

LEARNING TECHNOLOGIES

From Pilot to Mainstream

5th Annual Conference on Teaching
and Learning in Higher Education

National University of Ireland, Galway

7th and 8th of June, 2007

Centre for Excellence in Learning & Teaching

NUI Galway

Galway

Ireland

Website: <http://www.nuigalway.ie/celt>

Conference Blog: <http://celtconf2007.blogspot.com>

SECTION 1: INTRODUCTION	1
Welcome & Introduction	2
Remarks from Dr. Kieran Loftus, Director of Computer Services, NUI Galway	4
SECTION 2: CONFERENCE PROGRAMME.....	7
SECTION 3: KEYNOTE SPEAKERS- BIOGRAPHIES	13
3.1 Prof. Stephen Heppell.....	14
3.2 Prof. Ray Land.....	16
3.3 Prof. Michael Kerres	18
3.4 Prof. Wim Van Petegem	20
3.5 Bill McDaniel	22
SECTION 4: CONFERENCE ABSTRACTS	23
4.1 Oral Presentations.....	23
4.2 Poster Exhibition	57
SECTION 5: GENERAL INFORMATION FOR DELEGATES.....	71
5.1 About the National University of Ireland, Galway	72
5.2 Campus Map	73
5.3 Galway City Map	74
FIGURE 2: MAP OF GALWAY	74
5.4 Conference Registration and Information Desk.....	75
5.5 Transport	75
5.6 Internet Access	75
5.7 Messages	75
5.8 Personal Property	75
5.9 Conference Dinner.....	75
SECTION 6: NATIONAL DIGITAL LEARNING REPOSITORY	76
SECTION 7: AUTHOR INDEX.....	78

Section 1

Introduction

This section provides an introduction to the conference, and includes comments from Dr. Iain Mac Labhrainn of the Centre for Excellence in Learning and Teaching (CELT) and Dr. Kieran Loftus, Director of Computer Services at NUI Galway.

Welcome & Introduction

Dr. Iain Mac Labhrainn

Director of the Centre for Excellence in Learning and Teaching (CELT), NUI Galway

I'm delighted to welcome you to this, our 5th Annual Conference in Teaching and Learning. Once again, we are pleased to have speakers and delegates from a variety of countries across Europe and beyond. It has been gratifying to see the extent to which "Galway in June" has begun to become a tradition in the higher education year.

Of course, what is at the heart of these events is a passionate belief that teaching in higher education should be a more collective endeavour than is often the reality. Many lecturers have little opportunity, in the headlong rush through the academic year, to step back and explore, with colleagues, their teaching practice and the challenge of student learning. We hope that at least for a couple of days every June, we manage to carve out space and time devoted to this reflection and vital aspect of collegiality.

This year, our attention focuses on learning technologies. The pace with which new technologies (particularly internet-based) have encroached on education is quite astonishing, but there are many major questions about their actual impact on the learning experience. Does, for example, the fact that you can now download a lecturer's PowerPoint slides at any time and place that is convenient, help you to grasp more readily the fundamental concepts of an academic discipline, or does it potentially threaten to hasten the 'commodification' of learning, as some have claimed? How can deep level, reflective and critical thinking be supported in 'fast media', and how can the notion of a learning community be fostered when so many technologies are focused on content delivery and individual customisation?

... how can the notion of a learning community be fostered when so many technologies are focused on content delivery and individual customisation?

I'm sure our keynotes will have plenty to say about these and other issues, but we hope also that the debate and discussion spills out beyond these presentations and into the corridors, the coffee rooms and the bar! For those, who are unashamed 'geeks' you may also like to join the online discussion on our conference blog (<http://celtconf2007.blogspot.com>) both during and after the event.

... at the heart of these events is a passionate belief that teaching in higher education should be a more collective endeavour...

But we're not just interested in profound and philosophical questions about the nature of teaching and learning in the 21st century, we are also keen to examine practical, day to day matters, and there should be ample opportunity to hear from the experiences of practitioners about what works and what doesn't work. Indeed, we may even have some lively debate and contested viewpoints, given the rich mix of backgrounds of those attending the event.

It's also important to appreciate that this conference actually marks the start of a major HEA funded project (which NUI Galway leads) on implementing learning technologies and we

would like to pass on our appreciation to colleagues in the partner institutions and beyond for their participation and support. There will be further events over the next two to three years in which some of the topics raised here will be pursued and it will be valuable to look back three years hence and see to what extent the technologies that we were all chatting about have become firmly established – or superseded! That’s the fun of working in such an area, but it also represents a challenge to teaching practice, emphasising the need for cooperation, collaboration and sharing of experience, skills and resources.

Finally, I’d like to take the opportunity for thanking the conference organising committee for their commitment and enthusiasm and I hope that they finally get an opportunity to go “offline” in the weeks following the event.

Best wishes and successful conferencing!!

Iain Mac Labhrainn

CELT Conference Organising Committee:

Dr. Iain Mac Labhrainn	Director, CELT
-------------------------------	----------------

Dr. Sharon Flynn	Assistant Director, CELT
-------------------------	--------------------------

Paul Gormley	NDLR Modern Languages Coordinator, CELT
---------------------	---

Labhaoise Ní Dhonnachadha	Learning Technologist, CELT
----------------------------------	-----------------------------

Gráinne McGrath	Learning Technology Support Officer, CELT
------------------------	---

Dr. Fiona Concannon	Learning Technologist, CELT
----------------------------	-----------------------------

Bernadette Henchy	Administrative Assistant, CELT
--------------------------	--------------------------------

Mary Bernard	Administrative Assistant, CELT
---------------------	--------------------------------

Caoimhín O’Nuallain	DERI & IT Department, NUI Galway
----------------------------	----------------------------------

Conference Blog:

<http://celtconf2007.blogspot.com>

Remarks from Dr. Kieran Loftus, Director of Computer Services, NUI Galway

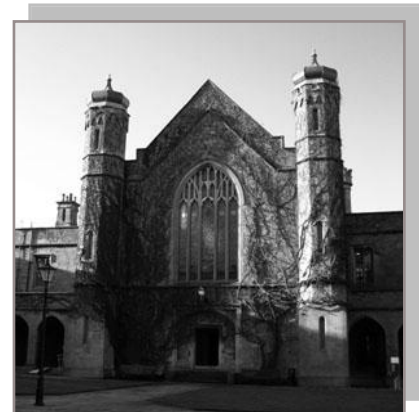
ICT Support for Teaching and Learning at NUI Galway

The ICT services provided to support teaching and learning at NUI Galway include:

- Basic wired and wireless network, eMail and Internet access;
- Services such as video-conferencing and video-streaming “layered” onto the basic network;
- Provision and support of on-campus computer suites for teaching, with something like 150 general purpose and specialised applications available to students;
- ICT support for teaching and learning spaces, including traditional lecture theatres and newer shared spaces for group learning;
- The e-resources provided by the James Hardiman Library;
- Electronic support for student administrative processes, including registration, exam timetables and exam results;
- Provision and support of the University’s Virtual Learning Environment, which is Blackboard.

Achieving excellence in teaching and learning requires excellence in these ICT support services. In NUI Galway we see two major aspects to the question of achieving excellence.

Firstly, and above all else, we seek to achieve excellence in the delivery of existing services. This requires hard work to “do simple things well”. It requires the service providers to work with their customers to understand, document and manage requirements and priorities, to understand customer perceptions of the services as delivered, to measure and monitor the



We live in a rapidly-changing world and ICT services need to respond to that world

operational services, and to acknowledge and respond to difficulties with the services. All this can be especially difficult to achieve in the University environment, with its strongly decentralised culture, and with a tradition of splendid amateurism.

Excellence in delivering existing services is not itself enough to achieve teaching and learning excellence. We live in a rapidly changing world and ICT services need to respond to that world. Our most visible service development initiative at NUI Galway at present is a project to move *Learning Technologies – from Pilot to Mainstream*. Central to this is the upgrade of the Blackboard Learning System to the enterprise edition. This will enable further technology based pedagogical innovation.

We have been fortunate at NUI Galway to maintain a coherent user community around this one VLE. This has enabled the academic community to focus on innovation in delivering academic programmes, and has enabled the support services to concentrate their limited resources on achieving excellence in delivering the one chosen VLE.

Upgrading the VLE is only part of NUI Galway's response to the changing world. There are considerable challenges in meeting the needs of traditional and non-traditional students, working with their own computers, on-and off-campus and outside traditional working hours. Although VLEs are Web based and generally aware of this environment the same cannot be said for other services. The need is there to build the "ecosystem" which supports students in their use of these services anytime, anywhere, using any device.

There are considerable challenges in meeting the needs of traditional and non-traditional students, working with their own computers on and off campus and outside traditional working hours

Two particular challenges which we see here are firstly providing students with a single integrated "portal", giving them a single point of access to all the University's electronic services, and secondly finding licensing and distribution models to enable use of the 150 specialised applications both on- and off-campus and on student-provided computers.

I wish delegates well in their deliberations and hope that you are able to take full advantage of all the attractions which Galway has to offer.

Dr. Kieran Loftus

Director of Computer Services

Section 2

Conference
Programme

Conference Programme Overview

Thursday June 7 th 2007		
Time	Session	Venue
08.30 – 09.30	Registration & Tea/Coffee	Foyer, Arts Millennium Building
09.30 – 09.45	Conference Welcome and Opening Address, President NUI Galway	Colm Ó hEocha Theatre
09.45 – 10.30	Keynote I Prof Ray Land <i>New technologies and troublesome knowledge: how Web 2.0 is transforming HE</i> p.16	Colm Ó hEocha Theatre
10.30 – 10.50	Poster Exhibition and Tea/Coffee	Foyer, Arts Millennium Building
10.50 – 12.30	Parallel Session (A) 	Various
12.30 – 13.45	Lunch	Bar
	Poster Exhibition	Foyer, Arts Millennium Building
13.45 – 14.45	Keynote II Prof Michael Kerres <i>Web 2.0 and its implications for learning in higher education</i> p.18	Colm Ó hEocha Theatre
14.45 – 16.15	Parallel Session (B) 	Various
16.15 – 16.45	Poster Exhibition and Tea/Coffee	Foyer, Arts Millennium Building
16.45 – 17.30	Keynote III Bill McDaniel <i>Visions of a Learning Future</i> p.22	Colm Ó hEocha Theatre
17.30	Concluding Remarks	Colm Ó hEocha Theatre
20.00	Conference Dinner (see p. 74)	Radisson Hotel, Galway
Friday June 8 th 2007		
Time	Session	Venue
09.00 – 09.30	Poster Exhibition and Tea/Coffee	Foyer, Arts Millennium Building
09.30 – 10.00	Welcome Address, Registrar, NUI Galway Address, Director Computer Services	Colm Ó hEocha Theatre
10.00 – 10.45	Keynote IV Prof Wim Van Petegem p.20	Colm Ó hEocha Theatre
10.45 – 12.30	Parallel Session (C) 	Various
12.30 – 13.45	Lunch	Bar
	Poster Exhibition	Foyer, Arts Millennium Building
13.45 – 14.30	Keynote V Prof Stephen Heppell p.14	Colm Ó hEocha Theatre
14.30 – 15.00	Panel Discussion	Colm Ó hEocha Theatre
15.00	Concluding Remarks and Conference Close	Colm Ó hEocha Theatre

Please Note: This Programme is subject to change.

Parallel Session (A)

Thursday June 7th

10.50 – 12.30



Session 1	
Chair: Paul Gormley, CELT	
Catherine Bruen (National Digital Learning Repository) <i>The NDLR: Sharing Information and Resources Across the Irish HE Sector</i> p.24	Colm Ó hEocha Theatre
Maureen O'Sullivan (National University of Ireland, Galway) <i>Creative Commons and Open Access in Education</i> p.25	
Prof. Robert Clark (University College Dublin & Arthur Cox) <i>Ownership of Intellectual Property Rights in the Third Level Sector – Law, Reality and Urban Myths</i> p.26	
Session 2	
Dr Marie-Thérèse Batardière, Dr Liam Murray & Catherine Jeanneau (University of Limerick) <i>"Up the walls!": the potential and practice of a class blog in language learning</i> p.27	Patrick F. Fottrell Theatre
Niall Watts (University College Dublin) <i>Blogs as Reflective Learning Tools</i> p.28	
Kristin Susilowati, Dr. Elizabeth A. Boyle & Dr. Iain MacLaren (University of Paisley, Scotland & National University of Ireland, Galway) <i>A Case Study of Students' Reflective Thinking in Continuing Professional Development by E-Learning</i> p.29	
Mary Loftus & Catherine Cronin (National University of Ireland, Galway) <i>Exploring Online Discussion – A Shared Voyage of Discovery for Student, Researcher & Facilitator Team</i> p.30	
Session 3	
Helen Guerin (University College Dublin) <i>Reflections on the development of moving image artefacts: Lessons learned from the development of video content to promote effective student engagement with a range of discipline specific content</i> p.31	Máirtín Ó Tnúthail Theatre
Ronán Hennessy & Martin Feely (National University of Ireland, Galway) <i>3D Visualisation in the Lecture Hall – A Real World Challenge</i> p.32	
Theodore Lynn (Dublin City University) <i>The Fast and the Furious: An Experiential Approach for introducing Strategic Management and Organisation Theory</i> p.33	
Session 4	
Lucy Keating (Netskills) <i>Blogs and Wikis – Beyond the Hype</i> p.12	AM119 - prebooking required

Parallel Session (B)

Thursday June 7th

14.45 – 16.15



Session 1	
Dr R. Parsons, Dr S. P. Booth & Dr A.J. Loughran (University of Dundee, University of Stirling & University of Paisley, Scotland) <i>Developing a method for visualising approaches to HE learning and teaching</i> p.34	Colm Ó hEocha Theatre
Angélica Rísquez & Sarah Moore (University of Limerick) <i>The pedagogical public park: ICT adoption and collective responsibility</i> p.35	
Christian Grune (Humboldt University, Berlin, Germany) <i>Dropping the “e” – Focus on competence development as a precondition for excellence in teaching and learning</i> p.36	
Session 2	
Lynn O’Connor & Lucy Byrnes (National University of Ireland, Galway) <i>Evolving Science-Based Teaching – A Case Study</i> p.37	Patrick F. Fottrell Theatre
Jana Tietze (Humboldt University, Berlin, Germany) <i>E-Learning with Horticultural Sciences</i> p.38	
Thomas Kropmans, Heike Smidt-Felzman, Mary Keys, Michal Molcho & Peter Cantillon (National University of Ireland, Galway) <i>Medical professionalism: a way from traditional to blended learning</i> p.39	
Session 3	
Pilar Alderete-Diaz (National University of Ireland, Galway) p.40 <i>How to create your own task-based learning environment in the language laboratory</i>	Máirtín Ó Tnúthail Theatre
Lawrence Cleary (University of Limerick) <i>Revisiting the Silent Way in Online Approaches to Learning Sentence Structure in Academic Writing Tasks</i> p.41	
Dr Máire Aine Ní Mhainnín (National University of Ireland, Galway) <i>Utilisation of Trados as a pedagogical tool in teaching translation</i> p.42	
Dr Laura McLoughlin (National University of Ireland, Galway) <i>Production and utilisation of subtitles in Advanced Language Classes</i> p.43	
Session 4	
Lucy Keating (Netskills) <i>Social Software – What’s it all about?</i> p.12	AM119 - prebooking required

Parallel Session (C)

Friday June 8th

10.45 – 12.30



Session 1	
Jacek Jankowski, Filip Czaja & Jaroslaw Dobrzanski (Digital Enterprise Research Institute, Galway) <i>Adapting informal sources of knowledge to e-Learning</i> p.44	O hEocha Theatre
Paul Hayes, Stephan Weibelzahl, Timothy Hall (National College of Ireland) p.45 <i>The Use of New Communication Technologies to Improve Quality of Student Learning</i>	
Ali Shamaej & Lejla Rovcanin (HEAnet & Dublin Institute of Technology) <i>The advances of Videoconferencing for third level institutions in Ireland</i> p.46	
Sebastian Ryszard Kruk (Digital Enterprise Research Institute, Galway) <i>Search and Browsing Cycle for Knowledge Discovery and Learning</i> p.47	
Session 2	
Elaine O'Leary (Athlone Institute of Technology) <i>Policy and Practice in the use of a range of Assistive Technologies for students with Specific Learning Difficulty</i> p.48	Patrick F. Fottrell Theatre
Michael Hogan, Ian Stewart & Chris Dwyer (National University of Ireland, Galway) <i>Argument Mapping with Rationale™: The Evaluation of Argument Mapping as a Learning Tool</i> p.49	
Joseph Allen (Queen's University Belfast) <i>POD casts – an Educational Perspective</i> p.50	
Anne Lodge & Claire McAvinia (National University of Ireland, Maynooth) <i>The use of audience response software for attitudinal research</i> p.51	
Session 3	
Dr Kevin Johnson, Sinead Averill, Cathal McHugo & Timothy Hall (University of Limerick) <i>Are Learning Content Management Systems better than traditional face-to-face teaching?</i> p.52	Máirtín Ó Tnúthail Theatre
Derek O'Reilly, James Doody, Stephen Ridley, & Chris Etherington (Dundalk Institute of Technology, Institute of Technology Tallaght, Dublin City University & Durham University, UK) <i>Maximising the Pedagogic Effectiveness of Online Lecture Notes</i> p.53	
Paul Davis, Dr Theo Lynn & Dr Malcolm Brady (Dublin City University) <i>SWIF (Student-Written, Instructor-Facilitated) Learning</i> p.54	
Brian Mulligan (Institute of Technology Sligo) <i>iOpen: The Open Institute</i> p.55	
Session 4	
Lucy Keating (Netskills) <i>Implementing Social Software – Practicalities and Pitfalls</i> p.12	AM119 - prebooking required

Netskills Workshops

Netskills, the training organisation funded by the Joint Information Systems Committee (JISC) in the UK and based at the University of Newcastle, is running a series of practical workshops designed to explore the advantages as well as the pitfalls of new technologies.

