

**Proceedings
of the
5th International
Conference on e-Learning**

Universiti Sains Malaysia
Penang
Malaysia

12-13 July 2010

Edited by
Issham Ismail
Universiti Sains Malaysia, Penang, Malaysia

Copyright The Authors, 2010. All Rights Reserved.

No reproduction, copy or transmission may be made without written permission from the individual authors.

Papers have been doubleblind peer reviewed before final submission to the conference. Initially, paper abstracts were read and selected by the conference panel for submission as possible papers for the conference.

Many thanks to the reviewers who helped ensure the quality of the full papers.

These Conference Proceedings have been submitted to the Thomson ISI for indexing.

Further copies of this book can be purchased from <http://academic-conferences.org/2-proceedings.htm>

ISBN: 978-1-906638-69-6 (cd)

Published by Academic Publishing Limited
Reading
UK
44-118-972-4148
www.academic-publishing.org

Contents

| Paper Title | Author(s) | Guide Page | Page No. |
|--|---|-------------------|-----------------|
| Preface | | xi | vi |
| Biographies of Conference Chairs, Programme Chair, Keynote Speaker and Mini-track Chairs | | xii | vii |
| Biographies of contributing authors | | xiv | viii |
| Investigating the Roles of Students in the Development of a Collaborative Learning Community Through Networked Learning; a Malaysian Perspective | <i>Amelia Abdullah and Abdul Rashid Mohamed Universiti Sains Malaysia, Penang, Malaysia</i> | 1 | 1 |
| Information and Communication Technology Integration Among Jordanian English Language Teachers | <i>Zeinab Tawfik Abu Samak The Hashemite University, Zarqa, Jordan</i> | 1 | 11 |
| ELearning Governance — Towards an Applicable Framework to Make eLearning Decisions Based on COBIT and ISO/IEC 38500 | <i>Morteza Alaeddini Amirkabir University of Technology, Tehran, Iran</i> | 2 | 19 |
| Rising Rate of Private Universities in Ghana: The Case for Public and Private Support | <i>Elizabeth Appiah and Eva Esther Ebenezer Pentecost University College, Accra, Ghana</i> | 3 | 28 |
| Online Support for a Chemistry Course: The Opinion of University Freshmen | <i>Carolina Armijo de Vega and Lewis McAnally-Salas Universidad Autónoma de Baja California, México</i> | 4 | 36 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|--|-------------------|-----------------|
| Enhancing the Online Scholarly Research Environment: Evaluating the Tools | <i>Peter Arthur University of British Columbia Okanagan, Kelowna, Canada</i> | 5 | 47 |
| The Pedagogy of Critical Thinking; Object Design Implications for Improving Students' Thoughtful Engagement With eLearning Environments | <i>Philip Balcaen University of British Columbia Okanagan, Kelowna, Canada</i> | 6 | 55 |
| Factors Affecting the Usage of WBLE (Web-Based Learning Environment): A Malaysian Private University Experience | <i>CheeKeong Chong, CheeHeong Lee, YouHow Go and CheeHoong Lam Universiti Tunku Abdul Rahman, Kampar, Malaysia</i> | 7 | 64 |
| Advancing Collaborative Learning Pedagogy With Team Learning Systems | <i>I Gusti Ngurah Darmawan and Linda Westphalen The University of Adelaide, Australia</i> | 7 | 72 |
| The Long Walk to Success: Drivers of Student Performance in a Postgraduate ODL Business Course | <i>Annemarie Davis and Peet Venter University of South Africa, Pretoria, South Africa</i> | 8 | 82 |
| ePortfolio use in two Institutes of Higher Education: A Comparative Case Study | <i>Christopher Deneen and Ronnie Shroff Hong Kong Institute of Education, Hong Kong</i> | 9 | 92 |
| eLearning Strategy for the Iraqi Higher Education Sector | <i>Amer Saleem Flayyeh Elameer and Rozhan Idrus Universiti Sains Malaysia (USM), Penang, Malaysia</i> | 9 | 101 |
| Virtual Communities of Knowledge: Assessing Peer Online Moderators' Contributions | <i>Cécile Gabarre and Serge Gabarre University Putra Malaysia, Malaysia</i> | 10 | 110 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|---|-------------------|-----------------|
| Using the Learners' Mobile Phones to Enrich Exchanges in a French Language Course | <i>Serge Gabarre and Cécile Gabarre University Putra, Serdang, Malaysia</i> | 11 | 118 |
| Learning With Technology: What do Students Want? | <i>Andrea Gorra¹, Janet Finlay¹, Marie Devlin², Janet Lavery³, Royce Neagle⁴, Jakki Sheridan-Ross¹, Terry Charlton² and Roger Boyle⁴ ¹Leeds Metropolitan University, UK ²Newcastle University, UK ³Durham University, UK ⁴University of Leeds, UK</i> | 12 | 126 |
| Staff who say no to Technology Enhanced Learning | <i>Susan Greener University of Brighton, Brighton, UK</i> | 13 | 134 |
| Psychological Challenges Towards Implementing ICT in Teaching- Learning | <i>Santoshi Halder¹ and Sudip Chaudhuri² ¹University of Calcutta, India ²Gandhi Centenary B. T. College, Habra, India</i> | 14 | 140 |
| Adaptive mLearning System Using Multi-Agent Technology | <i>Salah Hammami, Manar Al-Shehri and Hassan Mathkour King Saud University, Riyadh, Saudi Arabia</i> | 16 | 149 |
| Behavioral Aspects of Adult Students in Digital Learning | <i>Rugayah Hashim, Hashim Ahmad and Che Zainab Abdullah Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia</i> | 16 | 157 |
| Attitudes Towards eLearning Using Moodle: A Qualitative Approach | <i>Yusniza Kamarulzaman, Azian Madun and Farinda Abdul Ghani University of Malaya, Kuala Lumpur, Malaysia</i> | 17 | 163 |

| Paper Title | Author(s) | Guide Page | Page No. |
|--|--|-------------------|-----------------|
| Achieving Transactional Computer-Mediated Conferencing or: How to Produce a Highly Interactive Online Discussion | <i>Brant Knutzen and David Kennedy Lingnan University, Hong Kong</i> | 18 | 171 |
| Students' Changing Perceptions on the Impact of the Online Learning Environment: What About Good Teaching Practice? | <i>Marlena Kruger University of Johannesburg, South Africa</i> | 19 | 188 |
| Web 2.0 as a Catalyst for Rethinking Teaching and Learning in Tertiary Education: A Case Study of KDU College (Malaysia) | <i>Alwyn Lau KDU College, Kuala Lumpur, Malaysia</i> | 20 | 197 |
| A Survey of Applying User Profiles in Adaptive Instructional Systems | <i>Duc-Long Le¹, An-Te Nguyen², Dinh-Thuc Nguyen², Van-Hao Tran¹, and Axel Hunger³ ¹University of Pedagogy, Ho Chi Minh City, Vietnam ²University of Science, Ho Chi Minh City, Vietnam ³University of Duisburg-Essen, Germany</i> | 21 | 207 |
| Evaluating the Effectiveness of eLearning: A Case Study of two Companies in Tunisia | <i>Hanène Louati, Sami Boudabbous and Karima Bouzguenda University of Economics and Management Of Sfax, Tunisia</i> | 22 | 219 |
| Using Podcasts to Support Students in a Land law Class | <i>Michael Lower, Keith Thomas and Annisa Ho The Chinese University of Hong Kong, Hong Kong</i> | 23 | 230 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|--|-------------------|-----------------|
| Multipurpose Community Computing Centres – a Utopia or Mirage for Information Users | <i>Sam Lubbe^{1, 2}, Dan Setsetse² and David Sebolai²</i> <i>¹School of Computing, UNISA, South Africa</i> <i>²NWU Graduate School, NWU, Mafikeng, South Africa</i> | 24 | 238 |
| Pushing Content to Mobile Phones: What do Students Want? | <i>Kathy Lynch¹, Richard White¹ and Zach Johnson²</i> <i>¹University of the Sunshine Coast, Australia</i> <i>²Blackboard, Australia</i> | 24 | 246 |
| Teacher's Tools and Strategies for Online Courses in Ensenada Campus of the Universidad Autónoma de Baja California, México | <i>Lewis McAnally-Salas, Erika Judith Espinosa-Gómez and Gilles Lavigne</i> <i>Universidad Autónoma de Baja California, México</i> | 25 | 255 |
| Readiness-Based Intervention Strategies for an eLearning Environment of the Saint Louis University Graduate Program | <i>Cecilia Mercado and John Anthony Domantay</i> <i>Saint Louis University, Philippines</i> | 26 | 266 |
| Moving Towards Better Electronic Documentation for Aircraft Maintenance Manual | <i>Mohammad Iqmal Mohd Ali¹, Patrice Terrier², and Myra Aidrin Mohd Ali³</i> <i>¹Universiti Kuala Lumpur Selangor, Malaysia</i> <i>²Université de Toulouse II, France</i> <i>³Islamic Science University of Malaysia, Negeri Sembilan, Malaysia</i> | 27 | 275 |
| Information Security in eLearning: A Discussion of Empirical Data on Information Security and eLearning | <i>Najwa Hayaati Mohd Alwi and Ip-Shing Fan</i> <i>Cranfield University, UK</i> | 28 | 282 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|---|-------------------|-----------------|
| Using Mobile Device for Learning: Students' Perspective | <i>Norbayah Mohd Suki¹, Norazah Mohd Suki², Ahmad Rafi Mohamed Eshaq¹ and Koo Ah Choo¹</i> <i>¹Multimedia University, Malaysia</i> <i>²Universiti Malaysia Sabah, Malaysia</i> | 29 | 291 |
| Future of Learning Objects in eLearning 3.0 | <i>Uma Narasimhamurthy and Kholoud Al-Shawkani</i> <i>King Khalid University, Kingdom of Saudi Arabia</i> | 30 | 300 |
| A Quantitative Comparison of Change Over 12 months in Pre-Service Music and PE Teachers Experiences and Perceptions of eLearning and a Qualitative Analysis of Perceived Benefits and Enjoyment | <i>Jennifer O'Dea¹ and Jennifer Rowley²</i> <i>¹University of Sydney, Australia</i> <i>²Sydney Conservatorium of Music, Australia</i> | 30 | 307 |
| Critique of a Language Learning Website | <i>Soh Or Kan</i> <i>University Tunku Abdul Rahman, Malaysia</i> | 31 | 317 |
| On-Line Learning as Part of Technology-Based Learning and its Benefits for Organizations – Case Study | <i>Gabriela Popa, Ion Stegaroiu, Anca Georgescu and Nicoleta-Aurora Popescu</i> <i>Valahia University from Târgoviște, Romania</i> | 32 | 322 |
| Design and Development of Systematic Interactive Multimedia Instruction on Safety Topics for Flight Attendants | <i>Zakaria Bani-Salameh¹, Merza Abbas¹, Muhammad Kamarul Kabilan¹ and Lina Bani-Salameh²</i> <i>¹University of Science of Malaysia, Malaysia</i> <i>²Yarmouk University, Jordan</i> | 33 | 327 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|--|-------------------|-----------------|
| eLearning, Knowledge Management and Learning Organization: An Integrative Perspective | <i>Kalsom Salleh Universiti Teknologi MARA, Shah Alam, Malaysia</i> | 34 | 343 |
| Reaching the Unreached: A Study on Mobile Learning in India | <i>Raghav Sampangi, Vighnesh Viswanath and Ashish Ray University of Mysore, India</i> | 34 | 350 |
| Collaborative Learning from Customer's Experiences and Leadership | <i>Maria Theresia. Semmelrock-Picej eBusiness Institute, Klagenfurt University, Austria</i> | 35 | 358 |
| Factors Affecting Adoption of eLearning Paradigm: Perceptions of Higher Education Instructors in Palestine | <i>Khitam Shraim Birzeit University, Palestine</i> | 36 | 367 |
| Assessing Online Textual Feedback to Support Student Intrinsic Motivation Using a Collaborative Text-Based Dialogue System: A Qualitative Study | <i>Ronnie Shroff and Christopher Deneen The Hong Kong Institute of Education, Centre for Learning, Hong Kong</i> | 37 | 374 |
| Pattern of Participation and a Comparative Analysis of Thai and Malaysian Students' Perception towards the Learning Platform and Environment of EU-SUPPORT Social Network | <i>Sharifah Norhaidah Syed Idros, Norizan Esa, Mohd Ali Samsudin, Abdul Rashid Mohamed and Salubsri Charoenwet Universiti Sains Malaysia, Penang, Malaysia</i> | 37 | 383 |
| Integrating eLearning in the Knowledge Society | <i>Dorina Tănăsescu, Ion Stegăroiu and Gabriela Păunescu Valahia University, Târgoviște, Romania</i> | 38 | 391 |

| Paper Title | Author(s) | Guide Page | Page No. |
|---|---|-------------------|-----------------|
| Leveraging Diffusion in eLearning: Organisational Learning Attributes | <i>Keith Thomas and Annisa Ho The Chinese University of Hong Kong, Hong Kong</i> | 39 | 400 |
| Reviewing Peer Reviews – A Rule-Based Approach | <i>Patrick Wessa¹ and Antoon De Rycker² ¹Catholic University of Leuven, Belgium ²University of Malaya, Malaysia</i> | 40 | 408 |
| Microblogging for Reflection: Developing Teaching Knowledge Through Twitter | <i>Noeline Wright The University of Waikato, Hamilton, New Zealand</i> | 41 | 419 |
| Blending eLearning With Traditional Teaching for Increasing Student's Performance in the International University of Chabahar (IUC): Lessons Learnt From Thoughts to Action | <i>Bijan Yavar, Maryam Rahmani and Maisam Mirtaheri International University of Chabahar (IUC), Tehran, Iran</i> | 42 | 425 |
| Satisfaction in a Blended Learning Program: Results of an Experiment in the Faculty of Nursing and Midwifery in Iran | <i>Mitra Zolfaghari¹, Reza Negarandeh¹, Fazlollah Ahmadi² and Sana Eybpoosh¹ ¹Tehran University of Medical Sciences, Tehran, Iran ²Tarbiat Modares University of Medical Sciences, Tehran, Iran</i> | 43 | 434 |

445

| PhD Research Papers | | | |
|---|---|----|-----|
| The Development of IMLO for Dyslexic Children | <i>Fadilahwati Abdul Rahman¹, Fattawi Mokhtar² and Ronaldi Saleh Umar²</i> <i>¹International Islamic University Malaysia (IIUM), Selangor, Malaysia</i> <i>²Universiti Teknologi MARA (UITM), Selangor, Malaysia</i> | 47 | 445 |
| Introduction to eLearning Infrastructure | <i>Azadeh Noori Hoshyar and Riza Sulaiman</i> <i>UKM, Bangi, Malaysia</i> | 47 | 456 |
| Integrating Media Psychology Within a Theoretical Framework of Instructional Design for Web-Based Learning Environments (WBLEs) | <i>Sadia Riaz, Dayang Rohaya Awang Rambli, Rohani Salleh and Arif Mushtaq</i> <i>Universiti Teknologi PETRONAS, Tronoh Perak, Malaysia</i> | 48 | 463 |
| Developing a Blended Course: Difficulties Faced by Adult Learners in Reading Hypertext | <i>Maslawati Mohamad, Supyan Hussin and Zaini Amir</i> <i>Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia</i> | 49 | 472 |
| Learning the eWay in India – Making a Business Strategy | <i>Poornima Nataraja¹ and G.Raju²</i> <i>¹Dayananda Sagar College of Engineering, Bangalore, India</i> <i>²RNS Institute of Technology, Bangalore, India</i> | 50 | 480 |
| Practitioner papers | | | |
| Blended Learning at the Australian Industry Trade College (Gold Coast) | <i>Olivija Komadina and Mark Hands</i> <i>Australian Industry Trade College, Australia</i> | 53 | 491 |

| | | | |
|--|--|----|--|
| Posters | | | |
| Role of Science Teachers in the era of Technological Innovations | <i>Halah Saeed Al-Amodi and Huda Mohammad Babtaen Umm al-Qura University, Makah, Saudi Arabia</i> | 57 | |
| Are Malaysian Nurses Ready for eLearning? | <i>Mei-Chang Chong¹, Kenneth Selleck², Karen Francis², and Khatijah Lim³ ¹Monash University, Seri Kembangan, Malaysia ²Monash University, Australia ³University of Malaya, Malaysia</i> | 58 | |
| Reusability in e-Learning: Impact of Technology | <i>Osman Sadeck Western Cape Education Department, and Cape Peninusula, Cape Town, South Africa</i> | 59 | |

Preface

This book represents the Proceedings of the 5th International Conference on e-Learning.

The host university this year is The Universiti Sains Malaysia, and it is my pleasure to have the role of Programme Chair, with colleague Rozhan M. Idrus as Conference Chair.

The opening keynote address is given by David M. Kennedy from Lingnan University, Hong Kong, on the topic of Using mobile devices to contextualize, personalize and promote student-centred learning. The second day will be opened by Laura Czerniewicz from the Centre for Educational Technology (CET) the University of Cape Town, South Africa.

