to students, managers and the public and has applications in administration and learning scenarios.

0272 Poster | **Theme:** Five

Does an Automatic Test Harness (ATH) help learning?

Maryam Kheir Abadi, Graham Alsop, James Orwell | Kingston University, London, United Kingdom

Assessing, marking and giving feedback to students' learning programming is time consuming. By using an Automated Test Harness (ATH) as a piece of e-Assessment, these processes are faster. Students log into their account and access their module materials; the ATH is available as a Zip file. They download the Zip file, open it and put their solution in a file called "your solution here". A batch file runs a complete solution locally against their solution. Specific feedback is given, for example, which methods were not working properly. An initial mark is given with feedback. A student can then correct their program and try again.

The ATH approach is scalable and can cope with large numbers of students (currently 200). Woit and Mason (2003) and Bostock (2004) point out that e-assessments, in general, motivate students to achieve better results, because before the final assessment they have the opportunity to see their mistakes and learn. More specifically, "Oliver (1998b) concluded that automatic assessment of student programming exercises on the basis of output, layout and source code was 'highly motivating for most students'" (Bostock, 2004).

This use of an ATH is being studied using Activity Theory (AT). AT involves the use of an ontology. A student (Subject) is looking to use the ATH (Tool) in the context of a Java course (Object) with the objective of completing their assignment (Outcome). There are other important terms (rules, communities and division of labour) that will be described fully.

However, AT does not specify a means to collect and analyse data. Grounded Theory (GT) is being used for this (Alsop and Kheir Abadi, 2010). In summary: GT has an open attitude that lets one use different methods to gather data, such as focus groups, observations and open-ended questions, and is an objective approach that allows participants to respond using their language without the researcher offering any preconceived ideas; it also allows the number of cases examined to grow with the research.

In this poster the research outcomes of using ATH are offered to establish the advantages and disadvantages of using this tool to support learning.

Alsop, G., Kheir Abadi, M. 2010. *Does Grounded Theory provide a useful means of analyzing data to inform an Activity Theory approach?* 2010. Nordic conference in Activity Theory. (Will be presented in May 2010).

Bostock, Irons and Alexander. 2004. *Motivation and electronic assessment.* Chapter 9 in Effective Learning and Teaching in Computing. London: Routledge Falmer.

Engeström, Y., Miettinen, R. and Punamaki, R.L. 1999. *Perspectives on Activity Theory.* 1999. first edn, USA: Cambridge University Press.

Orwell, J. Livingston, D. 2005. *Automatic Test-Based assessment of programming: A review.* .ACM Journal of Educational Resources in Computing. Vol. 5, No. 3. Article 4

Woit, D., Mason, D. 2003. *Effectiveness of online assessment.* SIGCSE '03. pp. 19-23. Nevada: Reno.

The effect of textual, pictorial and textual-pictorial glosses on English vocabulary learning

Bahman Gorjian, Abdolreza Pazhakh, Katayoun Sharafi, Parviz Askari, Alireza Heidarei | Islamic Azad university, Abadan branch, Abadan, Khuzestan, Islamic Republic of Iran

When learning a second language for study purposes, it is necessary for a large number of words to be learned in a short period of time at the intermediate and advanced stages of language acquisition. A gloss is defined as an explanation of the meaning of a word (Pak, 1986) or a brief definition or synonym either in L1 or in L2 (Nation, 2001), glosses can be defined as information on important words through definitions or synonyms (Ko, 2005).

The purpose of this study was to measure the effect of textual, pictorial and textual-pictorial glosses (i.e., a multimedia explanation of the meaning of the words intact) on English vocabulary learning of 90 female students at pre-university stage. They have been selected from 120 students and have an average age of 17. In an initial homogeneity test, the 90 students scoring 1 standard deviation or more below and above the mean were chosen as the final pool of participants in the study. They were randomly divided into three groups of textual, pictorial and textual-pictorial by systematic random sampling. During 8 sessions of instruction of 40 minutes each, the participants read the texts and consulted the glosses attached to the target words by placing the mouse pointer on the highlighted words. Having read each text, the participants were tested on their vocabulary learning. Finally, they sat a post-test at the end of the treatment period.

Statistical analyses were conducted through One-way ANOVA, post-hoc Scheffe tests following the post-test administration. Running One-way ANOVA analyses on the scores indicated that a combination of text and image resulted in significantly better vocabulary learning ($p < 0.05$). Exposing learners to multimedia glossing in EFL language learning environment has a positive impact on L2 vocabulary acquisition, glosses are useful for enhancing learners' vocabulary learning.