Each workshop will focus on one of three main themes:

1. ***Blogs and Wikis- Beyond the Hype***

Blogs and wikis - published by people with nothing to say and read by people with nothing to do? Or do they offer a world of exciting possibilities?

This interactive session aims to get beyond the hype and give an overview of the many different ways in which blogs and wikis are being used in teaching and learning, illustrated with real-life examples.

Participants will also get a chance to explore the blogosphere for themselves and try their hand at wiki editing.

2. ***Social Software – What's it all about?***

This session will explore the potential of different social software services, such as Frappr, del.icio.us and MySpace - are they just the latest craze, or do they really have the potential to develop online collaboration in teaching and learning?

It will also highlight recent developments such as mashups and "Friend of a Friend", and give participants the chance to try services out for themselves. Please note, blogs and wikis are covered in a separate session "Blogs and wikis - beyond the hype".

3. ***Implementing Social Software: Practicalities and Pitfalls***

Social software developments such as blogs, wikis and networking services have made it easier than ever before to publish and share information online. But what potential pitfalls does an organisation face if it wants to embrace such technologies?

This practical session will give an overview of some of the issues organisations should consider, such as legal matters, appropriate use and sustaining momentum. It will use scenarios and group discussions to enable participants to exchange views and analyse issues

Further Information:

<http://www.netskills.ac.uk>



Section 3

Keynote Speakers

This section provides information on the keynote speakers, including brief biography and lists of selected publications.

3.1 Prof. Stephen Heppell

Heppell.net

BIOGRAPHICAL INFORMATION

Prof. Stephen Heppell was formerly Director of the Ultralab e-learning research centre and is a highly regarded and distinguished expert on technologies for learning across all age spans. He contributes to the Guardian, BBC and Channel 4 and past projects include notschool.net, the Ultraversity, and the design of "world classrooms." He has served as advisor and consultant to various government departments in the UK on eLearning, classroom design and the internet.

PAST AND PRESENT PROJECTS:

Together with many other collaborators in public and private sectors, Stephen Heppell is involved in many key projects around the world:

- Higher education projects include the "Ultraversity" project, which started in July 2003 with the aim of developing an undergraduate degree programme BA (Hons) Learning, Technology and Research. The aim was to develop a personalised programme that enables students to gain a degree in three years through researching into their current work role.
- Architecture design projects include three "World Classrooms" in Richmond with Future Systems, a prison design with Learning Works; a substantial research project looking at designing for new pedagogy; and others including involvement with Building Schools for the Future .
- Software development including a long history of developing new learning community tools from "Campus 2000" with BT in the 80s, through Schools OnLine with the DTI to Think.com with Oracle today.
- The Learnometer project, with sponsorship from Microsoft, but helpful for governments, OECD, World Bank, etc is a project to do two things: (1) publish a biennial survey of world learning trends and (2) explore a metric of learning outcomes that helps us to see what improves when we invest in education.
- New media partnerships include past and present work on user created content and policy for the BBC and Channel 4; and working on some radical visions of "new" symmetrical TV. Prof Heppell is a governor of the new Teachers' TV Channel and an advisor to the BBC on their Digital Curriculum project.
- Innovative approaches to learning inclusion starts with the extraordinarily successful virtual school Notschool.net, funded by the UK's DfES and include the mobile phone based EU funded "m-learning" project for under employed youths; the QCA funded eVIVA assessment futures project
- Community based learning includes the Tesco SchoolNet 2000 (now SchoolNet Global) with Intuitive Media (the project became the Guinness Book of Record's largest internet learning project in the world)and the Talking Heads project.



COMMITTEES AND TASK FORCES:

Current committees with which Prof. Heppell is involved include governorship of Teachers' TV, DfES Schools Internet Safety Strategy Group, the minister's Advisory Group on Design of School Buildings, chair of trustees for the new Notschool.net charity, chair of governors at the Stepping Stones school in Surrey, Culture On-line steering group, the Welsh Assembly's Schools of the Future committee, the QCA Creativity Advisory group, BAFTA's Film committee, chair of the multimedia jury for the Royal Television Society, OECD S.E. Asia Virtual Advisory Board, Creative Archive License Group, and more...

FURTHER REFERENCES

Personal Website: <http://www.heppell.net/>

Ultralab: <http://ww3.ultralab.net/>

The Learnometer Project: <http://www.learnometer.net/>

Not for School Dot Net: <http://www.notschool.net/>

The Ultraversity Project: <http://ultraversity.net/>

Recommendations:

"the most influential academic of recent years in the field of technology and education"

-Department for Education and Skills (DfES), UK, 2006

"Stephen Heppell is Britain's leading computers-in-education guru. He heads the Ultralab at Anglia Polytechnic University - a hotbed of techno-optimism whence a constant stream of lovely educational applications has been emanating, without fuss, since the late 1980s".

-Dust or Magic international conference, Oxford, 2003

3.2 Prof. Ray Land

University of Strathclyde, Glasgow

New technologies and troublesome knowledge: how Web 2.0 is transforming HE.

ABSTRACT

Academic work in the new digital spaces afforded by Web 2.0 technologies is increasingly moving from the familiarity of the conventional, stable, and linear printed text, towards textual domains which are unstable, multilinear and driven by a visual logic. These new technologies – blogs, wikis, 3-D avatar environments, social software – give rise to authorship practices which are increasingly collective and public rather than individual and private. They constitute a form of ‘troublesome knowledge’ linked to different notions of temporality, to ‘fast time’ and the politics of speed. They are characterised by contestability, uncertainty and emergence, and seem to offer a radically different academic space in which process takes precedence over artefact, consensus over authority and exploration over argument. As well as challenging the traditional practices and authority of the academy, there is concern that such spaces might produce dysfunctional effects in relation to creative thinking, deliberation, discernment and other conceptual processes more traditionally associated with ‘slow time’. This session draws on a current project funded by the UK Higher Education Academy to consider how contemporary teachers and learners in higher education might creatively work with, and usefully assess, the intriguing but potentially troublesome texts and sites of the digital age.

BIOGRAPHICAL INFORMATION

Ray Land is Professor of Higher Education and Director of the Centre for Academic Practice and Learning Enhancement at the University of Strathclyde in Glasgow. His research interests include educational development, threshold concepts and troublesome knowledge, and theoretical aspects of digital learning. Recent books have included *Educational Development: Discourse, Identity and Practice* (Open University Press 2004) and *Overcoming Barriers to Student Learning: Threshold Concepts and Troublesome Knowledge* (Routledge 2006). He is co-founder of the ICE series of symposia (Ideas in Cyberspace Education) which have led to a range of publications including the book *Education in Cyberspace* (RoutledgeFalmer 2005) and a recent double issue of the journal *E-Learning*.



His research interests include:

- Professional Development of HE staff
- Educational development and change agency
- Role of Threshold Concepts in student learning and course design
- Theoretical aspects of learning in cyberspace

SELECTED PROFESSIONAL ACTIVITIES:

- Chair, National Review of the Training of Further Education Teachers in Scotland (Scottish Executive).
- Accreditor ILTHE

- External Examiner Durham University, The Robert Gordon University, Queens University Belfast Medical School
- Member HEFCE Committee on Centres of Excellence for Teaching and Learning
- Fellow of SEDA Editorial Board Member, Educational Developments.

SELECTED PUBLICATIONS:

Meyer, J.H.F. and Land, R. (eds.) (2006) *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*. Abingdon, Oxford: RoutledgeFalmer.

Land R and Bayne S (2005) (eds) *Education in Cyberspace* London: Routledge Falmer

Meyer, J. & Land, R. (2005). Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher Education*, Vol. 49 Issue 3, p373-388, pp. 373–388

Land, R. (2004). *Educational Development: Discourse, Identity and Practice*. Buckingham: SRHE and Open University Press.

Land R (2003) Orientations to Academic Development in MacDonald R and Eggins H *The Scholarship of Academic Development*, Buckingham: SRHE and Open University Press.

Meyer JHF and Land R (2003) Threshold Concepts and Troublesome Knowledge 1 Linkages to Ways of Thinking and Practising in C.Rust (Ed), *Improving Student Learning Ten Years On*. OCSLD, Oxford

Land R and Bayne S (2002), Screen or Monitor? Issues of surveillance and disciplinary power in online learning environments in *Improving Student Learning Using Learning Technologies* C.Rust (Ed), OCSLD, Oxford

CONTACT DETAILS:

Professor Ray Land
Director
Centre for Academic Practice and Learning Enhancement
University of Strathclyde
Graham Hills Building
George Street
Glasgow G1 1QE
Scotland
email: ray.land@strath.ac.uk

3.3 Prof. Michael Kerres

University of Duisburg-Essen, Germany

Web 2.0 and its implications for learning in higher education

ABSTRACT

Currently, the internet is going through an interesting metamorphosis, which is indicated by the somewhat vague term "Web 2.0". This change often is interpreted as a technological innovation that refers to weblogs, wikis, user-generated content or tagging. More importantly, it implies a different view to the web. The internet gradually becomes ubiquitous and a part of everyday life.



The presentation describes these perspectives and relates them to learning environments in higher education. Currently, universities try to establish "learning management systems" (LMS). In the light of Web 2.0 these environments seem rather rigid and monolithic. In many cases they simply do "not work" as social places: LMS often are not able to motivate students to communicate or cooperate on group assignments, forums often remain empty and are not accepted by students.

Consequently, Stephen Downes has coined the term "E-Learning 2.0" to refer to the transition computer based learning is undergoing. In this perspective, users will learn in a "personal learning environment" which is not a separate space on the internet, but an essential part of the users workspace. It should be highly integrated with the users' framework of tools for his/her personal use of the internet. A teacher would arrange some of the materials and tools the learner will work on, but would also arrange the environment to be open to the vast sources and tools the internet provide, thus, providing a soft transition between the learning environment and the "other" internet.

The border between the inside and the outside of the learning environment becomes permeable: Content is being aggregated from outside of the learning environment and is made available for the learner. Contents created by the learners are made accessible for the outside world. All this is accomplished by using the mechanism of XML-feeds. These feeds provide a solution to link a learning environment with the "outside".

Obviously, this scenario is different from elearning scenarios typically used today in higher education. They rely on learning platforms that for the most part are being used to distribute or download documents. These platforms essentially are based on the concept that all learning content and activities should be brought onto the learning platform. With this, they are islands on the internet without many connections to other resources or tools students prefer. They force the author / teacher to import all materials into the learning environment, they constrain learners to the tools the platform provides – many of them less capable and appealing than other tools available on the net. And they prevent contents that are being generated during the learning process to be fed to other applications to the net.

The presentation will outline and demonstrate how such a Web 2.0 approach has been implemented in a Masters program. It furthermore discusses some of the underlying conceptual

issues of this transition that can be related to the future (changing) role of teachers and the role of content in higher education.

BIOGRAPHICAL INFORMATION

Michael Kerres is Professor of Education (Media Didactics and Knowledge Management) and member of the board of the Centre for Higher Education and Faculty Development at University of Duisburg-Essen (Germany). In 2004 he was a Fellow at the Swiss Centre for Innovations in Learning, University of St.Gallen (Switzerland), from 1998–2001 Professor for Educational Psychology (media), Bochum University, and from 1990–1998 Professor for Media Didactics and Media Psychology at the Furtwangen University of Applied Sciences.

PRESENT INTERESTS IN RESEARCH

Michael Kerres' present research interests include e-strategies in higher education, didactical design of learning, and usability research in e-learning.

FURTHER DETAILS:

Blog: <http://mediendidaktik.uni-duisburg-essen.de/blog/2>

Email: michael.kerres@uni-duisburg-essen.de

3.4 Prof. Wim Van Petegem

Katholieke Universiteit, Leuven, Belgium

BIOGRAPHICAL INFORMATION

Prof. Wim Van Petegem is the Director of AVNet (the learning technology service) at the Katholieke Universiteit, Leuven- one of Europe's oldest institutions of higher education. He has extensive experience of elearning policy and practice and has led a number of European projects and served on international panels and committees in the field of elearning.

Wim Van Petegem was born in Sint-Amandsberg, Belgium. He received an MSc in Electrical Engineering at the Rijksuniversiteit Gent, in 1987 and an MSc degree in Biomedical Engineering at the Katholieke Universiteit Leuven, in 1989. He was Research Fellow at the same university, in the Department of Electrical Engineering until 1993. In 1993, he obtained a PhD degree, in electronics. He then went to the University of Alberta, Edmonton, Canada, for post-doctoral research on optical immunosensors at the Department of Electrical Engineering and the Department of Immunology, before returning to the Katholieke Universiteit Leuven, as a post-doctoral researcher.



From 1996 until 1998, he was Senior Researcher with LINOv, the Leuven Institute for Innovative Learning, involved in research on the introduction of ICT in education. From 1998, he was Assistant Professor at the Science and Technology Department at the Open University of the Netherlands, involved in research on Web-based learning and in education in ICT and management. In 2000, he returned to Leuven, where he became part-time senior researcher at LINOv (K.U.Leuven) and part-time lecturer at the Katholieke Hogeschool Leuven, Department of Economics. Since July 2002, he has been the director of AVNet, the umbrella name for Audiovisual Services, eLINK (eLearning in an International Network of Knowledge) and Study Centre Open University at the Katholieke Universiteit Leuven.

SELECTED PUBLICATIONS

H. Bijnens, M. Boussemaere, K. Rajagopal, I. Op de Beeck, W. Van Petegem (eds.), (2006) *European Cooperation in Education Through Virtual Mobility. A Best-Practice Manual*, Published by the Being Mobile project team (funded by the European Commission), Dec 2006., pp. 1-123.

M. Daelen, C. Myata, I. Op de Beeck, P.-E. Schmitz, J. Van den Branden, W. Van Petegem (2005), *E-learning in Continuing Vocational Training, particularly at the workplace, with emphasis on Small and Medium Enterprises*, Published by the European Commission, DG Education & Culture, March 2005, Contract No 2003-3237 (see: http://ec.europa.eu/education/programmes/elearning/doc/studies/vocational_educ_en.pdf) pp. 1-112.

S. Chikasha, J. Tarugarira, W. Van Petegem, (2006). A study on the human factor issues of lecturers and students that hinder the establishment of an e-learning enabled tertiary institution in a traditionally face to face institution, *Zimbabwe Journal of Educational Research*, Vol. 18, Nr. 1, March 2006, pp. 17-49.

W. Van Petegem (2002), *Distance Education in BiH, Feasibility study and needs assessment on the setting up of a national distance learning service in BiH*, Report for the Council of Europe (Contract No 159/02), December 2002, pp. 1-22.