This Conference is now a well-established platform for bringing together a wide range of stakeholders involved with the challenges of e-Learning in a rapidly changing global society, including academics, innovators and practitioners interested in benefitting from, using and contributing to current research as well as professionals working in the private and public sector.

ICEL provides a space for the rigorous and stimulating sharing of ideas about e-Learning today. It is an opportunity for the broader e-Learning community to meet, and for overlapping communities of practitioners to join the lively e-Learning conversations. The range of papers will ensure an interesting two days.

With an initial submission of 164 abstracts, after the double blind, peer review process there are 59 papers published in these Conference Proceedings. These papers represent research from Australia, Austria, Belgium, Canada, Ghana, HongKong, ndia Indonesia, Iran, Jordan, Malaysia, Mexico, New Zealand, Palestine, Philippines, Portugal, Romania, Saudi Arabia, South Africa, Switzerland, Taiwan, Tunisia, UK, United Arab Emirates and Vietnam.

I hope that you have a stimulating and enjoyable conference.

Issham Ismail
Programme Chair
July 2010

Biographies of Conference Chairs, Programme Chairs and Keynote Speakers

Conference Chair



Rozhan Idrus is the first Professor of Open and Distance Learning (ODL) appointed in a public institution of higher learning in Malaysia. He received his doctoral degree in Solid State Physics from the University of Salford in the UK. Trained as an instructional designer, he has published more than 130 scholarly works and has presented 11 Keynote addresses globally. He is the Founding Chief

Editor of the Malaysian Journal of Educational Technology, the Chief Editor of the International Journal of Excellence in e-Learning (based in Dubai) and is a member of the Editorial Board of ten international journals.

Programme Chair

Dr. Issham Ismail received his doctoral degree in Finance from Universiti Malaya and is also a registered Chartered Accountant (CA) of Malaysia. Previously he had worked in finance and the accounting industries. He is currently a Senior Lecturer in the University and his focus on research in educational technology developed when he served as a full time lecturer for Management undergraduate programme. Mobile learning is his primary research interest, having published in areas of distance education and e-Learning as well. He is also supervising many postgraduate students in educational technology and m-learning. As an active researcher, he has been appointed as a committee member of the newly formed Rapid Learning Extreme Research Cluster in the university.



Keynote Speakers



David Kennedy is the Director of the Teaching and Learning Centre at Lingnan University in Hong Kong and has over 30 years teaching experience, including the last seven years in Hong Kong. He has published widely in the use of learning technologies and their associated pedagogical frameworks, problem-based learning, visual and information literacy, and evaluation of curriculum

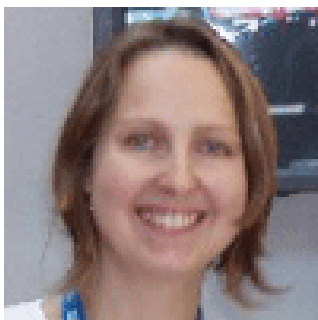
innovations in a diverse number of academic domains. He has undertaken invited and keynote presentations, consultations, professional development and seminars related to eLearning and mLearning, curriculum design, information literacy, using free and open source software, and outcomes-

based approaches to teaching and learning in the UK, Hong Kong, Australia, Mauritius, South Africa, Russia, Finland, Canada and Malaysia. He is the author of a soon to be published module on Internet-Based Collaboration tools undertaken in conjunction with Imperial College, and is also a member of the Editorial Boards of a number of prominent International Journals.

Prof. Laura Czerniewicz is director of the Centre for Educational Technology at the University of Cape Town (UCT), previously the director of UCT's Multimedia Education Group. CET builds staff capacity, develops curriculum projects, offers small grants and develops and provides an open source learning environment, Vula (powered by Sakai). Laura has a particular interest in educational technology in developing countries, researching access to and use of ICTs in higher education. A recent report, *The Virtual Mobius Strip*, reports on detailed findings from five higher education institutions; another eight institutions are presently being investigated. A thick concept of access, based on Bourdieu's work, provides useful ways of problematising complex contexts. She is also interested in the formation and nature of educational technology as a new scholarly field, in multiple contexts.

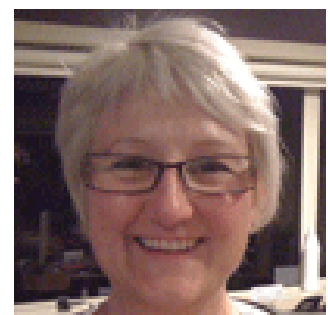


Mini track chairs



Dr. Andrea Gorra holds a Ph.D. from Leeds Metropolitan University (UK) in the area of mobile communications and privacy. As part of her work for the Centre for Excellence in Teaching and Learning - Active Learning in Computing at Leeds Metropolitan University, she investigates the possibilities that technologies can offer to support faculty and enhance student learning. Andrea's primary research interests include the use of social software, podcasting, mobile learning devices and multimedia files for assessment, learning and teaching.

Dr Noeline Wright spent 20 years in secondary schools as an English teacher. She now teaches people to be secondary school teachers and is in charge of their pedagogy and ICT programme. She also works as a researcher in School of Education's WMIER Centre (Wilf Malcolm Institute of Educational Research) undertaking a range of educational research projects, including commissioned e-learning projects.



Biographies of contributing authors (in alphabetical order)

Amelia Abdullah is a Bachelor of Education (English Language and Literature) from the University of Exeter, UK in 1997. She Taught English in a secondary school for 5 years from 1998 to 2003. She has obtained a Masters Degree in Education Technology from Universiti Sains Malaysia in 2002. She also obtained her PhD in ICT and Multimedia Education in 2009 from the National University of Malaysia. She is Currently lecturing in USM, Penang. Areas of research interests are TESOL subjects, Networked learning, Collaborative Learning Online and Computer-Mediated Communications

Zeinab Abu Samak is an assistant professor at the College of Education, Curriculum and Instruction Department at the Hashemite University. She also worked at the Department of English Language and Literature since 2006. She holds a PhD in Multilingual/Multicultural Education Program at the College of Education, Florida State University in 2006.

Halah Saeed Ahmed Bagader Al-Amod is Professor of Curriculum and Teaching Assistant, Department of Science Education and Psychology - Faculty of Education, Umm Al Qura University. Hala has a PhD in curricula and methods of teaching science from the Umm Al Qura University and has attended a number of local and international conferences and courses.

Elizabeth Appiah is the Alternate Dean, at the Faculty of Business Administration, Pentecost University College, Ghana. She has a PhD in Economics of Education from the University of Illinois at Urbana-Champaign (UIUC). She was a Lecturer in the Department of Economics, University of Maryland, Baltimore and previously was a Research Associate in the Department of Economics, UIUC. She is a Data Specialist in Economic Growth, Agriculture, Trade and Education at the USAID.

Carolina Armijo is a biologist with a Ph.D on Cleaner Production and Sustainability from Erasmus University Rotterdam. She is a full time professor and researcher in the Engineering Faculty of the Autonomous University of Baja California in Ensenada Mexico. Since 2001 she has used LMS for delivering online courses.

Peter Arthur is the Director of the Centre for Teaching and Learning at the University of British Columbia Okanagan. His teaching and research focuses on how to leverage technology to enhance learning environments.

Philip Balcaen is a member of The Faculty of Education at The University of British Columbia Okanagan in Kelowna, British Columbia, Canada. His

current areas of interest and research include science and mathematics education, the pedagogy of critical thinking, and the development of critically thoughtful e-learning environments.

Huda bint Mohammed Hussein Babbain works at the Umm Al Qura University - College of Education for Girls - Department of Education and Psychology. He is Head of the Department of Education and Psychology offline and has a Doctorate in curriculum and methods of teaching science and also a MA in curriculum and methods of teaching science. He has attended a number of local and international conferences and courses.

Chong Mei Chan is a lecturer at the University of Malaya. She is currently a PhD candidate at Monash University, Australia. Her research work is related to continuing professional education and readiness towards e-learning among Malaysian nurses. Her other interests in research are nursing education, problem based nurses, gerontology, infant feeding and community health nursing.

Gusti Ngurah Darmawan is a Senior Lecturer and Chair of the Research Management Committee within the School of Education at the University of Adelaide. With a strong initial interest in ICT and Science Education, he has extended his field of inquiry in these areas to cross-national perspectives, and has developed a strong interest in educational research methodology and measurement.

Annemarie Davis has 10 years experience in higher education and joined UNISA as a senior lecturer in 2006. During her time at UNISA, she was awarded the UNISA Excellence in Tuition Award in 2009 and was one of two nominees for the myUnisa Excellence Award - UNISA's online student portal. She shares her teaching interventions openly with colleagues and combines her academic research with her teaching methodology.

Antoon De Rycker, CertTEB, MAL, PhD is currently employed as Associate Professor at the University of Malaya, Faculty of Languages and Linguistics, where he teaches, among other things, academic writing, cognitive linguistics and psycholinguistics. His research interests include the pragmatics of writing, second language vocabulary acquisition, and more recently, language and cognition.

Christopher Deneen is an assistant professor with the Centre for Learning, Teaching, and Technology at The Hong Kong Institute of Education. His principal activities are professional development and academic quality enhancement, and he is currently co-managing HKIEd's e-portfolio pilot. His research interests include standards-based education, student assessment, and gender theory.

Amer Elameer is a Consultant Engineer and Lecturer at the University of Mustansiriyah, Baghdad in Iraq. He has more than 15 years of service in public institutions of Higher Education in Iraq. Most of them as a director of Computer Centers, Senior ICT adviser and Cultural relations director. He Gained a B.Sc and M.Sc from The university of Technology in Baghdad 1985, 1989. He is the designer of the digital social safety network in Iraq and other ICT projects and is also a professional programmer in Database and CAI programs. He is currently a PhD student at the School of Distance Education, Universiti Sains Malaysia (USM) , Penang, Malaysia

Cécile Gabarre is currently a senior lecturer with University Putra Malaysia. She has been lecturing in Malaysia for the past twelve years. Her fields of research include eLearning, mLearning, language acquisition and CSCL. Cécile, together with her husband Serge, has conducted training and workshops on these fields in several countries across South-East Asia.

Serge Gabarre is currently a senior lecturer with University Putra Malaysia. He was first posted to Malaysia as a lecturer in 1995. His fields of research include mLearning, eLearning, language acquisition and online collaborative tasks. Serge, together with his wife Cécile, has conducted training and workshops on these fields in several countries across South-East Asia.

Andrea Gorra holds a Ph.D. from Leeds Metropolitan University (UK) in the area of mobile communications and privacy. As part of her work for the Centre for Excellence in Teaching and Learning - Active Learning in Computing at Leeds Metropolitan University, she investigates the possibilities that technologies can offer to support faculty and enhance student learning. Andrea's primary research interests include the use of social software, podcasting, mobile learning devices and multimedia files for assessment, learning and teaching.

Sue Greener BA, MBA, EdD, FHEA, Chartered Fellow CIPD works at Brighton Business School as a lecturer in HRM, Business Context, Research Methods, Learning and Development. Shge is Course Director of the fully online final year undergraduate course, validated by University of Wales, with international students. Her research interests are in eLearning strategy, teacher support and development and reflective learning.

Santoshi Halder's research area includes Educational Technology, Special Education, Educational Psychology, Gender Studies, Cultural studies etc. She has published several empirical papers and articles in national and international peer reviewed Journals and has presented empirical papers at National and International Conferences. She is currently pursuing UGC Major Research Project pertaining to Inclusive Education.

Salah Hammami is an assistant professor at the College of Computer and Information Sciences, King Saud University. He received his Ph.D in Computer Science from Manar University, Tunisia in 2009 and has published research papers in international journals and presented his papers at international conferences. He has conducted several research projects on eLearning, distance education learning management systems, authoring management systems, and course eGeneration. His research interests are Distance Education, eLearning, Multi-Agent Systems, information and communication technologies.

Annisa Ho is a Research Associate at the Centre for Learning Enhancement And Research (CLEAR) in The Chinese University of Hong Kong. She is responsible for the provision of programme evaluation services in the University, including questionnaire design, data analysis and reporting. Her research interests are in the areas of eLearning, blending learning, curriculum and capabilities development.

Soh Or Kan is a lecturer at University Tunku Abdul Rahman where among other duties, he teaches modules on the Theories of Language Learning and English for Specified Purposes. He is particularly interested in CALL (Computer Assisted Language Learning) and teaching ESL students writing skills and teaching of literature in ESL contexts.

Yusniza Kamarulzaman is a Senior Lecturer at the Faculty of Business and Accountancy, University Malaya, Malaysia. She holds a PhD in eMarketing and a Pg.Dip in Research Methodology from Cardiff University, UK, along with an MBA and BBA majoring in Marketing. She teaches both Undergraduate and Postgraduate programs, as well as supervises students in the field of eMarketing, Consumer Behaviour, Retailing and Services Marketing.

Chong Chee Keong is a lecturer in the Faculty of Business & Finance, Universiti Tunku Abdul Rahman (UTAR), Malaysia. He received his Bachelor of Science (Hons.) major in Mathematics from University of Science Malaysia. Master of Science (Management) from Northern University Malaysia and Master of Information Technology (Multimedia Computing) from Multimedia University Malaysia. Prior to joining UTAR on the academic staff he was an Education Officer with the Ministry of Education, Malaysia. He was a council member of the Malaysian Council for Computer-in-Education (MCCE). His research interest is on e-learning, mobile learning in mathematics education.

Olivija Komadina leads a team of innovators in Australian Industry Trade College Gold Coast in the implementation and development of hybrid learning within senior secondary context. Her masters degree research (Deakin University, Melbourne) about videoconferencing and distance education was

used for professional development in the Northern Territory Department of Education (for distance education practitioners).

Marlena Kruger is Director of the Centre for Technology Assisted Learning (CenTAL) at the University of Johannesburg. She holds a DEd degree and has read several papers at national and international conferences. In 2007 she received the SAARDHE national award for Academic Development. She recently co-published a book on Technology-assisted learning at South African universities.

Alwyn Lau has thirteen years' experience in the education and consulting industries. He is presently a lecturer and trainer for KDU College (Malaysia). He holds two Bachelor degrees (in Economics and Theology) from the University of London and a Masters in Business Administration (MBA) from the University of Melbourne.

Duc-Long LE (Msc.) works as senior lecturer at the HCMc University of Pedagogy (Vietnam). Since 2006, he has been a PhD student in Computer Science at the HCMc University of Science (Vietnam) and University of Duisburg-Essen (Germany). The areas of current research are Teaching Methodology of IT, Educational Technology, Instructional System Development (ISD), and Adaptive e-Learning System.

Hanene Louati is a Ph.D. student in management Science in the Faculty of Economics and Management of Sfax-Tunisia.

Michael Lower is an Associate Professor in the Faculty of Law at the Chinese University of Hong Kong. His main interests are in the fields of social ethics, land law and corporate governance. He teaches Principles of Land Law and is interested in the use of technology to help student learning.

Sam Lubbe is a senior academic at the University of South Africa (UNISA) in Pretoria, South Africa. He has been in Academia for more than 25 years and have presented many papers at international conferences, have written several papers for International Journals and some books as well. He has supervised many master and doctoral dissertations and had a good pass rate for these students.

Kathy Lynch is an Associate Professor in ICT research and development at the University of the Sunshine Coast. She has a long history in eLearning teaching, research, administration and its infrastructure. Kathy is/or has been a journal editor and reviewer, and conference reviewer relating to articles presenting research on eLearning. Her research interests involve not only 'e' and 'm' learning, but all things ICT and as diverse as the reclamation of the Aboriginal language, to the use of ICTs in HIV education.

Hassan Mathkour is a Professor at the College of Computer and Information Sciences, King Saud University. He obtained his PhD degree from the University of Iowa, US and is currently Vice dean for development and quality of the College of Computer and Information Sciences. His research interests includes e-Learning, Arabization, Database Systems, and Knowledge Engineering. He has published several papers in referred journals and conferences and has been involved in various consultation activities.

Lewis McAnally-Salas has a Masters in Educational Sciences and a Ph.D in International Education. He is a full time researcher at the Institute for Research and Educational Development of the Autonomous University of Baja California, Mexico. Since 1996 his research is related to Educational Technology with emphasis in online education.

Cecilia Mercado is currently the Dean of the College of Information and Computing Sciences of Saint Louis University. She is also the ICT project leader of the VLIR (Flemish Interuniversity Cooperation) - Philippine International University Cooperation. She is currently on the national board of trustees of the Philippine eLearning Society. She is also the Vice Chair of the Regional ITE committee and regional chapter officer of the Philippine Society of IT Educators.

Maslawati Mohamad is currently teaching at Centre of General Studies, Universiti Kebangsaan Malaysia. She has been teaching English to both on campus and off campus students. In the last four years, she has focused on developing and applying hypertext reading materials in the language classroom. Her primary interest is to explore new possibilities for engaging learners in language activities particularly adult learners and enhancing their learning experience.

Mohammad Iqmal Mohd Ali is a PhD student in Ergonomics at the Research Institute of Cognition, Language and Ergonomics (CLLE) at the Université de Toulouse Mirail, France. He is also a lecturer at the Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT) in Malaysia. His research interests are in cognitive ergonomics, text and graphics instructional design and instructional technology in safety critical industry.

