Conference Programme

ICICTE 2007

International Conference on Information Communication Technologies in Education

12 - 14 July ● Heraklion - Crete

Welcome

Welcome to the 7th annual ICICTE conference. This year we are on this historic island of Crete, in the city of Heraklion.

As we are well into the 21st century, it is fitting that the conference moves to Crete, the birthplace of the Minoan civilization, long considered as the first European advanced civilization. Crete is the largest island in Greece and the most southern.

As we look forward into the future, it is fitting that we also take time to look at our historical roots. A famous quote from the philosopher Santayana is "those who cannot remember the past are condemned to repeat it." Thus, as we look forward to where we are going we must keep our past endeavours in mind.

The landscape of education is continually evolving. Yesterday's paradigms of teaching give way to new paradigms of facilitating. And, the electronic age only speeds this up. Our role has changed from being the "sage on the stage" to being the "guide on the side." And the information age has only sped up this transformation. We no longer see ourselves as the purveyors of information, rather we see ourselves as the managers of education. This has been a fundamental shift in roles and the computer and other technological advances have made this possible.

In 1994, I attended a conference in Washington DC. During that conference, Dale Spender, an Australian theorist, gave the keynote address. In that address, she made the prediction that over half the people alive in 1994 would never make or receive a telephone call. And, if technology had not evolved, that would have been true. However, the evolution of the mobile telephone meant that the prediction simply would not come true. While it is still true that over half the people alive in 1994 would not have used a landline, the fact is that mobile phones have made telephones available to pretty much the entire world. There are even ways of charging mobiles where electricity isn't available.

The point I'm trying to make is that technology continues to evolve at a very fast pace. The papers in this volume will speak to the issues we all confront as we move rapidly into the digital age. We must be continuously learning or we pay the price of falling behind.

Another point is that the so-called "millennial student" requires information and learning adaptable to the information age. I-Pods, pod casting, Bluetooth,, and other technological advances mean that we must integrate electronic learning into our teaching in order to reach the millennial student.

Welcome

It is conferences such as this one, where we can come together and learn from each other as how to best accommodate technology in the classroom and use it to advantage, that we begin to wrestle with these concepts. Topics that we will explore together include the intersection of political economy and educational technology, responses to technological change, the evolution of the classroom and changing pedagogy, ethical considerations, changing technology, and the use of technology to promote democratic ideals.

We would like to thank the Centre for Human Rights of the Department of Political Science, School of Social Sciences of the University of Crete, the Municipality of Heraklion, IRIS, and OTE for their sponsorships of various activities during the conference and for their support.

Thanks to Manolis Alexakis and Jiannis Kourakis, the Mayor of Heraklion. The support of the co-organizing institution, the Municipality of Heraklion, has been invaluable in making the conference come together. We especially need to thank the Hellenic Telecommunications Organization (OTE) for their continual support of this conference.

For their numerous contributions to making ICICTE 2007 a reality we would like to thank the following: Dr. Skip Bassford, Dr. Dianne Common, Jackie Hogan, Nicole Levinsky, Dr. David Thomson, Costas Tzilas, and the members of the Scientific and Organizational Committees for their support and their enormous amount of work. Last, but not least, we need to recognize Ken Fernstrom, without whose leadership ICICTE would not continue to exist, and Nancy Pyrini, who has made this all possible.

Gloria Wolfson, EdD
The University College of the Fraser Valley
on behalf of the Steering Committee,
ICICTE 2007

Scientific Committee

Chair

Dr Gloria K. Wolfson
Director, School of Social Work and Human Services
University College of the Fraser Valley
CANADA

Members

Dr Gregory Anderson
Chair, Kinesiology Department
University College of the Fraser Valley
CANADA

Dr Craig Blurton
Executive Director
Global Learning Innovations (HK) Ltd.
HONG KONG

Dr Marcie Boucouvalas
Program Director
Adult Learning and Human Resource Development
Virginia Tech Graduate Center
USA

Dr Stephen Brown
Director, Knowledge Media Design
De Montfort University
UNITED KINGDOM

Dr Emory M. Craig
Director, Academic Computing Services
The College of New Rochelle
USA

Dr Thomas Dececchi
Associate Professor, Department of Business Administration
Royal Military College of Canada
CANADA

Dr John Eklund
Manager, Access Learning Access Testing
AUSTRALIA

Scott Fast
Professor, Political Science Department
University College of the Fraser Valley
CANADA

Ken Fernstrom
Professor, Communications Department
University College of the Fraser Valley
CANADA

Dr Bill Gerrard
Course Director
International Business and Modern Languages
University of Strathclyde
SCOTLAND

Ms Catherine Gerrard
Lecturer, Centre for Learning and Teaching
University of Paisley
SCOTLAND

Madeleine Hardin
Professor, Communications Department
University College of the Fraser Valley
CANADA

Dr Gorg Mallia
Centre for Communication Technology
University of Malta
MALTA

Dr Beverley Oliver
Manager, Teaching Development Unit
Curtin University of Technology
AUSTRALIA

Dr Eleni Mangina Phelan
School of Computer Science and Informatics
University College Dublin
IRELAND

Dr Augustin Prodan
Head, Mathematics and Informatics Department
Iuliu Hatieganu University
ROMANIA

Dr Bernard Scott
Deputy Principal's Office
Cranfield University
UNITED KINGDOM

Dr Simon Shurville
Managing Director
Educational Solution Providers Ltd.
UNITED KINGDOM

Dr Mary Snow
Assistant Professor, Applied Aviation Sciences
Embry-Riddle Aeronautical University
USA

Dr Rhonda Snow
Professor, Psychology Department
University College of the Fraser Valley
CANADA

Dr Richard Snow
Assistant Professor, Applied Aviation Sciences
Embry-Riddle Aeronautical University
USA

Dr David Thomson
Professor, Communications Department
University College of the Fraser Valley
CANADA

Raymond Welch
Professor, Communications Department
University College of the Fraser Valley
CANADA

Dr Tony Whitefield
Lecturer, Faculty of Business and Enterprise
Swinburne University of Technology
AUSTRALIA

Publications and Promotions Committee

Chair

Dr. David Thomson
Professor
Communications Department
University College of the Fraser Valley
CANADA

Members

Leanne Cameron
Manager, TEP IT Centre
School of Education
Australian Centre for Educational Studies
Macquarie University
AUSTRALIA

David Chernobilsky
Educational Technology Consultant
Kfar Saba Democratic School
ISRAEL

Dr Emory M. Craig
Director, Academic Computing Services
The College of New Rochelle
USA

Robert Guecker
Head, Media Education Dept.
Westphalia State Multimedia Center
GERMANY

Johan Hough
Professor of Strategy and International Business
University of Stellenbosch
SOUTH AFRICA

Iain Howie
Innovative Project Manager
Stow College
SCOTLAND

Moshe Leiba
PhD Candidate
School of Education
Tel Aviv University
ISRAEL

Dr J. Ola Lindberg
Department of Education
Mid Sweden University
SWEDEN

Piers MacLean
Cranfield University
ENGLAND

Peter Mayall
Lecturer
School of Economics and Finance
Curtin School of Technology
AUSTRALIA

Frances Mowlds
PhD Candidate
University College Dublin
IRELAND

Barry O'Grady
Lecturer
School of Economics and Finance
Curtin School of Technology
AUSTRALIA

Dr Anders D. Olofsson
Department of Education
Umeå University
SWEDEN

Dr Mary Snow
Applied Aviation Sciences
Embry-Riddle Aeronautical University
USA

Dr Richard Snow
Applied Aviation Sciences
Embry-Riddle Aeronautical University
USA

Dr Norm Vaughan
Instructor/Coordinator of Inquiry and Blended Learning
University of Calgary
CANADA

Steering Committee

Chair:
Ken Fernstrom, Professor
Communications Department
University College of the Fraser Valley

Members
Dr Skip Bassford
President
University College of the Fraser Valley

Jackie Hogan
Associate Vice President, Finance
University College of the Fraser Valley
Conference Financial Director

Nancy Pyrini
Conference Director

Dr David Thomson
Professor, Communications Department
University College of the Fraser Valley
Chair, Publications and Promotions

Dr Gloria K. Wolfson
Director, School of Social Work and Human Services
University College of the Fraser Valley
Chair, Scientific Committee