SUMMARY OF RECENT RESEARCH PROJECTS:

Date	Project Name	Further Details
01.05.2007 30.06.2007	- Audiovisual learning materials - International training program.	
01.03.2006 29.02.2008	- V ENUS - Virtual and E-mobility for Networking Universities in Society,	http://www.venus-project.net/
01.02.2005 31.01.2007	- LERU - creation of a LERU (League of European Research Universities)	http://www.e-leru.leru.org/
01.01.2005 31.12.2006	- Virtual Curricula ThrOugh Reliable InterOperating University Systems	http://www.coimbra-group.be/victorious/
01.01.2005 31.12.2006	- Real Virtual Erasmus	http://reve.euopace.org/
01.04.2004 31.03.2006	- eCompetence initiative	http://www.ecompetence.info/

CONTACT ADDRESS:

AVNet

Kapeldreef 62 - bus 05206

B-3001 Heverlee

Email: wim.vanpetegem@avnet.kuleuven.be

3.5 Bill McDaniel

Digital Enterprise Research Institute (DERI), NUI Galway

Visions of a Learning Future



ABSTRACT

The assimilation of learning in the traditional sense by emerging technologies continues and is accelerating. Professionals are now expecting to have two or three careers in a lifetime. And a lifetime is expected to increase substantially in length. At the other end of the learning spectrum, children are teaching each other and the web is providing all the content one could ever ask for.

This implies that, in the not too distant future, how we think about learning will change dramatically. We already discuss life-long learners, but have not fully integrated this concept into our culture. Soon, how we view learning will change and the concept of elearning will disappear, as it becomes the ubiquitous way to learn.

This talk will examine several visions of a near term future where learning is integrated into the expectations, the infrastructure, and the lifestyle of our culture. Some of the pros and cons will be discussed and some discussion of the ways in which we come to terms with a learning future will be explored.

BIOGRAPHICAL INFORMATION

Bill McDaniel is currently the Project Executive of the eLearning Cluster, which includes the eLite Semantic eLearning project, at the Digital Enterprise Research Institute, National University of Ireland, Galway. Bill has been active in information technology for 32 years. Prior to his current position he was with Adobe Systems as a Senior Scientist researching semantic technologies, emerging technologies and developing a technology strategy for the company.

Bill has been CTO of several start-up and small software companies, including two of his own. These included companies in such areas as electronic printing, wireless demand chain management, wireless retail loyalty, advanced 2D bar-coding, and AI-based military logistics. He also opened the first internet café in North Texas and a digital recording studio. He has co-authored 6 books and several papers and articles on the future impact of technology on people and society. His current interests are semantic technologies, ubiquitous and pervasive computing, human-computer interaction and associated areas.

SELECTED PUBLICATIONS

Kruk, Samp, O'Nuallain, Davis, McDaniel, Grzonkowski: Search Interface Based on Natural Language Query Templates; *IADIS International Conference WWW/Internet 2006* [<http://library.deri.ie/resource/JyWYJN6o>]

Kruk, Decker, Grzonkowski, Gzella, McDaniel: Social Semantic Collaborative Filtering for Digital Libraries; *Journal on Digital Information, Special Issue on Personalization, 2006*

Kruk, McDaniel: An Examination of the Impact of Emerging Technologies on eLearning, In *Proceedings of Society for Information Technology and Teacher Education (SITE) March 26-30, 2007*

Section 4.1

Oral Presentations

This section provides the abstracts for the oral presentations.

The NDLR: Sharing Information and Resources Across the Irish HE Sector

Catherine Bruen
Trinity College Dublin
Email: cbruen@tcd.ie

Abstract

The National Digital Learning Repository (NDLR) is an online service for Irish Universities and the Institutes of Technology which supports the collaboration and sharing of learning and teaching resources. The NDLR funded by the HEA, and hosted by HEAnet.

The objective of the NDLR is to investigate and enable the development and a means of retrieving and sharing of digital learning resources for teaching and learning staff in an academic and supporting role between the Irish Universities, the Institutes of Technology and their associated colleges. All staff in an academic and supporting role within the NDLR partner institutions are eligible to contribute and use materials in the repository.

The NDLR aims to:

- Support academics in the collaboration and development of their learning resources
- Provide access to and enable sharing of digital learning resources across all academic disciplines for Higher Education
- Investigate the requirements for a National Digital Learning Repository service
- Provide guidance as to digital rights for shared resources
- Assist the establishment and development of Communities of Practice (COP) in the creation and sharing of reusable learning resources

There are a wide variety of learning and teaching resources available in the NDLR. Resources will depend on whatever is contributed to the repository by the community but will broadly include materials that teaching staff can use with learners in blended learning, classroom or online learning activities. Examples include single files (documents, articles, images, video clips, diagrams, photographs, podcasts, maps, handouts, presentations, question banks) or more comprehensive learning resources (interactive simulations, web tutorials and assessment exercises).

References:

<http://www.ndlr.ie>

Creative Commons and Open Access in Education

Maureen O'Sullivan
Faculty of Law
National University of Ireland, Galway,
Galway, Ireland
Email: maureen.osullivan@nuigalway.ie

Abstract

Introduction: Copyright is an old legal paradigm which protects owners' rather than authors' rights. Its first incarnation was to prevent the spread of seditious material during Mary Tudor's reign, after the invention of the printing press. Only later did it morph from a restraint on freedom of expression into a species of property right, although copyright law still retains vestiges of its early form. Over the years, copyright's term and scope have expanded consistently and international legislation has scotched the need for formalities for obtaining its protection, making it easier for rights holders to maintain fences around their works.

Current Controversy: Modern controversy about copyright arises from a number of factors, including: large industries profit greatly from their copyright portfolios – they are not necessarily creators; copyright is not really about protecting and rewarding authors – the majority do not make a living from their work; the Internet allows all – very few people pay attention to the strict laws in place. Old legal paradigms are not necessarily the best bottles in which to house new, technological wine.

The Internet: The Internet has wrought change on behavioural patterns in literate, well-to-do, largely urban societies. From the user's point of view, it opens up access to works, music and information from all over the world. Increasingly, creative types are making use of this global marketplace. Musicians such as Lily Allen and the Arctic Monkeys have used the Internet to create a fan base for their music. Academic journals such as First Monday allow authors to retain their copyright or, more recently, to adopt a Creative Commons licence.

Creative Commons: Creative Commons is a not-for-profit organisation which encourages copyright owners to relax their rights and inform the public of the fact on their website. Over a million works now adopt these licences. Copyright owners can choose which rights to relinquish: whether it be restricting the creation of derivative works; limiting users' rights to non-commercial purposes; or specifying the way the work may be shared – the latter condition is useful for collaborative works such as Wikipedia and music sampling. Different licences are available for all these purposes. A high profile proponent of Creative Commons licensing is Brazil's Minister for Culture, Gilberto Gil whose involvement has helped to spread awareness of his music – and Creative Commons.

For the busy/lazy lecturer: Creative Commons is gaining ground in the educational sphere. Its founder, Professor Lawrence Lessig now only publishes if he can release the work under a Creative Commons licence. For educators, this facilitates use of his works and his book, *Free Culture*, is available as a free download on the Penguin website.

On the Hyde-side: The downside is that copyright law is not representative in a democratic sense and efforts to change this through the courts and the legislature have failed. This shifts responsibility to civil society to engage in a form of civil obedience to circumvent copyright's strictures.

Ownership of Intellectual Property Rights in the Third Level Sector- Law, Reality and Urban Myths

Prof. Robert Clark
School of Law
University College Dublin,
Email: Robert.clark@ucd.ie

Arthur Cox Solicitors
Earlsfort Centre, Earlsfort Terrace
Dublin 2
Ireland
Email: dublin@arthurcox.com

Abstract

Professor Robert Clark's seminar aims to highlight and discuss issues and concerns within the realm of copyright, intellectual property rights (IPR), digital media and considerations for institutional engagement with e-repositories. General copyright issues within the Higher Education sector will be addressed at this seminar, with particular reference to the development of the Digital Rights Management system for the National Digital Learning Repository (NDLR).

Participants will have the opportunity to engage in question and answer discussions with Professor Clark, along with other presenters of the 'Share and Share Alike' strand.

Further Information

UCD staff page: http://www.ucd.ie/law/staff_robert_clark.htm

Memberships:

- Irish Association of Law Teachers
- Chairman, Copyright Association of Ireland
- Internet Advisory Board
- Patent Office Users Council
- Irish Representative on Copyright Experts Group (European Commission)
- Written Group on a European Copyright Code

“Up The Walls!”: The Potential and Practice of a Class Blog in Language Learning

Dr Marie-Thérèse Batardière, Dr Liam Murray, Catherine Jeanneau,

Department of Language and Cultural Studies,

University of Limerick, Limerick, Ireland

Email: marie-terese.batardiere@ul.ie, liam.murray@ul.ie, catherine.jeanneau@ul.ie

Abstract

In recent years, blogs have emerged as a user-friendly communicative tool and, in this capacity, have found their way to the educational environment (Johnson, 2004; Connel, 2006). As stated by Murray and Hourigan (2006:158), blogs are typically individualistic or collaborative in nature. In second language teaching they may be the end-task or a complementing tool used to perform a set of tasks (Jeanneau and Batardière, 2006). Action research on using blogs in the language classroom –albeit scarce- has demonstrated that blogs can enhance and supplement the language class (Pinkman 2005).

Our present study adds to research on the successful implementation and integration of blogs in second language learning and teaching. It provides qualitative empirical evidence that blogs have formidable potential as an effective medium for active language learning.

This paper will first briefly present a teaching and learning project that is integrated into a French language course for Third Year Irish undergraduates [studying Business and French] and which combines research on the Internet with access to a collaborative blog. It will discuss some of the practical issues involved in the setting up and administration of a class blog in order to assist language teachers who may be considering the introduction of this computer-based forum into their pedagogical approach.

Then, on the strength of students' blog postings and questionnaires -collected from two different cohorts of approximately 20 learners each-, this qualitative study will explore some of the intrinsic qualities and characteristics of a blog, such as authenticity (of environment and task), flexibility (its adaptability to learners and set of tasks) and writing creativity. We will also comment on its singular way of reinforcing the learners' target language use and exchange of strategies and will examine blogs' contribution to the promotion of cultural diversity and of a group identity.

Finally, some additional applications of class blogs will be suggested for future practice and research.

References

- Connell, S. (2006). Comparing blogs, wikis, and discussion boards as collaborative learning tools. In Wiki, Hyderabad, India: ICFAI University Press. (retrieved February 2007 from <http://www.soozzone.us>)
- Jeanneau, C., & Batardière, B. T. (2006, 4th-7th September). Quel est le boeuf? Beefing up Language Classes with Collaborative Blogs. Paper presented at the EuroCALL Conference, University of Granada, Spain.
- Murray, L & Hourigan, T (2006). Mapping Successful Language Learning Approaches in the Adaptation of Generic Software. *Computer Assisted Language Learning*, Vol. 19, Nos. 4 & 5, pp. 301 – 316

Measures of Learning Style in the Evaluation of Blogs as Reflective Learning Tools

Niall Watts,
IT Services,
Audio Visual Centre, Library Building
University College Dublin,
Belfield Dublin 4 Ireland
Email: niall.watts@ucd.ie

Abstract

Bloggging can encourage and facilitate collaboration and reflection (Bartlett-Bragg, 2003; Dron, 2003; Instone, 2005; Xie and Sharma, 2004). This study investigates whether student bloggers are collaborative and reflective learners by measuring their learning style and by investigating their blogs and blogging habits. The study focuses on an in-depth analysis of six blogs written by third year students on an undergraduate Multimedia and Communications course.

Computer Mediated Communications research has been criticised as focusing on student evaluations and Human Computer Interaction factors rather than on learning (Salmon, 2001). In an attempt to address some of these criticisms, this study adopts a more empirical approach. Standard test instruments are used to measure learning style and reflection among student bloggers. The findings are supported by qualitative and quantitative data gathered from the blogs by indirect observation. This data is used to measure collaboration and reflection respectively.

An analysis of the blog posts and comments found that over one third were reflective, using heuristics based on Hatton and Smith (1995). This finding was triangulated with results from a test instrument (Kember et al., 2000), which found all the bloggers to be either 'somewhat reflective' or 'highly reflective'. The quantity of comments and links between the student blogs suggested that the students were collaborative learners who had formed an online community.

Unexpectedly, most of the bloggers in this study showed a preference for the converging learning style based on Kolb's (1993) Learning Style Inventory. This indicates that they are active, experimental, individual learners (Kolb and Kolb, 2005). Learners who reflect and collaborate tend to have a diverging or, to a lesser extent, an assimilating learning style (Kolb, 1984). The findings from this study may be due to sample bias. For example, converging learners might flourish due to the practical, 'hands-on' nature of the multimedia and communications course.

References

- Bartlett-Bragg, A. (2003, December). Blogging to learn. *The Knowledge Tree*, 4. Retrieved from <http://www.flexiblelearning.net.au/knowledgetree/edition04/>
- Hatton, N. & Smith, D. (1994) Reflection in teacher education: towards definition and implementation, *Teaching and Teacher Education*, 11, pp. 33-49.
- Kolb, D.A (1984) *Experiential Learning* (Englewood Cliffs, NJ, Prentice-Hall).

A Case Study of Students' Reflective Thinking in Continuing Professional Development by E-Learning

Kristin Susilowati, Dr Elizabeth A. Boyle,
University of Paisley,
High Street, Paisley PA1 2BE, Scotland
Email: kristin.susilowati@paisley.ac.uk, elizabeth.boyle@paisley.ac.uk.

Dr. Iain MacLaren
Centre for Excellence in Learning and Teaching (CELT)
National University of Ireland, Galway,
Galway, Ireland
Email: iain.maclaren@nuigalway.ie

Abstract

E-learning has increasingly been used as a method for supporting Continuing Professional Development (CPD) programmes in various fields, including education. Despite this, there is an issue about the extent to which e-learning courses and tools can promote the higher order thinking and critical reflection that is the hallmark of professional (particularly at postgraduate level) development. Here we present a case study of an e-learning CPD course offered to school teachers in Scotland as part of the national qualification for 'Chartered Teacher' status. In particular, we focus on the issue of reflection by exploring the extent to which it is developed and sustained through the use of a "guided learning journal" and an asynchronous online discussion forum. The journal serves as a means of guiding learning activities, reflecting on practice and experience and as a means of assessment for the course. Quantitative and qualitative analysis of the content of the participants' learning journals and discussion forum postings was undertaken. Van Manen's work on level of reflection (1977; 1991) was used as a framework to measure the extent of reflective thinking that was evident in journal entries and discussion forum postings. The findings indicate that such techniques can be effective in supporting deep reflection, but also reveal the constraints and influence of a variety of factors. The findings provide insight into the extent to which these methods could elicit students' high level reflection.

References

- Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6(3), 205-228.
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany: State University of New York Press.

Exploring Online Discussion – A Shared Voyage of Discovery For Student, Researcher & Facilitator Team

Mary Loftus & Catherine Cronin,
Department of Information Technology
National University of Ireland, Galway
Galway, Ireland

Email: mary.loftus@ie-vision.com , catherine.cronin@it.nuigalway.ie

Abstract

Online discussion can provide a rich learning environment. However, like many of the richer experiences in life – it is not something that can easily be engineered. This action-research project used a unique, collaborative approach to explore and enrich online discussion.

The context of the project was a two-year, fully online Masters programme in Software & Information Systems. The project began with the goal of developing a web-based system to deliver regular discussion feedback from facilitators (tutors) to students. One aspect of the research approach was to use the discussion medium itself to explore the issues. It began by reversing the roles of student/researcher and facilitator team – in an online discussion designed to explore the requirements for a student feedback system.

This role reversal gave all concerned a new slant on the discussion process and allowed for a unique exchange of views between the facilitator perspective and the student perspective.

The online discovery of discussion has also included an examination of some of the prominent literature in this area. Gilly Salmon's 5 stage model; Brookfield & Preskill's discussion centred approach; Palloff & Pratt's contribution on community and Garrison & Anderson's 'Community of Inquiry' model were explored in the context of the MScSIS. In a follow-up initiative facilitators 'road tested' some aspects of this theory.

The initial findings of the project suggested that feedback is indeed an essential element in creating a satisfying, productive discussion environment – but we have discovered that there are many other factors involved. Learning philosophy, the importance of building and supporting online community, the development of individual student skills and awareness, the role of the facilitator, and the clarification and negotiation of discussion expectations all play a vital part. The journey is ongoing, but we would like to share our discoveries thus far.