Najwa Hayaati Mohd Alwi is a PhD student in Information Security Management at the School of Applied Science, Cranfield University, UK. Her research focuses on securing eLearning environment using information security management. Najwa is also a lecturer at a public university in Malaysia- University Sains Islam Malaysia.

Norazah Bte Mohd Suki is currently an associate professor with the Labuan School of International Business & Finance, Universiti Malaysia Sabah, Labuan International Campus. She has supervised several postgraduate students at MBA and PhD level. Her research interests include Electronic Marketing, eCommerce, eCommerce, Consumer Behaviour, Mobile Learning and areas related to Marketing.

Uma Narasimhamurthy currently working as Lecturer in Computer Science with King Khalid University, Saudi Arabia is the co-coordinator of the Department of Information Systems & Computer Science. She has developed a method of teaching programming languages to the novice students of her university. Has developed courses on "Multimedia in Education" for the teacher education students, and was the National IT Curriculum Coordinator working with Consultants from Edith Cowan University to develop comprehensive course outlines for teacher education & polytechnic courses.

Poornima Nataraja is an Assistant Professor at Dayananda Sagar College of Engineering, Bangalore. She has done her Masters Degree in Computer Applications and M.Phil in Computer Science. She is currently pursuing her PhD at Bharathiar University, Coimbatore, under the guidance of Dr.G.T.Raju. Her areas of interest are Web engineering, eLearning and Software engineering.

Jennifer O'Dea is an Associate Professor in nutrition and health education in the Faculty of Education & Social Work at the University of Sydney. She is involved in the teacher education of health and physical education teachers and has been conducting teaching and learning research for several years with her colleague from the Conservatorium of Music, Dr Jennifer Rowley.

Fadilahwati Abdul Rahman holds Master of Multimedia (eLearning technologies). Prior to becoming a lecturer, she has ten years of professional experiences in Information Technology industries. Her recent research papers have been focused on multimedia education. Currently, she is working on her PhD in education, where she focuses on implementation of multimedia for the special needs.

Osman Sadeck is Head of e Learning at the Western Cape Education Department, South Africa. He holds a MEd from the University of Technology, Sydney, Australia, and is a current PhD student at the Cape Peninsula University of Technology, South Africa. His interests revolve around learning objects, and, the reuse of products and processes in eLearning.

Kalsom Salleh is a senior lecturer in the Faculty of Accountancy, Universiti Teknologi MARA, Shah Alam, Malaysia. Besides her teaching activities, her research areas of interest include Knowledge Management, Intellectual

Capital, Electronic Government and Electronic Learning. She has presented many of her research papers on knowledge management in public sector organisations for international conferences and published papers for journal articles and book chapters.

Raghav Sampagni is currently pursuing an M.Tech in Information Systems and Management at the International School of Information Management, University of Mysore, India. He received a B.E degree from the National Institute of Engineering, Mysore. He is an active IEEE member since 2004, and was Vice-Chairman of IEEE GOLD Affinity Group, Bangalore Section in 2009.

Maria Semmelrock-Picej is a researcher at Klagenfurt University, biztec. Her research topics are innovation-oriented information-technology based customer knowledge management, information management and related measurement issues and gender aspects.

Khitam Shraim is assistant professor at Birzeit University- Palestine. She holds a Ph.D from the University of Manchester, UK, an MBA in Finance and a BSc. in Computer Science from The University of Jordan, Amman, Jordan, and a Higher Diploma in Educational Planning from The International Institute for Educational Planning (IIEP)- UNESCO, Paris.

Ronnie Shroff is an Assistant Professor at the Hong Kong Institute of Education. His professional interests include the use of technology to support social constructivist learning, collaborative learning and outcomes based learning environments. Dr. Shroff's academic background in Information Systems, has led to his continuing research in educational technology in teaching and learning environments.

Riza Sulaiman is an Associate Professor in the Department of Industrial Computing, Faculty of Information Science and Technology, Universiti Kebangsaan Malaysia. He holds a PhD in Mechanical Engineering, an MSc in Advanced Manufacturing Technology from the University of Portsmouth and B.Eng. (Hons) in Mechanical Engineering from the University of Sunderland, UK. His research areas are in CAD/CAM, Graphics, Visualisation and Simulation. He is a member of the Institution of Mechanical Engineers (IMechE), UK and the Board of Engineers Malaysia (BEM).

Sharifah Norhaidah Syed Idros is an Associate Professor at Universiti Sains Malaysia. She has a PhD in the field of Educational Technology. Sharifah is the Malaysian representative for the EU-SUPPORT and currently the South-East Asian Representative for the "International Organization for Science and Technology Education" .

Dorina Tanasescu, Doctor of Economic Sciences, Deputy Director of Marketing-Management Department, Valahia University of Targoviste, CEDIMES (France) researcher, visiting Professor in European universities, the author of 16 books, manager and expert of 17 research contracts, 46 papers as author and co-author, published in ISI and international data bases.

Bijan Yavar is a Member of the IUC presidential council, IUC Head of Research Department, Member of IUC Scientific Board, Member of IUC Board of Trustees Technical Committee, Information Technology Adviser to Chabahar Free Trade & Industrial Zone Organization (CFZO) Managing Director, Member of CFZO & IUC Research Council. He has written more than 8 books, 33 International Papers and has been involved with 5 International projects.

Salameh Zakariya is a PHD candidate studying educational technology at USM. He has been working on board Royal Jordanian since 1995 as a flight attendant. The research area is in-flight safety among flight attendants who have very little literature in the academic research. He is currently working on developing eLearning training materials for flight attendants to have safe flights.

Mitra Zolfaghari; BSN, MSN in Nursing education and PhD in Planning of Distance education. Dr.Zolfaghari is Assistant professor in Tehran University of Medical Science, she has written 11 books and 30 articles. Her research interests are in Blended learning and the development of a BL-system at Tehran University in Iran.

Investigating the Roles of Students in the Development of a Collaborative Learning Community Through Networked Learning; a Malaysian Perspective

Amelia Abdullah and Abdul Rashid Mohamed
Universiti Sains Malaysia, Penang, Malaysia

Abstract: This paper aims at identifying the different roles that students play in the development of a collaborative networked learning (n-learning) community through an asynchronous environment. The respondents for this case study involved twenty three undergraduates TESL students in their ninth semester. These students, undergoing the *Introduction to Literature* course are pursuing their degrees in a private institution of higher education in a branch campus in Perak. This study employed the qualitative method as the research methodology. The instruments used in the data gathering process were interaction threads analysis and semi-structured interviews. The analysis of the data showcased that the students played significantly different roles in developing the collaborative learning community. The students' roles are categorized into two types: positive and negative roles. The negative roles can be seen as threats to the sanctity of an online learning community; therefore they have to be minimized. In developing a successful n-learning community, students should learn to take control of their own learning. This means the students are able to adopt appropriate roles according to the needs of the community. Each student has their own significant roles to play to ensure a collaborative n-learning community is successfully developed.

Keywords: networked learning, collaborative learning, asynchronous environment, students' roles, online learning community

Information and Communication Technology Integration Among Jordanian English Language Teachers

Zeinab Tawfik Abu Samak
The Hashemite University, Zarqa, Jordan

Abstract: This study explored factors that may influence the integration of information and communication technology (ICT) by Jordanian teachers of English as a foreign language (EFL). This study replicated research with extension by Albirini (2004), who explored attitudes ICT among teachers of EFL in Syria. This study's focus was ICT use among EFL teachers in Jordan. The Diffusion of Innovations (Rogers, 1995), and the theoretical relationship between attitudes and behavior posed by the Theory of Reasoned Action (Ajzen & Fishbein, 1980) served as a theoretical framework. A multi-sections survey in Arabic language was administered to the EFL teachers in the first and second districts of the capital city of Jordan, Amman using a random

sample of 363 teachers. Utilizing descriptive and inferential statistics, the study showed that Jordanian EFL teachers have positive attitudes towards ICT. Jordanian EFL teachers' perceptions of ICT perceptions from highest to lowest in mean scores were: observability, relative advantage, complexity, and compatibility. Jordanian EFL teachers have a moderate computer competence and have a high access to ICT. There was a weak positive correlation between training and attitudes. Type of training, obtaining an ICDL Certificate, and length of training were explored. More studies are needed to add to EFL instruction and ICT integration in the Arab region. Future qualitative studies are needed to provide deeper insight.

Keywords: ICT integration, English language teacher

ELearning Governance — Towards an Applicable Framework to Make eLearning Decisions Based on COBIT and ISO/IEC 38500

Morteza Alaeddini

Amirkabir University of Technology, Tehran, Iran

Abstract: It is increasingly recognized that learning processes are crucial to the success of organizations. Nowadays, these processes can be realized in electronic learning (eLearning) systems. In an era where the intellectual capital is considered to be the most valuable asset of a company, surprisingly not too much attention is given to the risks and threatens faced by eLearning endeavors. In this paper, we want to go beyond methodologies for developing eLearning systems, extend the IT governance principles to all stages of eLearning, and finally, design a framework for using eLearning in organizations aligning with their business goals and strategies. This framework has to manage risks of development and maintenance of eLearning in organizations, optimally and independent of technical platforms, organizational structures and pedagogical frameworks.

Keywords: eLearning, IT governance, framework, decision-making, risk-control

Rising Rate of Private Universities in Ghana: The Case for Public and Private Support

Elizabeth Appiah and Eva Esther Ebenezer
Pentecost University College, Accra, Ghana

Abstract: Ghana has changed from being agricultural dependent nation to service and to conceptual and knowledge-based age; therefore, academics must help close this gap. However, with the rising rate of Ghana's population, and an increase in secondary school graduates each year, many qualified students do not gain admission in the tertiary education institutions due to lack of space and financial assistance. Are there sufficient incentives on efficiency grounds for additional public and private investment in tertiary education and other policy insights that would address this problem? This paper attempts to estimate the private and social benefits of tertiary education in Ghana, which includes contribution of education not only on economic growth, but also on other non-monetary benefits, which leads to economic development and human welfare. Specifically, the paper examines the impact of an increase in the proportion of private and public expenditure as percentage of Gross Domestic Product (GDP) spent on higher education in Ghana, both the market and the non-market (better health, poverty reduction, total fertility, population growth, life expectancy, lower crime rate, improved civic institutions, cleaner environment, and lower public health) direct and indirect effects are considered. The social benefits of tertiary education with its relation to cost are the basic economic justification for public and private support of education. Therefore, we estimate the net contribution of tertiary education to Ghana's economic development using a simulation model. The simulation model contains regressions, which are based on worldwide data, but are updated using nationwide data to be able to estimate the effects of tertiary education in Ghana. We also analyzed the impact 'cost discrimination' method and outmigration of qualified Ghanaian professionals on the social non-market benefits. We proposed financial assistance for the academically qualified poor students. To reduce the outmigration of skilled manpower and also help the government to recover some of the resources invested in higher education, we propose a 2-year Associate Degree program, which is relatively cheaper, and in turn would drastically reduce the brain drain and help the Ghanaian economy to progress faster. The estimates show that a 2-year degree program can potentially improve the net social benefits of tertiary education in Ghana. For example, it will lead to better own health. It can also assist us to appraise the loss to Ghana's economic development for not sufficiently supporting tertiary education.

Keywords: private and public higher education in ghana, market and non-market benefits, outmigration, social benefits

Online Support for a Chemistry Course: The Opinion of University Freshmen

Carolina Armijo de Vega and Lewis McAnally-Salas
Universidad Autónoma de Baja California, México

Abstract: Freshman in universities are faced to teaching-learning modalities that often incorporate the use of educational technology to support the learning process and to promote more flexible academic schedules, however, students' opinions on the use of technology are often omitted in the learning process. The aim of this work was to know the perception of students about the advantages and disadvantages of using online support in a chemistry course. These results will help teachers of the first semesters know the views and opinions of students to strengthen or modify the type of contents and activities that are perceived as advantageous or disadvantageous. To achieve this objective a qualitative research was conducted over a chemistry course that was imparted in a face to face modality using a LMS for on-line support. The course used for this analysis is mandatory for all freshmen students enrolled in engineering programs in the Autonomous University of Baja California, Mexico. The supports available in the LMS were forums for resolution of questions, exercises for reaffirmation of knowledge, academic content presentations seen in class, readings and the course administration activities such as delivery of grades and communication in addition to the class. Focus group where used to gather information about the students' attitude towards the use of LMS as a learning support tool. Questions were asked in an interactive group setting where participants are free to talk with other group members. After the interviews all comments were transcribed and analyzed. The total student population was 42, of which approximately 95% came from public schools and their age range is between 18 and 20 years. A non-probabilistic sample was chosen with three strata, each stratum composed by eight students of high place, average and under performance (yield) respectively. An interview guide was used and each group was interviewed separately. The results showed that students had never used a learning support system such as the LMS used in the course analyzed, according to the interviews the support platform helped reinforce the course material, students found the forums particularly useful not only to communicate with the teacher but to help and solve other students' questions and share class exercises. The platform was also used for sharing other classes' materials. Something that students identified as very positive was the fact of having rapid feedback on the doubts and academic qualifications. The main disadvantages mentioned were those related to technical issues. Based on the results of this study it is possible to recommend the use of online support for courses at any level but particularly for those who are taught to freshmen since in them they find support and the safety of relying on

theoretical - practical materials and the necessary communication to face the introduction to a new educational system.

Keywords: students' perceptions, on-line support, LMS use

Enhancing the Online Scholarly Research Environment: Evaluating the Tools

Peter Arthur

University of British Columbia Okanagan, Kelowna, Canada

Abstract: There is no doubt that learners are reading online. Within the academy, online technologies may be used to potentially enhance critical engagement with scholarly research and ultimately improve the online reading environment. Up until recently, academic journals placed articles online primarily to increase access; however, the creation of online reading tools has significantly changed the online scholarly environment. HighWire Press, PubMed, Open Journal Systems, ScienceDirect, Public Library of Science (PLoS) and other online scholarly publishing systems now provide "tools" that reside next to or within online scholarly journal articles. These tools offer readers convenient links to relevant resources. With the current growth of the number of academic journals publishing online, in conjunction with the rapid development of online information retrieval tools, a new way has emerged in reading online scholarly journals. Therefore it is important to investigate the efficacy of these online technologies. This paper focuses on a research study that investigated whether students in a teacher education course who had access to Open Journal Systems, Reading Tools, significantly enhanced the students, 1) comprehension, 2) ability to evaluate the quality, and 3) level of confidence in using the article as part of their work as students or future work as teachers. The sample for the experimental design consisted of 75 pre-service teacher education students who comprised two sections of the compulsory course entitled "Information Communication Technology for Secondary Teachers" who were randomly assigned to either have access to the Reading Tools or no access to complete an authentic assignment as part of the course. As part of the assignment students were asked to create a list of 10-12 "talking points" for each of four articles prior to the class in which they would use the points as a basis of discussing the article with their group. These "talking points" were then assessed to arrive at a "comprehension" and "critique score." An article usability score was based on survey questions that all students answered after completing each article assignment. Students in the treatment groups were compared to students who didn't have access to the Reading Tools. Results of the mixed design ANOVA used to analyze the data indicated there were no significant differences found between the two groups of students in the areas of comprehension, ability to critique, or article utilization. However,

student survey feedback indicated a positive perception for the Reading Tools ability to provide value to the online research reading environment. I offer possible explanations for the apparent lack of advantage to search-wise students and suggest further studies for the development of reading tools.

Keywords: reading online, learning, technology, reading tools

The Pedagogy of Critical Thinking; Object Design Implications for Improving Students' Thoughtful Engagement With eLearning Environments

Philip Balcaen

University of British Columbia Okanagan, Kelowna, Canada

Abstract: In this paper, I describe how a model of teaching critical thinking coupled with the development of learning objects may help respond to broader calls for critical thinking both as a central goal in education and as a key aspect in the ecology of 21st Century eLearning environments. The model developed by the Canadian Critical Thinking Consortium is organized around a framework of four fronts and involves embedding five categories of intellectual tools into the teaching of curriculum content. These tools for thought include addressing the need to focus critical inquiry into relevant background knowledge, using criteria for judgment, explicitly addressing thinking concepts, using specific thinking strategies and supporting the development of certain habits of mind. This model is informing a development project focused on designing objects that I believe advance opportunities to teach critical thinking and better engage students. The project is part of on-going efforts to design objects that advance "Type II" and generative characterizations and that better engage students in critical inquiry into content; support active learning; provide an extensive range of acceptable responses; involve creative tasks and require extended periods of time to complete. Although the development project is in-progress and yet to be assessed, I offer a description of four of the objects while discussing implications of the conceptual model in their design. I also address the need to assess the efficacy of using such objects to support instruction by briefly outlining a companion project where we are developing new measures to evaluate use of these objects.

