The Proceedings of the 8th European Conference on e-Learning

University of Bari
Italy

29-30 October 2009

Edited by

Dr Dan Remenyi
Trinity College Dublin, Ireland
## Contents

<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td></td>
<td>vii</td>
</tr>
<tr>
<td>Biographies of Conference Chairs, Programme Chair, Keynote Speaker and Mini-track Chairs</td>
<td></td>
<td>ix</td>
</tr>
<tr>
<td>Biographies of contributing authors</td>
<td></td>
<td>xi</td>
</tr>
</tbody>
</table>
| E-Learning in Malaysia and Nigeria: a Bibliometric Study                    | Ahmed Bakeri Abubakar\(^1\), Yahya Ibrahim Harande\(^2\) and Bappa Magaji Abubakar\(^3\)
  \(^1\)International Islamic University, Malaysia  
  \(^2\)Bayero University Kano, Nigeria | 1                                                                                                                                         |
| The Smart Office Hours Assistant: an Intelligent Student-Centered FAQ System | Asma Al-Ayed\(^1\) and Shehab Gamaleldin\(^2\)
  \(^1\)Umm AlQura University, Makkah, Saudi Arabia  
  \(^2\)King Abdulaziz University, Jeddah, Saudi Arabia | 6                                                                                                                                         |
| Active Learning Methods in Teaching Computer Science Courses at HAFA        | Antonios Andreatos
  Hellenic Air Force Academy, Dekeleia Air Force Base, Greece | 18                                                                                |
| Websites and Museums: New Informal Learning Applications                    | Mikel Asensio Brouard\(^1\), Elena Asenjo Hernanz\(^1\) and Alex Ibáñez Etxeberria\(^2\)
  \(^1\)Universidad Autónoma de Madrid, Spain  
  \(^2\)Universidad del Pais Vasco, Spain | 25                                                                                |
| How Blogs and Web Platforms Have Changed Communication Through Activist Art: an Approach to Existing Online Art Communities | Ana Margarida Barata\(^1\) and Carlos Vaz de Carvalho\(^2\)
  \(^1\)New University of Lisbon/ Instituto Superior de Engenharia do Porto (Porto School of Engineering), Portugal  
  \(^2\)Porto School of Engineering, Portugal | 34                                                                                |
| Evaluation of Learning Based on Transverse Competences Using Web 2.0 Orientations: the e-Transfolio | Elena Barberà, Ana Mª Roderia, Gemma Aguado, Lourdes Guàrdia and Montse Vall-llovera
  Open University of Catalonia, Barcelona, Spain | 44                                                                                |
| E-Plasticity: an Asynchronous e-Learning Solution for Artillery Barrels Autofrettage Process | Ghita Barsan, Luminita Giurgiu, Benoni Sflog and Danut Mosteanu
  Land Forces Academy, Sibiu, Romania | 52                                                                                |
| On-The-Job e-Learning: Workers' Motivations and Perceptions. The Case of "La Caixa" | Josep Batalla Busquets, Carmen Pacheco Bernal and Jordi Vilaseca Requena
  Universitat Oberta de Catalunya, Spain | 60                                                                                |
| Evaluating the Impact of Distance Learning Support Systems on the Learning Experience of MBA Students in a Global Context | Yongmei Bentley, Anjali Shegunshi and Mike Scannell
  University of Bedfordshire, Luton, UK | 69                                                                                |
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towards a Service-Oriented e-Learning Framework Based on Semantics</td>
<td>Devis Bianchini¹, Valeria De Antonellis¹, Antonio De Nicola², Michele Missikoff² ¹University of Brescia, Italy ²ASI-CNR, Rome, Italy</td>
<td>81</td>
</tr>
<tr>
<td>Student Performance and its Association with Utilisation of Teaching Material</td>
<td>David Bond, Tony Holland and Peter Wells University of Technology, Sydney, Australia</td>
<td>91</td>
</tr>
<tr>
<td>Moodle as a Trojan Mouse: Policy, Politics and Pragmatism</td>
<td>Mark Brown, Shelley Paewai and Gordon Suddaby Massey University, Palmerston North, New Zealand</td>
<td>100</td>
</tr>
<tr>
<td>Dishonesty Deterrence and Detection: how Technology can Ensure Distance Learning Test Security and Validity</td>
<td>Richard Caldarola¹ and Tanya MacNeil² ¹Troy University, Atlanta, USA ²American InterContinental University, Atlanta, USA</td>