References

- Brookfield, S.D., & Preskill, S. (1999), *Discussion as a way of teaching*. San Francisco: Jossey-Bass, Inc.
- Salmon, G. (2000) *E-moderating: the key to teaching and learning online* London, Kogan Page.
- Palloff; R.M., & Pratt, K. (1999). *Building learning communities in cyberspace Effective strategies for the online classroom* .San Francisco, CA: Jossey-Bass.

Reflections on the development of moving image artefacts: Lessons learned from the development of video content to promote effective student engagement with a range of discipline specific content.

Helen Guerin,
Director, UCD Audio Visual Centre,
University College Dublin,
Belfield, Dublin 4.
Email: Helen.Guerin@ucd.ie

Abstract

The UCD Audio Visual Centre has been producing moving image artifacts to support student learning for well over a decade. Together with academic staff across a broad spectrum of disciplines in the sciences and the humanities, we have developed moving image artefacts ranging from short video clips for inclusion in face-to-face teaching and on-line courses, to complex multi-layered simulations and virtual patient case studies to support higher order critical thinking (Brookfield, 1987) skills development and to encourage students to adopt a deep approach to learning (Entwistle & Ramsden, 1983) in higher education.

The UCD Audio Visual Centre has also delivered courses via terrestrial television, such as LearNet and Read & Write, via digital satellite broadcast e.g. Certificate in Safety and Health at Work, delivered podcasts and more recently trialed content delivery via IPTV.

This paper will reflect on how best moving image artifacts can be used as signage (Vygotsky, 1978) to direct learners towards the development of meaning and what visual imaging tools can be employed to best support the learning process. The perspectives of teacher, technician, researcher and interactive designer will be contrasted and a hypothesis for best practice in developing moving image artefacts proposed.

References

- Brookfield, S. (1987), *Developing Critical Thinkers, Challenging Adults to Explore Ways of Thinking and Acting*, San Francisco, Jossey-Bass.
- Entwistle, N.J. and Ramsden, P. (1983), *Understanding Student Learning*, London: Croom Helm.
- Vygotsky, L.S. (1978) *Mind and Society: The Development of Higher Psychological Processes*, Cambridge, Mass.: Harvard University Press.

3D Visualisation in the Lecture Hall - A Real World Challenge

Ronán Hennessy & Martin Feely
Department of Earth & Ocean Sciences
National University of Ireland Galway
Galway, Ireland
Email: ronan.hennessy@nuigalway.ie

Abstract

Our perception of the world around us is inherently a three-dimensional one. Can questions that rely on the Earth's spatial capacities be understood solely through the use of verbal or logical-mathematical means?

A visuospatial aptitude is an inherent requirement in the academic mastery of a variety of scientific fields. The importance of visuospatial cognition in the geosciences is widely acknowledged, not least in that a large amount of the subject matter has a latent three-dimensional geometry lying beneath the surface of the Earth. An understanding of the concepts of three-dimensional space is essential to understanding of the fundamental theories of geosciences. The traditional approach to solving problems with an underlying spatial capacity using verbal or two-dimensional visual means has often fallen short in the development of student spatial awareness.

Utilising three-dimensional visualisation for enhanced tuition corresponds neatly to the middle sectors of Edgar Dale's 'Cone of Learning'. Simulation-based learning can improve a student's retention of knowledge in the classroom, whilst also enabling interactive instruction prior to embarking on outdoor field studies.

The use of three-dimensional visualisation in the communication of digital outcrop models (DOMs), complex geomorphological topographies, quantitative subsurface models, and multiscale geological features represents a paradigm shift in how we visualise the Earth's physical morphology.

Online tuition and literature resources can be augmented by the provision of 3D interactive media served with cross platform open source toolkits such as OpenSceneGraph and VRML/X3D and 3D Earth viewers such as Google earth and World Wind. Desktop GIS applications further allow for the generation of spatially quantitative three-dimensional models that can be integrated into interactive Web-served formats. The use of inexpensive polarized and anaglyphic 3D glasses allows for the communication of enhanced three-dimensional digital models to groups of students, particularly if coupled with GeoWall hardware.

The Fast and the Furious: An Experiential Approach for introducing Strategic Management and Organisation Theory

Dr. Theodore Lynn
Management and IS Group
Dublin City University (DCU) Business School
Dublin City University,
Dublin 9, Ireland
Email: theo.lynn@dcu.ie

Abstract

This article describes the development of an experiential learning activity to introduce primary strategic elements through a team-based experiential exercise. Designed for delivery in a traditional classroom during a two-hour session, the exercise uses videogame software and a narrative context to transfer strategic management concepts into a real-world situation. The article illustrates how instructors can use the exercise as presented, can adapt the narrative context to fit their course design and objectives, or indeed design and develop their own exercise using similar software. This paper discusses the outcomes from implementations in postgraduate pre-experience and post-experience classes and an organization theory and practice variant in an undergraduate class.

Developing a Method for Visualising Approaches to Higher Education Learning and Teaching.

Dr. Richard Parsons
Centre for Learning and
Teaching,
University of Dundee,
Scotland
Email:
r.parsons@dundee.ac.uk

Dr. Simon P. Booth
University of Stirling,
Department of Computing
Science and Mathematics,
University of Stirling
Scotland
Email: spb1@stir.ac.uk

Dr. Arthur J. Loughran
University of Paisley
Centre for Academic and
Professional Development
University of Paisley
Scotland
Email:
arthur.loughran@paisley.ac.uk

Abstract

We describe the development of an approach to categorise learning and teaching activities in a manner that is useful for analysing module-based teaching activities.

The current stage of model development uses spreadsheet techniques for recording lecturer/tutor data input which is used to present a graphical and tabular analysis of several teaching related characteristics, eg online vs offline activity, collaborative vs individual activity, summative vs formative assessment. These outputs provide a visual and text summary of the categorised teaching activities thus providing an important distillation for lecturing staff to understand their underlying pedagogic approaches.

In addition to providing academic staff with an impact overview of their teaching activities, the data can also be used to estimate the student effort hours associated with the recorded activities. In so doing the model lends itself to use as a tool for curriculum design.

The model can also be used to support and encourage benchmarking learning, as it records the style of learning interactions in a way that can be compared across time, disciplines or institutions. While it stemmed from an exercise in benchmarking eLearning, we felt it was more appropriate to investigate and record learning activities within and throughout the modules, than to simply focus on the online component of these interactions.

The model is designed to be flexible to allow expansion to capture teaching activities that are specific to a particular discipline. The model can also be adapted to allow greater detail to be collected, and background information for some of the elements to be incorporated. Where possible, we are aiming to have the spreadsheet produce the visual summary live, and to permit the documentation of changes in the style of the learning interactions over time.

We acknowledge that there is an additional need for alternative strategic analysis within some institutions to be able to benchmark eLearning services and activities.

Our interactions across different institutions, with other learning support staff and with academic staff in a range of disciplines, has been crucial to the development of the approach. As a consequence, in addition to the exposition of the model, examples of use will be presented to illustrate the model function.

The Pedagogical Public Park: ICT adoption and collective responsibility

Angelica Riskey, Dr. Sarah Moore
Centre for Teaching and Learning
University of Limerick
Limerick, Ireland
Email: angelica.riskey@ul.ie, sarah.moore@ul.ie.

Abstract

The culture of an institution plays a very important role in how ICT is integrated into teaching, and what is expected from every agent (teachers, administrators and students). Important considerations include the degree of centralisation of an institutions ICT related activities; the type of support and rewards it provides to faculty; and the emphasis that is placed on research and teaching roles when using ICT in academic settings. Depending on these, and similar factors, teachers may be expected on one hand to respond to required changes determined by a centrally imposed system, thereby integrating ICT use into their teaching, or on the other they may be expected to take a creative and innovative lead in their technological innovations. Institutional assumptions and expectations combine with the teachers' own perceptions and attitudes towards their perceived role as change agents in the use of technology enhanced teaching. This dynamic combination contributes significantly to determining both the extent and the effectiveness of the implementation of ICT related teaching innovations.

With these ideas in mind, we approached faculty at an Irish university to explore the motivations and barriers they perceive in the adoption of ICT in their teaching. An open ended questionnaire was distributed online across campus at the end of the 05/06 academic year. A total of 130 faculty participated, which represents approximately 25% of the total sample. A content analysis was carried out and a series of codes emerged across all five questions: added value (in terms of time, teaching and learning, lesser administration load, and so on), available training and support, effective management of information about technology available, access to technology by staff and students, institutional leadership, and time available to devote to teaching innovations.

Results are discussed in the light of the importance of the concept of collective responsibility in ICT integration. Technological innovations are unlikely to thrive if both administrators and faculty fail to recognise and embrace their role in making them possible. We present the readers with the metaphor of a public park in which everyone needs to recognise their collective responsibility on the quality of teaching and learning at third level institutions, anonymity is balanced out with a sense of community, and support takes place in a context that promotes independence and communication.

Dropping the “e” - Focus on Competence Development as a Precondition for Excellence in Teaching and Learning.

Christian Grune
Multimedia Teaching and Learning Center
Humboldt-Universität zu Berlin
Unter den Linden 6 10099 Berlin
Email: christian.grune@cms.hu-berlin.de

Abstract

The presentation describes the underlying conceptions for the integration of digital technologies for learning and teaching at the Humboldt-Universität zu Berlin/Germany (HU). It reflects hands-on experiences with a networked and community based support structure as a “new deal” for staff development. It describes experiences with communities of practice supporting the use of digital media in the context of on-campus teaching.

The focus on the development of competencies instead of knowledge transfer will change the models and formats of learning - for teachers as well as for students. Digital technologies can play an important role to support and enable these changes - but we have to concentrate on the whole process, not only the “e”-part of it.

Two main key issues will be presented as an input for exchange and discussion:

1. The project “eCompetence development in the professional context” establishes communities and networks “in the professional context”. It links central services to best practice examples and practitioners in the faculties and departments. They are complemented by an university wide “E-Learning-Network” for overall topics with relevance to the whole university. This community based “new deal” proves to be more successful than formal ways of training in staff development: It makes valuable achievements of pioneers visible to other faculty members, gives an opportunity to share ideas and experiences and is because of its non-formal character easily accessible. These university networks could be easily extended towards European and inter-university networks of excellence - similar to networks within the scientific community.
2. Using digital technologies in teaching and learning is closely connected to the Bologna Process. A focus on developing key competencies will change the way of teaching and learning, as lifelong learning becomes more important. The shift from teaching to learning encourages active and self directed learning. The quality of the teaching process, transparent study courses, the assessment of competencies and the accreditation of study programs are the core issues in the light of this changes. Qualifications and competencies instead of credits or certificates will play an important role. A European qualification framework is developing. If we see digital technologies as a main factor to augment the teaching and learning process we should discuss common European strategies in this area. The presentation shows best practice examples and discuss the opportunities to extend existing scientific research communities to teaching communities.

Evolving Science-based Teaching – A Case Study

Lynn O'Connor & Lucy Byrnes
Department of Biochemistry,
National University of Ireland, Galway
Galway, Ireland
Email: lynn.oconnor@nuigalway.ie, lucy.byrnes@nuigalway.ie

Abstract

This paper is a case study reporting the findings of the introduction of a web-based delivery, learning and assessment programme, coupled with a form of problem-based- learning to a large (200 approx) undergraduate science class at the National University of Ireland, Galway.

A variety of factors, in particular falling standards and pass rates in addition to falling attendance at lectures encouraged us to search for alternative teaching and learning mechanisms. We opted for multiple modes of delivery and assessment. It was our belief that this might stimulate the student to engage more effectively than the traditional method of didactic learning by formal lectures.

In an effort to emphasize the change we changed the “look and feel” of the course at every level. Firstly we changed the main reference text from one that had been in place for over twenty years. The new text brought new technologies for both student and instructors e.g. for the instructors, on-line test banks and on-line assessment facility, powerpoint slides and animations ; and for the students on-line resources including sample MCQs with immediate feed-back; sample essays with feedback, online assessment to animations. We report here on the impact this had on both the instructors and students.

The course was also delivered using Blackboard (the virtual learning portal in use within the University). This allowed us to improve our communication with the students, post lecture notes for preselected periods, track the “hits” made by the students on each aspect of the course including all lecture notes. The statistics of this interaction are reported here.

To improve engagement with the course material throughout the duration of the course we introduced continuous assessment on-line MCQs on the lecture material. This paper also reports on the logistics of operating on-line MCQs with 200 students and a computer facility with a capacity of 60 maximum.

An alternate strand of teaching and learning focused on a modification of the traditional Problem-Based-Learning approach. Our teaching team for this course includes five staff members in total so the traditional PBL ratio of 8:1 was impossible. This paper includes the method and success of this innovation.

A very satisfying introduction was the use of on-line blackboard survey facility. The results of this survey are presented here

E-Learning within Horticultural Sciences

Jana Tietze

CMS / MLZ

Humboldt University Berlin

Am Friedrichshain 11 10407 Berlin

Email: jana.tietze@cms.hu-berlin.de

Abstract

Handling of information- and communication technologies (ICT) has become a key qualification of a knowledge centered environment. Even in Agrarian- and Horticultural Sciences the use of ICT is a permanent part of education and practice.

In the summer semester 2006, as part of a master thesis at the Institute for Horticulture at the Humboldt-University (IGW), students and teachers were asked their opinions about e-Learning and ICT. This investigation gives for the first time a summarized opinion of 135 students and 12 teachers of the IGW but it also provides an insight to general requirements for e-Learning in agrarian sciences. The goal was to set up a model for sustainable integration of new media at the institute.

The interdisciplinary research was based on theoretical approaches on the history, tradition and methods of education in horticultural sciences at the Humboldt-University and also includes a framework of theories for strategic integration of e-learning. Guided interviews with teachers and a standardized questionnaire for students resulted in a complex method of research. The results show that both groups appreciate the use of ICT in education but also express uncertainties in particular scenarios. Furthermore, it was proven that media competence is not established generally and the use of the systems provided by the HU is limited to providing content. Teachers think that missing communication, a lack of resources and especially the missing impact of students are the main reasons for this development. Students on the other hand expect more practical work and stronger requirements during their education. The opinion of the students is rather described as a mix of endorsement, skepticism and expectation. Students endorse the employment of new media in education and see potential for improvement of training and knowledge transfer in horticulture sciences. There is however a large skepticism in relation to the associated changes. On the one hand students describe themselves as motivated to increase their level of activity through the employment of ICT and related teaching methods, on the other hand students do not yet know, what this particular form of learning and teaching would look like and strongly demand a teacher to help with the acquisition of basic knowledge. Virtual communication forms and training meetings are not endorsed at all.

The investigation supplied some views of the situation at the institute, but reflects also the entire faculty due to the strong cross-linking of the courses.

Medical Professionalism: A way from Traditional to Blended Learning

Dr. Thomas Kropmans, Dr. Heike Schmidt-Felzmann, Mary Keys, Dr. Michal Molcho,
Dr. Peter Cantillon
National University of Ireland, Galway
Galway
Ireland

Email: thomas.kropmans@nuigalway.ie , heike.felzmann@nuigalway.ie ,
m.keys@nuigalway.ie , michal.molcho@nuigalway.ie , peter.cantillon@nuigalway.ie

Abstract

Introduction: the medical professionalism strand (6 ECTS/10 wks) of the new medical curriculum has moved from traditional to blended learning. Self-directed small group learning; role play; lecturing and Blackboard assignments integrate subjects of medical law, medical ethics, health & illness and medical informatics. The learning objectives were derived from 'the Scottish doctor' model and of the contributing professional bodies.

Methods: 105 first year medical students divided into 11 groups worked simultaneously on assignments about the Neary case, IVF and multi-cultural issues in Medicine. The groups met twice a week during two hours and competencies were developed by weekly changing roles (manager, minute-taker, teacher, feedback-provider; task-tracker and collaborator(s)). The groups were supervised by e-coaches and a two week sequence of 'meet the managers' meetings. Assessment of the learning outcomes was by continuous assessment (of professional behaviour) and by central exams (group presentations, MCQ's).