Keywords: critical thinking, learning object design, engaging learners

Factors Affecting the Usage of WBLE (Web-Based Learning Environment): A Malaysian Private University Experience

**CheeKeong Chong, CheeHeong Lee, YouHow Go and CheeHoong Lam
Universiti Tunku Abdul Rahman, Kampar, Malaysia**

Abstract: This study involved 279 students which are made up of 60% male and 40% female from a traditional private university in Malaysia towards the usage of an eLearning portal, known as Web-Based Learning Environment (WBLE). An extended Technology Acceptance Model (extended TAM) was used as a framework to study the factors that affect the use of WBLE. The four main factors identified are perceived usefulness, perceived ease of use, peer/lecturer support and facilities support. A total of seven hypotheses were formulated and the results indicated that peer/lecturer support has a significant effect on perceived usefulness; peer/lecturer support and facilities support do not have a significant effect on perceived ease of use; perceived ease of use has a significant effect on perceived usefulness; perceived usefulness has a significant effect on the usage of WBLE but not perceived ease of use, which is in contradiction to the results of TAM. This could be explained by the fact that most students are digital natives so the ease of using the system is not in their consideration for adoption of any information system. Finally, the usage of WBLE does not show any correlation on individual performance. These results could be extended to other institutions of the same set ups to avoid pitfalls during implementation.

Keywords: Web-Based Learning Environment (WBLE), eLearning, Learning Management System (LMS), TAM, extended TAM

Advancing Collaborative Learning Pedagogy With Team Learning Systems

**I Gusti Ngurah Darmawan and Linda Westphalen
The University of Adelaide, Australia**

Abstract: The advent of computers and the rapid advance in information technologies have forever changed the way we live. Recent times have also seen the immense impact of information technologies on education. There is now an integration of information technologies into a number of instructional methods which increase the possibility of better and more efficient learning for students. Innovative applications of ICTs can function as powerful tools that mediate and promote higher order thinking and support collaborative learning. Understanding the group dynamics and the collaborative process of learning in groups with computer assistance are interesting research fields. In this study, the use of the Zing Team Learning System (ZTLS) in enhancing

collaborative learning pedagogy in terms of knowledge acquisition and creation is examined. The analysis of the results suggests that the use of information and communication technologies (ICTs) could enable accessibility, flexibility and support for students within and across classrooms and has the potential to increase students' engagement and interaction. Using ICTs such as the Zing Team Learning System (ZTLS) motivates and encourages students to move to collaborative learning processes through the 'talk, type, read and review' procedures. The ZTLS positively supports requirements for intellectual quality, supportive classroom environments, recognition of difference, and connectedness to enhance classroom learning. However, more research is needed to further elaborate on teaching methods and practices associated with the use of the ZTLS, especially in the online environment.

Keywords: collaborative learning, team learning system, information and communication technology, education

The Long Walk to Success: Drivers of Student Performance in a Postgraduate ODL Business Course

Annemarie Davis and Peet Venter

University of South Africa, Pretoria, South Africa

Abstract: Given the challenges in ODL institutions in developing countries such as South Africa, it is imperative to find ways of increasing performance and, as a consequence, student throughput. In this study, we conducted exploratory research to identify the drivers of student performance in a capstone fourth-year (postgraduate) business course. The purpose of the study was to identify the drivers of student performance in order to identify areas for improving student performance and identify areas for further research. The study comprised of a quantitative survey among students, followed by a limited qualitative study to clarify certain aspects. The study largely reaffirmed certain aspects of Kember's (1990) model, and the study found student enjoyment, lecturer communication through electronic media (e-mail and text messages) and student diligence to be primary drivers of performance.

Keywords: online distance learning, South Africa, postgraduate business studies, student performance

EPortfolio use in two Institutes of Higher Education: A Comparative Case Study

Christopher Deneen and Ronnie Shroff
Hong Kong Institute of Education, Hong Kong

Abstract: EPortfolios are increasing in use throughout higher education. They are relied upon to elicit student reflection, provide coherence to the learning experience within a degree program, and function as innovative assessment tools. There is evidence that they may produce significant benefits within these critical domains. For all of their potential benefits, however ePortfolio implementation carries significant challenges. Faculty and students often balk at integrating new technology into the learning and teaching experience. A lack of structure, developmental time and training can lead to dangerous challenges to validity and reliability if high stakes decisions are attached to the evaluation of ePortfolios. Do the benefits of ePortfolio use outweigh the costs? What does the roadmap of institutional implementation look like? These questions are of special value to an institution in the process of piloting and adopting an ePortfolio program. To guide our inquiry, we look first to the literature to achieve categorical understanding of what constitutes an ePortfolio and a clear picture of benefits and hazards. To see a living picture of ePortfolio use and implementation, we turn our attention to two institutions of higher education at two different stages of their ePortfolio development: a small liberal arts college (SLAC) in a southern American state and a large university of applied science (LUAS) in a European nation. Both institutions employ ePortfolios specifically in their schools of education. The researchers conducted multiple interviews with the two principal stakeholders responsible for their respective programs, and analyzed public institutional documents. Qualitative analysis was used to form categories of significance. This paper is a report of findings, presented as comparative case studies of the two institutions. Findings include the significance of time allowed in ePortfolio development, both to stakeholders and institutions as well as the importance of stakeholders' response and relationship to ICT challenges.

Keywords: ePortfolios, assessment, reflection, implementation

eLearning Strategy for the Iraqi Higher Education Sector

Amer Saleem Flayyeh Elameer and Rozhan Idrus
Universiti Sains Malaysia (USM), Penang, Malaysia

Abstract: IRAQ once led all the Arab and Middle East countries in the use of the educational technologies as they started using the computers as CAL in 1986 and the closed circuit TV in universities in 1982. Nowadays, the higher education (HE) sector of Iraq has suffered severe disruption and mass

destruction due to the war and in general only 10% of its remaining operational sectors are in the acceptable conditions. Apart from the infrastructure, the capability and capacity of human resource has become a serious challenge in the rebuilding of the country. This research is an attempt to plan a proposed strategy (PS) for the Iraqi higher education sector that can be executed easily in Iraq as part of the rebuilding of the country and critical sectors, especially education. Before designing the PS, a specially formulated questionnaire using Six-point Likert scale was distributed to 350 of Iraqi professors and universities academic staff; the results that was obtained showed that the problems faced in establishing such an eLearning network in the higher education sector included missing infrastructure, well trained staff, outside world help and the relevant budgets. A comprehensive eLearning strategy has been designed with models that were found through discovering the using of eLearning in one of the pioneers of distance education universities in Asia; the Universiti Sains Malaysia (USM) which have a complete eLearning system with a state of the art video conferencing delivery system and an electronic portal. This was complemented by the Badrul Huda Khan octagonal eight dimensions eLearning model. The educational activities were taken as a yardstick in the design of eLearning systems and educational activities for Iraq. The PS plays a major role in fixing an eLearning policy to the government and the ministry of higher education in Iraq. The core of this PS is to delete all boundaries against ICT increase in the education management and academic affairs with a complete building capacity plan to the human resources in the HE sector.

Keywords: eLearning, infrastructure, eLearning model, human resource, education management, education policy

Virtual Communities of Knowledge: Assessing Peer Online Moderators' Contributions

Cécile Gabarre and Serge Gabarre
University Putra Malaysia, Malaysia

Abstract: Two problems were observed in a French bachelor degree in a Malaysian public university: poor self-esteem and low motivation. The first setback was caused by societal pressure and the fear of losing face while the second was due to the lack of exposure to the target language. An action research was carried out over three years in order to investigate the best framework and teaching practices with the objectives of raising exposure, knowledge and competencies. Computer supported collaborative learning (CSCL) in a blended learning environment hosted on the faculty's LMS platform was retained for its implementation. In line with engaged learning theories, the learners had been progressively geared towards more online autonomy. Data analysis of exchanges as well as learners' feedback from

questionnaires and interviews led to continuous improvements in the course design and to CSCL being introduced earlier in the program. This article analyses the contribution of online peer moderation by isolating three key objectives. The first was to boost the motivation and to encourage the senior learners with new responsibilities. Secondly, it aimed to reduce the lecturers' burden of tutoring the online forums. Finally, it sought to examine the junior learners' perception to peer facilitating. This article relates to the selected peer facilitators' experience and to the juniors' perceptions based on questionnaires, interviews and forum monitoring. The benefits and drawbacks of recruiting peer moderators are analyzed and discussed from both the learners' and the lecturers' perspectives. Our first findings revealed that this experience was beneficial to all. CSCL was effective in meeting the three objectives that had been set. Conversely, a new responsibility was added to the lecturers' duties, as in this new teaching scenario they also were required to train the moderators. Positively for the institution, it was noted that the cost of CSCL monitoring was considerably lower than when hiring external tutors.

Keywords: blended learning, CSCL, engaged learning, peer involvement, French as a foreign language

Using the Learners' Mobile Phones to Enrich Exchanges in a French Language Course

Serge Gabarre and Cécile Gabarre
University Putra, Serdang, Malaysia

Abstract: Computer mediated communication is often synonymous with asynchronous text messages on a forum. In the language classroom, a first learner posts a message which is then answered by a second one who continues the thread. This exercise enables the practice of the reading and writing skills. However, these exchanges do not meet the students' first expectations when they register for a language course, which is speaking. This can be compensated by having role plays as well as oral presentations in a face to face setting. Such class activities tend to be time consuming and are often little more than read out version of a text which has been written in advance. This research paper addresses a way to resolve this issue by using a forum to post asynchronous audio and video messages. In order to produce this multimedia communication, the learners used their mobile phones to record messages before publishing them online. The audio messages were directly posted and embedded within a forum on the faculty's e-learning platform. As for the video messages, they were first posted to the *YouTube* website before being embedded in the forum. These posts were twofold in nature. The first ones were audio and video role plays between several learners. These were subsequently commented by their peers using the same channel, thus creating a series of asynchronous exchanges. The

second ones took the form of video presentations performed by groups of learners. These audiovisual productions fulfilled the requirements of three distinct courses: French culture, French for science and technology (S. & T.) and French for tourism. Findings from this research reveal that using multimedia in the messages made the exchanges richer as well as more relevant to language learning. Several technical inhibitions were noted during the various assignments. Most of these were however resolved through collaboration. This research showed that generally the video presentations were better planned than the class ones and made use of more complex grammatical structures in the target language. It must be noted that unexpectedly a few groups failed to function as collaborative entities. This paper addresses ways to improve on the difficulties that were encountered and offers suggestions for practitioners who would like to replicate this experiment.

Keywords: foreign language learning, learner created content, podcasting, cell phone, LMS

Learning With Technology: What do Students Want?

Andrea Gorra¹, Janet Finlay¹, Marie Devlin², Janet Lavery³, Royce Neagle⁴, Jakki Sheridan-Ross¹, Terry Charlton² and Roger Boyle⁴

¹Leeds Metropolitan University, UK

²Newcastle University, UK

³Durham University, UK

⁴University of Leeds, UK

Abstract: This paper presents the results of a study into which technologies are preferred by students to support their studies. The study has taken place across four universities in the North of England. Much has been written and discussed about the differences between generations regarding their acceptance and ease of use of technology. Terms such as ‘Digital Natives’ or ‘Net Generation’ are frequently used to portray the younger generations born after 1980, who regard digital technology as routine, essential and unexciting. However, many authors have also argued against this rather simplistic classification. Independent of whether Digital Natives exist or not, it cannot be denied that mobile and internet-based technologies have proved valuable tools that enable students to access learning at a time that suits them, at their own pace, and wherever they prefer. As part of a HEFCE (Higher Education Funding Council for England) funded project, the Centre for Excellence in Teaching and Learning - Active Learning in Computing (CETL ALiC) - has conducted ten surveys over four years and across four institutions to identify the needs and preferences of our undergraduate students. CETL ALiC is a collaborative project between four universities in the North of England: Durham, Newcastle, Leeds and Leeds Metropolitan, allowing the opportunity

to conduct a comparative study across all four institutions and share findings of studies conducted at individual institutions. The comparative study in the form of a survey about preferences in information and communication technologies was distributed to all first year students soon after their arrival at the four institutions. Findings indicate that the majority of these students arrive with technologies that allow them constant access to internet technologies while at their university accommodation and to internet-ready mobile devices capable of playing audio or video files that they carry with them on an daily basis, providing them with a range of options in how they might access learning materials. The spread of personal technologies brought by students on entering university has grown year on year. We also specifically investigated student attitudes towards podcasting, i.e. the use of audio and video files to support flexible teaching and learning, which can be automatically downloaded to mobile players via subscription; and to attitudes towards universities communicating with them through social networking sites. Our findings indicate that while students value the choice available to them, the majority still prefer to access and conduct their learning in traditional ways using computers, pen and paper, as well as personal contact time with their tutor and many are sceptical about what is viewed as university intrusion into their social spaces.

Keywords: technology acceptance, digital natives, digital immigrants, social media, communication, mobile learning

Staff who say no to Technology Enhanced Learning

Susan Greener

University of Brighton, Brighton, UK

Abstract: Traditional management approaches suggest that resistance is an enemy of change. However there is an increasingly attractive counter view which suggests that, resistance is something to be explored and understood, in order that communication and understanding about the proposed change is better implemented. This is the approach taken in this paper, which seeks to explore resistance among academic staff to the adoption of technology affordances in Higher Education teaching and learning. The initial hypothesis based on survey research suggests that there will always be faculty who eschew information and communication technologies (ICTs) – beyond basic PowerPoint™ and email - and thus will be unable to take advantage of learner engagement through the pedagogical affordances both of virtual learning environments (VLEs) and of Web 2.0. Institutions increasingly require staff to adopt basic engagement with VLEs, but that is as far it goes with many teachers. Rather than just have to put up with this situation, or make people participate despite their personal views, we should seek to understand better what causes such resistance, what underlying personal

pedagogies are driving this perspective, and how best to accommodate strongly held personal pedagogic diversity amongst teaching staff. As part of a larger project to explore and map academic staff stances in relation to eLearning and e-teaching, the preliminary research discussed in this paper analyses initial qualitative unstructured interviews with staff, selected for their reluctance to explore the possible learning and teaching affordances of ICTs. Results from this initial study have been analysed in relation to current thinking on change management discussions of resistance (Waddell and Sohal, 1998, Ford et al., 2008), in order to offer some tentative recommendations on how this phenomenon may be further studied and how institutions wishing to develop staff adoption of ICTs in learning and teaching may proceed.

Keywords: technology enhanced learning, resistance to change, pedagogies

Psychological Challenges Towards Implementing ICT in Teaching- Learning

Santoshi Halder¹ and Sudip Chaudhuri²

¹University of Calcutta, India

²Gandhi Centenary B. T. College, Habra, India

Abstract: Globalization and technological explosion that have ushered over the past decade have led to the emergence of new global economy “*powered by technology, fueled by information and driven by knowledge.*” (US Department of Labor, 1999). However, the task of introducing ICTs in teaching - learning situations over the years suggests that the effective integration of ICTs into the educational system is a multifaceted process that involves not just technology and infrastructure but also other such aspects like environmental preparedness, teacher readiness and competencies. In recent years there has been a tremendous interest among the researchers for finding out ways on how these skills can be developed in the teachers. NCTE, 2005 have made it essential for the school teachers to get training in teaching practices expecting a more skilled group of teachers. In India this notable task of training is offered through various Teachers Training Colleges spread over India through their B.Ed course assuming a quality return in teacher behavior. The curriculum meant for the trainee teachers in the Teachers Training Colleges ought to be framed with the objectives of developing those requisite characteristics. As the National policy on Education 1986 in India stated, “*There is a paramount need to create a computer literate environment*”, to meet this end it is mandatory to include ‘computer training’ in the B.Ed syllabus which is not yet included. Ministry of Human Resource Development, 2009 laid special stress by initiating policy formulation process on ‘*Building a National policy on ICT in School Education*’. Recent years have witnessed burgeoning interest in the use of computers as novel tools in the field of

education. But practically speaking there is still the need for resolving the hidden psychological barriers of the teachers (lack of computer self- efficacy, computer anxiety etc) who are entrusted with the responsibility to use ICT in classroom. *Computer self-efficacy* means one's perception of their computer skills about computer use. Recent years have witnessed burgeoning interest in the use of computers as novel tools in the field of education. Nowadays, computers are common tools in most schools, and are being used increasingly in all subject areas. Although some teachers are enthusiastic about using computers, others are more apprehensive. Motivated by this scenario, the present study was undertaken to explore the perceptions of Secondary School Teachers of West Bengal regarding their self efficacy in relation to computer use so that to understand their psychological barriers. Research Question: What is the nature of computer Self-Efficacy and Computer Anxiety of trainee teachers? Whether there is any influence of discipline of study on Computer Self-Efficacy and Computer Anxiety of trainee teachers? Whether there is any effect of gender on Computer Self-Efficacy and Computer Anxiety of trainee teachers? Methodology Sample: The participants consisted of 84 Secondary School Teachers (Trainees of the University of Calcutta, West Bengal, India). Tools: (i) General Information Schedule (GIS) (ii) Computer Self Efficacy Scale (Murphy et.al 1989) (iii) Computer Anxiety Scale Procedure: Data is gathered from randomly selected 84 pupil teachers from Teachers Training Colleges from Eastern India. Apart from the GIS the two different scales, i.e., Computer Self Efficacy Scale and Computer Anxiety Scale are administered to pool data from the male and female trainee teachers of different disciplines (arts, science and commerce). Analysis of data: Data are subjected to appropriate statistics, descriptive as well as inferential. Implication of the study As concern towards creating future teachers it is necessary that the teacher training programmes should be reoriented consciously to include computer training as a compulsory core subject so that the trainee teachers irrespective of their prior computer accessibility and knowledge can frequently use and access computers and resolve their psychological barriers for instilling computer literacy in their students and set a step ahead towards achieving the objective of infusing ICT in teaching-learning.