<td>108</td>
</tr>
<tr>
<td>Frameworks for Digital Literacy and Digital Competence Assessment</td>
<td>Antonio Cartelli University of Cassino, Italy</td>
<td>116</td>
</tr>
<tr>
<td>Exploring the Current Theoretical Background About Adoption Through Institutionalization of Online Education in Universities: Needs for Further Research</td>
<td>Ines Casanovas Jönköping University, Sweden National Technological University, Buenos Aires, Argentina</td>
<td>124</td>
</tr>
<tr>
<td>A Web-Based Tool for Assessing Online Peer-Reviews</td>
<td>Elisabete Cunha¹ and Alvaro Figueira² ¹CRACS, Porto, Portugal ²CRACS &amp; DCC, Universidade do Porto, Portugal</td>
<td>132</td>
</tr>
<tr>
<td>Creating Confident Web Conferencers: a Web 2.0 Approach to Staff Development</td>
<td>Mark de Groot and Gill Harrison Leeds Metropolitan University, UK</td>
<td>140</td>
</tr>
<tr>
<td>The Evaluation of e-Learning Practices in the University Education System</td>
<td>Carmen de Pablos Heredero Rey Juan Carlos University, Madrid, Spain</td>
<td>146</td>
</tr>
<tr>
<td>VET: A Tool for e-Learning 2.0</td>
<td>Vincenzo Di Lecca¹, Antonella Giova¹ And Alessandro Quarto² ¹Polytechnic Of Bari, Taranto, Italy ²Myhermes S.R.L, Taranto, Italy</td>
<td>156</td>
</tr>
<tr>
<td>Use of Wiki Tools for Raising the Communicative Aspect of Learning</td>
<td>Jana Dlouhá and Jiří Dlouhý Charles University Environment Center, Prague, Czech Republic</td>
<td>165</td>
</tr>
<tr>
<td>Is Audio Feedback a Useful Way of Enabling Students to Learn? A Case Study</td>
<td>Elisabeth Dunne and Sue Rodway-Dyer University of Exeter, UK</td>
<td>174</td>
</tr>
<tr>
<td>Heutagogy: What Your Mother Didn't Tell you About Pedagogy and the Conceptual Age</td>
<td>Jane Eberle Emporia State University, USA</td>
<td>181</td>
</tr>
<tr>
<td>Organizing web Educational Resources According to Specific User Needs</td>
<td>Nuno Escudeiro¹,² and Paula Escudeiro¹ ¹Instituto Superior de Engenharia do Porto, Portugal ²Laboratory of Artificial Intelligence and Decision Support, Porto, Portugal</td>
<td>189</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| Interventions for Second-Order Change in Higher Education: Challenges and Barriers | Sebastian Fiedler and Terje Valjaottie  
  1 Centre for Social Innovation, Vienna, Austria  
  2 Tallinn University/Tampere University of Technology, Tallinn/Tampere, Estonia/Finland | 196      |
| The Lecture is Dead Long Live the e-Lecture                                | Duncan Folley  
  Leeds Metropolitan University, UK                                         | 204      |
| The Combined use of e-Learning and Traditional Learning Systems for Students of Biology and Biochemistry | Susana Gaytan and Rosario Pasaro  
  University of Seville, Spain                                               | 212      |
| Crossing the Ts and Closing the Tags: Improving Web-Standards Compliance in Open Source e-Learning Platforms | Andreas Giannakoulopoulos, Andreas Floros, Nikolaos Kanellopoulos and Iraklis Vramavis  
  1 University of Athens, Greece  
  2 Ionlan University, Corfu, Greece  
  3 Harokopio University, Athens, Greece                                      | 219      |
| Educational Issues in Computer Based Assessment                            | Luminita Giurgiu, Ghita Bärsan and Dănilut Mosteanu  
  Land Forces Academy, Sibiu, Romania                                       | 228      |
| A Framework for Supporting Postsecondary Learners with Psychiatric Disabilities in Online Environments | Scott Grabinger  
  University of Colorado Denver, USA                                         | 236      |
| Communication for Learning: too Much Choice?                               | Susan Greener  
  Brighton Business School, University of Brighton, Brighton, UK             | 244      |
| Effective Provision of Formative Feedback in an e-Learning Environment      | Thanos Hatziapostolou, Iraklis Paraskakis  
  1 City College – International Faculty of the University of Sheffield, Thessaloniki, Greece  
  2 South East European Research Centre, Thessaloniki, Greece                | 250      |
| Studying Herbal Medicine: From Correspondence Course to Virtual World Polyclinic | Rose Heaney  
  University of East London, UK                                               | 259      |
| Mobile Devices and Archaeological Sites: An Emergent Context in Mediterranean Europe | Alex Ibañez Etxeberria and Mikel Asensio Brouard  