Conference Registrar Nicole Levinsky

Contact Information
Nancy Pyrini, Conference Director
npyrini@nextweb.gr

Ken Fernstrom, Chair, Steering Committee
ken.fernstrom@ucfv.ca

Conference Venue
Atlantis Hotel

Internet/Web
Konstantinos Tzilas, NEXTWEB E-Solutions

Conference Website: http://www.icicte.com

Thanks to
The ICICTE 2007 Steering Committee wishes to express its gratitude for the support and sponsorship of
The Hellenic Telecommunications Organization (OTE)
The Municipality of Heraklion
NEXTWEB™
The University College of the Fraser Valley

Programme design by Gorg Mallia

Wednesday, July 11

16:00 – 20:00
Pre-registration

Thursday, July 12

08:30 – 10:00
Registration

10:00 – 10:30
Welcome:
Dr David Thomson, University College of the Fraser Valley

Introduction of Local Dignitaries:
Nancy Pyini, Conference Director, ICICTE, 2007

Alexakis Manolis, Centre for Educational Research and Documentation of the Federation of Secondary School Teachers of Greece

Jiannis Kourakis, Mayor of Heraklion

Introduction of Keynote Speaker: Dr Simon Shurville

10:30 – 12:00
Keynote Address and Discussion: Integrating Learning, Living and Working
Dr Rob Koper [*Biography on page 30*]

12:15 – 13:45
Lunch

14:00 – 15:30
Session 1: Bridging the Digital Divide
Moderator: Dr Emory Craig, The College of New Rochelle, USA

Can the Digital Immigrants Keep Up With the Digital Natives?
Bill Gerrard, Course Director, BA in International Business and Modern Languages, University of Strathclyde, UK

A Framework for Personalised Learning Practice (PLP)
Dr Pat Halloran, Senior Lecturer, School of Information and Communication Technology, Logan Campus, Griffith University, Brisbane, Australia

An Empirical Study of Computer Experience and Computer Attitudes among Information and Communication Technologies Adult Trainees
Nikos Konstantakis, Panagiotis Siozos, & Á. Ioannis Tsoukalas,
Department of Informatics, Multimedia Lab, Aristotle University of Thessaloniki, Greece

A Tolling Bell for Institutions? Speculations on Student Information Processing and Effects on Accredited Learning
Gorg Mallia, PhD, Centre for Communication Technology, University of Malta, Msida, Malta

Session 2: Changing Paradigms in Academe

Moderator: Dr Richard Snow, Embry-Riddle Aeronautical University, USA

Knowledge and Task Analysis for Course Design
Bernard Scott & Chunyu Cong, Cranfield University, Defence Academy of the United Kingdom, UK

From Face to Face and Paper through Continuous Enrollment: Distance Education at RMC
Dr T. Dececchi, Director of Curriculum, Division of Continuing Studies, Royal Military College of Canada, Canada & Dr Bernadette Dececchi¸ Assistant Professor, Canadian Defence Academy, Canada

Taking the University to the Learner: Paradigms in Post-Graduate Education
Andrew Hall, University of Manchester, UK

Researching Requirements, Practice, and Prospects for Learning Design: Some Results and Conclusions
Piers MacLean & Bernard Scott, Cranfield University, Defence Academy of the United Kingdom, UK

15:30 – 16:00
Coffee Break

16:00-16:20
Poster session

Factors Affecting Students' Satisfaction On Self-Study Computer: Language Laboratory At Bangkok University
Nuttanuch Munsakorn, Instructor, Language Institute, Bangkok University, Thailand

Authoring IMS Learning Design
Paul Hazlewood, School of Computing, Liverpool Hope University, UK

Promoting Proactive, Participatory Enterprise-level Educational Technology Selection
Wanda Jackson

16:00 – 17:30
Workshop 1: Transnational Pedagogy: The Face of Glocalisation. What does international pedagogy look like for a sustainable global future in educational institutions?

Facilitator: Dr Ann Dashwood, Australia

Session 3: Changing Instructional Practices

Moderator: Dr Mary Snow, Embry-Riddle Aeronautical University, USA

Web-Based Content for Instruction, Learning and Assessment
Guy Levy, ICT Products Director; Dr. Tali Freund, VP Planning, Information and Evaluation; Helena Kimron, "Ofek – Assessment", Project Manager, Centre for Educational Technology, Israel

Changes in Instructional Practices in Technology-Enriched Classrooms and Student Views on Learning
Rivka Wadmany, Teachers College of Technology &
Tamar Levin, Tel Aviv University, School of Education, Department of Curriculum & Instruction, Israel

How Can School-Based Coordinators Enhance the Use of Educational Technology in Primary Schools? A Comparative Study between Hong Kong and England
Kit-pui Wong, Lingnan University, Hong Kong SAR, China

Engaging Colleagues in Personal and Organizational Change with Force Field Analysis
Dr Simon Shurville & Mrs Aurélie Owens, Cranfield University, UK

18:30
Opening Reception

Church of St. Mark (Lion Square or Venizelos Square)

One of the first and quite important works of the Venetian settlers was the building of a temple dedicated to their patron, St. Mark, in the centre of the city and opposite to the Palace of the Duke.

The church of St. Mark was not totally dependant on the Latin archbishopric but on every duke of the Cretan Realm. Because he himself was not in a position to fulfill his religious duties, he appointed someone else, the "primikirio" or the "capellano" for that seat. Within the church all the lords and the state officials used to assume their duties with every formality while common people used to seek protection from their patron Saint. The church was also used as a burial place for the dukes and members of the high class (they were put in special sarcophagi). Next to the church on the southwest corner there was a high bell tower with a clock.

During the long Turkish siege of the city, the bell was used as a bomb alarm, which is why many times the bell tower became target of the Turkish cannons. When the Turks took over the city, Kastro, the church of St. Mark, was given to Defterdar Ahmet Passa who converted it into a mosque, named after him. The bell tower was demolished and in its place they built a minaret. The new conquerors, without having any respect for the sacred place, destroyed the frescoes and the Christian graves. After the exchange of population and the Turkish withdrawal, St. Marc came to the jurisdiction of the National Bank and then of the Municipality. In 1956 a contract was signed between the Municipality and the E.K.I.M (Society of Cretan Historical Studies) in order to start the restoration of the building, so today it is an ornament for the city that is used as Municipal Art Gallery.

From 1239 when the church started to be built until 1956 when it started to be restored, this monument went through various phases of rebuilding that were due to destruction from earthquakes that hit the town from time to time. In its first shape, the one that took again after the restoration, the church was a basilica with three aisles and a wooden roof. The aisles were parted from one another with two lines of columns united by gothic arches.

The roof of the church was tripartite and the central part was higher than the other two. The front part of the church consisted of six columns united by five arches. Lastly, from the bell tower, which was quite tall, only a part of its Venetian base is saved today with a part of the later Turkish mosque that was based on it.

Friday, July 13

09:00 – 10:30

Workshop 2: Risk and Revelation: Ethical considerations for online course participation. An exploration of perceived differences in online versus face-to-face instruction

Facilitator: Christine Puder, Med, CCLS, Department Head, Early Childhood/Child and Youth Care, University College of the Fraser Valley, Canada

Session 4: Wider Perspectives on ICT

Moderator: John Eklund, Access Learning Access Testing, Australia

Software Evolution and the Future of Learning
Mun-Cho Kim & Jong-Kil Kim, Department of Sociology, Korea University, Republic of Korea

Distance Learning — An Emerging Trend — Issues and Prospects in the Arab World
S. Vijayakumar, Senior Lecturer & Walid Shaban, Senior Lecturer, Middle East College of IT (MECIT), Sultanate of Oman

Coordinated, Collaborative and Coherent: Developing and Implementing e-Learning Guidelines Within a National Tertiary Education System
Gordon Suddaby, Director, Training and Development Unit & John Milne, Project manager, Training and Development Unit, Massey University, New Zealand

10:30 – 11:00

Coffee break

11:00 – 12:30

Workshop 3: How you can start using participative Web 2.0 social technologies today for powerful *and sustainable* assessments *for* real world learning and performance

Facilitators: Dr Henk Eijkman & Bronwyn Clarke, University of New England, Australia

Session 5: Adapting ICT to Specific Learning Environments

Moderator: Leanne Cameron, Macquarie University, Australia

Adapting GIS Exercises to Suit a Multidisciplinary Audience
Mary Snow and Richard Snow, Embry-Riddle Aeronautical University, USA

Trends and Lacunae for Future Computer Assisted Learning (CAL) Research: An Assessment of the Literature in SSCI Journals from 1998–2006
Robert E. Johanson, Department of Applied Foreign Languages, Hsi-Peng Lu, Department of Information Management, Ted (Tainyi) Luor, Graduate School of Management, National Taiwan University of Science & Technology & Ling-ling Wu, Department of Information Management, National Taiwan University, Taiwan, R.O.C.