Keywords: ICT, teacher trainee, self efficacy, computer anxiety

Adaptive mLearning System Using Multi-Agent Technology

Salah Hammami, Manar Al-Shehri and Hassan Mathkour
King Saud University, Riyadh, Saudi Arabia

Abstract: The design of adaptive mobileLearning (mLearning) systems has become a discipline of great importance in educational field. This is mainly due to the increasing impact that a high quality eLearning system has in the success of the learning process. However, the growing variety in interaction devices and techniques has raised great expectations for the designs of both methods and architectures that are able to cope with the heterogeneous aspects in an intelligent manner. There is a need to have methodology for mLearning systems, based on software engineering principles, which assist the system designer in every development steps and provide clear, unambiguous analysis and design guidelines. This paper continues our team work in adaptive eLearning and enhances an existing multi-agent architecture for adaptive eLearning system with mobile technology which allows learners access learning materials from anywhere and at anytime.

Keywords: mLearning, adaptive eLearning, multi-agent, device adapting system, network adapting system.

Behavioral Aspects of Adult Students in Digital Learning

Rugayah Hashim, Hashim Ahmad and Che Zainab Abdullah
Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia

Abstract: The Digital Age presents challenges for working adults returning to school to further their studies. Through the blended learning mode, the students undergo limited face-to-face interactions and the rest is imparted via a learning management system or computer-based system. As the students are scattered all over Malaysia, usage of ICT is mandatory. Because of this mandate, many adult students have complained and requested for more traditional teaching rather than through e-learning. Catering to the students' wishes would defeat the purpose of having a computer-based education initiative, thus the purpose of this study was to assess the attitudes of adult students toward the use of ICT in their learning process. The scope of this study was limited to adult students registered in 19 distance learning programs offered by the Institute of Educational Development (InED) of Universiti Teknologi MARA (UiTM). Through stratified random sampling, 500 students were e-mailed requesting them to complete an online questionnaire. After two months of deploying the e-survey, the returned responses were 253 or 50.6%. The questionnaire consisted of two parts with the first part being allocated for demographic variables. The second part operationalized the four attitudes, which were usefulness, confidence, liking and anxiety. The output

from the parametric analyses of the forty attitude statements resulted in mean scores that ranked the independent variables from lowest to highest. The lowest ranked was computer usefulness, followed by liking, confidence in using computers, and anxiety towards computer usage. Thus, the empirical evidences showed that adult students were not comfortable with using computers or interact with a computer-based learning system. Consequently, they would have difficulties in their pursuit of higher education. Therefore, it is recommended that InED administrators conduct special workshops to train new students on the use of the learning management system as well as ensuring that this training session is compulsory for all adult students before the semester begins.

Keywords: Distance learning, adult students, e-learning, blended learning, attitudes, behavior, distance education, digital learning, andragogy

Attitude Towards eLearning Using Moodle: A Qualitative Approach

**Yusniza Kamarulzaman, Azian Madun and Farinda Abdul Ghani
University of Malaya, Kuala Lumpur, Malaysia**

Abstract: The study examines students' experience in using eLearning as a collaborative learning tool. A qualitative methodology used in this study is based on content analysis of online forums and survey among 144 undergraduate students at University of Malaya, Malaysia who have responded to online forums posted on a few course websites through Moodle. Using Rogers' (1995) diffusion of innovations model, this study attempts to understand the factors that influence the adoption of Moodle eLearning system based on users' own experience. Although in this case the students have no choices and are required to use Moodle, the study finds that there are elements of relative advantages, compatibility and complexity for students to adopt Moodle. Furthermore, the positive experience among students using Moodle motivates them to continuously use Moodle. Overall, the results provide insights and recommendations to the government, learning institutions, lecturers and instructors to accelerate the adoption of eLearning in Malaysia.

Keywords: eLearning, consumer behaviour, Moodle, Malaysia

Achieving Transactional Computer-Mediated Conferencing or: How to Produce a Highly Interactive Online Discussion

Brant Knutzen and David Kennedy
Lingnan University, Hong Kong

Abstract: A common failing of eLearning instructional design is when online discussion learning activities devolve to become just a “public assignment”: each student posts once and no peer interaction is achieved. This study shows how instructors can successfully design an eLearning environment to increase student engagement and achieve transactive communication, where a discussion develops as participants respond to teach other: giving feedback, taking positions, and bringing in evidence to socially negotiate new knowledge. Despite the widespread recognition of transactive communication as a goal of Computer-Mediated Conferencing (CMC), online discussions often merely consist of individual answers to a question posed, without any interaction (or even recognition) of the work of other students. A graphical depiction of this learning activity would look like a "lawn", with short individual blades of grass -- no branching, no vertical building, none of the "bushiness" of a highly transactive discussion. This paper develops new quantitative and qualitative ways to measure discussion transactivity, and examines the instructional design that supports and encourages this type of learning activity. This paper examines a case study of CMC transactivity at a university using 1-to-1 computer access (each student has a computer on their desk) in a blended teaching environment in Hong Kong. Four variables were examined for their effect on successful student engagement in online discussions: Teacher facilitation of social grouping of students Class time to initiate online discussion interaction Setting open-ended, challenging topic questions that encourage discussion and debate Assessment system that reinforces production and peer interaction The students in the case study used the Moodle eLearning environment, and English as the medium of instruction. The study took place in a tertiary institution with graduate students in the faculty of Education, using a blend of face-to-face and eLearning instructional methods. When the instructional environment was set up to support all four discussion design conditions, production and interactivity both increased dramatically and transactive CMC was achieved. The results of this study indicate that in order to achieve highly productive and transactive online discussions in a blended 1-to-1 teaching environment, instructors should incorporate a specific set of design conditions. When these instructional design conditions are successfully incorporated, the potential benefits of social constructivism as an instructional design paradigm can be realized within a blended educational environment.

Keywords: transactivity, social negotiation, discourse, educational dialogue

Students' Changing Perceptions on the Impact of the Online Learning Environment: What About Good Teaching Practice?

Marlena Kruger

University of Johannesburg, South Africa

Abstract: The higher education environment faces many challenges globally such as an increase in the numbers, diversity and expectations of prospective students, diminishing funding from governments while they have to develop the necessary knowledge, skills and attitudes needed for today's knowledge or information economy. One of the biggest challenges today is to effectively integrate or infuse and optimize the applicable and affordable educational technologies in complex learning contexts. It therefore requires in most cases a complex approach to ensure the desired achievement of the planned outcomes of the modules and programmes. Grant and Thornton (2007) reported on a study where they implemented successfully the seven principles for good undergraduate education (Chickering & Ehrmann, 1996) in the online learning environment. The paper discusses the results of an empirical research study undertaken at the University of Johannesburg, one of the largest urban universities in South Africa that offers a wide variety of academic and vocational programmes. The primary goal of this study was to establish the students' perceived value and possible impact of online learning activities in a blended learning environment. The study implemented a quantitative approach with compilation of two separate questionnaires that were completed by two groups of students during the second semesters of 2007 and 2009 respectively. The paper refers to some demographic information about the 2009 students and their faculty affiliation and feedback on how the students use the learning management system (LMS), before reporting on the same set of questions that were part of both questionnaires. The questions used a Likert scale for obtaining the students' perceptions on a variety of statements linked to the use of the LMS for different learning tasks and its associated perceived impact on their learning processes and performances. Significant positive differences between the two respective groups of students from the different years were identified and will be reported on with some explanations and tendencies emerging. Some of these findings are also in line with a study carried out at the University of Miami (in Oxford, Ohio) that will be highlighted.

Keywords: impact, students, changing perceptions, blended learning environment

Web 2.0 as a Catalyst for Rethinking Teaching and Learning in Tertiary Education: A Case Study of KDU College (Malaysia)

Alwyn Lau

KDU College, Kuala Lumpur, Malaysia

Abstract: Web 2.0 is the wave of Internet usage characterized by collaborative sharing, blogging, real-time journaling and other media applications broadly lumped under the heading of 'social networking media'. It signals a move away from the Internet as a mere collection of computers passively sharing information to seeing the Web as an active emergent network of people who are enabled to not only interact more closely but to collaboratively shape and create new realities. This paper first outlines five trends impacting education as a result of the Web 2.0 phenomenon which educational institutions cannot ignore (connectivism, digital creation, collaboration, divergent assessment and open courseware) then shares the research performed on faculty (incl. management) and students of KDU College (based in Petaling Jaya), the first college in Malaysia to implement an e-forum for the Malaysian Ministry of Higher Education's compulsory subjects. The research sought to answer questions relating to the benefits and/or challenges which Web 2.0 have brought to teaching and learning, the extent to which the five characteristics have impacted the students, lecturers and management and future issues anticipated. This paper will highlight some key findings and attempt a generalization of Web 2.0 trends to tertiary education in Malaysia and recommend broad action-steps forward, both in the national context as well as the global one.

Keywords: Web 2.0, eLearning, open learning, assessment, connectivism, education, collaboration

A Survey of Applying User Profile in the Adaptive Instructional Systems

Duc-Long Le¹, An-Te Nguyen², Dinh-Thuc Nguyen², Van-Hao Tran¹, and Axel Hunger³

¹University of Pedagogy, HCM city, Vietnam

²University of Science, HCM city, Vietnam

³University of Duisburg-Essen, Germany

Abstract: Now, teaching technology with the using IT equipments has expressed its energy to improve teaching and learning in traditional learning form. In this context, computer usually becomes a powerful medium in education to support learners for searching information, doing self-study, sharing materials, communicating with friends and so on. It is more and more familiar and cannot miss it to all learners at all ages, and instructional systems have been also developed to meet all learning demands of everybody when working with the computer. Recently, personalized systems, called adaptive systems, have been developed in many fields such as e-Commerce, Information Retrieval and eLearning. In these systems, every user possesses a component of user profile. It depends on applying field that contains different information to describe him or her as personal identification, preferences, and habits. From that the system usually provides user services or information appropriate for his/her profile. Therefore, using profile in instructional systems will help them provide learning resources or recommendations which are suitable for learner's ability and knowledge backgrounds; also, many studies have built such adaptive systems. In addition, eLearning has being developed widely all over the world from the developed countries to the area of the developing countries. ELearning through using in real-life has shown not only many advantages but also some disadvantages as direct interactions between instructor and learners, learning activities, especially in self-study. The tendency of building an adaptive eLearning system is also a way of approach to improve the limitations in this form. Our article is a detailed investigation into the application of user profile in Adaptive Instructional Systems, which lays a foundation for the improving and developing of Adaptive eLearning Systems and then develops them into blended-learning environment, a form of teaching and learning appropriate for undergraduate education context in such developing countries as Vietnam.

Keywords: adaptive system/personalized system, intelligent tutoring system, adaptive hypermedia system, eLearning, user profile

Evaluating the Effectiveness of eLearning: A Case Study of two Companies in Tunisia

Hanène Louati, Sami Boudabbous and Karima Bouzguenda
University of Economics and Management Of Sfax, Tunisia

Abstract: With the rapidly changing technology, recent research on training points out that investment in both educating and training people is considered as a growth factor. Computer-based learning has seen a new era not only in distance learning but also in workplace training and classroom-based learning. Such evolution and use of eLearning programme has raised discussion regarding effective eLearning policy and methodology due to the urgent need to assess training programs' contributions and impacts. Given this state of affairs, the evaluation of eLearning effectiveness becomes a relevant issue. The present paper attempts to establish a theoretical framework and an integrated model for evaluating the effectiveness of eLearning programs. The aim is to shed some light on and discuss the factors that influence eLearning effectiveness by reviewing factors that affect traditional offline training. Literature review reveals that some trainee characteristics, training design variables, and work environment factors are related to training effectiveness. These factors tend to have an effect of learning outcomes in terms of reaction, learning, and transfer. This paper relies on a qualitative research methodology aimed at exploring the current practices and challenges of eLearning evaluation in two Tunisian companies operating in the service sector and considered as pioneers in eLearning sector in Tunisia : Orascom Telecom Tunisie-Limited Company ("Tunisian") and the "Tunisian Post Office". The objective is to discuss the theoretical propositions in order to refine the different concepts mobilized. The findings of semi-structured interviews confirm that training evaluation remains a major concern for both learners and training responsible. In accordance to the proposed model, trainee characteristics, work environment factors and training design interactively influence the effectiveness of eLearning initiatives. Individual factors mainly job involvement and motivation, yet conditioned by extrinsic rewards in the public case, have a greater weight in the private company. Although work-environment factors are positively correlated, there is a lack of systematic and effective procedures for evaluation in the public company. As for the object of evaluation, the most common level lies in the reaction level expressed in terms of learners' reactions and perceptions and thus overlooking levels related to learning and learning transfer.

Keywords: eLearning effectiveness, evaluation, success factors, Kirkpatrick model, qualitative analysis

Using Podcasts to Support Students in a Land law Class

Michael Lower, Keith Thomas and Annisa Ho
The Chinese University of Hong Kong, Hong Kong

Abstract: Central to the agenda behind eLearning is change and importantly, when teachers are willing to adapt their approach, then technology can become a powerful instrument to enable student-centered teaching or facilitate an engaging learning environment. There is also a growing body of literature regarding the use of audio and video players for academic purposes and in examining various uses of podcasts, which involves audio or video broadcast files prepared for download onto a digital media player, studies suggest podcasting can make materials more accessible to a wider diversity of learners. Podcasting is a recent eLearning service provided by the University to support teaching staff. This paper describes the experience of creating and using podcasts to support student learning of land law for Juris Doctor (JD) and Master of Laws (LLM) students in Hong Kong. The intention of this effort was to improve the teaching effect in a complex and theory intensive subject. Four different types of podcast were prepared, ranging from simply voice based podcasts to others embedded in PowerPoint slides and converted into flash files using 'Authorpoint'. This paper will discuss the motives prompting the implementation of podcasts, outline the utility to students, the teaching and learning implications for the teacher and summarise some reflections on how the podcast series could usefully be extended. A pilot survey and a series of follow-up focus groups indicate that podcasts are a useful teaching tool in class, as they spur student engagement by acting as a starting point for discussion and a structural mechanism to grasp essential concepts before attending class. Podcasts are also useful for revision, particularly in assisting students where the language of instruction is not their native tongue.

Keywords: eLearning, blended learning, podcasts, student utility, teaching pedagogy

Multipurpose Community Computing Centres – a Utopia or Mirage for Information Users

Sam Lubbe^{1,2}, Dan Setsetse² and David Sebolai²

¹**School of Computing, UNISA, South Africa**

²**NWU Graduate School, NWU, Mafikeng, South Africa**

Abstract: The advancements in Information Technology (IT) have had an impact on the way people live their lives, communicate and even on the way they do business becoming part of our lives. Unfortunately for rural communities the advantages of using technology have not been to their advantage. This has encouraged researchers (e.g. Sayed, 2003; Menou et al., 2004; Amariles et al., 2006) in many parts of the world to focus their attention in finding ways in which technology can be used in the development of rural areas. It is for this reason that the researchers have chosen to research the use of Telecentres in the South African rural community context. This article introduces the reader to the establishment of a computer centre for a rural community of Emkhambathini (Camperdown), a rural area in the outer west of Durban Metro. The study will briefly discuss recent developments in Telecentres, discuss the research methodology that will be used and discuss some results and the findings that could impact on information access.

Keywords: business centre, education, ICTs, social development, telecommunication, telecentres

Pushing Content to Mobile Phones: What do Students Want?

Kathy Lynch¹, Richard White¹ and Zach Johnson²

¹**University of the Sunshine Coast, Australia**

²**Blackboard, Australia**

Abstract: Today we have a plethora of telecommunication gadgets within our grasp, with many higher education institutions are using them to 'push' content to students. Pushing can be describe as transferring real-time content in the form of a short message to a user. In the past, push-technology was used primarily to indicate a web page had been updated. The subscriber (willing or not) was sent an alert via email or a web pop-up notifying them that web content had just been updated. We have moved on from this, and are now pushing content to a user via their mobile phone. The modern mobile phone is used not only for voice calls but can be used for text, video and image messages, as well as web browsing, applications, and location-awareness. Therefore it is a device in which an array of content can be delivered. But what content do higher education students want pushed to their mobile phones? The study reported here has taken an open approach,

in that it investigated what students want pushed to their mobile phones, and whether the content should be sent automatically or only if they requested it (that is via subscription). Additionally, the study compared what university administrators perceive students want pushed to their mobile phones to what students wanted. The study found that administrators' perceptions of what and when student wanted particular content pushed to their mobile phones often differed to what the students wanted. Findings show that students would like automatically pushed short messages that covered areas such as crisis messages, outages, census dates, and lecture cancellations. This however differed somewhat to what administrators' perceived students wanted. Furthermore, when you add the option of subscribing to particular services, their notification type (automatic or subscription), students and administrators had differing opinions. Given the option to opt-into services such as parking availability, social activities and notification of the posting of results were important to the students, though numerous services were not mentioned by the administrators or were seen as an automatic service. Although the study is a preliminary investigation, the findings indicate trends and offer insights into the 'what and when' content students want pushed to their mobile phones. Knowledge of this can not only improve the university experience for the learner, but it can make more effective use of institutional resources.