Ko, M. H. 2005. *Glosses, comprehension, and strategy use.* Reading in a Foreign Language, 17(2): 125-143.

Nation, I. S. P. 2001. *Learning vocabulary in another language.* New York: Cambridge University Press.

Pak, J. 1986. *The effect of vocabulary glossing on ESL reading comprehension.*

0275 Short paper | **Theme:** Three | **Session:** Organisational landscapes

Great expectations: meeting the needs of learners, employers and institutions through more responsive curricula

Helen Beetham[1], Marianne Sheppard[2] | [1]JISC, London, United Kingdom, [2]JISC infoNet, Newcastle upon Tyne, United Kingdom

Institutions are striving to be more flexible, responsive and adaptive to the needs of stakeholders, in a climate of constrained resources, while at the same time maintaining the quality of their provision. Curriculum development is one area in which effective partnerships can be built. Employers and professional bodies have a stake in ensuring graduates achieve high-level and relevant skills and competencies, while learners themselves need more flexible ways of engaging in the curriculum. Institutions therefore need to develop agile curriculum design and approval processes which can respond to changing demands, whilst ensuring standards and enhancing the quality of teaching and learning in an increasingly under-resourced environment. The paper describes how transforming institutional systems and technologies can lead to enhanced flexibility and better engagement of curriculum partners.

The Curriculum Design programme – since July 2008, JISC has been funding 12 diverse institutions to explore Institutional Approaches to Curriculum Design. Each institution began by baselining current practices, identifying key challenges and opportunities for enhancement, and putting in place a programme of innovative development. At the midpoint of this programme, the paper will summarise the challenges to building flexible and responsive curricula, and offer pragmatic examples of how they are being addressed.

The work of the programme has been subject to external evaluation and ongoing synthesis by consultants and critical friends. These diverse perspectives allow us to offer a critical perspective on curriculum flexibility, showing for example how different stakeholders require flexibility of different kinds, and in response to different pressures. Delegates will have a greater understanding of how institutional systems can be made more responsive, and of how this can enhance the experience of the curriculum for all partners. There will also be an opportunity to explore the Design Studio, an open wiki-based toolkit which draws together a range of resources for curriculum design and showcases many more programme outputs than can be discussed in this short paper.

0276 Symposium | **Theme:** One | **Session:** Deep Learning Design

Deep Learning Design (DLD): addressing profound shifts in the learning-teaching landscape

Andrew Ravenscroft, Tom Boyle, John Cook | Learning Technology Research Institute, London Metropolitan University, London, United Kingdom

Changes in underpinning learning technologies is occurring at a pace that we have never before experienced, which necessitates a broader and more profound understanding of design for Learning Technology. This needs to be more future-proof than relying on the latest or emerging technologies and yet embraces the multimodal, collaborative and ubiquitous nature of learning in 21 century.

In addressing this challenge this symposium will present the approach and principles of Deep Learning Design (DLD) (Ravenscroft & Boyle, 2010). During the first half of the symposium these will be articulated through three research and development initiatives in

a. dialogue-rich learning,
b. generative learning design, and
c. mobile learning through augmented contexts.

These will be the focus of distinctive presentations given by the three authors. These will seed and open up active engagement with the audience in the second half of the session, so that we can collectively take forward our thinking and capture the key issues, challenges and tensions within our community. Note that we will avoid a focus 'Learning Design (LD)' based around the IMS-LD standard, although we consider our approach to have some complementarity with learning design more generally (e.g. Lockyear et al., 2009). A main difference however is that DLD is a research driven paradigm for designing contemporary learning that adopts a more humanistic and holistic stance, instead of focussing ostensibly on sharing teaching practice. Hence, it incorporates an emphasis on learners' and teachers' active processes and practices within contexts, or is more 'performative' and based on the meditating role of learning technology (Saljo, 2010). The paradigm makes use of a combination of Design Based Research (e.g. Design Based Research Collective, 2002) and Action Research methodologies; however, it has the particular focus on designing learning in the Web 2.0 landscape and beyond. The intended outcome for participants are:

1. An understanding of the contemporary challenges for learning technology design, and why this original approach is necessary;
2. An understanding of DLD, and how it contrasts with, or complements, other approaches to design for learning;
3. A framework and practical examples that will allow the adoption and practice of DLD more widely.

Design-based research collective. 2002. *Design-Based Research: An Emerging Paradigm for Educational Inquiry,* Educational Researcher, Vol 32, No. 1, pp5-8

Lockyer, l., Bennett, S. Agostinho S. and Harper B. .Eds. *The Handbook of Research on Learning Design and Learning Objects: issues, applications and technologies.* Information Science Reference.