  1 Euskal Herriko Unibertsitatea-Universidad del Pais Vasco, Spain  
  2 Universidad Autónoma de Madrid, Spain                                      | 267      |
| Wiki Tools in the Preparation and Support of e-Learning Courses            | Antonín Jančařík and Kateřina Jančaříková  
  Charles University, Prague, Czech Republic                                  | 276      |
| Building the Future Student's Blended Learning Experience From Current Research Findings | Amanda Jefferies and Ruth Hyde  
  University of Hertfordshire, Hatfield, UK                                   | 282      |
| AntiPlag – a Sampling-Based Tool for Plagiarism Detection in Student Texts | Tuomo Kakkonen and Niko Myller  
  University of Joensuu, Finland                                               | 287      |
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Analytics for Educational Data Analysis</td>
<td>Zdeněk Kedaj¹, Lenka Nováková² and Luboš Popelinský¹</td>
<td>294</td>
</tr>
<tr>
<td></td>
<td>¹Masaryk University, Brno, Czech Republic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>²Czech Technical University Prague, Czech Republic</td>
<td></td>
</tr>
<tr>
<td>Web-Based English Language Learning Environments in Technical Part-Time</td>
<td>Andrea Kelz University of Applied Sciences</td>
<td>301</td>
</tr>
<tr>
<td>Studies Self-Directed and Collaborative Approaches</td>
<td>Burgenland, Austria</td>
<td></td>
</tr>
<tr>
<td>Undergraduate Perceptions of the Usefulness of Web 2.0 in Higher Education</td>
<td>Swapna Kumar University of Florida, Gainesville, USA</td>
<td>308</td>
</tr>
<tr>
<td>System Components</td>
<td>Quality Evaluation and Optimisation of e-Learning System Components</td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>Learning for the Networked Society – Future-Oriented Competencies and the Emergence of the new Learner</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>E-Communication Patterns in Collaborative Learning Networks</td>
<td>332</td>
</tr>
<tr>
<td></td>
<td>GAOOLE: a Gaia Design of Agent-Based Online Collaborative Learning Environment</td>
<td>339</td>
</tr>
<tr>
<td></td>
<td>Use of a Electronic Voting System (EVS) to Facilitate Teaching and Assessment of Decision Making</td>
<td>351</td>
</tr>
<tr>
<td></td>
<td>Reuse and Repurposing of Digital Content: Understanding the Challenges of Design, Process, People</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>How do Students Measure Service Quality in e-Learning? A Case Study Regarding an Internet-based</td>
<td>366</td>
</tr>
<tr>
<td></td>
<td>Collaborative Language Learning for Professional Adults</td>
<td>374</td>
</tr>
<tr>
<td></td>
<td>Social Software, Thinking Styles, Personalization and Case-Based Foreign Language Learning: the</td>
<td>383</td>
</tr>
<tr>
<td></td>
<td>Using Web2.0 Technology in Work Based Learning</td>
<td>391</td>
</tr>
<tr>
<td></td>
<td>Since Everybody Needs Needs Analysis why do we Fail to Investigate?</td>
<td>400</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| Conveyor Belt Production of Course Material - a Case Study in Sri Lanka    | Peter Mozelius¹ and Mathias Hatakka²  
1Stockholm University, Sweden  
2Swedish Business School at Örebro University, Sweden                                                                                                                                                                                                                                     | 406      |
| A National Strategy for Ensuring Authenticity in Student Work               | Will Murray and Gill Rowell PlagiarismAdvice.org, Newcastle upon Tyne, UK                                                                                                                                                                                                                                                              | 413      |
| The Role and use of Essay Tests in e-Learning: a Japanese Case Study        | Minoru Nakayama¹, Hiroh Yamamoto¹ and Rowena Santiago²  
¹CRADLE, Tokyo Institute of Technology, Tokyo, Japan  
²California State University, San Bernardino, USA                                                                                                                                                                                                                                   | 419      |