Results: all students passed the exams. Mean (sd) of self-reported professionalism was 8.0(0.5). The overall median score of this courses was 6 (0 - 10). Of all students, 60% reported the group process encouraged personal learning more than traditional learning. Group management skills (role performances) improved in 76% of students. Problem solving and decision making skills improved in 56% of the students. Half of the students agreed the professionalism course fitted into their 'future job' expectations. 58% of the students reported improved computer skills due to the self-teaching facilities within the course (peer-teaching, e-practicals, last minute practicals). Less than half of the students (45%) were satisfied with the role of the e-coaches during the course. The overall investment of study time per week (incl. group sessions, lectures, Blackboard and self-study) was 0 - 5 hrs/wk for 7.9%; 5 - 10 hrs/wk for 38.6 %; 10 - 15 hrs/wk for 40.9%; 15 -20 hrs/wk for 8.1% of students. 4.5% spend more than 20 hrs/wk.

Conclusion: blended self directed learning appeared to be successful to teach professional group behaviour in medicine. The actual study load of this module is according to the expected study load (ECTS). However, the role of the e-coach should be improved and students requested more appropriate and quick responses. The blackboard course should be kept 'simple and stupid' (KISS).

'Negotiating meaning': How to create your own task-based learning environment in the language laboratory

Pilar Alderete-Diez
Spanish Department,
National University of Ireland Galway
Galway, Ireland
Email: pilar.alderete@nuigalway.ie

Abstract

This oral presentation and demonstration will illustrate one way in which language teachers can turn the language laboratory into a task-based learning environment.

It will concentrate on the process of creation of the CD-ROM, 'Negociando el Significado', produced by the Spanish Department at this university, CELT and Formma during the previous summer and fall terms.

It will explain in detail the dialogue from which the CD-ROM was devised, the search and creation of materials, their copyright issues, and how these materials have been put into practice. Finally this presentation will show the results of the feedback of the piloting process in the laboratory during this winter term, pointing out the further improvements that students and instructors have suggested and its main benefits.

In other words, this presentation aims at inspiring other instructors to create their own materials. These materials are often difficult to find ready-made and are not normally tailored to the learning outcomes of their own module and aligned with their student expectations. This presentation also attempts to open up new pathways in the realm of language learning materials since the materials that are found in the language learning market are usually scripted and they do not normally use non-native speakers as sources of input.

Revisiting The Silent Way in Online Approaches to Learning Sentence Structure in Academic Writing Tasks

Lawrence Cleary,
Writing Center Research Officer, The University of Limerick Writing Center
University of Limerick, Limerick, Ireland
Email: Lawrence.cleary@ul.ie

Abstract

Reflecting on writing clinics and tutorials given to both L1 and L2 university students who come to class with seemingly little familiarity with much of the traditional meta-linguistic terminology used in writing pedagogy has led to explorations into the literature written on the use of “youuser-friendly” and “natural” language as a way of accommodating both different learning styles and the resource and time constraints that preclude the teaching of the traditional, “contrived” meta-language of writing. Terms such as “the main idea”, for instance, for describing independent clauses seem somewhat inadequate when students are faced with genre-specific, authentic models that include examples of some very intricate complex-compound sentence structures that may even incorporate embedded adjectival clauses and many reduced forms such as participle and other non-finite clausal structures. This kind of meta-linguistic avoidance requires a way into the specific academic genre that students are required to enter and emulate and on which the depth of the quality of their emulation is assessed.

Attempts to improve language awareness at the sentential level when encountering student failure to connect with the traditional meta-linguistic terminology has led to some experimentation with more “youuser-friendly” expressions combined with bracketing and transformation techniques. However, recent concerns about plagiarism have necessitated that students submit work online into accounts that employ plagiarism-detection software. Such practice has led to online responses utilizing rubrics, which constitute an abbreviated form of meta-language, and to the signalling of both good and poor practices with Microsoft Word features such as the use of underlining, highlighting, and the use of font-color marking. Color “codes” signify the value of the marked feature as it relates to the normative equivalent. Normative equivalents are genre specific.

A failure to lure students to a cognitive connection with language use and structure by traditional means, combined with some perceived success with online feedback-practices has led to a second look at Caleb Gattegno’s “artificial approach” in The Silent Way. The Silent Way’s use of visual devises to promote cognition and recall, its learner-centered, problem-solving approach, its focus on language functions, and its value for autonomous, inductive learning all correlate neatly with the autonomous, learner-centered and alternative learning-style approaches valued in the present day university environment. The use of visuals and non-verbal assignments to assist visual / spatial thinkers with the internalisation of concepts and the organization of ideas finds support in, amongst others, the pedagogical practices of Linda Hecker.

This study looks at the effectiveness of the use of colored fonts and highlighting as visual coding in online feedback. The coding / commenting focus is on structural choices on the phrasal and clausal levels across texts. Generic norms are presented alongside students’ texts for comparative purposes. Procedures are designed to teach sentence structure inductively through modelling. In order to evaluate the effectiveness of these procedures for teaching structural appropriacy, results are compared to those achieved through more traditional means.

Utilisation of Trados as a pedagogical tool in teaching translation

Dr Máire Áine Ní Mhainnín,
French Department,
National University of Ireland, Galway
Galway, Ireland
Email: mary.mannion@nuigalway.ie.

Abstract

The purpose of this paper is to examine the effectiveness of translation memory tools in the teaching of translation. A translation memory is a database containing sentences previously translated by the translator so that when a subsequent translation is undertaken the translation memory can be used for reference. If a sentence, or part of it, has been translated before, it will be offered for utilisation into the new translation. This enables translators to work more efficiently as there is no need for retranslation as identical or similar matches of these segments are retrieved from the memory. Results are returned with a score according to the degree of similarity between the text being translated and the match found. One can have an exact match or a fuzzy match. In the case of a fuzzy match the differences between the segments are highlighted and the new segment merely requires editing. This paper will explore the extent to which translation memories can be useful pedagogical tools in the teaching of translation. It will examine the effectiveness of translation memories in increasing consistency in the use of vocabulary especially in technical texts and in the maintenance and reinforcement of language quality. It is also proposed to evaluate the Trados Winalign tool as an aid to linguistic awareness.

Production and utilisation of subtitles in Advanced Language Classes

Laura Incalcaterra McLoughlin
Dept. of Italian
National University of Ireland, Galway
Galway, Ireland
Laura.mcloughlin@nuigalway.ie

Abstract

Audiovisual translation is a relatively new discipline and academic research on subtitling, in particular, is still limited. Research on the pedagogical implications of the use of interlingual subtitling in language teaching appears to be confined to the use of subtitled video material, rather than considering the production of translated captions.

This paper will present a small-scale study conducted to determine the value of working with subtitles in an advanced language class in relation to the development and fine-tuning of translation skills.

The paper will show that the production of subtitles led to increased awareness of complex syntactical structures, of culture-specific linguistic elements and to interesting considerations on self-censorship.

Adapting Informal Sources of Knowledge to e-Learning.

Jacek Jankowski, Filip Czaja & Jaroslaw Dobrzanski

Elearning Cluster

Digital Enterprise Research Institute,

National University of Ireland

Lower Dangan

Galway, Ireland

Email: jacek.jankowski@deri.org, filip.czaja@deri.org, jaroslaw.dobrzanski@deri.org

Abstract

The amount of information sources and available data is growing dramatically fast nowadays. It is very difficult for teachers to keep up with changes, especially in information domain, and to find new and appropriate sources of information. This problem also affects e-Learning. Contemporary e-Learning systems deliver predefined, rigid courses which usually do not take into account user specific conditions, like wishing to broaden his or her knowledge in a wide range of domains at the same time. Without constant maintenance, electronic courses are also getting outdated. Moreover, all of the current solutions seem to underestimate the potential of informal learning [1].

According to researchers, over eighty per cent of possessed knowledge is acquired from informal sources of information like wikis, blogs and digital libraries [1]. These Web 2.0 platforms allow community to collaborate, share knowledge and ideas; in addition, these services are continuously developed to serve the users better. Semantic description of available sources not only interconnects them but also allows machines to reason about their content. Consequently, artifacts can be easily accessed, browsed and harvested for further use.

Following the presented idea, we introduce Didaskon [2], a framework for automated composition of a learning path for a student. The selection and workflow scheduling of learning objects is based on their description, semantically annotated specification of user profiles, anticipated knowledge after course completion, and technical details of the client's platform. User profiles are described with FOAF Realm Ontology [3]; it is based on FOAF metadata that provides functionality to manage identities and share resources with friends.

Having in mind statistics about acquiring knowledge, Didaskon derives both from formal and informal sources of information. It collects relevant data from wikis or blogs and processes them so that they can be used in the form of learning objects; it enriches and improves the process of learning.

References

- [1] DTI 2006 - Beyond eLearning: practical insights from the USA
- [2] Didaskon project home page, <http://didaskon.corrib.org>
- [3] FOAFRealm project home page, <http://www.foafrealm.org/>

Use of New Communication Technologies to Improve Quality of Student Learning

Paul Hayes, Dr. Stephan Weibelzahl
National; College of Ireland,
IFSC, Dublin 2
Email: phayes@ncirl.ie,
sweibelzahl@ncirl.ie

Timothy Hall,
Director of EMRC,
University of Limerick
Email: timothy.hall@ul.ie

Abstract

The Internet now offers a plethora of possibilities for students to communicate including email, instant messaging eg. MSN, voice-over-IP (VOIP) e.g. Skype or social networking sites eg. Bebo, MySpace. Mobile technology also offers students the options of speech, text messaging, multimedia messaging, instant messaging and even access to sites on the Internet eg. MSN. One would think the availability of all these new technologies would have a beneficial effect on the quality of education. However in practice this does not seem to be the case. The purpose of this paper is not to provide a panacea for the negative effects of these technologies on education but rather to explore the possibility of whether these new technologies can be harnessed by educators in such a way as to enhance student perception of the quality of their education. Bloom's Taxonomy categorises the hierarchy of learning behaviours into three interrelated and overlapping learning domains; the cognitive (knowledge), affective (attitude) and psychomotor (skills). The results of research in instructional communication suggest that instructor communication behavior may have its strongest impact on student affective learning, although certainly impacting the other categories as well (McCroskey 1994). Affective learning, as defined in Bloom's Taxonomy, has been identified as the central causal mediator between instructor communication behaviours and cognitive learning (Andersen 1981, Rodriguez 1998). Effective communication between instructor and student has been linked to positive student-instructor relationships engendering positive attitudes, increased interest and motivation by students (Christensen & Menzel 1998, Christophel 1991, Ellis 2004). However the time when instructors are available to meet or talk over the phone with students is very limited. Certainly email has improved matters somewhat, albeit asynchronously. With new communication technologies coming on stream there are now many other options available, some of which may be less intrusive and more suitable and effective for different communication needs. This paper describes a study in which an instructor is in communication with a student almost on a daily basis using the Instant Messaging (IM) feature of Skype. The ubiquitous communication characteristic of IM means that communication can take place at any time and in any place, just as long as both parties are logged-in. It is interesting to see the effect of this communication on the student's attitudes towards and perception of their instructor, subject and course and also the effect on their attendance, interest, motivation, engagement and ultimately learning (both affective and cognitive).

The advances of Videoconferencing for third level institutions in Ireland

Ali Shamaei,
HEAnet Ltd.,
5 Georges Dock, IFSC, HEAnet Ltd, Dublin 1, Ireland
Email: ali.shamaei@heanet.ie

Lejla Rovcanin
School of Electronic and Communications Engineering
Kevin St, Dublin Institute of Technology, Ireland
Email: ali.shamaei@student.dit.ie , lrovcanin@dit.ie

Abstract

Affordability and proliferation of the latest technological developments enrich the learning experience with a plethora of internet based collaborative tools. Today, the emphasis is usually placed on peer collaboration; however the importance and benefits of face-to-face communication between lecturers and learners should not be forgotten.

Videoconferencing (VC) technology provides opportunities for learners not only to gain access to the passive content introduced in lectures, but also to actively participate and interact through questioning, discussion and other collaborative activities. VC can also be used for peer collaboration which allows the participants to share ideas, experiences and learning materials and resources across space in real time. VC was seen historically as a good educational tool, but in the mid 90s, technological issues such as network latency, expensive specialized equipment and software were big inhibitors. Poor transmission quality left participants feeling even more "distant." VC hardware, software and services were very expensive and scarcely available. Today, VC technology is at its peak, high bandwidths provide smooth transmission delivering an excellent user experience. The basic hardware for a video conference is widely available and most Irish households have access to high speed internet. VC software can be downloaded from the internet. HEAnet, Ireland's National Education and Research Network, provides Videoconferencing services to all third level educational institutions in Ireland to eliminate the high cost of purchasing devices or renting the service.

VC, like any other synchronous distance methods, restricts flexibility since learners and/or instructors are all engaged in the activity at the same time. Still, it is a useful method to provide all the advantages of face-to-face communication in learning to distance students at virtually no extra expense. Furthermore, it can help students to improve their presentation and communication skills as they prepare for videoconferences.

A joint research project between HEAnet and Dublin Institute of Technology is in progress to develop and improve the Videoconferencing Services provided by HEAnet. We investigate the utilization of VC services provided by HEAnet, aiming to identify the areas of use and major obstacles in utilisation. As a part of this project, a comprehensive survey has been distributed to all IT directors of all participating higher education institutions in Ireland and the responses are still being collated. Initial returns indicate that VC is not frequently used for teaching. Conclusive findings of this work will be presented in the final version of this paper.

Search and Browsing Cycle for Knowledge Discovery and Learning

Sebastian Ryszard Kruk
Digital Enterprise Research Institute,
National University of Ireland, Galway
Lower Dangan
Galway, Ireland
Email: sebastian.kruk@deri.org

Abstract

The knowledge we amass is delivered through various channels of the learning process; they range from formal, push learning, we experience at school or with classic elearning solutions, to informal learning. In the latter case, we gain knowledge, usually on demand, from our peers or other sources.

When it comes, however, to the Internet sources, such as wikis, blogs, and fora, for many people the process of finding the appropriate source or answer becomes a nightmare; and after they find it, they are very likely to forget the answer or the source or both.

According to some sources, informal learning makes up around 80% of our whole learning experience; it is, therefore, so important to make sure we are able to discover the knowledge, navigate through it and retain it. Rose and Levinson [1] define three types of users' goals: resource seeking, navigational and informational. From the perspective of learning, the last one is the one that delivers the actual knowledge to the learner. We have mapped all three goals into three different types of interactions in the search and browsing process (respectively): keyword based search, faceted navigation and bookmarking/collaborative filtering. While the first help users to locate information, it is the third one that actually allows them to aggregate, generate and share the knowledge.

The search and browsing cycle delivered by the Social Semantic Search and Browsing system not only allows us to find information more easily, but also to retain and share the knowledge gained in the process. What is also important, based on semantic annotations on both users and resources, the system "learns" together with the users, in order to help them even more efficiently in the future.

We will present how knowledge discovery and learning is enhanced by applying this three stage search and browsing cycle. We will exemplify the role of each stage in the learning process. Finally, we will focus our presentation on the third stage, bookmarking and blogging with social semantic collaborative filtering, which corresponds to the informational goal defined by Rose and Levinson. We will show how users can retain, share and discover even more knowledge through semantically annotated bookmarks and blog posts.

References

[1] Rose and Levinson: Understanding user goals in web search; Proceedings to WWW2004 Conference, NY, USA; 2004

Policy and Practice in the use of a range of Assistive Technologies for students with Specific Learning Difficulty

Elaine O'Leary,
Regional Assessment & Resource Centre,
Disability Support Services,
Athlone Institute of Technology
Dublin Rd. Athlone
Email: eoleary@ait.ie

Abstract

Following the introduction of the EPSEN Act (2004), and the subsequent Disability Act 2005, more and more students with Specific learning Difficulty are progressing on to Third Level. This has left many Third Level Institutions struggling to provide education in a manner that is inclusive of their needs, as they arrive in college in increasing numbers, with inadequate or out of date Psychological Assessments, or no assessments at all, it can be difficult for service providers to establish what their needs are and how to deal with them.