Towards an e-Learning Environment for Wound Image Understanding
Augustin Prodan, Flavius Neag, Madalina Rusu & Remus Campean, Iuliu Haþieganu University, Romania

Student Scaffolding in Algorithm Visualization Environments
Christos Foutsitzis & Stavros Demetriadis, Informatics Department, Aristotle University of Thessaloniki, Greece

12:30 – 1:45
UCFV President's lunch

14:00 – 15:30
Workshop 4: Exploring Issues in Building Online Adult Learning Communities for International Audiences
Facilitator: Marcie Boucouvalas, PhD, Professor & Program Director, Adult Learning and Human Resource Development, Department of Human Development, Virginia Tech/ National Capital Region, USA

Session 6: Evaluating Technologies for e-Learning
Moderator: Dr Tony Whitefield, Swinburne University of Technology, Australia

Free/Open Source Alternative to Proprietary Software in Education
Vassilis Chryssos, Konstantinos Latifis & Maria Moundridou, General Department of Education, School of Pedagogical and Technological Education (ASPETE), Greece

A Collaborative Process for Evaluating New Learning Technologies
Greta Kelly, The Teaching and Educational Development Institute, The University of Queensland, Australia

Australian Educational Software for Flexible Learning
Barry O'Grady & Peter Mayall, Curtin University of Technology, Australia

WebCT Vista as E-Learning Infrastructure to Enhance Undergraduate Studies: A Preliminary Evaluation
Dr Sofos Alivisos & Kostas Apostolos, Department of Primary Education, University of the Aegean, Greece

15:30 – 16:00
Coffee Break

16:00 – 17:30
Workshop 5: Technology for Educators: How a Method of Training Teachers on Classroom Applications Has Evolved in Four Years
Facilitators: Timothy M. Halloran, EdS; Shwuyi Leu, PhD; & Liang Zhao, PhD, Saint Xavier University, USA

Session 7: Pedagogical Approaches
Moderator: Dr Bill Gerrard, University of Strathclyde, UK

Designing Reusable Learning Objects — Pedagogical Challenges and Opportunities
Nora Brophy, Morag Munro & Claire Kenny, Dublin City University, Ireland

Using Computer Projects to Support Group Work in First-Year Mathematics
Martin S. Rosenzweig, Department of Mathematics, Bryant College, USA

A Multimedia Approach to Climate Change Education
Richard Snow & Mary Snow, Embry-Riddle Aeronautical University, USA

Clustering E-Students in a Marketing Context: A Fuzzy Clustering Approach
Numan Celebi, Assistant Professor, Department of Industrial Engineering, Istanbul University, Turkey & A. Kadir Geyik, Doctoral Member, Manchester Business School, The University of Manchester, UK

Saturday, July 14
09:00 – 10:30

Session 8: Blended Learning & Student Interaction Online
Moderator: Dr Gorg Mallia, University of Malta, Malta

Engaging Students in Learning: A Case Study of a Compulsory Study Skills Module for First Year Business Students, Delivered in Blended Mode
Heather Anderson, Lecturer, Business School & Catherine Gerrard, Lecturer, Centre for Academic and Professional Development, University of Paisley, UK

A Theoretical Perspective on Continuous Enrolment and Blended Learning as Used in Distance Education at RMC
Dr Bernadette Dececchi, Assistant Professor, Canadian Defence Academy & Dr Tom Dececchi, Director of Curriculum, Division of Continuing Studies, Royal Military College of Canada, Canada

Evaluation of Student and Tutor Perceptions of Peer Tutoring Communities Supported by Web Technology
Willie Yip & Kai-Pan Mark, Department of Computing, The Hong Kong Polytechnic University, Hong Kong

Session 9: Beyond Text: Innovative Uses of Technology
Moderator: Dr Bernard Scott, Cranfield University, UK

Using Asynchronous e-Learning as a Supplement to Traditional Laboratory Courses in Graphic Arts
Marios Tsigonias, Department of Graphic Arts Technology, Technological Educational Institution of Athens & Maria Moundridou, General Department of Education, School of Pedagogical and Technological Education (ASPETE), Greece

Course Casting — Challenges and Opportunities in the Learning Environment
Maya Georgieva, St. Francis College, USA

Improving Multimedia Learning with Alternative Conceptions **[UCFV Graduate Student Paper Prize winner]**
Derek A. Muller & John Eklund, Access Testing and the University of Sydney, Australia

Autonomy and Variability: The Disruptive Power of Multiplayer Games in the Learning Environment
Emory M. Craig, Director, Academic Computing, The College of New Rochelle, USA

10:30 – 11:00
Coffee break

11:00 – 12:30
Workshop 6: Using IMS Learning Design for the delivery of live courses
Facilitators: Mark Barret-Baxendale, Paul Hazlewood, Amanda Oddie

Session 10: Building Learning Environments
Moderator: Catherine Gerrard, University of Paisley, UK

The Value of Social Cognitive Theory in Online Discussion: Reflection via a Critical Incident Repertory Grid
Susan Greener, University of Brighton Business School; Simon Shurville, Cranfield University; & Asher Rospigliosi, University of Brighton Business School, UK

Subject and Tool: Collaborative e-Learning
Andrea Lampe, MA, Claudia Zentgraf, MA, & Sven Göller, Technische Universität Darmstadt, Institut für Allgemeine Pädagogik und Berufspädagogik, Germany

First and Second Year Student Learning Experiences. Using Technology to Mitigate Language Issues
Peter Mayall, Lecturer, School of Economics and Finance, Curtin Business School, Australia

Use of a Virtual Learning Environment (VLE) to Support Learning in Online and On Campus Postgraduate Students: Observations from 2002 to 2005
Iain McPhee, Institute for Applied Social and Health Research, University of Paisley, UK

12:30 – 1:45
Lunch

14:00 – 15:30
Session 11: Emerging Trends in ICT
Moderator: Dr Tom Dececchi, Royal Military College of Canada, Canada

Learning with 'e's: Defining Technology Supported E-Learning Within a Knowledge Economy
Steve Wheeler, Senior Lecturer in ICT and Education, Faculty of Education, University of Plymouth, UK

Bandwidth Pre-Allocation System for the Distribution of e-Learning Coursewares in a Lambda Grid Environment
Gianni Fenu & Simone Surcis, Università degli Studi di Cagliari, Italy

Teaching Programming in a Web 2.0 Way
Bence Golda, Eötvös Loránd University, Budapest, Hungary

Towards Participatory Learning and Assessment Culture in Higher Education: Leveraging Social Technologies to Reframe Our Curricular Practices
Dr Henk Eijkman & Ms Bronwyn Clarke, University of New England, Australia

Session 12: Supporting Teachers Through EducationalTechnology

Moderator: Piers MacLean, Cranfield University, UK

Using Software to Improve Pre-Service Teachers' Learning Design
Leanne Cameron, Australian Centre for Educational Studies, Macquarie University, Australia

A Retrospective Study on the Interaction between Faculty and Principals in Technology-Oriented Environments
Y. Peled, The Western Galilee College & Ohalo College; Y. Kali, Technion, Israel Institute of Technology; & Y. J. Dori, Ohalo College, Israel

ICT and School Change: A Dialogue between Changes at the School and the Individual Teacher Level
Tamar Levin, Tel Aviv University, School of Education, Department of Curriculum & Instruction, Israel & Carmella BenAmar Baranga, Ben Gurion University of the Negev, Department of Education, Unit of Promotion of Professionalism in Education, Israel

A SWOT Analysis on the Professional Teacher Guidance: Course in the Use of Information and Communications Technology (ICT) in Malaysian Schools: A Focus Group Study
Dr Nik A. Hisham, Associate Professor, Dr A. Marzuki Zainuddin Associate Professor & Dr Kamal B. Madarsha, Associate Professor & Dr M. Sahari Nordin, Professor, Institute of Education IIUM, Malaysia

15:30 – 16:00
Coffee Break

16:00 – 17:00
Closing & presentations

UCFV Graduate Student Paper Prize:
Derek A. Muller, the University of Sydney

Conference Recognition Awards:
Dr Marcie Boucavalas, Dr Gorg Mallia and Dr Simon Shurville

Presentations to Committee Members

20:00
Greek Night
Faros Plaza
Stadiou & Mikras Asias, N. Alikarnassos, Heraklio
Tel.: (+30) 2810 221925

July 15

09:00 – 16:00
Post-conference activity
Cultural Tour: Combining a visit to the world-famous Minoan Palace at KNOSSOS with a unique wine-tasting session
A visit at the Minoan Palace at Knossos, symbol of the Minoan civilization, which is widely acknowledged as one of the founding cornerstones of European civilization, is an absolute must.