| Analysis of e-learning Courses Used at FIM UHK With Respect to Constraint Satisfaction Problems | Kamila Olševičová and Petra Poulová  
University of Hradec Králové, Czech Republic                                                                                                                                                                                                                                                                                               | 425      |
| E-Portfolios in University and Blended Learning Settings                   | Rikke Omgreen  
Aarhus university, Copenhagen, Denmark                                                                                                                                                                                                                                                                                                 | 431      |
| Domain Ontology Creation Based on Automatic Text Extraction for Learning Objects Characterization | Adela Ortiz¹, Isabel Azevedo¹, Rui Seiça², Eurico Carrapatoso² and Carlos Vaz Carvalho¹  
¹GILT / Instituto Superior de Engenharia do Porto, Portugal  
²Faculdade de Engenharia da Universidade do Porto, Portugal                                                                                                                                                                                                                         | 440      |
| Plumbing the Depths: Stories, e-Portfolios: Pedagogy, Ownership            | Jennifer Patterson  
University of Greenwich, London UK                                                                                                                                                                                                                                                                                                   | 449      |
| Portraits of Learners: an Ethnographic Study of Computer-Supported Collaborative Learning (CSCL) Practices | Andriani Piki  
Royal Holloway University of London, Egham, UK                                                                                                                                                                                                                                                                                            | 458      |
| Barriers to a Virtual Europe                                               | Andy Pulman  
Bournemouth University, UK                                                                                                                                                                                                                                                                                                             | 466      |
| Designing for Immersive Learning Environments: a Study of Teacher Innovation Using the Learning Federation (TLF) Digital Learning Resources | Peter Reimann, Peter Freebody and Margery Hornibrook  
The University of Sydney, Australia                                                                                                                                                                                                                                                                                                    | 473      |
| 3D Virtual Worlds: the new Virtual Learning Environments                  | Rosa Reis, Paula Escudeiro and Nuno Escudeiro  
Instituto Superior de Engenharia do Porto, Portugal                                                                                                                                                                                                                                                                                      | 481      |
| The Playground Model: Bridging the Gap Between Digital Technology and Curriculum an Evaluation of the Introduction of e-Portfolio Within Post Graduate Nursing Education | Anne Robertson  
University of Edinburgh, UK                                                                                                                                                                                                                                                                                                         | 489      |
| Transition From Conventional Training Towards e-Learning: how to Ensure Success | Andrée Roy  