Specific Learning Difficulties (SpLDs), e.g. Dyslexia, Dyspraxia, ADHD, and Asperger's Syndrome, revolve around problems encountered with one or more of the processes used in understanding and working with spoken or written language, communication or with the organisation of movement. Students with SpLD have to develop alternative approaches to learning. By the time a student reaches third level education they will have built learning strategies, probably without even realising it. However, planning and writing essays, note taking and effectively reading the volume of information required may be difficult and time consuming. Exams and revision may be daunting and extra stressful. (Royal Holloway, University of London '*Guidelines for Supporting Students with Specific Learning Difficulties*' [http:// www.rhul.ac.uk](http://www.rhul.ac.uk))

In light of these difficulties, Assistive Technologies such as Voice Recognition, Speech to text and text to speech software would seem to provide the ideal solution for students with SPLD. However, there are a number of issues to be considered in relation to the provision of technology based supports and resources for students with Specific learning Difficulty. This report will examine current Assistive Technology Service Provision in AIT, NUIG, GMIT, IT Sligo and LYIT with a view to developing a best practice approach. It will also identify potential areas for further research, to inform the development of technology services into the future, and outline the role of Assistive Technology in Individual Educational Planning for students with Specific Learning Difficulty.

Argument Mapping with Rationale™: The Evaluation of Argument Mapping as a Learning Tool

Dr. Michael Hogan, Dr. Ian Stewart & Chris Dwyer,

Department of Psychology

National University of Ireland Galway

Galway, Ireland

Email: Michael.hogan@nuigalway.ie, ian.stewart@nuigalway.ie,

christopher.dwyer@nuigalway.ie

Abstract

Argument maps are visual representations designed to make explicit the core propositions and relations of an argument. Argument mapping has a long history, but was tedious work before improvements in computer technology, for example, the development of Rationale™, allowed for the construction of maps with ease. Advances in computer technology have not been paralleled by advances in empirical work on the cognitive benefits of reading and constructing argument maps. The assumption is that argument mapping aids the understanding and retention of arguments, particularly complex arguments. We introduce Rationale™ and outline a series of empirical studies that will compare different types of argument map materials with traditional text-based materials in terms of their relative effectiveness as stimulus materials supporting learning and memory.

POD casts – an Educational Perspective

Dr. Joseph Allen,
School of Education,
20, College Green,
Queen's University
Belfast BT7 1LN, Northern Ireland
Email: joe.allen@qub.ac.uk

Abstract

The paper is intended as a discussion of the practical application of and the pedagogical issues surrounding the use of POD casts in the educational sector and in particular the Higher Education sector. Discussion will be centered mainly on the educational themes relating to the emerging technology of POD casting. Examples will be given of the practical steps and software that have been utilised in order to support and deliver a POD cast to a cohort of students. Issues relating to policies and practices such as intellectual property, as well as guidelines for the production and delivery of teaching materials will also be covered. As a case study the directives and policies that have been issued by Queen's University Belfast on the subject of POD casts will also be outlined. Examples will be presented which indicated 'best practice' in the area of POD casting, such as Medical and Engineering areas of application. Further, the statutory requirements for the safeguarding of the rites enshrined in the disability legislation will also be discussed, as well as other related organisational issues relating to the implementation and delivery of POD casts.

The Use of Audience Response Software for Attitudinal Research

Anne Lodge,
Education Department,
National University of Ireland Maynooth
Email: anne.lodge@nuim.ie,

Claire McAvinia
Quality Promotion Office
National University of Ireland Maynooth
claire.mcavinia@nuim.ie

Abstract

Audience response technology allows a teacher to gauge the opinions of a student audience through sets of questions which are presented on screen, and which can be answered by the group using handheld keypads. It has been shown to have benefits for formative assessment in numerate subjects, as well as more widely in triggering discussion and interaction in lectures (Draper and Brown, 2004). However, it remains under-exploited in certain disciplines, and particularly in the context of attitudinal research. This paper will report on the use of audience response technology in the context of initial teacher education for second-level schooling in Ireland. The technology has been used with a group of students attending lectures in the Sociology of Education, with a specific focus on themes relating to the status of particular minorities in Irish society, and how the formal education system interacts with minority groups. The themes identified by the researchers were those deemed to be potentially controversial or sensitive and include the following:

- education for the Traveller community in Ireland
- the inclusion of international students in Irish schools
- catering for those from faith groups new to the Irish context in Irish schools
- recognising those students and teachers who are gay, lesbian, bisexual or transexual.

A key element of engagement with controversial areas is the provision to students of an opportunity to acknowledge their own attitudes on aspects of these issues. It is essential to engage with students in ways that allow for their opinions to be voiced, but also to be challenged and discussed in a way that will acknowledge a range of views and personal experiences. This enables the group to recognise that there is a range of such perspectives aside from the views they hold themselves. Teacher educators who deal with such controversial areas have noted previously the need for the development of alternative strategies to allow students to engage with the emotional dimension of the genuine recognition of difference and the potential conflict that learners can experience in confronting their own prejudices (Devine, Lodge and Deegan 2004). The technology has been used across a series of lectures, and combined with free-writing and group discussion activities. Analysis of evaluative data from students after this process indicates that it has motivated participation, but has also provided an opportunity for anonymous expression of personal views and a subsequent opportunity to reflect on the range of opinions held by the class group. This paper will present these findings in more detail and indicate a number of further possibilities for more widespread use of this tool.

Devine, D., Lodge, A. and Deegan, J. (2004) 'Activating Voices through practice: democracy, care and consultation in the primary school' in J. Deegan, D. Devine and A. Lodge (eds.) *Primary Voices: equality, diversity and childhood in Irish Primary Schools*. Dublin: IPA

Draper, S.W. and Brown, M.I. (2004) Increasing interactivity in lectures using an electronic voting system. *Journal of Computer Assisted Learning*, 20, 81-94

Are Learning Content Management Systems better than traditional face-to-face teaching?

Dr Kevin Johnson, Sinead Averill, Cathal McHugo & Timothy Hall
Educational Media Research Centre
University of Limerick
Limerick,
Ireland

Email: Kevin.johnson@ul.ie, Sinead.averill@ul.ie, cathal.mchugo@ul.ie, timothy.hall@ul.ie,

Abstract

Users of Learning Content Management Systems (LCMS) fall into two groups – students and teachers, each with different learning and teaching requirements. Early adoptions of LCMS in Irish Higher Education used commercial systems (e.g. Blackboard or WebCT) and simple lesson based pedagogical approaches. More recently, there has been a shift for some organisations to move to Open Source LCMS (e.g. Moodle or Sakai) as reported by Weller (2006). In addition, there has been a growing move to consider alternative pedagogic approaches including that of Problem and Enquiry Based Learning (PEBL).

Our paper reports on a comparative study of several courses, ranging from programming languages and engineering topics to business management, at the University of Limerick. All the courses under this investigation are enhanced by LCMS support (Moodle and Sakai). The study used a short questionnaire, interviews and student comments in its analysis. The aim was to determine the common and differing viewpoints of the teachers and students about the LCMS and to evaluate the pedagogical approach.

References

Weller, M. (2006) Technology succession and open source VLEs. in FOSLET 2006 - Free and Open Source Learning Environments and Tools. Lugano, Switzerland.

Maximising the Pedagogic Effectiveness of Online Lecture Notes

Derek O' Reilly,
Department of Computing and Mathematics,
Dundalk Institute of Technology, Co. Louth
Email: Derek.oreilly@dkit.ie

James Doody,
Department of Computing
Institute of Technology Tallaght, Ireland
Email: Jimmy.Doody@it-tallaght.ie

Stephen Ridley, Chris Etherington,
Education,
Durham University, UK
Email: s.j.ridley@durham.ac.uk , d.c.etherington@durham.ac.uk

Abstract

This paper provides an insight into the effectiveness and limitations of using on-line notes (e-notes) for lecture content delivery. This paper shows that students have a generally positive attitude to the usage of e-notes. However, the evidence presented in this paper shows that the manner in which e-notes are used is of paramount importance if e-notes are to be successfully employed as a pedagogic tool.

This paper provides answers to some important questions that arise as a result of lecturers using e-notes. The question as to whether using e-notes as a lecture delivery tool results in an increase in student learning is investigated. This paper details how e-notes can be most effectively used in order to ensure that real benefits are provided to students. Student feelings toward traditional versus e-notes assisted lecture delivery are compared. The various uses that students make of e-notes that have been made available on the WWW are identified.

This paper establishes that students do not adjust their class attendance behaviour as a result of having e-notes available on the WWW. Evidence presented in this paper suggests that students believe e-notes provide them with the most benefit when e-notes are used in conjunction with normal lecture attendance.

The data analyzed in this paper was collected over the eight-year period from September 1999 to June 2007. More than 600 computing undergraduate students were surveyed during this period. The survey results from this paper show that e-notes can be a useful pedagogic tool, which can generate benefits for both lecturers and their students. However, the way in which e-notes are employed will ultimately determine their utility.

SWIF (Student-Written, Instructor-Facilitated) Learning

Paul Davies, Dr. Theo Lynn, Dr. Malcolm Brady,
Dublin City University Business School,
Dublin City University,
Dublin 9, Ireland

Email: paul.davis@dcu.ie, theo.lynn@dcu.ie, malcolm.brady@dcu.ie

Abstract

Based on the work of Dr. Paul Michael Swiercz of George Washington University, the SWIF (Student-Written, Instructor-Facilitated) technique requires students to transition from a passive case analyst, responding to facts and events reported by third parties, to an active case developer.

Case analysis is a primary teaching technique in business schools worldwide. Despite its widespread use, the benefits of case teaching are often confounded by the historic nature of many cases with students increasingly able to access either past solutions or supplemental information from the Internet and other sources. By preparing the case, students develop active behaviours and skills beyond case analysis including research, interviewing, writing, editing, and team participation. In addition, the college develops cases and resources for publication, research and use in other classes. The SWIF case writing technique has been successfully used by individuals and groups in DCU Business School

This paper will discuss the design and development of an online portal and digital asset repository which includes digital asset management functionality to store, metatag and download resources on the SWIF technique, source materials for cases (based on past projects and/or research), cases and teaching notes.

The paper reports on a one-day workshop which is to be held in May 2007. The workshop will offer a judicious mix of presentations, discussions and hands-on sessions including:

1. Review of the Case Method (strengths, weaknesses, desired and actual learning outcomes etc.)
2. Review of the SWIF technique (strengths, weaknesses, design etc)
3. Presentation of DCU Experience (2-3 presentations from students and faculty on the DCU experience of using SWIF)
4. Evaluating SWIF output (use of evaluation checklists on sample cases) - Hands on Session

The implementation of the SWIF process improves the learning experience for students by:

- Building a greater tolerance for ambiguity and completeness
- Broadening critical thinking skills
- Learning to distinguish between the significant and the trivial by recognising and telling only what is needed, leaving the rest to the reader.
- Providing students with the opportunity to both own and gain recognition from original work
- Developing shared learning skills
- Develop writing and research skills

It supports a number of learning styles including constructivism, collaborativism and socio-culturalism. The paper will show the evaluation of improvements through student evaluation, workshop attendee evaluation, faculty adoption and hard usage data from the website for example downloads and hits.

iOpen: The Open Institute

Brian Mulligan

iOpen.ie Project Coordinator

Institute of Technology, Sligo

Email: brian.mulligan@gmail.com

Abstract

The potential for the development of open, online and distance learning has many barriers. Among them are the costs of the development of electronic and printed materials, and also the new technology and pedagogic skills required of academics. The School of Engineering in Institute of Technology Sligo has avoided these two major barriers by taking a communication-based approach to the delivery of online distance learning.

IT Sligo uses a Rapid Development Model (RDM) for quickly putting modules online. Live classes are broadcast on the Internet using a PC based conferencing system (Adobe Connect), and these are also recorded. Class contact time is reduced from that given to full-time students, and independent learning and learner support is facilitated through the use of a Virtual Learning Environment (VLE - Moodle). No learning materials are developed. Instead, use is made of existing learning resources, such as text-books, lecturers notes and slides, and openly viewable websites. The resulting approach has similar pedagogic characteristics to traditional third level teaching, and also requires a minimum of new technology skills, thus requiring relatively little training for staff. To date, it is proving to be successful insofar as students are expressing satisfaction with their learning experiences, and the number of distance learners have grown rapidly from a pilot of 5 in 2002 (1 programme) to 200 (7 programmes) in 2006 without significant financial investment (www.itsligo.ie/online).

IT Sligo believes that this approach has great potential, not only for the rapid creation of online distance and blended courses, but also for increasing access to full-time campus based courses through the integration of modes that this enables. The institute now intends to scale up this approach through the formation of *iOpen.ie*: The Open Institute, a project which currently has interest from a large number of potential partners from third level education inside and outside this state, industry, private training and professional organisations, who either wish to use this approach to rapidly scale up their online offerings, or who wish to use the network to source training and education for their staff. *iOpen.ie* will not only exploit this approach to open access to education, but also address other issues which are of concern in online learning, which are best addressed on a collaborative basis, such as marketing, infrastructure provision, staff training and support, learner support and intellectual property rights.

Section 4.2

Poster Exhibition

This section details the poster presentations which will be exhibited in the main foyer of the Arts Millennium Building for the duration of the conference.

Lecturers' Experience and Views of Using an Objective Structured Clinical Examination: An Irish Perspective

Siobhán Smyth, Evelyn Byrne,

Department of Nursing and Midwifery Studies

National University of Ireland Galway

Galway, Ireland

Email: Siobhan.smyth@nuigalway.ie, evelyn.byrne@nuigalway.ie

Abstract

The aim of the poster is to present the findings of a study that explored the lecturers' experience and views following an Objective Structured Clinical Examination (OSCE) with first year student nurses and the development of an OSCE strategy for the Bachelor of Nursing Science Programme. The assessment of clinical skills is complex and presents numerous difficulties for nurse educators. The difficulties are overcome by using OSCEs as an assessment strategy. OSCEs are recognised as an effective evaluation tool and a valid academic measure of nursing competence. Furthermore, they have a positive effect on the curriculum and impact on the students' learning and their clinical practice. Although OSCEs have become a popular assessment strategy by healthcare educationalists since their inception, their use by nurse educators in Ireland is evolving. The original OSCE model involved multiple station examination. Limitations have been identified with this model, consequently it has been modified over the years. The Bart's model devised by Nicol and Freeth (1998) addresses the limitations associated with the traditional model. They suggest the danger of perceiving nursing as a set of tasks is overcome and their approach is congruent with the philosophy of holistic care. Designing effective OSCE stations is compounded by its complexity and resource intensiveness. The success is dependent on knowledgeable and skilled personnel. Focus group interviews were undertaken with the lecturers and the data was analysed using Colazzi's framework.

Findings:

- Utilise OSCEs throughout the undergraduate nursing programme.
- Assess students performing several skills during one examination period.
- Assess each student performing the same skills.
- Involve educators ... teaching specific skill, designing relevant marking criteria and assessing the skill.
- Identify potential problems with assessment tools ... perform a 'mock run'.
- Review the time allotted to each station, time should be appropriate to the skill.
- Retain component on students' reflection of the skill in the marking criteria & reconsider the overall weighting.

Audio described websites

Pauline Framingham, Jackie Palmer, Liz Thomson & Rob Giles

Faculty of Social Science & Business

University of Plymouth,

Plymouth, UK

Email: jpalm@plymouth.ac.uk

Abstract

Web page content within the Higher Education sector has been brought under scrutiny as a consequence of current legislation. This has necessitated a thorough examination of the University of Plymouth's web pages in order that they may be informative and useful for every student. We realised that in our pursuit of facilitating those with a visual impairment we could also accommodate those students with a preferred 'aural' learning style and also accommodate any demand for 'convenience learning' – in the car, train etc. with the use of audio description.

Our intention is to provide a complete aural equivalent of an existing website (the School of Geography's Western Ireland Field Trip) that is easy to navigate and can be downloaded on to a listening device e.g. MP3 player. It is also essential that a methodology is employed which would enable a non-computing specialist to deploy these methods to implement and publish their own material. Particular reference is given to ease of use and time. Another consideration is cost, both in terms of production and the means by which to deliver content to the student.

Basic recording equipment is being used and wherever possible academics are being encouraged to record their own particular subject areas which it is felt will give additional enthusiasm to the text and add variety. Throughout this project we have tried to adhere to the guidelines set down by the RNIB (Royal National Institute for the Blind) for audio description particularly with regard to illustrations and indexing. Freely available audio editing software has been chosen for its ability to import/export and ease of transferability between learning environments. In order to further enhance a flexible learning approach the content is being made available in different audio formats and also made downloadable in sections to suit the needs of the student.