The age-old practice of viniculture is still an integral part of Cretan life: we cordially invite you to continue your journey through fertile vineyards to the traditional village of Skalani.

Think of a spectacular multimedia show where Cretan history comes to life; A stately wine cellar with superb wines maturing in oak barrels; A guest hall where wines are enjoyed , yet renowned Mediterranean cuisine. And then, imagine all these inside a magnificent estate vineyard called Fantaxometocho. This is the Boutari Winery in Crete, worthy of the island's history and a landmark for the viniculture future of Greece .

The Fantaxometoho Estate lies just outside the village of Skalani, on the road towards the village of Myrtia, birthplace of the famous Cretan author Nikos Kazantzakis. It is situated within the Arhanes vine-growing region, a district producing "Appellation d' origine de Qualite Superieure" wines.

Participants will be transferred from and to their hotels provided that they are staying in the towns of Rhodes, Ixia or Ialyssos.

Rates are inclusive of A/C luxury motor coach and English-speaking professional guide.

Pick up/drop off point Archeological Museum Square

Information available at http://www.icicte .com/isite/travel/pca.asp

July 16

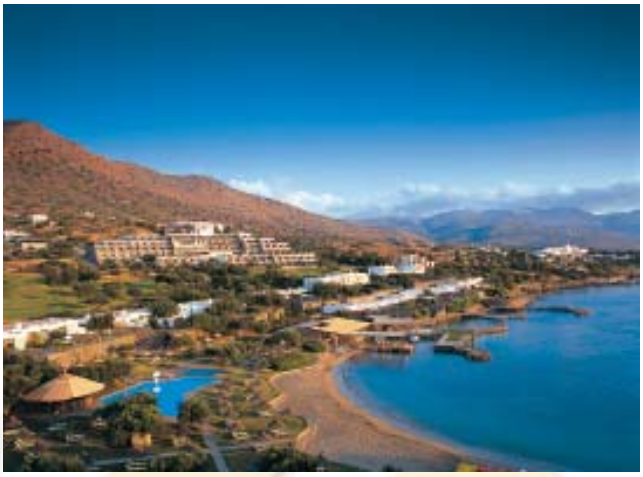
09:00 – 17:00

Post-conference activity
ELOUNDA/SPINALONGA/AGIOS NIKOLAOS

Tour to Agios Nikolaos - Elounda and by boat to the little island of Spinalonga, the last leper colony in Europe until 1957. And a visit to the venetian fortress. Swimming in Kolokytha

Pick up/drop off point
Archeological Museum Square

Information available at http://www.icicte.com/isite/travel/pca.asp



Thursday, July 12

14:00 – 15:30

Session 1: Bridging the Digital Divide

Can the Digital Immigrants Keep Up With the Digital Natives? One ever present challenge in education is communicating effectively with your target student audience. Interesting research carried out by the University of Melbourne into the academic and IT expectations of their first year cohorts examined the access to and level of proficiency with a wide array of Information Communication Technology (ICT) during the twelve months prior to entering the first year of their University course. The University sought to compare students' ICT expectations with the reality of what they had at their disposal when they started their first year. This paper describes research similar to that of the University of Melbourne's which has been carried out to determine whether any similar trends in a recent cohort of BA in International Business and Modern Languages students at the University of Strathclyde in Glasgow could be identified. Whilst describing the work undertaken, the data collected and the findings the paper offers a comparative study with that of the University of Melbourne.

A Framework for Personalised Learning Practice: This paper explores a new and innovative approach adopted to encourage Personalised Learning Practice (PLP) for students. Recent discussions with students and faculty staff highlighted a number of significant problems relating to an existing information systems course. Typical comments included low participation levels, inadequate engagement within the assessment items and a lack of feedback (of student learning) within the course. However, a more critical concern was that certain feedback indicators suggested that for many students, the current learning style was predisposed to surface learning approaches. This "dissynchronisation" within the course appeared to be further complicated by the significant number of students engaged in various part-time or full-time work activities whilst studying.

An Empirical Study of Computer Experience and Computer Attitudes among Information and Communication Technologies Adult Trainees: Today, adult training in basic Information and Communication Technologies (ICT) skills constitutes a main educational policy concern. Computer experience and computer attitudes play an important role in the computer learning process. In this paper, we present the findings of a study conducted on 116 adult ICT trainees, concerning computer experience and the attitude toward computers.

A Tolling Bell for Institutions? Speculations on Student Information Processing and Effects on Accredited Learning: With cyber literacy coming into its own with the advent of a generation of immersed users of the web and other interactive electronic environments, such as video gaming, this paper speculates that information processing has changed from a linear format, within a chronological progression, to a partially-controlled chaotic format, with tracking achieved primarily through hypertextual nodes. This is anathema to the enforced linearity of most institutionally imposed hierarchical learning. This paper speculatively maps the process and how schooling needs to modify to conform to new learning practices. Learning on the go through interactive web immersion, especially with the use of such Web 2.0 applications as weblogs and wikis, and the use of mobile technology, is a ready source of byte-sized, non-hierarchically scaled items of information. This paper speculates about the clash between this independent, flexible learning and the accreditation that determines formalized learning.

Session 2: Changing Paradigms in Academe

Knowledge and Task Analysis for Course Design: We believe that knowledge analysis and representation is one of the most important components in the process of course design. We propose that an effective method for knowledge analysis and representation is the knowledge and task analysis methodology derived from conversation theory. We argue that it is more conceptually coherent and practically effective than alternative

approaches in the literature. We outline the methodology and describe how we are using it to design online courses at the Defence Academy.

From Face to Face and Paper Through Continuous Enrollment: Distance Education at RMC: This presentation will describe both the history and the future directions of distance education at RMC reflecting the change from the occasional graduate class being offered at an offsite location to offering an integrated set of courses leading to professional certification, undergraduate and graduate degrees. Programmes must be offered in ever more flexible formats in order to meet the future needs of students and to fulfill RMC's mandate to deliver courses for students residing anywhere in Canada or wherever in the world the military may deploy them.

Taking the University to the Learner: Paradigms in Post-Graduate Education: This paper will consider developments in Post Graduate Research Education (PGRE) in the School of Nursing Midwifery and Social Work (SNMSW) at Faculty of Medical and Human Sciences (FMHS) at the University of Manchester UK (UoM) in terms of a paradigm shift (Kuhn, 1972). In particular the paper will consider the role of the paradigmatic case (Dreyfus, 1986) as an indicator of fundamental changes in educational methods. The paper's analysis will draw upon a case study of the experiences of, and rationale behind, the development of online post graduate education in the SNMSW at the UoM. The case study includes an outline of strategic drives for change, selected results of a 2 year study into the impact of online education on post graduate education in the SNMSW at the UoM, and a description of the application and integration of diverse technologies.

Researching Requirements, Practice, and Prospects for Learning Design: Some Results and Conclusions: In this paper we describe how a perceived shortfall in training and professional development opportunities for learning designers in the United Kingdom motivated us to investigate (i) what are the requirements for good learning design practice, i.e., what are the knowledge and skills that a learning design practitioner should possess; (ii) what is the current practice with respect to the education, training and deployment of professional learning designers; and (iii) what are the prospects for seeing an increased professionalisation of learning designers. Presented in the paper are the emerging results and conclusions from the project.

16:00 – 16:20

Posters session

Factors Affecting Students' Satisfaction on Self-Study Computer Language Laboratory at Bangkok University.

Authoring IMS Learning Design.

Promoting Proactive, Participatory Enterprise-Level Educational Technology Selection.

16:20 – 17:50

Workshop 1: Transnational Pedagogy: The Face of Glocalisation

What does international pedagogy look like for a sustainable global future in educational institutions? Conference sub-theme: The internationalization of institutions and of education

Workshop Objectives

- Establish key principles of pedagogy
- Nominate strategies across disciplines
- Illustrate examples of teaching practice
- Identify key student learning outcomes

- Provide an overarching definition and consideration of implications of transnational pedagogy for participating institutions

Methods

- Whole group elicits principles of pedagogy that are essential characteristics of international education.
- Small groups (organised by sector, e.g., higher education, technical, high school, other) key principles are articulated.
- Reporting back to whole group for principles to be fine-tuned to arrive at definitions that for universal acceptance of the participants in their cultural settings.
- Strategies for implementation are proposed and exemplified for each principle.
- Set of learning outcomes (or/and graduate attributes) proposed in relation to each principle.
- Outcomes document proposed from which an international survey is to be developed.