Université de Moncton, Canada                                                                                                                                                                                                                                                                                                           | 494      |
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
</table>
| Methopedia - Pedagogical Design Community for European Educators            | Thomas Ryberg¹, Christian Niemczik² and Elke Brenstein³  
  ¹Aalborg University, Denmark  
  ²University of Applied Sciences, Wildau, Germany  
  ³dotconex Learning and Development, Potsdam, Germany                        | 503      |
| The Assessment of Web Sites Related With Teaching Science and Mathematics Used by 4th and 5th Grade Elementary Students and Their Teachers | Nihan Sahinkaya⁴, Sibel Ozsoy² and Gokhan Ozsoy²  
  ¹Harran University, Sanliurfa, Turkey  
  ²Aksaray University, Turkey                                                   | 512      |
| Role-Taking as Strategy for Active Participation in a Blended Learning Course | Nadia Sansone, Paola Francesca Spadaro and Maria Beatrice Ligorio  
  University of Bari, Italy                                                    | 518      |
| A Video Gem for a Health e-Portfolio                                       | Jakki Sheridan-Ross, Gill Harrison and Janet Finlay  
  Leeds Metropolitan University, UK                                             | 525      |
  University of Manchester, UK                                                  | 532      |
| New Technologies in Siberia: e-Portfolio for Student Evaluation and Professional Development | Olga Smolyaninova and Tatyana Ryzhkova  
  Siberian Federal University, Krasnoyarsk, Russian Federation                 | 540      |
| Transformative Online Education for Educators: Cascading Progressive Practice in Teaching, Learning and Technology | Keith Smyth  
  Edinburgh Napier University, UK                                               | 549      |
| Mobile Knowledge Management Toolkit                                        | Ioana Andreea Stănescu¹, Antoniu Ștefan¹, Ion Roceanu², Veronica Ștefan³ and Felix Hamza-Lupa⁴  
  ¹Advanced Technology Systems, Targoviste, Romania  
  ²Carol I° National Defence University, Romania  
  ³Valahia University of Targoviste, Romania  
  ⁴Armstrong Atlantic State University, USA                                     | 558      |
| New Pedagogical Models Strengthen Workplace Training and Know-How Transfer to Personnel From Industry | John Stav and Erik Engh  
  Sør-Trøndelag University College, Trondheim, Norway                           | 566      |
| Integrating new Online Simulator Services Into Vocational Education and Training | John Stav, Trond Thorseth, Kjetil Liestøl Nielsen and Erik Engh  
  Sør-Trøndelag University College, Trondheim, Norway                          | 572      |
| Integrating Student Response Services for iPod Touch and iPhone into e-Learning Environments | John Stav¹, Kjetil Nielsen¹, Dan Jacobsen², Roger Bergh¹ and Trond Thorseth¹  
  ¹Sør-Trøndelag University College, Trondheim, Norway  
  ²The Norwegian University for Technology and Sciences, Trondheim, Norway       | 579      |
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergence of the Most Knowledgeable Other (MKO): Social Network Analysis of Chat and Bulletin Board Conversations in a CSCL System</td>
<td>Binod Sundararajan Dalhousie University, Halifax, Canada</td>
<td>587</td>
</tr>
</tbody>
</table>
| Utilising WebCT as a Collaborative Participatory Research Tool to Question the Effectiveness of Notetakers who Support Deaf University Learners | Yana Tainsh¹ and Melanie Thorley²  
1University of Greenwich, London, UK  
2AspireAbility, London UK | 599      |
| Developing a Conceptual Framework and Strategies Overcoming Intrinsic Inhibitors to e-Learning | Louise Terry¹ and Carol Leppe²  
1London South Bank University, London, UK  
2University of Washington, Bothell, USA | 605      |
| Exploring Learner Participation in Curriculum Development Towards Employing More Read/Write Approaches on a Distance Learning Professional Programme | Pam Thompson and Jo Richardson De Montfort University, Leicester UK         | 614      |
| Social Bookmarking: Creating and Sharing Content in Postgraduate Learning | Andy Tomkins and Dawn McLoughlin Edge Hill University, Ormskirk, UK        | 623      |