On completion of the website, efforts will be made to nurture awareness and interest amongst the 200 students who will be embarking on the field trip. On their return, feedback will be elicited through the employment of questionnaires and focus groups.

We intend to undertake an evaluation of this project in order to measure accessibility issues as well as establishing if the project has produced a resource which can be generally considered as an effective alternative aid to learning.

Mentoring with Moodle', delivering an enhanced first year teaching and learning experience.

Dr. Susan Hegarty, Dr. Ruth McManus
Geography Department
St Patrick's College,
Drumcondra, Dublin 9, Ireland
Email: susan.hegarty@spd.dcu.ie, Ruth.McManus@spd.dcu.ie

Abstract

As part of the remodelling of the first year Geography programme at St. Patrick's College, Drumcondra, an e-learning component was introduced. Two independent practical courses for BA students, Computer Applications in Geography and Cartography, were integrated into a single, seamless course.

This paper looks at the role that a Virtual Learning Environment (Moodle) had in this remodelling, and reports on the additional benefits experienced through the use of Moodle. It was found that as well as enhancing student learning, the use of Moodle produced extra benefits in terms of the first year student experience. By providing an additional forum for communication, it was possible to identify and tackle potential problems through early intervention. The use of online quizzes and assignments through Moodle increased the transparency of the grading system, while also providing students with instant feedback on their progress throughout the course. Completion rates and overall student satisfaction ratings suggest that the use of Virtual Learning Environments, such as Moodle, has many merits across a wide range of disciplines.

Active exploration of mathematical formulae

Anna Karpińska, Krystian Samp, Maciej Dąbrowski, Sebastian Ryszard Kruk

Digital Enterprise Research Institute,

National University of Ireland

Lower Dangan

Galway, Ireland

Email: maciej.dabrowski@deri.org, krystian.samp@deri.org, maciej.dabrowski@deri.org,
sebastian.kruk@deri.org

Abstract

As mathematics is said to be "the queen of science" every student has to gain at least a basic knowledge of it. Teaching students how to solve mathematical exercises is a difficult task. The problem itself is quite complicated and requires special skills from the learners (e.g. intelligence, analytical way of thinking).

Pedagogy shows that one of the biggest issues in learning activity is the problem of keeping learners' focus. Teaching by explaining (e.g. lectures, books) is not effective since the knowledge of the learners differs and some of them may prefer more or less detailed explanations. One of the most efficient ways of overcoming this problem is so-called 'learning by doing'. This approach forces students to actively participate in an interactive process which simultaneously increases their overall knowledge. Learning by doing is more adapted to personal skills and keeps learner's focus. This approach allows adaptation to the skills of each student and allows themselves to build the understanding of the problems himself.

We will present how the process of learning mathematics will be enhanced by the proposed methodology. We propose a new approach where students can explore mathematical formulae actively (learning by doing). This approach utilizes templates to find fragments of equation which can be treated separately according to some mathematical rules. This represents the natural manner used by people to solve mathematical problems by decomposition. The recognized fragments of the formula are visually denoted by enclosing them within transparent boxes. Thereby, students can easily see which parts can be further explored and can freely choose among them. This brings interaction into the whole process and makes the learning more entertaining and dynamic. Our methodology requires students to take the initiative and significantly improves his/her analytical skills and ability to solve complex mathematical problems.

The presented methodology has a huge impact on the process of learning solving mathematical problems and its efficiency. It not only facilitates the process of learning but also encourages students to actively improve their knowledge through interaction.

iPods as Assistive Technologies- Can they aid Social Inclusion for Students with Dyslexia?

Philip Penny, Hannah Barton, Dr. Mark Riordan.
Dun Laoghaire Institute of Art, Design and Technology Ireland
Email: Hannah.barton@iadt.ie

Abstract

Education is being “ipodified”. Can this growing phenomenon be harnessed to the benefit of students with dyslexia? This study set out to evaluate the pedagogic benefits of podcasting and ipods to students with dyslexia. The poster will present the results and conclusions of an experiment carried out in IADT looking at the potential application of podcasts and ipods as assistive technologies for students with dyslexia. The experiment involved the use of 18 students, 6 were dyslexic. These were divided into 3 groups. The control group received course content on Assistive technologies through the traditional lecture format while the other 2 groups received podcasts via ipods. All groups were evaluated using a scored questionnaire and the experimental groups were further evaluated using a qualitative questionnaire and a focus group. The initial findings showed no significant difference in performance between the three groups, however the qualitative results and focus group showed that students with dyslexia can benefit from mobile learning when material is presented in a manageable, meaningful way. The main findings have focused on the increased feelings of self- efficacy and confidence of the students with dyslexia from mobile learning compared to the lecture method. The other main finding was the desire of the students to have complete control over the voice and gender of the delivery of the material.

The poster will contain visuals of the students using the ipods as well as graphical representation of the results, which are still being analysed.

It is envisaged to bring the ipods to the conference to allow for an interactive session.

Promoting Discussion and Collaboration Among Lecturers

Marion Palmer
Head of Department of Learning Sciences
School of Creative Technologies
Dun Laoghaire Institute of Art Design and Technology
Kill Avenue
Dun Laoghaire
Co. Dublin
Email: marion.palmer@iadt.ie

Abstract

As part of a case study of teaching in institutes of technology a VLE (WebCT) was used to promote collaboration and discussion among lecturers between November 2006 and May 2007. A WebCT course was set up by the researcher and participants were students on the course. The idea was to see how an online resource about teaching and learning would be used by lecturers. Five log-on points were organised and different topics used to promote discussion. The participants were reminded to log-on and invited to contribute to the discussions. Parallel to this the researcher blogged about her teaching and learning. This complemented the discussion topics and provided reading material for the participants. There were resources to support teaching and learning as well.

The poster illustrates the design and structure of the VLE course. It indicates the level of use of the course. The poster presents the range of discussion topics used and the response of the participants at each log-on point. The development of the discussion topics is considered. Examples of postings and responses are used to develop an argument about the use of such resources for lecturers. The blog and the response to the blog is presented and discussed. The process of blogging about teaching and learning is discussed and the commitment required by the blogger is considered. The response of the lecturers varied from constructive engagement to little or no engagement, this is reflected in the level of use, and some possible reasons for the range of responses are identified. Some conclusions about the potential of such a resource for the development of teaching and learning are drawn.

Semantically Enhanced Event Description

Senator Jeonga, and Hong-Gee Kima
Biomedical Knowledge Engineering Laboratory,
Seoul National University,
Seoul, Korea
Email: senator@snu.ac.kr , hqkim@snu.ac.kr,

Slawomir Grzonkowskib
Digital Enterprise Research Institute,
National University of Ireland, Galway
Lower Dangan
Galway, Ireland
Email: slawomir.grzonkowski@deri.org

Abstract

An event description allows us to delineate various types of scholarly events such as conferences, workshops, and seminars, as well as pedagogical events such as class, lectures, and tutorials. Current event information systems (e.g., iCalShare, EventSeer.net, and upcoming.org) do not link events semantically; their proprietary description formats can not be used interchangeably. Our motivation was to describe events in a human- and machine-readable way to enable exchange and sharing of event information. We propose a new way of describing events: SEDe (SEmantic Event Description). The purpose of the SEDe is to improve sharability and interoperability of event description, and to enable agents to extract meaningful information on scholarly and academic events. Furthermore, it will provide a sound descriptive basis for efficient event alerting. Event organizers will be able to describe their event information more easily by applying SEDe-enabled event descriptions to their events. . The SEDe is flexible enough to be used in other applications: for example, the SEDe format can help exchange event data and make possible the evaluation of the quality and ranks of events. The SEDe is a semantically-enhanced sharable format and thus helps collect and process event information more intelligently by machines.

Feedback Importance and Effect

Caoimhín Ó'Nualláin
Information Technology Department
National University of Ireland, Galway
Galway, Ireland
Email: caoimhin.onuallain@nuigalway.ie

Abstract

The research being reported on here is based on a three year collaborative project carried out in conjunction with the Information Technology department in NUIG whereby a collaborative team-based competition was created involving mostly first year and second year's students. The initial competition and tests used Blackboard and then progressed to classroom based tests and a final multimodal virtual environment. The competitions were evaluated from many perspectives e.g. , team sizes, quality of dialogue, use of resources, the mentoring process. Within those initial parameters we measured, evaluated and gave feedback on the programming algorithm, design of the programme, testing, documentation and finally the overall quality of the code including white space and indentation as being some of the good programming practices being taught and reinforced.

Over the three year duration of the competition we involved several control groups when evaluating results and also with feedback. To our surprise there were several very important aspects of the teaching and learning process currently in practice we found to be flawed or not being driven home. To a great degree we acknowledge that in a large class it is difficult to ensure individual attention and that all feedback is worthwhile, timely and taken on board. This we aimed to be able to both tackle and rectify through the use of our programming competition. After the second year we changed our metrics of assessment realising that we were not happy with take up of the feedback given and this in turn made us look at the timeliness and quality of the feedback given and how to go about ensuring it was utilised. We achieved this by logging feedback per user and per team and then implementing negative marking if not implemented. This had a dramatic effect on both individual and team performance in the collaborative environment and led to a far greater high order learning experience which we then cross checked with assignment results, lab exams and end of term exams to ensure that we were in fact having the effect that we had tried to attain.

With the use of Chi-Squared we were indeed able to prove that by focusing on quality feedback and follow up we were having a very positive effect on the learning being achieved as against the results obtained in the control groups. Finally we acknowledged that the feedback was very much a two way process from student to tutor and visa versa which, given sufficient resources, should be checked at every stage of the programming process as in this case. We have been able to conclude that both manual and computerised aspects of the competitions proved very successful and led to the collection of very informative data which allowed us to continuously improve the learning potential of both students and tutors.

Automatically Graded Problem Sets and Experiments in First Year Economics at NUI Galway

David Duffy and Brendan Kennelly
Department of Economics
National University of Ireland Galway
Email: david.duffy@nuigalway.ie, brendan.kennelly@nuigalway.ie

Abstract

The Department of Economics at NUI Galway has recently adopted Aplia™ to improve the learning experience of first year students taking Principles of Economics (EC118). Over 400 students take EC118 every year and the task of giving all of them regular assignments is a logistical nightmare. The key innovation Aplia brings to teaching and assessment is that it conveniently allows lecturers to assign regular coursework to students. A great advantage of using Aplia is that the coursework is graded automatically and instant feedback is provided to students. These assignments have been used to award continuous assessment grades in the first year economics course. As well as enabling the regular assessment of students Aplia has also been used to provide students with instant feedback on practice assignments, to offer revision tutorials on fundamental mathematical techniques, to conduct live experiments in tutorials and to conveniently bring topical news items into the learning experience. Aplia enhances the learning experience of students by demanding more regular effort and engagement with the course textbook and lecture material. Every assignment is accompanied by a practice assignment that contains similar questions. When a student is doing a practice assignment s/he does not simply learn what the right answer is. S/he also learns why the answer is what it is. The quality of the practice assignments and the feedback that is instantly generated is such that we were able to reorient tutorials towards discussion sessions about topical economics issues.

267 students recently completed a questionnaire on their experience of using Aplia. 89% of students stated that Aplia's assignments had a positive effect their overall understanding of the topics covered in the course. 88% of students said that they would want their lecturer to use Aplia for another course, while 80% of students stated that they prefer online assignments to traditional pen and paper assignments. Students enjoyed the convenience of using Aplia, with the ability to have both the assignment and online chapter available on one screen. Assignments are submitted and feedback is provided with just a click of a button. The Aplia product that we used in the EC118 class was customized for the textbook that we were using.

Founded in 2000 by renowned economist Paul Romer, Aplia is an educational technology company dedicated to improving learning by increasing student effort and engagement. Currently, their products support college-level economics and finance courses, and have been used by more than 500,000 students at over 650 institutions. NUI Galway was the first university in Ireland or the UK to use Aplia. The Department of Economics intends to use Aplia in more courses next year. Professor Romer sent us the following note when he learned of the very positive feedback that we had received from the students:

"I'm not surprised that one of the technologically most innovative countries of the world has students who respond well to technologically innovative instructors and materials!"

Data Warehousing with Objective Test data

Phelim Murnion,
Senior Lecturer in Information Systems,
School of Business,
Galway-Mayo Institute of Technology
Email: phelim.murnion@gmit.ie

Abstract

E-learning is the application of Information Technology (IT) to the domain of learning and education. Like earlier applications of IT, e-learning has tended to focus on core operational functions, for example assessing individual learner knowledge. As the application of IT has expanded in many domains, practitioners have moved their attention from operational to strategic functions. New approaches have been examined and applied which leverage the existing data generated at the operational level to facilitate a deeper understanding of the underlying processes.

One such approach is data warehousing. Data warehousing is the process of re-structuring operational data into complex knowledge (or derived data) suitable for high level analysis. A data warehouse is created when operational data is transformed into derived data. Data warehousing has been used extensively by retail organisations to generate an understanding of patterns of consumer consumption based on raw sales data. One area of e-learning which generates large quantities of raw data is assessment.

Computer-aided assessment (CAA) systems using objective testing methods are common. One such system has been implemented in the Galway Mayo Institute of Technology (GMIT); an e-learning system to support assessment using objective tests and optical mark reader (OMR) technology. Currently the data generated by this system is stored and processed at the operational level of examiners and individual learners.

This project involves the application of data warehousing to this set of operational data. The data warehouse will be designed to support higher level analysis, in this case an examination of the quality of assessment. The operational data used in this project has been generated using industry standard techniques. The data warehousing approach involved will use standard development tools for spreadsheet and desktop applications. Therefore it should be possible to generalise the approach and results to all CAA systems using objective testing methods at a scale which is manageable by ordinary practitioners in e-learning.

Using Technology in Nursing and Midwifery Education

Sheila Counihan, Miriam Brennan
Department of Nursing and Midwifery Studies,
National University of Ireland, Galway
Galway, Ireland

Email: Sheila.counihan@nuigalway.ie, Miriam.brennan@nuigalway.ie

Abstract

Information technology is increasingly being incorporated into nursing and midwifery education programmes (Campbell, et al., 2007). This is in response to the increased dependence of health care organizations on information technology and the ongoing innovations and changes in the provision of educational programmes. In addition, in today's world e-learning may be seen as facilitating educators to deliver a quality service within the constraints in which they work (Ruiz et al., 2007). Consequently today, electronic learning is greatly supported by those involved in nursing education (Gibbon & Currie, 2007, in press) and online environments are increasingly being used (Campbell, et al., 2007).

Computer based or web based learning adds another dimension to the teaching and learning strategies available to the educator, while at the same time acknowledging the different learning styles of students (Wolf & Kolb, 1984, cited in Fry et al., 2001). While the introduction of such technologies offers a number of benefits for students and educators, there a number of challenges associated with their successful application as identified by Atack and Rankin (2002). In this study it was found that some students had difficulty with web based learning and withdrew from the programme. The problems for the students were "lack of computer skills...and inadequate preparation for web learning" (p. 457).

Nevertheless Kenny (2002) suggests that while the experience of using information technology to enhance education delivery is a challenge it is crucial in the development of the 'knowledge workers' for the future (p. 133).

The focus of this poster is:

1. To highlight the different learning technologies utilized on undergraduate programmes in the Department of Nursing and Midwifery Studies
2. To identify the benefits and challenges associated with using such technologies.

Experiences of Teaching and Learning using e-Learning Supported Modules in Control Engineering

Dr Aidan O'Dwyer,
School of Control Systems and Electrical Engineering,
Dublin Institute of Technology,
Kevin St., Dublin 8
Email: aidan.odwyer@dit.ie

Abstract

The twin pressures of the need for students to learn a wider variety of concepts, ideally in a self-learning mode, and the reduction in classroom and laboratory contact time has caused a fundamental re-think in teaching and learning strategies in engineering education. In control engineering modules at DIT Kevin St., the teaching approach has evolved from a traditional didactic lecture and laboratory course, with associated assessments, to a more learner-centred approach, facilitated by the progressive implementation of the modules in an e-learning environment. Thus far, the e-learning support in the modules has concentrated on the use of information technology tools (particularly the use of the industry standard package MATLAB/SIMULINK), and web-based virtual laboratories (i.e. computer based laboratories available on the internet).