Potential to propose cross-institutional follow-up research on the nature of teaching and learning for internationalised education / transnational pedagogy to be realised in participating educational institutions.

Outline

Transnational pedagogy is a goal of increasing numbers of education institutions worldwide. In practice, the concept lacks universal adoption with principles unclearly defined and teaching strategies and learning outcomes still to be aligned and articulated at institutions within a transnational pedagogical paradigm. A pedagogy underpinned by principles of sustainability, ethics, engagement, scholarship, flexibility and context offers the global educational community scope to extrapolate an international perspective on educational practice: sustainability to embrace local and global aims, ethical practices, engagement for collaboration, integrity in scholarship supportive, inclusive and flexible in diverse cultural contexts (Crowther, 2007). Networking technology applications offer increased flexibility for access and delivery for educational purposes and provide communication platforms for a transnational pedagogy that can achieve glocalised institutional aims.

This workshop aims use the principle of collaboration to define international concepts of transnational pedagogy generated by participating institutions, to articulate principles into strategies for teaching and learning and to produce an outcomes document for inter-institutional research development.

Reference: Crowther, F. (2007). Mission impossible: aligning organisational vision and academic practice, The Knowledge Partnership, Higher Education: International markets, internal dynamics, Conference April 2–3, Cambridge, UK.

Session 3: Changing Instructional Practices

Web-Based Content for Instruction, Learning and Assessment: In recent years we are witnessing a shift to the development of web-based content in advanced educational systems and the emergence of new digital means of instruction, learning, and assessment. This paper depicts this shift and presents *Ofek* (Horizon in Hebrew) — an integrated web-based multimedia system for Instruction, Learning and Assessment (ILA) developed in the Center for Educational Technology (CET) in Israel. Ofek includes a rich bank of learning and assessment units which represent the state curriculum and/or state standards in major subjects. The digital environment enables teachers to manage the whole process of assessment and realizing the potential it has for various assessment roles: of learning (summative assessment) and for learning (formative assessment).

Changes in Instructional Practices in Technology-Enriched Classrooms and Student Views on Learning: This research describes a 3-year longitudinal study, in which six teachers and 164

of their students in grades 4–6 used a teaching and learning approach in a technology-rich learning environment. The study describes changes occurring in instructional practices of the teachers and its relationships to the students' views on learning via ICT. The results show that students' views mainly emphasized the characteristics of authentic and social-dialogical learning and its contribution to their cognitive development. Also, students' views were aligned with the instructional practices used in their classrooms, although differences were revealed between teachers' and students' views on the nature of technology.

How Can School-Based Coordinators Enhance the Use of Educational Technology in Primary Schools? A Comparative Study between Hong Kong and England: Since the widespread implementation of ICT in primary schools, researchers hold very different, and sometimes opposing, views on its educational effects. The appropriateness of manpower is one of many controversial topics. In the UK and some other educational systems, school-based ICT coordinators are regarded as both technological and curricular leaders. They can provide peer-support for other less competent teachers. In contrast, the duties of Hong Kong's ICT coordinators were somewhat muddled, and their pedagogical role was often overlooked. In this study, quantitative data were collected from in-service school heads and teachers from primary schools in Hong Kong and England. An interesting finding showed that different subgroups of respondents rated significantly different in the contributions of ICT coordinators. The role of ICT coordinators in Hong Kong should be reviewed in order to have the optimal educational effects.

Engaging Colleagues in Personal and Organizational Change with Force Field Analysis: Here we share our experience of applying force field analysis within staff development workshops to engage colleagues in an institutional and personal shift to flexible learning. We provide a mini-tutorial on applying force field analysis in your own staff development workshops.

Friday, June 13

09:00 – 10:30

Workshop 2: Risk and Revelation: Ethical Considerations for Online Course Participation. An Exploration of Perceived Differences in Online versus Face-to-face Instruction.

Objectives

- Upon completion of this workshop participants will:
- Understand the historical context of educational technology
- and online instruction
- Learn the results research conducted with Child and Youth Care students on perceived differences of online instruction
- Examine the current literature that accounts for online behavior
- Explore the ethical considerations of online course participation by students and faculty
- Address the creation of standards for management of virtual courses

Methods

A combination of lecture, power point presentation and small group work will be utilized to deliver the course objectives.

Outline

As educators increasingly utilize online instruction and web-based formats, a number of issues related to the technology need to be considered. Student engagement, participation, and the creation of a sense of relationship or community have all been identified as worthy

of deliberation. Simply taking in-class management techniques and applying them online does not adequately ensure the facilitation of learning.

In this interactive workshop, attendees will explore the perceived differences in participation between students in online courses versus classroom-based experiences. The historical context of e-learning will be explored as well as the current literature that can help educators understand the dynamic of student online behavior.

Results from research conducted with students in the Child and Youth Care degree program at UCFV will be shared. Findings will be used to facilitate the exploration of the need for guidelines to shape the environment of online learning experiences. Finally, participants will work together to generate proposed ethics and standards for management of online courses.

Session 4: Wider Perspectives on ICT

Software Evolution and the Future of Learning: Advanced ICTs have a significant effect on our educational system. Beneath the transformation, there exists software (S/W) technology. S/W technology has been developed from infrastructure S/W to information S/W and is going to evolve into interface S/W. Based upon the STS framework, this study attempts to forecast the future of learning fostered by the ongoing evolution of S/W technology. The changing pattern of learning can be described as shifting from the transmission of simple knowledge, through the understanding of abstract knowledge, to the mastery of contextual knowledge. In accordance with this procedure, socio-technological infrastructure of 'learning society' will be continuously renovated.

Distance Learning — An Emerging Trend — Issues and Prospects in the Arab World: Distance learning is at a critical point in its history; an analysis of its current status raises some critical questions about the field. Although it has gained acceptance in advanced countries, it is still not without problems. Loss of student motivation due to the lack of face-to-face contact with teachers and peers, potentially excessive startup costs, and lack of faculty support are all barriers to successful distance learning. There are many barriers to successful distance education — some are new but many have plagued distance education since it was first conceived. The current paper explores the growing dimensions of distance education and the barriers that impede its acceptance.

Coordinated, Collaborative and Coherent: Developing and Implementing e-Learning Guidelines Within a National Tertiary Education System: The paper discusses two complementary initiatives funded by the New Zealand (NZ) Government. The first is the development of a coherent set of open access e-learning guidelines for the NZ tertiary sector providing a research-based framework for good pedagogical practice supportive of quality e-learning activity and engaging staff in critically reflecting on e-learning practice. The second project, arising from the e-learning guidelines project, will implement guidelines in more than 20 tertiary institutions. The implementation and outcomes will be reviewed; the findings made available; and it is expected the project will contribute to the adoption of e-learning quality guidelines across the NZ tertiary sector.

11:00 – 12:30

Workshop 3: How you can start using participative Web 2.0 social technologies today for powerful *and sustainable* assessments *for* real world learning and performance

Workshop objectives

- We will provide participants with:
- A post-positivist conceptual framework for authentic, networked assessments *for* real world learning and performance;

- Practical strategies, tools (grids), and examples that enable participants to implement authentic, networked assessments that effectively enhance learning;
- Access to a website to enable and support further work in networked authentic assessments

Methods

- Participants will be invited to:
- identify their own assumptions about learning and assessment and how this fits with their own everyday learning and assessment of performance from childhood into adulthood and current literatures;
- in small groups, and in the context of a program they are currently teaching; discuss key learning and assessment principles and investigate how a range of Web 2.0 technologies can effectively operationalise those principles;
- in small groups discuss and outline actual assessment strategies that promote effective real world learning and performance.

Outline

Drawing on social learning theory and Web 2.0-enabled possibilities for participatory learning in both on-and off-campus environments, this workshop will explore issues and strategies that enable the effective assessment *for* rather than *of* learning for 21st-century higher education in the context of increasing national and international demands for assessment standards and an information-rich, networked, socially inclusive world.
Making the necessary shift from traditional, positivist, content-driven teaching and assessment to real world assessment for transformative learning requires programs structured around authentic assessment strategies that embed higher-order skills and epistemological literacy, and in which assessment *for* learning takes place in the Wild, Wide World rather than being isolated in the academy and its second-order knowledges. Using a practical, authentic assessment framework that optimises effective yet sustainable feedback embedded within a socio-cultural architecture of learning, participants will consider time-efficient, learning-rich, e-assessment strategies for their online programs. A supplementary, collaborative website will enable participants to continue their discussions and peer-learning after the conference.