Ravenscroft, A. & Boyle, T. 2010. *Deep Learning Design for Technology Enhanced Learning,* Full Paper Accepted for International Conference on Educational Media .Ed-Media. 2010, Toronto, June 29-July 2 2010

Saljo, R. 2010. *Digital tools and challenges to institutional traditions of learning: technologies, social memory and the performative nature of learning.*

Collaborative style of learning: using Web 2.0 technology in the context of participant-based learning

Pei-Ju Lucy Ting, Hsin-Ju Stephie Tsai, Ryo Seo-Zindy | University of Manchester, Manchester, United Kingdom

Cooperative team learning can enable students to take responsibility for their learning, which results in higher critical thinking and prolonging information retention (Totten et al. 1991). Web 2.0 technology enables university students to 'virtually work together' without time and space limitation. As a teaching tool it could also align with the Net Generation's learning style, which is described as the preferred use of technology to a moderate level to facilitate their learning (Kennedy et al. 2008).

An educational social networking site (CoStyle) was developed to incorporate Web 2.0 technologies into collaborative learning. The Open Source system "BuddyPress" was selected as a basis for CoStyle, for the following features: social networking, group management, group communication, tracking individual user contributions and extensive plug-in libraries. The site was first trialled in 4 separate modules, with a total of 108 students divided in twelve groups. In order to formalise the assessment procedure, each group was provided with a separate forum containing pre-assigned topics, and a blog for documenting and submitting collaborative coursework.

Both quantitative and qualitative data were collected to evaluate students learning experience on CoStyle. Statistics from Google Analytics indicate that i) the frequency and average length of time for visits have significantly improved; and ii) the average bounce rate of 28% shows there is high visit quality with intensive use of the website. From qualitative interviews, positive feedback was expressed regarding the sociable

learning environment and the online-space which records their continuous learning progress. Some comments also indicate future improvements for stage 2 of the website design and course design, e.g. assessment criteria, irreplaceability of face-to-face collaboration.

This paper outlines only student feedback of stage 1, that the application of Web 2.0 for educational purposes is perceived positively. In the following stage, the feedback is taken on board with more online activities added to encourage students having more interactions using in-house built collaborative learning tools. They include student-led case study preparation and discussions, as well as peer assessment for online participations.

Kennedy, G. E., Judd, T. S. 2008. *First year students' experiences with technology: Are they really digital natives?* Australasian Journal of Educational Technology 24(1): 108-122.

Totten, S., Sills, T., Digby, A., & Russ, P. 1991. *Cooperative learning: A guide to research.* New York: Garland.

0278 **Sponsor:** Becta

From Shakespeare, to Hemingway, to Beck and beyond – a raft of sea-changes explored in the world of learning and technology

Ann Hughes, Head of Efficiency and Productivity | Becta, United Kingdom

Becta has been researching a range of issues relating to efficiency and the use of technology in the FE and Skills sector for the past two and a half years. This work is culminating in a benefits realisation plan to achieve the previously elusive technology premium for learners, learning providers, employers and the nation. This session will describe some of the findings and will outline the areas where recommendations are being made.

The "sea-changes" considered will include those which are both contextual to and consequential on the recommendations. Contextual changes include those relating to technological developments, the learning and skills landscape, the national economic situation, and the expectations of learners and employers. Consequential changes include those relating to individual and organisational roles, the application of technology, national structures (including funding), and learning.

The session addresses aspects of all five of the Conference themes, most notably "increasing productivity and effectiveness, whilst mitigating risk". Participants will have an opportunity to explore and comment on potential changes designed to increase efficiency and effectiveness of learning and its management; empower learners to control the pace of their progress; and employers to improve the efficiency of their businesses. These discussions may be considered in the final drafting of the benefits realisation plan.

0279 **Sponsor:** Blackboard Learn

Blackboard mobile strategies

Dan Peters, Solutions Engineer | Blackboard Learn, United Kingdom

Today's colleges and universities face multiple challenges as they position themselves for the future. As an organization, they face increasing competition, need to show improving results, keep students engaged, and leverage all IT investments to support new solution demand – all with tight budgets. At the same time, they face today's student who leads a complex life. This complexity includes rising expectations about the level and quality of interaction they expect from colleges and universities – with a clear shift towards the use of mobile communication.