The contribution will report on, reflect on and evaluate the two techniques mentioned to increase student motivation, facilitate student self-learning and enhance theoretical understanding and practical ability. Assessment methodology has evolved with the use of these tools; one assessment (and learning) method that has shown success is the use of peer assessed student presentations that follow a structured guideline; this will be discussed in more detail in the poster.

The authors experience is that an improvement in learning outcomes has been achieved with the judicious use of the two techniques, together with more traditional classroom and laboratory work. Formal student feedback has also been encouraging. One reason for the improvement in learning outcomes, in the authors opinion, is that the methods place less emphasis on the use of mathematics than heretofore; increasingly, engineering programmes attract non-traditional learners such as mature students, part-time students and students without a conventional second-level educational background, who typically do not have strong mathematical foundations. The contribution will conclude by reporting on an innovative information technology experiment developed by the author, which allows the estimation of a model of a persons' eye-brain-hand motor response, without the use of the normally associated mathematics. This active learning experiment, which can take place in a conventional laboratory or in e-learning mode, has successfully engaged students from a wide variety of backgrounds over the past four academic years.

Section 5

General Information for Delegates

This section contains general information on the conference venue, Galway city, the registration process, transport, internet access, and the conference dinner. Also included are some useful maps to direct you around the campus and the route from the university to the Radisson Hotel.

5.1 About the National University of Ireland, Galway

(Source: <http://www.nuigalway.ie/about/introduction.html>)

The University was founded in 1845 as Queen's College Galway. It was one of the three Queen's Colleges founded under the Queen's Colleges (Ireland) Act, 1845, the others being located in Belfast and Cork. The College opened for students on 30th October 1849. By the Irish Universities Act (1908), Queen's college Galway became a Constituent College of the new National University of Ireland, and under a new Charter the name of the College was changed to University College, Galway.

In 1929, the College was given a special statutory responsibility under the University College Galway Act in respect of the use of the Irish language as a working language in the College.

Under the Universities Act, 1997, University College, Galway was reconstituted as a University, under the name of Ollscoil na hÉireann, Gaillimh / National University of Ireland Galway, and became a Constituent University of the National University of Ireland (together with NUI Dublin, NUI Cork and NUI Maynooth).

Since the 1960's the university has experienced significant and continuous growth, both in stock of buildings, facilities and physical resources and also in the numbers of its students and staff. Its total student enrolment during 2005/2006 academic year was about 14,978 (including students from over 40 countries), with academically strong programmes of teaching and research throughout its seven Faculties, namely Arts, Science, Commerce, Engineering, Celtic Studies, Medicine & Health Sciences and Law.

Our programmes provide students with opportunities for personal and academic development, as well as equipping them with the skills and knowledge necessary to embark on successful careers. The University's long-standing policy of innovative programme development ensures that the teaching programmes respond to the ever-changing needs of employers and of the economy. Research activity at the University has undergone a period of rapid development in recent years and important initiatives have attracted substantial funding.

The commitment to excellence at NUI Galway embraces the holistic and individual development of each student, covering the intellectual, physical, social and cultural domains. In addition to the provision of top-class facilities for teaching and research, the University provides an excellent infrastructure for extracurricular activities. Áras na Mac Léinn, the Student Centre, incorporates sports and recreational facilities as well as student welfare services, facilities that will soon be enhanced by a new €40m sports centre.

NUI Galway's close proximity to the Connemara Gaeltacht, the largest Irish-speaking area in the country, provides a unique dimension to the campus. The regular use of the Irish language is an established part of social and academic life, while the city and university reflect the rich cultural ambience of a bilingual environment. NUI Galway recently launched Acadamh na hOllscolaíochta Gaeilge, a national institution dedicated to pioneering third-level education through the medium of Irish, funded to the tune of €35 million.

The University has established an international reputation for excellence in research and teaching and for prioritising the needs of its students. Faced by the challenges presented by an era of change, we are committed to responding imaginatively and effectively to the needs of students and of society in the 21st century.

5.2 Campus Map

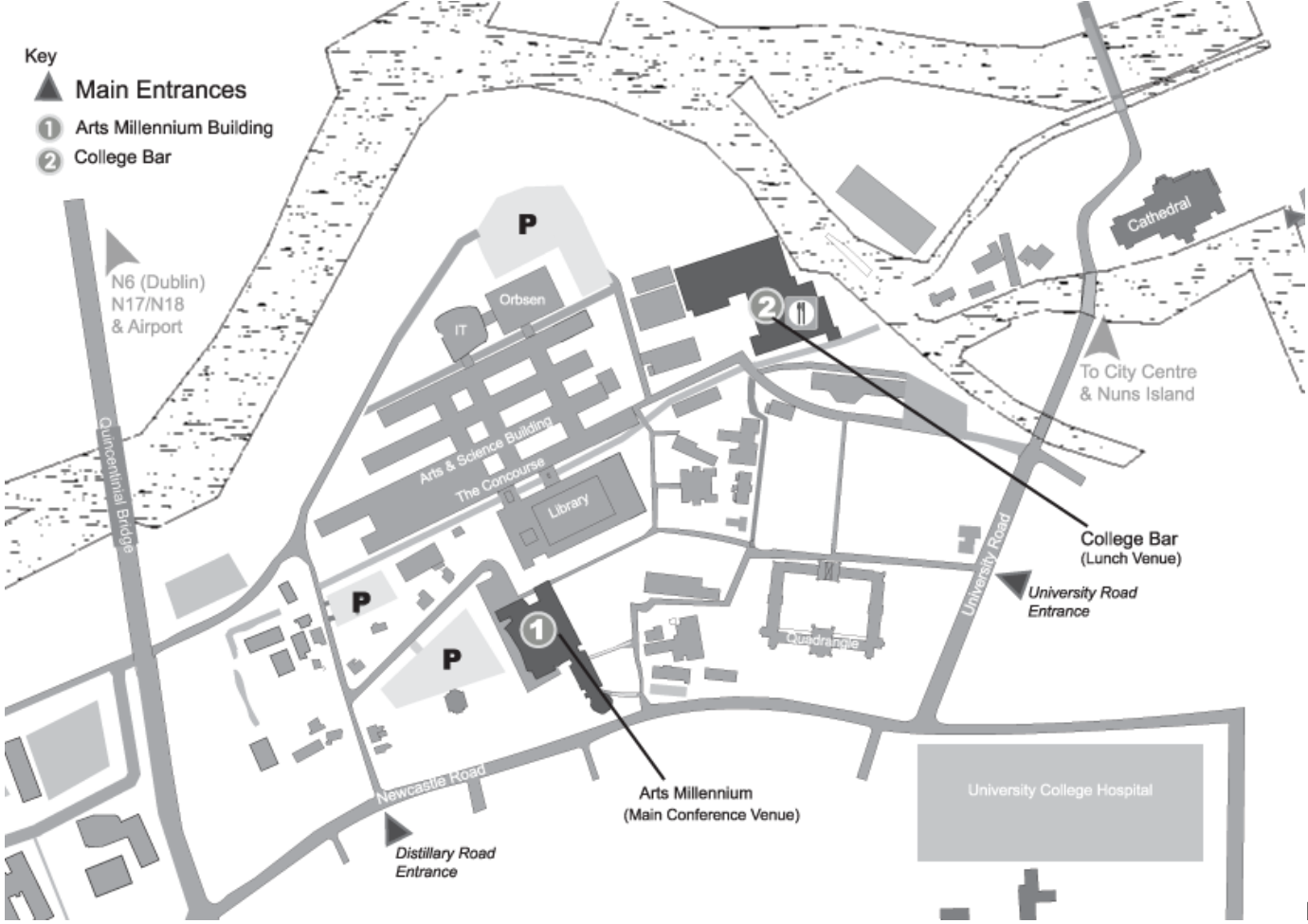


Figure 1: Map of NUI Galway Campus

5.3 Galway City Map

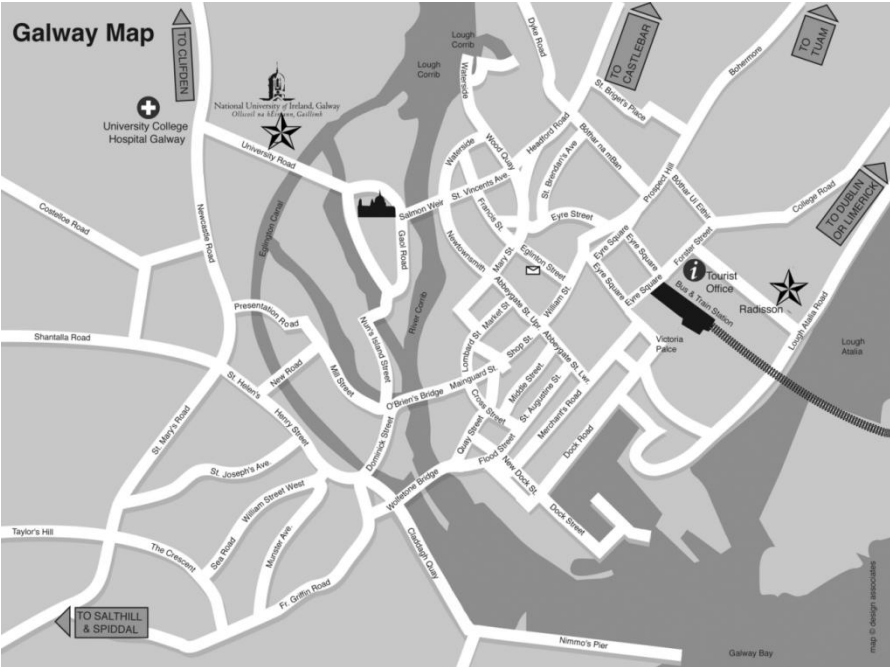


Figure 2: Map of Galway

5.4 Conference Registration and Information Desk

Registration will be at 8.45am on Thursday 7th of June. The Registration desk will be located on the main Foyer of the Arts Millennium Building. The desk will be manned from 8.30am to 17.15 on 7th June and 9.00am to 4.00pm on 8th June.

5.5 Transport

Information on the best way to get to the National University of Ireland Galway by train, road or air is available on our website at

http://www.nuigalway.ie/about/getting_to_nuigalway.php

5.6 Internet Access

Limited internet access is available. A small number of logon accounts will be available, and allocated on a first come first server basis. Delegates may request further information on this from the Conference Desk.

5.7 Messages

During the conference hours messages for other delegates can be left at the conference desk, in the foyer of the Arts Millennium Building. It is the responsibility delegates to regularly visit the registration desk to check for messages. If there is an urgent message, the conference office can be reached on 091-492264, and they may be able to relay messages through to conference desk, for collection.

5.8 Personal Property

Neither the University nor the Conference organisers can accept any responsibility for loss or damage to personal property.

5.9 Conference Dinner

The official conference dinner will be held on Thursday, 7th June at 8pm in the Radisson Hotel, at the cost of €50 per person. Delegates will have previously made bookings for this event when initially registering for the conference.



Radisson SAS Hotel

Lough Atalia Road, Galway

Tel: (091) 538300

www.galway.radissonsas.com

SECTION 6: NATIONAL DIGITAL LEARNING REPOSITORY

SECTION 7: AUTHOR INDEX

A

- Alderete-Diez, Pilar
NUI Galway 40
- Allen, Joseph
Queen's University 50
- Averill, Sinead
University of Limerick 52

B

- Barton, Hannah
Dun Laoghaire IADT 62
- Batardière, Marie-Thérèse
University of Limerick 27
- Booth, Simon
University of Stirling 34
- Boyle, Elizabeth
University of Paisley 29
- Brady, Malcolm
Dublin City University 54
- Brennan, Miriam
NUI Galway 68
- Bruen, Catherine
Trinity College Dublin 24
- Byrne, Evelyn
NUI Galway 58
- Byrnes, Lucy
NUI Galway 37

C

- Cantillon, Peter
NUI Galway 39
- Clark, Robert
University College Dublin 26
- Cleary, Lawrence
University of Limerick 41
- Counihan, Sheila
NUI Galway 68
- Cronin, Catherine
NUI Galway 30
- Czajka, Filip
NUI Galway 44

D

- Dąbrowski, Maciej
NUI Galway 61
- Davies, Paul
Dublin City University 54
- Dobrzanski, Jaroslaw
NUI Galway 44
- Doody, James
IT Tallaght 53
- Duffy, David
NUI Galway 66
- Dwyer, Chris
NUI Galway 49

E

- Etherington, Chris
Durham University 53

F

- Feely, Martin
NUI Galway 32
- Framingham, Pauline
University of Plymouth 59

G

- Giles, Rob
University of Plymouth 59
- Grune, Christian
Humboldt University 36
- Grzonkowskib, Slawomir
NUI Galway 64
- Guerin, Helen
University College Dublin 31

H

- Hall, Timothy
University of Limerick 45, 52
- Hayes, Paul
National College of Ireland 45
- Hegarty, Susan
St Patrick's College 60
- Hennessy, Ronán
NUI Galway 32
- Hogan, Michael
NUI Galway 49

I

- Incalcaterra McLoughlin, Laura
NUI Galway 45

J

- Jankowski, Jacek
NUI Galway 44
- Jeanneau, Catherine
University of Limerick 27
- Jeonga, Senator
Seoul National University 64
- Johnson, Kevin
University of Limerick 52

K

- Karpińska, Anna
NUI Galway 61
- Kennelly, Brendan
NUI Galway 66
- Keys, Mary
NUI Galway 39
- Kima, Hong-Gee
Seoul National University 64

Kropmans, Thomas	
<i>NUI Galway</i>	39
Kruk, Sebastian	
<i>NUI Galway</i>	47, 61

L

Lodge, Anne	
<i>NUI Maynooth</i>	51
Loftus, Mary	
<i>NUI Galway</i>	30
Loughran, Arthur, J	
<i>University of Paisley</i>	34
Lynn, Theo	
<i>Dublin City University</i>	33, 54

M

MacLaren, Iain	
<i>NUI Galway</i>	29
McAvinia, Claire	
<i>NUI Maynooth</i>	51
McHugo, Cathal	
<i>University of Limerick</i>	52
McLoughlin, Laura	
<i>NUI Galway</i>	43
McManus, Ruth	
<i>St Patrick's College</i>	60
Molcho, Michal	
<i>NUI Galway</i>	39
Moore, Sarah	
<i>University of Limerick</i>	35
Mulligan, Brian	
<i>IT Sligo</i>	55
Murnion, Phelim	
<i>GMIT</i>	67
Murray, Liam	
<i>University of Limerick</i>	27

N

Ní Mhainnín, Máire Áine	
<i>NUI Galway</i>	42
Nic Giolla Mhichíl, Mairead	
<i>Dundalk IT</i>	53

O

O' Reilly, Derek	
<i>Dundalk IT</i>	53
O'Connor, Lynn	
<i>NUI Galway</i>	37
O'Dwyer, Aidan	
<i>Dublin Institute of Technology</i>	69
O'Sullivan, Maureen	
<i>NUI Galway</i>	25

O'Leary, Elaine	
<i>Athlone Institute of Technology</i>	48
O'Nuallain, Caoimhin	
<i>NUI Galway</i>	65

P

Palmer, Jackie	
<i>University of Plymouth</i>	59
Palmer, Marion	
<i>Dun Laoghaire IADT</i>	63
Parsons, Richard	
<i>University of Dundee</i>	34
Penny, Philip	
<i>Dun Laoghaire IADT</i>	62

R

Ridley, Stephen	
<i>Durham University</i>	53
Riordan, Mark	
<i>Dun Laoghaire IADT</i>	62
Risquez, Angelica	
<i>University of Limerick</i>	35
Rovcanin, Lejla	
<i>Dublin Institute of Technology</i>	46
Ryszard Kruk, Sebastian	
<i>NUI Galway</i>	47, 61

S

Samp, Krystian	
<i>NUI Galway</i>	61
Schmidt-Felzmann, Heike	
<i>NUI Galway</i>	39
Shamaei, Ali	
<i>HEAnet</i>	46
Smyth, Siobhán	
<i>NUI Galway</i>	58
Stewart, Ian	
<i>NUI Galway</i>	49
Susilowati, Kristin	
<i>University of Paisley</i>	29

T

Thomson, Liz	
<i>University of Plymouth</i>	59
Tietze, Jana	
<i>Humboldt University Berlin</i>	38

W

Watts, Niall	
<i>University College Dublin</i>	28
Weibelzahl, Stephan	
<i>National College of Ireland</i>	45