Session 5: Adapting ICT to Specific Learning Environments

Adapting GIS Exercises to Suit A Multidisciplinary Audience: Teaching Geographic Information Systems (GIS) applications and techniques often requires instructors to use exercises already in a particular training manual, which tend to make use of census data such as housing units and income. As a result, students learn GIS applications based on these demographics and then must adjust and apply their knowledge of the procedures to accommodate their particular areas of study. This paper demonstrates that GIS laboratory exercises designed to teach introductory and advanced GIS techniques can be adapted from standard, off-the-shelf exercise manuals to appeal to a wider range of students by using multidisciplinary data.

Trends and Lacunae for Future Computer Assisted Learning (CAL) Research: An Assessment of the Literature in SSCI Journals from 1998–2006: Begun as an effort to assess individual authors' "impacts" on the field of computer-assisted learning (CAL), this study surveys 536 computer-assisted learning (CAL) publications appearing in 71 SSCI (Social Science Citation Index) journals from 1998 to February 2006 to identify trends and lacunae for future research. The results reveal that the majority of the contributors to the field were found to have produced only a few articles and scant articles had been cited more than ten times. Accordingly, the authors of individual publications demonstrated a greater collective influence on the field than the more frequently cited authors.

Towards an e-Learning Environment for Wound Image Understanding: This paper presents a Java based e learning environment for analyzing, processing and understanding wound

images to be used in teaching, learning and research activities. We intend to promote e-learning technologies in medical and health care domains. The colour image processing methods have many advantages over traditional human methods in non-invasive wound evaluation. Computer based methods are objective, repeatable and with a large potential of processing. We make experiments for wound healing simulation based on various treatments and compare the results with experimental observations. To implement the e-learning tools, we use Java technologies for dynamic processes and XML technologies for dynamic content (data and documents).

Student Scaffolding in Algorithm Visualization Environments: This work focuses on algorithm visualization systems for educational purposes, presenting an overview of available research evidence on their learning effectiveness. The authors highlight the most important conceptual and methodological advances in the field, focusing on specific properties of the representations that are usually displayed by such systems and emphasizing significant research results concerning their pedagogical efficiency. Based on this evidence it is suggested that the effectiveness of a system can be improved with the embodiment of collaboration scripts which guide the users to work in collaborative manner on the representation of algorithms.

14:00 – 15:30

Workshop 4: Exploring Issues in Building Online Adult Learning Communities for International Audiences

Building from a springboard provided by the facilitator, the aim of the workshop is to cultivate an environment and climate to review what cutting edge research, theory, and best practice can offer us with regard to creating meaningful on line adult learning environments in general, and more specifically in terms of learning with and from different cultures and countries. An ancillary purpose is to build a network of international colleagues who can continue to interact around this theme during the conference and after its conclusion.

All individuals attending the session will be viewed both as participants hoping to derive something from the session and as individuals bringing their own resource perspective which they can contribute to the workshop. An opportunity will be afforded to both hear and be heard.

Participants will have the opportunity to voice any challenges with which they are dealing, and problem solving strategies will be catalyzed. The facilitator will likewise illuminate issues calling for attention from a research as well as practical perspective, and invite others to do the same. Issues may be technological, pragmatic, theoretical, philosophical, ethical, etc.

The workshop facilitator brings expertise in
(a) designing, developing, and facilitating adult learning experiences and the relevance of both discussion and dialogue in on line environments, and
(b) both experience and interest in further pursuing the development of culturally sensitive on line environments. Those from other disciplinary backgrounds may bring other forms of knowledge and skill which could contribute to the meaningfulness of the session.

Brief Outline

Welcome, introductions, and completion of brief biographical forms (name, contact information — while at the conference as well as upon return — country of origin & residence, languages, professional affiliations, etc.), what I would like to know more about or better understand, challenges I face, and what I would like to offer). Upon completion of the session the sheets will be collected, typed, and e-mailed to session participants as a Resource Directory. Elements will be shared orally during the session, first in small groups

then to the larger group, depending upon the number of attendees. Emerging themes will be captured in newsprint visible to all.

Mini presentation (as discussed above) guided by the facilitator, but catalyzing involvement of the participants.

A reference bibliography of resources for continuing inquiry will be distributed with calls for additions to the bibliography & e-mailing of updated list to workshop attendees preferably before completion of the conference.

Session 6: Evaluating Technologies for e-Learning

Free/Open Source Alternative to Proprietary Software in Education: During the past decade the role of Information and Communication Technologies (ICT) in education worldwide constitutes an ever more decisive factor in the evolution of the educational process and educational models. To this end, the use of Personal Computers (PCs) running proprietary software is the most common solution. At the same time an increasingly growing trend towards Free/Open Source Software (FOSS) adoption by companies of the private sector as well as public organisations and educational institutions around the world is resulting to proprietary software going open source. Although the prime motivation for deploying FOSS in educational settings seems to be the reduction of costs associated with licensing and ownership of commercial products, several other advantages that arise from FOSS deployment may be of even greater benefit. This paper examines the rationale for using FOSS in education, especially at school level and discusses the possible benefits and problems of this alternative. It also reviews the current state as well as the trends concerning the adoption of FOSS in schools and proposes ways to promote its use.

A Collaborative Process for Evaluating New Learning Technologies: With the rapid expansion of new e-learning and m-learning technologies, universities need to find better ways to ensure that their investments in these tools make an effective contribution to the enhancement of teaching and learning. This paper proposes a collaborative process for evaluating, piloting and selecting, new and emerging technologies. It aims to promote discussion about how such an evaluative process can be inclusive of interdisciplinary stakeholders and envision the actual application of these technologies in real teaching and learning contexts across disciplines.

Australian Educational Software for Flexible Learning: As educators in an innovative university of technology, we are interested in applying real world applications to support our teaching. In this paper we survey a selection of Australian educational software which we believe are well suited to flexible learning.

WebCT Vista as e-Learning Infrastructure to Enhance Undergraduate Studies: A Preliminary Evaluation: In this paper we present a preliminary analysis and evaluation of an e-learning application scenario at the University of the Aegean, Department of Primary Education, based upon the adoption of WebCT Vista to enhance undergraduate courses. Our work examines Vista utilization in the context of a prospective reformation of undergraduate studies curriculum, via new electronic means.

16:00 – 17:30

Workshop 5: Technology for Educators:_How a Method of Training Teachers on Classroom Applications Has Evolved in Four Years

Objectives

Participants will see an online demonstration of a course developed in 2004 for a unique program for teachers of grades K–12. A description of the techniques used in the course

will be given, with an emphasis on the engaged learning aspects of the instruction. Student response to the course will be discussed, along with modifications that have been made in an effort to realize the potential of our students. Data on the accessibility of technology at program sites will be presented, along with comments on how this has affected student progress. Program students will participate in the presentation via video.

Methods
Online demonstration, lecture, discussion, group activity.

Description
The Field-Based MATL Program at Saint Xavier University in Chicago is a two-year program for classroom teachers who wish to earn a Master's in Teaching and Leadership in a cohort setting. It is a joint offering of St. Xavier University and Pearson Achievement Solutions. As a collaboration between a university and a corporation, it represents a unique attempt to bridge the gap between these two worlds in an effort to gain advantages not otherwise available. The degree candidates take a series of application courses as a cohort and complete an action research project with their own students as the subjects of the study. The technology course supplements both sides of the program.

In 2006, a study was initiated in order to determine the effects of technology accessibility at the many sites where this program is offered in the field. Preliminary conclusions will be discussed, with video commentary from several of the students in the program.

Session 7: Pedagogical Approaches

Designing Reusable Learning Objects — Pedagogical Challenges and Opportunities: The work described in this paper is part of an EU funded Minerva project called TUPULO (Teaching Undergraduate Programming Using Learning Objects) which aims to address the challenges faced by novice programmers by providing them with an innovative learning tool incorporating a set of Reusable Learning Objects (RLOs). This paper reviews the pedagogical principles employed in order to develop the RLOs, the challenges encountered in making them SCORM conformant, and the advantages gained by this. Finally the paper reports on the pilot test carried out to evaluate and refine the pedagogical effectiveness, usability and technical design of the RLOs.