Keywords: perceptions, mobile phones, push technology, mLearning

Teacher's Tools and Strategies for Online Courses in Ensenada Campus of the Universidad Autónoma de Baja California, México

Lewis McAnally-Salas, Erika Judith Espinosa-Gómez and Gilles Lavigne
Universidad Autónoma de Baja California, México

Abstract: Information Technology and Communication (ICT) rapid development in the last two decades has changed society substantially as a whole. For Higher Education Institutions, the external environment pressure to incorporate ICT in their educational and administrative processes has forced them to invest in resources for infrastructure and training. In addition, teachers have found they can use technology in their teaching, but without full knowledge of how to use it effectively from a pedagogical point of view. The incorporation of new education modalities depends largely on the contextual variables prevailing in the institution and teachers. In UABC the early days of online education go back to 1996, so the study period was from 1996 to 2009. An online survey was designed to find out the teacher's background and involvement in online education, their experience as online teachers, and the teacher's tools and practices used. 97 teachers with some experience in online teaching were identified of which 70% responded to the survey (68). It was found that the highest percentage (33%) of teachers who responded the

survey start teaching online between 2003 and 2006. 56% of teachers have been teaching between 1 and 5 online courses. On the other hand, most teachers recognized that between 30 to 79% of the content of their courses are online based. The most popular Learning Management System used is Moodle followed by Blackboard in teacher's preference. In general, teachers expressed using the three main communication tools of online education, forums, chat and e-mail, favoring the use of e-mail. On the other hand, teacher's often use communication strategies in their courses that promote student-student and student-teacher interaction. In their evaluation strategies, most said they used self-assessment, rubrics and to a lesser extent online exams and co-evaluation. The results show that most teachers who have been involved in online education on this UABC campus have expressed having similar practices, which should not be surprising in a relatively small community where is easier to standardize successful practices.

Keywords: online teaching, teaching strategies, teacher's practices

Readiness-Based Intervention Strategies for an eLearning Environment of the Saint Louis University Graduate Program

Cecilia Mercado and John Anthony Domantay
Saint Louis University, Philippines

Abstract: ELearning has become one of the pervasive solution to the need for continuous learning brought about by changes in the new economy. Before even considering any eLearning solutions, it is imperative for higher education institutions to assess and address the factors that can cause failures in implementing an online education. Success in implementing an online learning environment comes about by understanding the needs as well as the readiness of major players in the online learning environment. By understanding these critical factors from key players that foster online learning, the success of implementing an online learning ready environment is more likely to be achieved. This paper will present the readiness-based pedagogical, administrative and technologies strategies in implementing eLearning environment considering the critical factors.

Keywords: readiness, pedagogical strategies, administrative strategies, technological strategies , eLearning

Moving Towards Better Electronic Documentation for Aircraft Maintenance Manual

Mohammad Iqmal Mohd Ali¹, Patrice Terrier², and Myra Aidrin Mohd Ali³

¹Universiti Kuala Lumpur Selangor, Malaysia

²Université de Toulouse II, France

³Islamic Science University of Malaysia, Negeri Sembilan, Malaysia

Abstract: Which design principles of multimedia learning are suitable in designing procedural electronic documentation? Does applying these principles in a procedural tasks environment produce the same positive impact on learning and recalling? This paper discusses the possibilities of applying the basic principles of multimedia learning by Mayer (2001) in developing the future electronic aircraft maintenance documentation. The basic principles discussed are multimedia, split-attention, modality, redundancy, segmenting, pre-training, coherence and signalling. We believe that this review can help aircraft manufacturers in developing effective procedural electronic documentations. This paper argues that not all principles of multimedia that have been reviewed bring positive impacts to users on learning procedural electronic documentations. Previous studies on multimedia learning focused exclusively on learning materials comprise of narrative texts with pictures, rather than expository texts (e.g., procedural texts) with pictures. A multimedia principle such as the redundancy principle that suggests redundant materials that interfere with the learning process may not have the same negative effects on procedural type of materials due to its nature of interleaving reading and doing. We believe that by introducing redundant materials in different format of representation (texts or pictures) for procedural tasks, it will develop a positive effect on users' comprehension and retention. This is also due to the nature of users who will alternately inspect the related redundant materials between procedural texts and pictures to validate the tasks performed. We also hope that by applying some of these design principles of multimedia in designing the aircraft maintenance electronic documentations or any other procedural or instruction based materials will bring positive impacts on users or learners' level of comprehension and retention of text and graphic information.

Keywords: procedural texts comprehension, multimedia design principles, electronic documentation, graphics comprehension, multimedia learning, aircraft maintenance

Information Security in eLearning: A Discussion of Empirical Data on Information Security and eLearning

Najwa Hayaati Mohd Alwi and Ip-Shing Fan
Cranfield University, UK

Abstract: ELearning systems are increasingly used by educational institutions to support their academic activities. A simple use of an eLearning system is to make materials and notes available to students at anytime and anywhere; more sophisticated uses of eLearning support the interaction and assessment processes. Depending on how eLearning systems are used, information security issues such as intellectual property protection, personal data protection and continuity of service can become significant for educational institutions. However, use of the Internet also creates exposure to information security threats, which may be classified into interruption, interception, fabrication and modification. This paper presents a study of the benefits, growth, implementation and challenges of eLearning today. An online survey was conducted to review eLearning practitioners' perceptions of information security threats; respondents were invited to participate in the survey via e-mail to the 20 *Joint Information Systems Committee (JISC)* mailing list groups related to eLearning in the UK. Using empirical data collected from eLearning practitioners, the relationship between the eLearning entity (users, institution categories, level of information security awareness) and information security threats is discussed. This paper also discusses the perception of information security incidents occurring in eLearning and the impact of information security threats on the different types of users, as well as approaches to information security management. This paper concludes with the suggestion that information security management should be implemented in the preparation of a secured eLearning environment, and draws significant insight from the existing status of information security in eLearning that could be useful for eLearning providers and practitioners.

Keywords: eLearning, challenges, information security management, threats

Using Mobile Device for Learning: Students' Perspective

Norbayah Mohd Suki¹, Norazah Mohd Suki², Ahmad Rafi Mohamed Eshaq¹ and Koo Ah Choo¹

¹Multimedia University, Malaysia

²Universiti Malaysia Sabah, Malaysia

Abstract: This study aims to examine students' acceptance of mobile technology usage for learning. A questionnaire designed with five open-ended questions was distributed to 20 students from the Faculty of Industrial Art & Design Technology of Universiti Industri Selangor (Unisel). Results construes that students were not keen on mLearning, as they did not rely greatly on the mobile phone in assessing their learning materials such as lectures and lab sessions. They were more familiar with studio-based and face-to-face learning approach instead of mLearning and were not receptive to this new idea of learning using mobile technology, even though they always use the mobile device features. The limitations in the mobile device feature, costs and its usability become the prominent factors that hinder the students from fully accomplishing their mLearning exercises. They were willing to explore the idea of using mobile technology for learning, especially in a studio-based setting. They did not see any improvement of knowledge from the perspective of the learning process 'know-how' to the 'show-how' on mobile technology usage for learning. They could not relate any learning connection in between mobile technology and studio-based learning, even though in the first part of the case study, the results have shown positive attitude and acceptance on the study made on a sample lesson of form, space and Gestalt Theory in the Graphic Design subject. Students' also obtained analogous experiences on small sized keypads, screen resolutions, and navigation could be the major problematic factors to them and thus, affect their mLearning process as it is unfriendly to use and the device is prone to damage. They have yet to accept that the concept of mobility in learning is applicable to the learning process, apart from utilising a mobile device for casual usage. However, this limitation does not restrict the students from exploring this new learning environment in the future, since they were willing to increase their learning exposure using mobile device.

Keywords: mobile, device, learning, knowledge, informal learning, Malaysia

Future of Learning Objects in eLearning 3.0

Uma Narasimhamurthy and Kholoud Al-Shawkani
King Khalid University, Kingdom of Saudi Arabia

Abstract: The success of eLearning heavily relies on the design of Learning Objects to communicate in an effective way. This article proposes to discuss the design issues of learning objects in eLearning 3.0. A period of collaboration through Social Networking has passed by in eLearning 2.0 phase and we're out here to create our own avatars in eLearning 3.0. What would be the implications of learning objects in this environment? This paper sheds some light on what will be the new methodologies that will improve the realm of digital learning for both the students and the trainers. Despite the promoted benefits of eLearning 2.0, learners' full participation in the learning process is lacking. It only indicates that these Learning objects for eLearning, has not been designed with end-users, i.e. the learners, in mind. It is imperative that eLearning must provide ways to actually improve the learning process. The aim of the article is to analyze existing LO's in eLearning 2.0 and to discuss the design issues related to the modifying these LO's to categorize them under eLearning3.0. A generic architecture that can be applied to various domains in eLearning 3.0 would be proposed and the set of attributes related to the context in which the LO is used, would be defined. This would ensure more participation from learner's side to take up responsibilities for setting up their own activities. Further the most important issue of interoperability among the different e-Learning systems that would enable different LOs to be exchanged and reused among the different e-Learning platforms would also be taken into consideration for designing LO's for eLearning 3.0. This transition is not any more optional, it becomes inevitable and can be perceived as not just new set of methods, but new, innovative ways to make the learners creatively design their own methods of learning.

Keywords: eLearning 3.0, learning objects, blended learning, student-centered

A Quantitative Comparison of Change Over 12 months in Pre-Service Music and PE Teachers Experiences and Perceptions of eLearning and a Qualitative Analysis of Perceived Benefits and Enjoyment

Jennifer O'Dea¹ and Jennifer Rowley²

¹University of Sydney, Australia

²Sydney Conservatorium of Music, Australia

Abstract: The study utilized quantitative and qualitative methods to investigate student teacher's enjoyment and perceptions of eLearning and how it is enhanced by their use of Web CT. Participants were 124 students who were undertaking a course in the Bachelor of Education in Human Movement and Health Education (n=63) or Music Education (n=61) at the University of Sydney, Australia. Methods included pre and post quantitative questionnaire to determine change in student anxiety, enjoyment and perceived enhancement of learning after the introduction of WebCT. A qualitative examination including focus groups, open-ended written answers and a thematic content analysis of focus group transcripts was used to investigate *how* students perceived their learning to be enhanced. Student enjoyment and perceived enhancement of learning increased significantly ($P<0.01$) as a result of the blended learning environment and their anxiety related to WebCT was significantly reduced ($P<0.01$). Qualitative findings identified 12 major themes related to how WebCT enhanced perceived student learning, namely that using WebCT:- facilitates broader and deeper learning; provides a resource management and organization system; provides 24 hour access and flexibility; facilitates interaction and communication with peers; enables students to work and learn at their own pace; provides a place for students to find advice, tips and assistance; provides a site for anonymous study-related and social interactions; expands learning through other direct links; facilitates and motivates learning before class; tests knowledge and examines the students' stages of learning; provides a storage site for now and in the future; and provides a place for instant feedback from peers and teachers. Positive comments related to the stimulation of thought, discussion, debate and interaction via online discussion boards. Students identified learning from other students' differing opinions, as well as being enabled to more deeply contextualize, further analyse and develop an understanding of the material being covered.

Keywords: eLearning; WebCT; Asynchronous interaction; teacher education; perceptions

Critique of a Language Learning Website

Soh Or Kan

University Tunku Abdul Rahman, Malaysia

Abstract: Listening plays a crucial part for overseas students in the United Kingdom. Students can never follow a lecture or discussion in English without listening. Traditional classroom teaching in listening limits students' time and space. However, the web-based listening course accommodates listeners a great deal, enabling them to access the Internet at their own pace. In this paper, I would like to look at a language learning website for developing learners' listening skills, designed by the Centre for English Language

Education (CELE) at the University of Nottingham. In the first part, I shall review the issues concerning listening, conventional materials design, Computer Assisted Language Learning (CALL) and actual websites established for English Academic Purposes (EAP). Through analysis, I would develop a set of evaluation criteria in order to evaluate the CELE listening website. These guidelines should also be helpful for teachers and students to select suitable listening on-line materials. By using these criteria and comparing with other websites for similar purposes, I would highlight the strengths and weaknesses of the CELE website and offer suggestions for its improvement. In the last section, I would consider the generalisability of the website in respect of design principles, exercise types and tools, to check whether it is appropriate for teaching listening in a specific context and whether it is applicable for creating a parallel site developing reading skills.

Keywords: listening skills, English academic purposes, computer assisted language,

On-Line Learning as Part of Technology-Based Learning and its Benefits for Organizations – Case Study

Gabriela Popa, Ion Stegaroiu, Anca Georgescu and Nicoleta-Aurora Popescu

Valahia University from Târgoviște, Romania

Abstract: In the new economy, organizations face major challenges in keeping their workforce current and competent. Many past training practices are unable to meet these challenges. Traditional training is often unrelated to new business initiatives or key technology drivers. In "just-in-case" fashion, courses are given and then forgotten often without improving the performance of workers. While learning is not a one-time activity, training has traditionally been treated as such. To retain their competitive edge, organizations have started to investigate which training techniques and delivery methods enhance motivation, performance, collaboration, innovation, and a commitment to life-long learning. The emergence of online education is not only a matter of economic and social change, but also of access. Several trends and forces are pushing toward eLearning. Some are based on societal issues and demographics; others stem from the technological factors and sheer critical mass. The development of eLearning programs in colleges and universities is the best way of involving both the teaching staff, students and the organizations interested in updating their employees' knowledge, for there is always a concern for permanent improving employees knowledge and personal development which is to be done either in an academic institution or in a specialized centre providing such type of learning. Online enrollments are predicted to continue growing. Not only are the numbers up; growth rates are climbing as well. In fact, online enrollment is growing faster than student

enrollment. The Internet has the ability to level the learning playing field. Individuals now have the power to learn on their own time and at their own pace. ELearning technologies allow for the real-time performance, thus enabling individuals to spend time on their deficiencies rather than spending time on areas that they have already mastered. Not only will eLearning improve the achievement of students from kindergarten to high school, but also the productivity of any state's workforce. It is believed that the eLearning market will realize substantial growth over the next ten years. Moreover, it is believed that as bandwidth, video, and voice technology continue to improve, the demand for eLearning products and services will grow exponentially. Through its increasing reach and simplicity of use, the Internet has opened the door to a global market where language and geographic barriers for many training products have been erased.

Keywords: eLearning, on-line education, technology, Internet, organization

Design and Development of Systematic Interactive Multimedia Instruction on Safety Topics for Flight Attendants

**Zakaria Bani-Salameh¹, Merza Abbas¹, Muhammad Kamarul Kabilan¹
and Lina Bani-Salameh²**

¹University of Science of Malaysia, Malaysia

²Yarmouk University, Jordan

Abstract: Flight attendants take care of the safety of millions of passengers annually and so they must be highly qualified to handle any emergency situation that might arise onboard. All flight attendants must pass the Basic Safety Training course (BST) to be certified and must also undergo annual Refresher Training courses (RT) for recertification. A typical flight attendant would go through the duty loop cycle of the In-flight Safety Assurance (ISA) model for a minimum of ten times a month and with the continuous recertification courses and onboard duties is expected to be transformed into in-flight safety professionals. However, recent studies have reported specific deficiencies in the ability of flight attendants in handling onboard emergencies and have called for more specific and stringent follow-up training programs. Also, a review of related literature revealed a lack of studies that addressed the flight attendants' safety role onboard. To further enhance the flight attendants' Safety Knowledge and Skills (SKS), this study proposes using systematic interactive multimedia instruction on safety topics for flight attendants. This might be achieved through adopting Gagne's theory of hierarchical learning and Dick and Carey model of systematic instruction through the use of interactive multimedia to be studied by the flight attendants before pre-flight briefing (PFB). Gagne's domains of learning of verbal information and intellectual skills are adopted in this study through analyzing the tasks of certain emergency situations. Then, objectives are specified

based on task analysis. Finally, the prototype is designed using Flash CS3 to provide the elements of interactivity, animation and simulation. A study like this one is essential in order to enhance the flight attendants' safety knowledge and skills in handling emergency situations onboard. It also presents a new approach towards training flight attendants through e-learning, which is currently not applied in most major airlines.

Keywords: SIMI, flight attendants, CPD, SKS

eLearning, Knowledge Management and Learning Organization: An Integrative Perspective

Kalsom Salleh

Universiti Teknologi MARA, Shah Alam, Malaysia

Abstract: The objective of this paper is to identify the ways in which knowledge management process can be relevant to attain the goals of electronic learning (eLearning) and learning organization. The ultimate goal of knowledge management is to convert tacit knowledge from individual knowledge to explicit organizational knowledge and utilized shared knowledge across organization effectively. Whereas the goals of eLearning are to establish a learning organization and nurture a corporate culture based on knowledge sharing process. The practical implication of this paper can be materialized through future research undertaking by linking the conceptual relationships between eLearning components and knowledge management process that can allow a learning organization to promote knowledge innovation and nurture its knowledge assets.