| Social Network Software and Education: South East Asia                    | Sasalak Tongkaw, Zamhar Iswandono Ismail and Aumnet Tongkaw  
The University of Manchester, UK | 630      |
| A Conceptual Design of an e-Learning Platform for Mathematical Control Education | Vasillis Tsoulkas¹  
1Athanasios Pantelous² and Christos Papachristos³  
2General Secretariat for Research and Technology (Head of Engineering Design Division), Athens, Greece  
3National Delegate to the Joint Communications Board of the European Space Agency (JCB/ESA)  
4University of Liverpool, U.K  
5National Technical University of Athens, Greece | 639      |
| Do Teachers e-Learning Needs Differentiate Among Countries?               | Nazime Tuncay¹, Ioana Andrea Stanescu² and Hüseyin Uzunboylu³  
1Near East University, Nicosia, North Cyprus  
2Advanced Technology Systems, Romania | 649      |
| Let Students Talk: Web 2.0? Web 3.0? Or None?                            | Nazime Tuncay and Mustafa Tuncay  
Near East University, Nicosia, North Cyprus  
Atatürk Teacher Training Academy, Nicosia, North Cyprus | 657      |
| Selecting Tools and Services: an Expression of Self-Direction in Higher Education | Terje Väljataga  
Tallinn University/Tampere University of Technology, Tallinn, Estonia | 665      |
| What is Important? Digital Literacy or Literacy in a Digital Environment? | Henri Verhaaren and Ann De Meulemeester  
Ghent University, Ghent, Belgium | 672      |
| Open and Transparent Consensus: a Snapshot of Teachers' use of Wikipedia | Albin Wallace  
United Learning Trust, Titchmarsh, UK | 679      |
| Embedding e-Portfolios for Effective Lifelong Learning: a Case Study      | Anne Wheeler and Rowena Yeats  
Aston University, Birmingham, UK | 687      |
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
</table>
| Teaching Animation Concepts Using e-Learning Tools and On-line Communities | Stephen Wilkinson  
Leeds Metropolitan University, UK                                                                                                    | 695      |
| A Contextual Mobile Learning System in our Daily Lives and Professional Situations | Chuantao Yin, Bertrand David and René Chalon  
LIESP Laboratory, Ecole Centrale de Lyon, Ecully, France                                                                                       | 703      |
| **Research in Progress Papers**                                        |                                                                                                                                           | 713      |
| A Study of the Reliability and Validity of the Felder-Soloman Index of Learning Styles in Arabic | Nahla Aljojo¹, Carl Adams², Abeer Alkhoulí¹, Tineke Fitch² and Huda Saifuddin¹  
¹King Abdul Aziz University, Jeddah,  
Saudi Arabia  
²University of Portsmouth, Portsmouth, UK                                                                                           | 715      |
| Web 2.0: Tool for Teaching or Context for Learning?                     | Patricia Dias  
Catholic University of Portugal, Lisbon, Portugal                                                                                          | 725      |
| A 'Hybrid Space' for Peer Review: can Facebook Inspire new Ways Of Thinking?      | Neil Glen¹, Anthony Head¹ and Stephen Thompson²  
¹Bath School of Art & Design, UK  
²Cardiff School of Art & Design, UK                                                                                                           | 732      |
| Online Presentation Strategies for Visual Learners                     | Paul Henry  
University of Maryland University College, USA  
University of Phoenix, USA                                                                                                                    | 742      |
| Innovative use of web Conferencing Tools in a Multi-Process Approach to Learning | Kathy Seddon, Matthew James and Kevin Mulryne  
NCSL, Nottingham, UK                                                                                                                             | 749      |
| An Intelligent Mashup Learning Environment with Social Interaction       | Joaquim Fernando da Silva and Francisco José Restivo  
University of Porto, Portugal                                                                                                                   | 758      |