Using Computer Projects to Support Group Work in First-Year Mathematics: Over the past decade, or so, experience and experimentation have produced the following structure and procedures for a sequence of two one-semester, first-year mathematics courses: i) Class Organization. The class is organized into work groups on the basis of a brief competency examination given during the initial meeting of the class. Each class begins with a short introduction of new material followed by group-work on problems related to the new material. The class closes with a one or two question quiz. ii) Computer Projects. Projects illustrating the class material are assigned and done using the Maple software package. ii) Team Function. Each team selects a team leader who is required to attend an out-of-class session whose primary focus is to discuss the current project. Each member serves a term as team leader.

A Multimedia Approach To Climate Change Education: This paper discusses the development of an upper-level college course on Climate Change created as part of an interdisciplinary Honors Seminar Series. The course makes use of multimedia instructional techniques to examine the physical, economic, and political dynamics of climate change. The curriculum includes an appraisal of assorted global warming websites, computer-based simulations and analysis of relevant climate data, as well as a review of the literature and other media including documentaries such as *An Inconvenient Truth*. The so-called global warming debate subsidized by the fossil fuel industry also is discussed.

Clustering E-Students in a Marketing Context: A Fuzzy Clustering Approach: It is possible to track and monitor students' behaviour in order to meet their learning needs more effectively. However, when the number of students increases, responding to their needs is getting longer and less efficient. In order to overcome this problem, clustering and/or classification of students are playing an important role in e-learning environment. In this article, using fuzzy clustering approach, students were clustered in order to serve the right e-learning contents to the right student clusters. RFM (Recency, Frequency, and Monetary) variables, a popular segmentation variable in marketing management that measures the loyalty of customers, are used as clustering bases. RFM values of each student are extracted from the weblogs. As an illustrative example, e-learning MBA students' databases of a higher education institution in Turkey were taken into consideration. The results of the study help the executers of the system to improve existing e-learning processes and give them some points of view about how weblogs are crucial for their strategic decisions.

Saturday, July 14

09:00 – 10:30

Session 8: Blended Learning & Student Interaction Online

Engaging Students in Learning: A Case Study of a Compulsory Study Skills Module for First Year Business Students, Delivered in Blended Mode: The Business School at the University of Paisley, Scotland, UK, introduced a blended learning module to ensure that students would gain the basic skills needed to take them successfully through university life. This module included specific practical skills such as reading, researching, writing and reflective practice, i.e., personal development planning, all of which was supported by the virtual learning environment. This paper outlines the development and implementation of the module, the opportunity it provided to students in terms of learning enhancement and offers the opportunity for an evaluation of its impact on progression and retention rates.

A Theoretical Perspective on Continuous Enrolment and Blended Learning as Used in Distance Education at RMC: This paper will investigate how a blended learning environment when it is established can affect both the student, and the professor. It will also examine the administrative reasons for attempting to establish various blended learning regimes In addition; it will look at the issues concerning using continuous enrolment in these programmes both from learning and from an administrative point of view. Finally it will examine the effects of trying to implement a delivery method involving both of these features.

Evaluation of Student and Tutor Perceptions of Peer Tutoring Communities Supported by Web Technology: Peer tutoring refers to students assisting each other. Tutors can deepen their professional knowledge and generic skills, while tutees can learn more effectively from their peers who are normally senior students. Traditional peer tutoring is difficult to implement due to physical space and time constraints. A web-based peer tutoring system was introduced to supplement peer tutoring. This paper reports how the web-based system supplements peer tutoring particularly with multimedia communication functions. The summary of statistical findings on perceptions between two groups of students (computing major and minor) taking the same database introductory subject is presented. Finally, the qualitative feedbacks and potential advancements are illustrated.

Session 9: Beyond Text: Innovative Uses of Technology

Using Asynchronous e-Learning as a Supplement to Traditional Laboratory Courses in Graphic Arts: This paper reports on a study concerning the use of a Learning Management System (LMS) to supplement a laboratory course in Graphic Arts. The study was conducted mainly in order to explore students' readiness and attitudes towards using a web-based course as a supplement to their normal one and to examine whether characteristics such as gender, educational background, and ICT literacy level have any impact on these attitudes.

Course Casting — Challenges and Opportunities in the Learning Environment: This paper explores the challenges and opportunities of new podcasting technology for higher education. It reviews some of the ways this new technology enhances the teaching and learning environment and the implications it has for both faculty and students. Further, the paper discusses digital storytelling and its potential to increase students' critical thinking, reflection and learning of new concepts.

Improving Multimedia Learning with Alternative Conceptions: Multimedia has made a significant impact on learning in Science Education; however there is little addressing the issue of alternative conceptions. We propose that linear multimedia that addresses alternative conceptions can play a role in scaffolding student learning. Unlike other multimedia principles, which attempt to reduce the cognitive load of instruction, this approach seems to be successful because it raises the cognitive load on students. Preliminary analysis in our research indicates that a misconception-based multimedia treatment results in both higher cognitive load and better understanding than an approach that uses a concise expository summary. Furthermore, the increase in cognitive load is greatest for students with low prior knowledge and least for those with more experience.

Autonomy and Variability: The Disruptive Power of Multiplayer Games in the Learning Environment: Over the past decade, there has been an explosion of interest in the use of video games to improve learning, culminating in the research of James Paul Gee, Marc Prensky and others. While the proponents of game based focus on the potential for self-directed activity and co-construction of knowledge, the current debate overlooks the profoundly radical nature of multiplayer games. Drawing upon the work of Lev Manovich, this paper proposes that games incorporate the essential characteristics of new media objects (including automation and variability as cultural tendencies). Introducing these principles into the learning environment through multiplayer games raises a fundamental challenge of integrating a highly participatory digital culture into the traditional organizational structure of our educational institutions.

11:00 – 12:30

Workshop 6: Using IMS Learning Design for the delivery of live courses

Workshop objectives

- To understand what IMS Learning Design (IMS LD) can offer the practitioner (e.g., teacher, lecturer, e-learning facilitator).
- To be able to create a small unit of learning.
- Feedback on the utility of the tools (Reload LD editor) to practitioners for the design of units of learning (uols).

Methods

- Short presentation to introduce IMS LD.
- Demonstration of the tools.
- Activity based around the creation of a small unit of learning.
- Activity in which delegates can plan and implement unit of learning based on own curriculum.

A brief outline

The uptake and use of IMS LD in academic institutions has been very low. Part of the reason for low uptake can be attributed to lack of "practitioner friendly" tools and partly to the belief that the IMS LD specification is too technical. This workshop aims to introduce IMS LD from a teaching and learning perspective. Through the presentation and practical activities it will try to show that a practitioner needs little knowledge of the specification to get started and that the focus should be on the skills of the practitioner — his/her teaching expertise. The main activity provides delegates with the opportunity to create and run a

pre-planned learning session using the Reload IMS LD editor. The second activity provides the delegates with the opportunity to plan and create a learning design based on their own curriculum.

Session 10: Building Learning Environments

The Value of Social Cognitive Theory in Online Discussion: Reflection via a Critical Incident Repertory Grid: Bandura argued that learners are in greater control of their actions than many recognize. His Social Cognitive Theory (SCT) resonates with our experience moderating online discussion boards which includes frequent frustration with low levels of interaction and meaning construction. This paper will explore what SCT offers moderators via use of a repertory grid for structured reflection.

Subject and Tool: Collaborative e-Learning: The research division Educational Technology at The Darmstadt University of Technology has created its own virtual study environment, which has been an integral part of the study module Information Pedagogy for a number of semesters. One of its aiding devices is the web-based tool eMargo, which was developed for the collaborative, interactive treatment of texts. It is used by both students and teachers in the context of an online tutorial, in which the discursive scientific analysis of texts plays a significant role: the tutorial offers the possibility for dealing with the subject on an instrumental as well as a content-related level.

First and Second Year Student Learning Experiences. Using Technology to Mitigate Language Issues: This study investigates the problems and issues with language that students have in the first two years of their studies. Many students have English as their second language (ESL) and their academic performance may be affected by misinterpretations and time taken to understand the concepts being taught. One of the solutions put forward in this study is the use of technology in the form of online tutorials and assessments as a supplement to face-to-face teaching. A second recommended remedy is the compilation of a glossary of terms commonly used but subject to different meanings, especially when used in the context of a specific discipline and the inclusion of this glossary in teaching materials.