Join us in this interactive workshop to learn how Blackboard's solutions can help colleges and universities with their student engagement. In this workshop, we will highlight how Blackboard's solutions fit in the student engagement spectrum – from event-driven, on demand, to needs anticipated engagement – offering an integrated set of solutions that focus on the student experience. The specific Blackboard solutions we will be covering are Blackboard Connect, Blackboard Mobile Central, and the new Blackboard Mobile Learn.

Sponsor: Blackboard Collaborate **0280**

Wimba + Elluminate + Blackboard = Blackboard Collaborate (Q & A session)

Representatives from Elluminate, Wimba and Blackboard

On 7 July 2010, Blackboard announced the acquisition of Wimba and Elluminate and is creating a new independent group, Blackboard Collaborate.

This session will set-out the vision for collaboration and is an opportunity for existing Wimba and Elluminate customers and other interested parties to find out about the Blackboard Collaborate vision and ask questions about the transition.

We look forward to seeing you there!

Sponsor: Desire2Learn Incorporated **0281**

Breaking barriers to effective online pedagogy

Simon Tindall, Regional Sales Director for the UK | Desire2Learn Incorporated, United Kingdom

Desire2Learn has taken virtual learning environments (VLE) to an entirely new level by breaking the barrier to innovation in online pedagogy. By combining Objectives, Learning Activities and Assessment in the new Instructional Design Wizard and Course Builder tools, a VLE, for the first time ever, can assist an instructor in creating a pedagogically sound, effective online course. Join us in experiencing firsthand our new tools that enable organizations to save time and increase the quality of courses by simplifying and streamlining the course development process.

Sponsor: The Higher Education Academy **0282**

Only three things matter: engagement; engagement; engagement

Derek Morrison, Associate Head of e-learning and Sharon Waller, Senior Adviser | The Higher Education Academy, United Kingdom

Enhancement of learning and teaching through the use of technology can be an important catalyst for wider development and positive change. Consequently, supported by a small but very active team, the Higher Education Academy has focused on offering attractive initiative frameworks that engage with institutions, subject departments, or sector communities, and which help them to realise their own key enhancement objectives. In this session Sharon Waller and Derek Morrison will highlight and showcase some of the Academy's engagements at multiple levels across the sector and discuss how these engagements are relevant to the ongoing challenges the sector now faces.

0283 **Sponsor:** Intel Corporation

Bridging the worlds of technology and education: an overview of Intel's holistic approach to educational technology

Danny Arati, Education Manager EUR, Corporate Affairs | Intel Corporation, United Kingdom

The changing role of technology and the Internet in education requires a holistic approach to the development and use of learning technologies, based on both technological and pedagogical expertise. Intel draws on its core expertise as a technology company and the experience from its partnership with governments, education institutions and agencies within educational programmes in more than 60 countries around the globe to provide a broad perspective to technology-enhanced teaching and learning. This includes solutions for deployment of hardware, software, internet access, services, technology professional development for teachers and local support to meet local needs. This session provides an overview of Intel's approach to educational technology, with a focus on the current professional development offerings and resources within the Intel Teach Programme in the UK.

0284 **Sponsor:** JISC

How the JISC Advance services can help you and your organisation

Doug Belshaw, Researcher/Analyst | JISC infoNet at JISC Advance, United Kingdom

This session focuses on the five key themes of JISC Advance: organizational efficiency, enhancing teaching and learning, external engagement, sustainability and research. The aim of the session is to engage, inform and highlight the range of products and services available from JISC Advance. Delegates will be made aware of practical solutions for use in their institution.

JISC Advance brings together and builds on the established delivery of a range of services, comprising JISC Digital Media, JISC infoNet, JISC Legal, JISCMail, JISC Netskills, JISC Procureweb, JISC TechDis and the JISC Regional Support Centres.

0285 **Sponsor:** Talis Education

Learn how Talis Aspire is enabling universities to make a step change in resource list management and hear why course resource lists go beyond the library, to the heart of what a university is about

Mark Bush, Head of Commercial Development | Talis Education, United Kingdom

Talis Aspire is an open and shared HE-wide system providing for the direct management of resource lists by academics that ensures the library gets the intelligence it requires to manage stock and e-resources efficiently.

During this session you will learn why an increasing number of universities are positioning Talis Aspire at the heart of strategies to support the student satisfaction of learning resources and to encourage faculty adoption of technology enhanced learning. Hear how Talis Aspire has helped to improve processes and efficient working across faculty and libraries alike.

Importantly, as we seek to raise the bar of resource list management still further, we shall showcase for the first time the work we have been exploring to deliver recommendation driven benefits, for students and lecturers alike, from the collective intelligence derived from the Talis Aspire system.

Titles of papers by ID number

Index of presenting authors