Keywords: eLearning, knowledge management, learning organization, literature review and conceptual context

Reaching the Unreached: A Study on Mobile Learning in India

Raghav Sampangi, Vighnesh. Viswanath and Ashish Ray

University of Mysore, India

Abstract: In contemporary India, education seems restricted to urban areas, where it is undergoing a gradual transformation to keep pace with the best practices of education in the developed nations, while it is still nascent in the rural areas. Education in the broadest sense, is any act or experience that has a formative effect on the mind, character or physical ability of an individual (Wikipedia contributors 2010a), where as in India, education is associated with the rote learning mechanism that is being promoted in schools. Rote learning may also impart knowledge, but, it doesn't focus on people understanding what they learn. Meanwhile, the Indian educational reforms do not seem to focus much on addressing education in its broad

sense or on revolutionizing education using Information Communication Technologies (ICTs), and new age learning techniques such as e-learning and mobile learning, which are powerful tools in reaching out to the masses. Additionally, in the not-so-developed regions of India, there seems to be a perception that the implementation of advances in science & technology may degrade traditional values and cultures. The success of a nation as a whole depends on how well its society adopts to current trends, while at the same time retaining its traditions and cultures. This paper explores the evolutionary aspect of mobile learning, and inquires into some of the challenges encountered in adopting the same in a developing nation such as India. This study endeavours to showcase that adoption of mobile learning across different domains contributes to increasing the capabilities of the members of a community, and in doing so, aids the growth of knowledge in the society. The paper thereby highlights the ability of mobile learning to transform diverse arenas including education, agriculture and industry. The paper attempts to resolve that in developing countries such as India, mobile learning can significantly contribute to empowering public at large and rural masses in particular, in turn contributing to the overall development of the Nation.

Keywords: mobile-learning, rural education, India, eLearning

Collaborative Learning from Customer's Experiences and Leadership

Maria Theresia Semmelrock-Picej
eBusiness Institute, Klagenfurt University, Austria

Abstract: Innovation is a critical issue in sustaining competitive advantage. Therefore speedy availability and a high transfer and reusability of knowledge as a basis for innovation is urgently needed in order to enable customer knowledge management innovation teams to enable efficient, effective innovative work in specific knowledge-intensive business processes. In this context learning from the customer is of primary interest. Starting from the presentation of an ambidextrous leadership model of teams we will discuss some limitations. As this current approach cannot truly demonstrate the possibilities of fostering team innovation there is a need for an improved approach. To address this problem we will broaden the ambidextrous leadership model of teams and combine it with the author's recent research in customer knowledge management. In detail three aspects will be discussed, namely the characteristics of knowledge, the involved knowledge processes and finally a customer knowledge management model, the so called TOMI-customer knowledge model, for fostering team innovation.

Keywords: innovation, collaboration, elaboration of customer knowledge, information system

Factors Affecting Adoption of eLearning Paradigm: Perceptions of Higher Education Instructors in Palestine

Khitam Shraim
Birzeit University, Palestine

Abstract: ELearning paradigm has grown significantly in the tertiary education sector in Palestine. For Palestinian, eLearning has become a necessity rather than a luxury to mitigate the negative effects of the ongoing Palestinian-Israel conflict on the access to quality education. Substantial investment have been made in developing eLearning approach since 2002. However, the use of eLearning by higher education instructors are still underutilized and considerable efforts should be made to enable them to take full advantage of the potential of eLearning. Thus, the purpose of the research reported in this paper is to investigate the factors that affect the attitude of higher education instructors towards the adoption of eLearning through a proposed Technology Acceptance Model (TAM) with multidimensional; socio-technical and organizational factors. Semi-structured interviews with different teaching staff at Birzeit University from a cross section of different academic programs were conducted to identify patterns and variations in their experiences, perspectives and interpretations about the adoption of eLearning. The preliminary study findings have shown that instructors have positive attitudes to embark on eLearning initiatives. This research further demonstrated that individual characteristics and technological factors have a significant influence on instructors to adopt eLearning. However, organizational factors were found to be the most significant determinant for adopting eLearning. Political will and the capacity of the university to respond quickly and appropriately to the transition change is crucial to facilitate wider adoption. In practice, this requires decision makers to take an active interest in and provide visible support for the eLearning approach in order to 'bridge the chasm' between early adopters and the early majority and promote the rate of diffusion of the eLearning approach.

Keywords: eLearning paradigm, TAM, adopters, bridge the chasm, Palestine

Assessing Online Textual Feedback to Support Student Intrinsic Motivation Using a Collaborative Text-Based Dialogue System: A Qualitative Study

Ronnie Shroff and Christopher Deneen

The Hong Kong Institute of Education, Centre for Learning, Hong Kong

Abstract: This paper assesses textual feedback to support student intrinsic motivation using a collaborative text-based dialogue system. A research model is presented based on research into intrinsic motivation, and the specific construct of feedback provides a framework for the model. A qualitative research methodology is used to validate the model. Results from the study indicate that online textual feedback was strongly supported compared to feedback in a human face-to-face setting. From observation, subjects using the collaborative text-based dialogue system were eager to engage in online textual dialogue and therefore, participated more in the discussions compared to the face-to-face verbal discussions.

Keywords: Textual feedback, text-based dialogue, intrinsic motivation, collaboration, online, face-to-face, discussions

Pattern of Participation and a Comparative Analysis of Thai and Malaysian Students' Perception towards the Learning Platform and Environment of EU-SUPPORT Social Network

Sharifah Norhaidah Syed Idros, Norizan Esa, Mohd Ali Samsudin, Abdul Rashid Mohamed and Salubsri Charoenwet
Universiti Sains Malaysia, Penang, Malaysia

Abstract: The EU-SUPPORT network is a sub network under the Norwegian Environmental Education Network that focuses on schools from the European Union and some outside the EU to promote the quality / education for sustainability. The main activity of the project was the International Campaign of CO₂ on the way to school measured by means of transportation to and from school. The resources and instructions of project activities were available on the website of CO₂nnect and communication among participants was facilitated through web-based instruction under EU-SUPPORT network system. While students are engaged in learning activities, the development of social network is monitored through participation and interaction among participants. Pattern of the participation in the social network was represented in terms of the amount of discussion and frequency of participation. To examine if discussion was sustained, quality of discussion is determined by the average length of discussion thread. Communication messages were categorized into groups and the average discussion thread was calculated.

Two hundred students from secondary schools in Thailand and Malaysia took part as distributed learners in this network through collaborative web-based project along with other network members from schools around the globe. A students' perception questionnaire was administered that included the constructs learning platform and leaning environment. Results from independent t-test analysis indicate that there is no significant difference between mean score of students' perception between the Thai and malaysian students in the learning platform though there is a significant difference in their perception towards the learning environment, $t(198)=3.13$, $p.<0.05$ ($p=0.002$). Considering that the EU-SUPPORT is a large network, the density of 0.31 measured is considered to be high. Consequently, interaction in this student collaborative social network under EU-SUPPORT appears to be active.

Keywords: EU-SUPPORT social network, CO₂nnect campaign, pattern of participation, learning platform, learning environment

Integrating eLearning in the Knowledge Society

Dorina Tănăsescu, Ion Stegăroiu and Gabriela Păunescu
Valahia University, Târgoviște, Romania

Abstract: Education, in the 21st century, has the role to lead to an efficient and effective use of information explosion, and mobility due to technological progress. Modern man's lack of training in ICT can be a disability for him, economically and socially, considering that most activities of education, research, economy, culture or entertainment are to be found in electronic form on the web sites in interactive presentations or multimedia databases. Lack of strategic vision and integrating education system to develop knowledge and skills related to information usefulness and interpretation, modern technologies, communication, creativity and cohesion, poverty and underdevelopment can condemn a whole nation. Through this article, the authors seek to demonstrate the need to integrate the demands of modern education in political development, economic and social benefits stemming the entry of Romania into a global society based on knowledge, information and information technologies, generically called knowledge society. The aim of this approach is to synthesize relevant issues through witch education and technology in Romania can intersect and contribute to strengthening the development, participation, confidence and stability in a changing world.

Keywords: eLearning, knowledge economy, development, flexibility, cohesion, partnership

Leveraging Diffusion in eLearning: Organisational Learning Attributes

Keith Thomas and Annisa Ho

The Chinese University of Hong Kong, Hong Kong

Abstract: An earlier study identified certain individual and structural attributes that are seemingly central to successful eLearning technology implementation in an educational context. This paper explores interactions between reported important parameters across three project stages: inception, design and development, and implementation and extension. These are the framework conditions for successful eLearning implementation, described in two broad categories: individual teacher attributes and structural connections. Beyond project completion, however, the challenge is in leveraging adoption to get wider diffusion of eLearning practice across the academic community. The paper is based on a case study of ten eLearning projects in a university based in Hong Kong. The paper provides some insights into the mechanics of adoption and diffusion, noting that certain teacher and structural characteristics appear to support adaptive change (uptake or adoption). These are described as necessary, but not sufficient by themselves to enable generative change (or diffusion). Consistent with other research, this study highlights that individual innovation by academic staff does not lead automatically to real educational progress. Individual efforts are random and not strategically focused. Other cultural and strategic connections are necessary and the findings from this study suggest a way to leverage classroom strategies to achieve wider diffusion. Perhaps, most importantly, there is need for a strategic focus to eLearning that would go beyond supporting individual teacher and classroom eLearning uptake to, for example, monitoring application in order to determine how eLearning produces value in University teaching and learning. Complementing this top-down evaluative approach, this study highlights a teacher and student-based strategy to leverage classroom innovation for wider diffusion. The strategy extends the considerable discussion in literature on a necessary shift by teachers from reproductive teaching to a more transformative approach involving two-way relational interactions. However, there is little conversation in literature on how students' can be actively involved in and even given partial control of the online learning environment. This latter idea has considerable traction because of the inherent familiarity of net generation students with technology and the range of online resources that are freely available. What are the organisational learning attributes that may enable this, so far, largely latent capability? This study suggests a 'pull-down' learning approach by students facilitated by necessary pedagogical change by teachers can help achieve deep change. As several cases illustrate, this approach offers a pathway around the problem of resources (money, time

and skills), while being useful in terms of shaping learning outcomes for both simple and threshold (and abstract) concepts.

Keywords: knowledge diffusion, knowledge transfer, organisational learning attributes, and organisational learning culture

Reviewing Peer Reviews – A Rule-Based Approach

Patrick Wessa¹ and Antoon De Rycker²

¹Catholic University of Leuven, Belgium

²University of Malaya, Malaysia

Abstract: Peer reviews may be used as an effective tool in non-rote learning, especially if one wishes to provide learners with computer-assisted learning environments within the general theory of pedagogical constructivism. Our past research and development efforts have resulted in the creation of an innovative approach to statistics education in which peer review activities, based on reproducible computing technology, play an important role in the constructivist learning of statistical concepts. The associated research has also shown that many types of objective measurements are available and that these are of the utmost importance when explaining students' learning outcomes. The first problem that is addressed in the current paper is how these peer review measurements can be used to predict learning outcomes. In order to engage students in taking peer reviews seriously they should be motivated. This can be achieved by reviewing and grading the peer reviews that they submit during the course. Any such attempt is likely to raise the problem, however, of how the educator should review the reviews. This is the second problem that will be discussed in our paper. Using a theoretical framework as our starting point, we are able to derive empirical rules that allow us to perform Peer Review-Reviews under the principles of implementability, predictability, comparability and purposefulness. It may be argued that the review of peer reviews becomes obsolete if students have to write a term paper which is going to be evaluated by the educator. However, the underlying rationale is that a term paper involves all concepts that are deemed important while the peer review of an assignment only focuses on a small number of topics. The third problem that is investigated in this paper focuses on the relative importance of grading term papers versus reviewing peer reviews. In other words, is it more efficient to have students submit a term paper which is graded by the educator, or is it better to review the Peer Reviews of weekly assignments? Our findings will be based on a detailed quantitative analysis of the peer review and student assessment data that were collected over a period of three years, involving 285 university-level students who took an introductory statistics course.

Keywords: peer review, assessment, pedagogical constructivism, reproducible computing, technology

Microblogging for Reflection: Developing Teaching Knowledge Through Twitter

Noeline Wright

The University of Waikato, Hamilton New Zealand

Abstract: This paper outlines the use of Twitter, a popular microblogging tool, during student-teachers' experiences of their second secondary school seven-week teaching practicum. The practicum period was a bounded opportunity to trial the efficacy of Twitter as a means by which participant student-teachers could deliberately focus on reflection, by condensing their thinking into 140 character bites. An expected outcome was that regular Twitter use would enhance self-reflective practices about their teaching and the wider practicum experience. Once the practicum ended, participants gathered for a focus group interview to recap the experience and explore the extent to which the intended reflective outcome was achieved. Most of them (out of a cohort of nearly 100) said that the process did indeed enhance their ability to reflect on classroom experiences in particular, and wider school experiences in general. Having to create posts of 140 characters focused and deepened their thinking about the messages they wanted to convey. The ability to read each other's tweets and respond personally was highly valued, reducing their sense of isolation and, at times, emotional overload. The ability of Twitter to archive ideas and thoughts chronologically provided a rich data set for thematic analysis. The most commonly addressed themes across the expected daily three tweets included: pedagogy, curriculum/lesson planning, relationships (with other staff and students), emotions and classroom management. An unexpected but positive outcome was the desire by some participants to use Twitter the following year. One participant decided that students could use Twitter to not only document their design-making processes in hard technology classes, but also develop their own reflective practices about these processes. Another has subsequently used Twitter to connect with other subject teachers (Economics) as a means of deepening subject and e-learning expertise.

Keywords: microblogging, Twitter, outcomes, reflection, teacher education

Blending eLearning With Traditional Teaching for Increasing Student's Performance in the International University of Chabahar (IUC): Lessons Learnt From Thoughts to Action

Bijan Yavar, Maryam Rahmani and Maisam Mirtaheri
International University of Chabahar (IUC), Tehran, Iran

Abstract: Up until about ten years ago, training was implemented and undertaken without using any computer or electronic facility and devices, but in the classroom with a qualified and well experienced trainer and lecturer and through traditional (face to face) education and training which really needed special skills, good experience and hard work. As technology developed and improved, companies, organizations and also especially the universities as knowledge based structure and organizations began to integrate training with computer means and facilities and the field of eLearning began to take shape, in this phase the teachers and trainers had more time to deepen their experience and works. So we can consider this as an evolution. ELearning offers significant benefits and some unique attributes such as time and location shifting, flexible sequencing, widen access and being more reachable, increasing diversity, using experience lecturer and professional trainers where they are not accessible and reachable and also access to extensive resources. But eLearning with mentioned benefits has some disadvantages such as huge investment, less opportunity for expressing feeling based activities in other words less opportunity for people expressing the feeling in motion and body language, inappropriate content and technology issues for teachers and students and etc which have got used to traditional education and training, will be explained in detail about International University of Chabahar (IUC) as a case study in the paper later on. On the other hand traditional teaching has some advantages that could cover eLearning disadvantages which will be discussed further on. The focus of this paper is on meaning of blended learning and with exposition of advantages and disadvantages of eLearning and traditional learning which will be analyzed in IUC as a sample environment that will drive us to a point that ends in the combination of eLearning with face to face learning for increasing student's performance as lessons learnt and the main conclusion.

Keywords: eLearning, face to face learning, blended learning, traditional teaching, International University of Chabahar (IUC)

Satisfaction in a Blended Learning Program: Results of an Experiment in the Faculty of Nursing and Midwifery in Iran

Mitra Zolfaghari¹, Reza Negarandeh¹, Fazlollah Ahmadi² and Sana Eybpoosh¹

¹Tehran University of Medical Sciences, Tehran, Iran

²Tarbiat Modares University of Medical Sciences, Tehran, Iran

Abstract: Assessment of users' level of satisfaction is important in appraising the effectiveness of blended learning program. We aimed to investigate nursing and midwifery students and instructors' satisfaction of a blended learning program in Iran. A descriptive analytical design was developed. We developed blended learning platform, technical and executive infrastructures, and assessment tools before starting the program. 22 courses (45 credits) for all level of nursing and midwifery students (BS and MS and PhD) were designed for blended learning program which was carried-out for one semester. Informed consent was obtained from students and instructors. Participants' satisfaction of the program was assessed at the end of the semester. Students' satisfaction was evaluated in four distinct scopes (technical and structural, learner, Lesson plans/ lesson contents and support). Analyzing data, descriptive and analytical statistics were applied using SPSS software (version 12.0). Findings were considered as significant at 0.05 level. 263 students (72.05 %) and 17 instructors (28.33%) consented to take part in the study and 181 students answered the questionnaires (response rate: 82.2%). As a result, 67.4% of students and 88.2% of instructors were completely satisfied with the program while 24.3% of students were dissatisfied with new method. There was no significant relationship between age, living condition, access to computer and the Internet, and students' satisfaction of BL approach. There was a positive relationship in the number of courses students received via BL method ($P < .05$) and their marital status ($P < .05$) with their satisfaction; single students were more satisfied with the new method. Both students and instructors significantly preferred blended learning to the routine traditional method. Blended learning makes participants more satisfied than eLearning or face-to-face methods. Its use is recommended in similar institutes with deeper consideration of interactional, motivational, and supportive aspects.