Use of a Virtual Learning Environment (VLE) to Support Learning in Online and On Campus Postgraduate Students: Observations from 2002 to 2005: This study assesses the effects of study mode on student achievement, student satisfaction and staff workload in three modes of study. Statistical analysis revealed no significant differences in grades (summative marks) between online and on-campus groups. Online students required more help than on-campus students. Online provision increased tutor time, dependent on group size and study mode. These findings similar to other research indicate that students are not disadvantaged by the isolation of online learning, and/or that tutors' workload increases to create parity. These findings suggest that traditional on-campus views of tutor workload may require rethinking for online tutor activity.

14:00 – 15:30

Session 11: Emerging Trends in ICT

Learning with 'e's: Defining technology supported e-learning within a knowledge economy: There has been sustained debate over the significance of the "e" in e-learning, which can mean many things to many people. This paper provides a review of some of the key contributions and polemics in the context of knowledge economy. It is argued that the significant recent developments in e-learning such as mobile technology and Web 2.0 social software can steer the provision of distance education toward a new era of success, providing that the "e" in e-learning is defined, understood and effectively implemented. In short, understanding e-learning as a conceptual as well as a technological construct has the potential to transform and advance learning experiences and contribute significantly toward institutional success.

Bandwidth Pre-Allocation System for the Distribution of e-Learning Coursewares in a Lambda Grid Environment: In this work we introduce a multi-tier e-learning architecture and a system for the Programmed Pre-Allocation of Bandwidth and Wavelengths. The purpose of this paper is to show the obtainable advantages in the use of e-learning technologies in a grid environment (introducing a Learning Management System for the distribution of coursewares) and to introduce those obtainable through the use of grid technologies for e-learning (creating a Bandwidth Management System based on Lambda Grid Services).

Teaching Programming in a Web 2.0 Way: This paper introduces the thoughts and ideas behind an ongoing development of a framework that aims to achieve the goals of an assessment system and an online teaching system. It combines the knowledge from existing assessment systems with state of the art features of collaborative educational methods and the ideas of the Web 2.0.

Towards Participatory Learning and Assessment Culture in Higher Education: Leveraging Social Technologies to Reframe Our Curricular Practices: We address two pivotal issues confronting higher education today; how to provide an architecture for effective learning and assessment in networked learning that recognises the fundamentally social and experiential nature of learning, and secondly, how to engage 'work-weary' faculty in adopting a Web 2.0 social media culture. Web 2.0 enables us, as never before, to align the world of higher education with real wide, wild, world learning. We contribute to the online learning literature by proposing that a '*social constructionist alignment*' of Web 2.0 offers new possibilities for creating innovative online learning futures for students and academics alike.

Session 12: Supporting Teachers Through Educational Technology

Using Software to Improve Pre-Service Teachers' Learning Design: The Teacher Education Program at Macquarie University is trialling the use of LAMS (Learning Activity Management System) as a scaffold for lesson planning with pre-service teachers. Throughout the process of authoring a LAMS sequence, these students are required to think about all aspects of their lessons in detail and LAMS enables them to experience the lesson themselves via a Preview mode before using it in the classroom. The graphic interface allows students and their tutors to visualise lessons providing an instant "picture" of the lesson and its content with a clarity not available in traditional written lesson plans. In addition, LAMS creates these lessons in a standardised template of activities that can easily be modified for future re-use.

A Retrospective Study on the Interaction between Faculty and Principals in Technology-Oriented Environments: This paper describes a longitudinal study in which the interaction between junior-high school principals and science teachers is characterized and its influence on technology implementation is explored. Thirteen principals and 19 teachers who participated in a former study, which took place from 1998 to 2001, were re-interviewed and observed in 2003 to 2005 (the current study). In both studies, teachers were classified into four types: initiator, follower, evader and objector, based on the mode and extent to which they used educational technologies. Principals were classified in both studies into four categories with respect to the way they motivated their science teachers to incorporate technologies into teaching, identified as initiating, empowering, permitting, or resisting. The longitudinal study showed that principals were fairly consistent in the type of support they provided to their teachers throughout the seven years of the study. Teachers shifted in the ways they used technology. Teachers, however, improved their pedagogical use of technology while working in a supportive environment. The findings indicate that the principals' longitudinal support or discouragement played a crucial role in teachers' ability and motivation to use technology as an integral part of their teaching.

ICT and School Change: A Dialogue between Changes at the School and the Individual Teacher Level: Based on the socio-cultural approach to learning, and assuming that context and

cultural aspects are interrelated with individual actions, this longitudinal case study explores technology integration in a secondary school from two complimentary perspectives: the school level and the individual teacher's level. It analyzes and interprets the change processes occurring in the school, including its effects on the educational vision, cultural climate, organizational structure of the school, and the nature of its curricula. It also examines the patterns of change in teachers' educational beliefs, knowledge restructuring processes and their use of ICT as reflected in the ways they use technology in the classrooms (7^{th} to 12^{th} grades). The findings show that the school has developed into a "learning organization". The change process involves both administrative and pedagogical components. The findings also show that school change and the individual teachers' change is evolutionary and recursive; dynamic, flexible and systemic, and synergetic in terms of integrating both internal and external guidance. The systemic changes at the school level and the patterns of changes among teachers are parallel and helical: each one influences and empowers the other.

A SWOT Analysis on the Professional Teacher Guidance Course in the Use of Information and Communications Technology (ICT) in Malaysian Schools: A Focus Group Study: The main purpose of the study was to explore and evaluate the impact of the ICT professional training programme (BPPT) in Malaysian schools. The study employed qualitative method in particular focus group study to summarize the views and aspirations of the participant and non-participant teachers in the following aspects: ICT equipment and facilities, ICT budget allocations and implementation in schools, emphasis of BPPT course content, use of ICT skills after BPPT programme, utilization of instructional time throughout the BPPT programme, selection of teachers to participate in the BPPT programme and participants' preparation during the BPPT programme. The study was positively perceived by the participants and it can be clearly established that the BPPT training programme had successfully achieved its prestated goals and objectives.

Rob Koper

Rob Koper is professor of Educational Technology and director general of the Educational Technology Expertise Centre of the Open University of the Netherlands (ETEC).

One of the research groups of the ETEC programme focuses on Methods and technologies for:
1) personal competence development in the context of formal and informal lifelong learning;
2) the development and (re-)use of learning activities, learning resources, digital courses and study programmes;
3) navigation support, social interaction, learner support and competence assessment in learning networks;
4) support for contextualized and personalized learning;
5) architectures, infrastructures, specifications and standards to support lifelong competence development.

The work in this research group and the EU Integrated Project TENCompetence provides the context for the keynote.

Professor Koper has 22 years of experience in the field of Educational Technology. Among others, he was responsible for the development of Educational Modelling Language (EML), currently an open standard through the IMS consortium (IMS Learning Design) and he leads, or participates, in a variety of EU-funded R&D projects. He is the co-ordinator of the EU Integrated Project TENCompetence (http://www.tencompetence.org), which aims to develop an Open Source Infrastructure for Lifelong Competence Development.

He serves and has served in a variety of editorial boards, programme committees, and was responsible for the organization of a large number of international conferences, seminars and workshops in the field, most recently the IEEE ICALT conference.

He has and has had numerous roles in management and advisory boards, like the National Assessment Agency, the Digital University Consortium, and the local government standardisation bodies like IMS, CEN/ISSS.

He publishes regularly in scientific journals and books.

Recent co-edited books are:
Integrated eLearning (2004). London: RoutledgeFalmer;
Learning Design: modelling network-based education and training (2005). Heidelberg: Springer.

Some recent special issues he has co-edited are:
British Journal of Educational Technology;
Educational Technology & Society;
Interactive Learning Environments;
International Journal of Learning Technologies;
International Journal of Continuing Engineering Education and Life-Long Learning

Organisers

UCFV
UNIVERSITY COLLEGE of the FRASER VALLEY

UNIVERSITY OF CRETE

MUNICIPALITY OF HERAKLION

OTE business
your "other half"

The solutions of OTEbusiness can release the true potential of your business.

OTEbusiness actively "thinks" about the best interests of your business.

- **Modern programs and services:**
  - Flat Rate Prepaid Packets for Business
  - Wireless conn-x@work (DSL Business Solutions)
  - Professional Tool Business Equipment (Integrated Telecommunication Application)
  - Freephone - Onephone
- **Quality, personalized customer service for all customer segments**
- **Continuous technical support throughout Greece**

OTEbusiness has extensive experience in the telecommunications sector coupled with the most reliable and far reaching telecoms infrastructure in Greece.

OTEbusiness develops quality and reliable solutions that fit your unique business needs, standing by your side as a qualified and dependable partner. Think of us as your "other half"!

OTE
The relationship that lasts

BROADBAND & FIXED TELEPHONY SERVICES