Keywords: blended learning, satisfaction, nursing and midwifery students, faculty members, Iran

PhD Research Papers

The Development of IMLO for Dyslexic Children

Fadilahwati Abdul Rahman¹, Fattawi Mokhtar² and Ronaldi Saleh Umar²

¹International Islamic University Malaysia (IIUM), Selangor, Malaysia

²Universiti Teknologi MARA (UITM), Selangor, Malaysia

Abstract: Dyslexia is a type of Specific Learning Disability (SLD). Dyslexia individuals usually have a poor-short-term memory, difficulties with directional orientation, reading, spelling, writing, and numeracy problem. With the use of instructional technology and Information technology, intervention for dyslexia is possible. In this study, the researchers conducted a usability testing on Interactive Multimedia Learning Object (here, it shall be named IMLO) interface design amongst dyslexic children. The objective of this paper is to develop an Interactive Multimedia Learning Object and test its interface design usability amongst dyslexic children. Preliminary testing was set up amongst three dyslexic children who performed tasks using the prototype being tested. Usability testing was used to evaluate IMLO and this study reveals information on the using of learning objects to support the dyslexic childcare's learning process. The research instruments used are observation check lists, interviews and video recording to the IMLO prototype. By breaking down the content into small steps such as IMLO, dyslexic children can perform the task in a short time and this leads to a positive learning process. On the next project, the researcher might employ a complete storyline to encourage the dyslexic children to learn consistently. More interactive functions will be carried out to encourage more learning activities as well as providing a richer content. To support the interactive functions, the researchers might include an animated character agent in deciding the level of task priority.

Keywords: interactive multimedia, usability, dyslexia, learning object

Introduction to eLearning Infrastructure

Azadeh Noori Hoshyar and Riza Sulaiman

UKM, Bangi, Malaysia

Abstract: ELearning is the technology which can extend the availability of information for training. It appears vital technology because improve the political and cultural future of the society. ELearning is seen as important solutions to several challenges currently facing Higher Education. These include the move towards lifelong learning, with its ongoing demand for continuous professional development, and the drive to widen participation. These challenges come at a time of increasing pressure on resources, and the increasing diversity in the student population and their modes of attendance, including learning that is part-time, at a distance, open or flexible,

and work based eLearning can improve the flexibility and quality of learning. therefore, The key to improving the effectiveness and quality of student learning and making it worthwhile is to replace existing traditional modes of teaching with more active and engaging learning opportunities, delivered where appropriate by eLearning. To benefit from online learning opportunities ,it has to have the appropriate technical infrastructure in place, learners also need to be fairly proficient with computers and the Internet too, and within organisations, the corporate culture can determine whether eLearning works or not. Therefore the key for building and implementing successful learning solutions is to understand the learning problem, its learners, its organisation as a whole and the technical infrastructure it has in place. Therefore, in this paper, the importance of eLearning and also ELearning infrastructure as one of the requirement for successful implementation are explained.

Keywords: eLearning, infrastructure, distance education, higher education
Integrating Media Psychology Within Theoretical Framework of Instructional Designing for Web-Based Learning Environments (WBLEs)

Sadia Riaz, Dayang Rohaya Awang Rambli, Rohani Salleh and Arif Mushtaq

Universiti Teknologi PETRONAS, Tronoh Perak, Malaysia

Abstract: Web-based Learning Environments (WBLEs) are considered catalysts of technological change for transforming the ways we live and work due to their immense potential for enhancing learning process. Likewise, in order to achieve desired learning objectives in a web-based learning environment, integration of media within the instructional designing process has become an important research area. This paper first identifies concerns associated with the designing of cognitively engaging WBLE and proposes a framework to address them by employing media psychology, a new research dimension, as a key agent, within the instructional designing theoretical framework. The concerns identified include (a) lack of cognitive integration between instructional designing of WBLEs and instructional multimedia, and (b) Instructional designing of WBLEs lacks in sustaining learning motivation. The identified concerns are important factors responsible for cognitive detachment of learners in a WBLE. The proposed theoretical framework draws its roots from existing literature and applies the concept of Cognitive Psychology and Theories of Cognitive Learning & Motivation. The paper then examines how media psychology can be employed in the theoretical framework to facilitate instructional designing of WBLEs. Media psychology is essential in understanding most effective use of media in the society and how people use, consume and process media contents. Similarly, psychologists continue to explore effect of media messages on people by examining how media information is processed in their 'schemas', which is an important concept within media psychology. In absence of such schemas, people are less likely to absorb new information. In the proposed framework, the paper proposes appliance of media psychology for designing cognitively engaging

WBLE by examining the schematic thinking of learners. In conclusion, the paper proposes appliance of media psychology and its relevant concepts such as schema thinking in instructional designing of cognitively engaging WBLEs, as it can help in overcoming learners' disorientation, optimizing their attention and sustaining learning motivation.

Keywords: media psychology; cognitive learning process; schematic thinking; instructional designing process; learning motivation; web-based learning

Developing a Blended Course: Difficulties Faced by Adult Learners in Reading Hypertext

Maslawati Mohamad, Supyan Hussin and Zaini Amir
Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia

Abstract: Currently, many higher institutions of learning in Malaysia are opting for web-based teaching and learning. At Universiti Kebangsaan Malaysia (UKM), the courses, under distance learning program, are offered to a large group of students, who may come from all over Malaysia. Blended learning is a more appropriate approach adopted by UKM for its distance learning program. In the particular area of English language learning in UKM, developing hypertexts and websites are still at the teething stage for language instructors who are also the course designers. The present major constraint, limited computing skills, faced by both the course designers and adult students, influences the quality of teaching and learning process of this blended course namely English for Life Sciences (ELS). ELS was a compulsory course that was taken by all first year Allied Sciences Faculty students in UKM. This course was offered to both on campus and off campus students who enrolled in Pusat Kembangan Pendidikan (PKP) program. These PKP students are mainly working adults who served in various health organizations namely hospitals, municipal halls and research institutes. They only had twelve hours of face to face lessons with their respective language instructors within two weeks. After the twelve hours of instruction, the students became independent learners as they studied individually at their respective hometowns. The bulk of the materials for the blended course were hypertexts on life sciences/health sciences related themes, reading comprehension questions, reading activities, suggested websites, linguistic input, etc. The students could access the hypertexts in UKM website or the CD provided by PKP. As the course content is mainly based on task-based language learning approach, the teachers should find the content appropriate for these students. This article reports the procedures taken in developing the course content. Besides, the paper also presents findings based on a research carried out carried out among the above mentioned students on their difficulties in reading hypertexts. The data was gathered through 25 in-depth interviews from 5 respondents. To conclude, the article will discuss the

implications of the findings and some pedagogical considerations for the development and improvement of the blended course.

Keywords: hypertext reading, website, blended course, interview, adult learners

Learning the E-way in India – Making a Business Strategy

Poornima Nataraja¹ and G.Raju²

¹Dayananda Sagar College of Engineering, Bangalore, India

²RNS Institute of Technology, Bangalore, India

Abstract: Education in India has been a thrust area for several centuries. Right from Gurukul system where the guru had the choice of selecting a virtuous student and imparting knowledge, to the current day situation where student has the freedom to select the mode of education- the underlying desire to learn remains the same only with changes reflecting on what is learnt and how?. Education is a fundamental right up to matriculation in India. However, off late the pursuit of higher education is turning out to be an expensive activity. In recent times, there is a trend to measure investment in education using the same yardstick as the ones used in other types of investments. This has led to a cautious investment or a wait and watch mode among most institutions in India leading to a conservative approach. It is possible that in a given period of time, institutions offering eLearning may not be rewarded with returns to their expectation by using IT in educational system. In this paper, we shall discuss the challenges that have to be faced in implementing eLearning in India by pursuing a theoretical approach for discussing the various factors that must be used in estimation of Return on Investment (ROI) and also touch upon some models that play a key role in ROI analysis. An appropriate ROI analysis helps the venturing institutions to evaluate properly the cost and benefits. Identification of courses that are useful to learners providing employability and recognized by the industry plays an effective part in decision making process of the organizations. The estimation of ROI is dependent on various factors such as process involved in developing the technology, people and how the technology is implemented to achieve the expected benefits. Measuring the costs that is invested into software and the benefits acquired through such investment has to be dealt with carefully. Awareness of the costs involved helps the service provider (here, educational institutions) make a knowledgeable decision. The ROI analysis will be successful through activity based costing. We conclude the paper by discussing certain factors that have to be discounted from the ROI analysis as they can be considered as the cost of handling business and how ROI analysis may help institutions in India to participate in imparting eLearning projects that could help the students in remote locations.

Keywords: eLearning, ROI, cost benefit analysis, decision making, BAG, technology

Practitioner Papers

Blended Learning at the Australian Industry Trade College (Gold Coast)

Olivija Komadina and Mark Hands
Australian Industry Trade College, Australia

Abstract: This paper discusses the reasons for and the context of implementation of hybrid learning within a senior secondary college environment - Australian Industry Trade College (AITC) located on the Gold Coast. It further explores the stages of implementation during the process of transformation from traditional, classroom based course delivery to flexible, student centred, ICT rich hybrid teaching and learning. The AITC is an Independent Senior School (years 11 and 12 only) that provides opportunities for young people who are choosing trades as their career of first choice while completing their senior education. Over a period of two years students attend classes in order to complete a QCE (Queensland Certificate of Education) and gain a school based apprenticeship in their chosen trade. The timetable arrangement of four weeks at the College and four weeks in industry has proven successful and was welcomed by industry stakeholders in general. However, during the economic slowdown and the continuous transformation of the industry landscape in the fast growing Gold Coast area, the initial structure (at times) was not supported by all companies and businesses in the region. They needed additional flexibility in both timetabling and course/subject delivery. This paper investigates the transition toward a hybrid learning model and the processes by which students, parents, teachers, administration and state educational authorities became invested in this transformation. The idea of making the best of available software required a holistic approach and effective use of the software communication tool, tracking tool, course delivery tool and integration (where possible) with other ICT packages (videoconferencing, learning objects, interactive websites). Further, the blueprint for the professional development and phases of hybrid learning implementation are outlined and critically analysed together with the key elements needed for implementation and development of a hybrid learning environment.

Keywords: senior secondary education, eLearning, hybrid learning, professional development, videoconferencing

Posters

The Role of Science Teachers in the Technological Innovations Era

Halah Saeed Al-Amodi and Huda Mohammad Babtaen
A.P. of Curriculum & Science Teaching Methods
Umm al-Qura University - Makah - Saudi Arabia

Abstract: The 21st century is characterized by an age of technological advances in different fields. One of the most important aspects of this revolution is the technological innovations that have occurred in the education field, which has become the focus of attention by many researchers to investigate their benefits and methods of use in the educational process . Consequently, the elements of the educational system have been affected by the revolution of technological innovations, such as, changing in the teacher's and learner's roles, changing in the objectives of curriculum ,content, activities, and methods of presentations. Also, new teaching methods and learning styles are developed and many new concepts in the educational field are occurred. Therefore, science teachers cannot isolate themselves from those new changes in technological innovations. Instead, they should be more responsible to be aware of the developments in the field of specialization so that they can develop themselves professionally and scientifically which can enhance their teaching performance.

Therefore, the technological progress has led to the emergence of indirect methods of teaching that based on the employment of technological innovations to achieve the desired learning outcome, including the use of computers and its applications, satellites and satellite channels, and international information network. Those mentioned software and hardware allow learning to take place through the day and night for those who want it and in the place that suits them by means of variety of methods supported by multimedia technology and its different components. To achieve this easy accessibility in learning anywhere and everywhere, educators should provide educational content, written and spoken language, visual elements and fixed and mobile, and audio and visual effects and backgrounds and display it through technological innovations to make learning interesting and fun, and achieve the highest efficiently with minimal effort, and in less time. Thus , achieving the good quality of education demands from a teacher in general and science teacher in specific to be competent in technological application especially in the era of technological innovations. In addition, science teachers should develop their competency periodically and constantly to keep up with what's new in that age.

It is very necessary, therefore, for science teachers to know their roles and duties in the light of technological innovations because the task of education is to prepare individuals for work in present and future within the framework of

the community and outside it. The two researchers, for this reason, write this paper which contain the following aspects:

- What does the concept of technological innovations mean in the educational process ?
- What are types of technological innovations in the educational process?
- What are the advantages of technological innovations in the educational process?
- How does teachers should use technological innovations in the educational process ?
- What is the new vision of the role of science teachers in light of technological innovations?

Keywords: concept, types, advantages, new vision of the role technological innovations

Are Malaysian Nurses Ready for eLearning?

Mei-Chang Chong¹, Kenneth Selleck², Karen Francis², and Khatijah Lim³

¹**Monash University, Seri Kembangan, Malaysia**

²**Monash University, Australia**

³**University of Malaya, Malaysia**

Abstract: Content: In this era of rapid advance of technology in information and communication, there is an urgent need for practicing nurses to update their knowledge and skill to maintain quality patient care. Malaysian Nursing Board strongly supports this global view and has enacted legislation of mandatory continuing nursing education since 2008. All practicing nurses are required to obtain at least 25 credit point of CPE for annual renewal of practicing certificate. Despite of the enforcement, many nurses are not able to participate CPE due to lack of education opportunity, time and financial constraint. To overcome these problems Malaysian Nursing board need to increase the accessibility of continuing education. This can be done through E-learning that provides opportunity for learning to their door step.

The aim of this study was to assess the readiness of Malaysia nurses on ICT and acceptance of e-learning as a means to CPE. A cross-sectional survey was carried out on 300 nurses to determine the readiness of nurses towards e-learning. Sample was randomly selected from the previous pool of participant from previous survey on CPE who has agreed to be involved in this study. Self explanatory questionnaires were used to collect data. The data was analyzed using SPSS version 16.

All participants (N=300) had returned the completed questionnaire. Majority of the participants (289, 96%) had experienced in using computer. Accessibility

to internet was encouraging that 256 (85%) of them have internet access. 215(71%) of the participant have internet connection at home. Majority of them (177, 87.3%) of those with internet connection are using high speed internet (ADSL). About three quarter of them use computer more than 2 hours per week. The most common usage (189, 63.7%) of internet was surfing information and writing report (156, 52.7%). Not many (52, 17%) has experience in e-learning. three most important factors that motivate them to consider e-learning were achieving life long learning (mean=4.1), flexibility in time and space (mean= 4.07) and broaden one's horizon with diversity and latest knowledge (mean = 4.07). Three main factors that may deter them from e-learning were limited time (mean =3.42), lack of support from supervisor and limited understanding about network system: (LAN, internet and intranet) (mean =3.27).

Conclusion, the finding reveal that Malaysian nurses are accessible to the e-learning infrastructure and most of them have been exposed to using computer in the clinical area. The were highly motivated to learn through on line or e-learning as evidence with high mean score for motivated factors and low mean score for deterrence factors. Malaysia nurses are ready for e-learning, the Malaysia Nursing Board should consider e-learning as part of the CPE courses and facilitate nurses in engaging web base learning which would enable more nurses to participant in CPE in cost effective and convenient manner.

Keywords: Continuing professional education, E-learning

Reusability in eLearning

Osman Sadeck

Western Cape Education Department, Cape Town, South Africa

Abstract: Society has created a range of technologies that could assist teaching and learning. We do not fully understand the extent of the impact that these technologies may have on education and learning outcomes. According to (Patrick, 2000: 51) it is "difficult to identify with precision the role of technology in learning. However the introduction and use of any technology in an educational context will have some sort of impact. The impact could be understood through the process of cause and effect and may be viewed as initial and subsequent i.e. first-order effect and second-order effect. (Friestad. 1997: 6).

Technology is usually initially introduced to do more or less the same function an existing task. When used, the technology has an effect in the first instance to which it is applied. This in turn could possibly have additional effects of increasing sophistication. For instance; the use of computers to

store & retrieve text, audio, video and graphics is a first-order effect (replaces a filing cabinet). When a computer together with specific software can be used to digitize, create, edit and manipulate text, audio, video and graphics we see an example of a second-order effect. The World Wide Web's (www) capability to store this text, audio, video and graphics in cyber space might be considered a second-order effect. Given the possibility of effects (first or second) of technology, this study will look at how technology might promote or inhibit reusability in (e)learning if at all.

Reusability in the literature is viewed through different lenses. Recent studies tend to focus more on learning objects (i.e. content, material resources) and less on process, design and environments. Allison Littlejohn (2003) speaks of learning models and the possibilities that technology offers to realise these models in an on-line environment. This environment according to Littlejohn (2003) could be populated with content (e.g. learning objects) and process (e.g. learning pathway) resources.

The PhD study to be undertaken seeks to explore the impact of technology from a reuse perspective and is a follow through of a master's study on learning objects. It follows how technology may be employed as a tool to transform traditional activities into learning objects (i.e. first-order effect) and follows on to determine what the second-order effects might be on (e)learning. It will focus on aspects such as learning objects, digital learning environments, pedagogical processes and instructional design.

Keywords: e-Learning, Technology, Reuse, Learning Object, Impact.

References

- Patrick, M. (ed.). 2000. Computers in schools: A national survey of information communication technology in South African Schools. Education Policy Unit: University of Western Cape p51,
- Kathleen, K. (ed.). 1997. The future of information technology in education. ISTE publication
- Littlejohn, A. 2003. Reusing online resources. Kogan Page