8th European Conference on e-Learning
University of Bari
Italy
29-30 October 2009

Edited by
Dan Remenyi, Trinity College Dublin, Ireland

A conference managed by ACL, Reading, England
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
Copyright The Authors, 2009. All Rights Reserved.

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

Papers have been double-blind 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.

Further copies of this book and previous year’s proceedings can be purchased from http://academic-conferences.org/2-proceedings.htm

ISBN: 978-1-906638-52-8 CD

Published by Academic Publishing Limited
Reading
UK
44-118-972-4148
www.academic-publishing.org
<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 Sahinkaya¹, 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      |
| Developing a Social Collaborative Platform                                 | Alisdair Smithies and Chris Banks  
  University of Manchester, UK | 532      |
| New Technologies in Siberia: e-Portfolio for Student Evaluation and Professional Development | Olga Smolyaninova and Tatyana Ryzhkovova  
  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 Stăneşcu¹, Antoniu Ştefan¹, Ion Roceanu², Veronica Ştefan³ and Felix Hamza-Lup³  
  ¹Advanced Technology Systems, Targoviste, Romania  
  ²"Carol 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  
  Sor-Trondelag University College, Trondheim, Norway | 566      |
| Integrating new Online Simulator Services Into Vocational Education and Training | John Stav, Trond Thorseth, Kjetil Listøl Nielsen and Erik Engh  
  Sor-Trondelag 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 Bergh² and Trond Thorseth³  
  ¹Sor-Trondelag University College, Trondheim, Norway  
  ²The Norwegian University for Technology and Sciences, Trondheim, Norway | 579      |
Preface

These Proceedings represent the work of contributors to the 8th European Conference on e-Learning, ECEL 2009, hosted this year by the University of Bari in Italy. As usual the papers range across a very wide spectrum of issues, all of which are pertinent to the successful use of e-Learning applications. It is clear that the role being played by e-Learning in the pedagogical process is considerable and that there is still ample scope for further development in this area.

The range of researchers from different institutions in different countries is impressive. It is clear from the research being done all over the world that the role which e-Learning plays today and may play in the future is truly global. The really important outcome of this global reach is that research and new ideas may easily be shared among both the academic community and those practitioners in other organisations who wish to be informed of the most recent thinking in the field.

With an initial submission of 193 abstracts, after the double blind, peer review process there are 97 papers published in these Conference Proceedings. These papers reflect the truly global nature of research in the area with contributions from Australia, Austria, Belgium, Canada, China, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Ireland, Italy, Japan, India, Malaysia, New Zealand, Nigeria, Norway, Portugal, Romania, Russia, Saudi Arabia, South Africa, Spain, Sweden, Turkey, United Kingdom, United Arab Emirates and the United States. A selection of the best papers – those agreed by a panel of reviewers and the editor will be published in a conference edition of the EJEL (Electronic Journal of e-Learning www.ejel.org).

I wish you a most interesting conference.

Dr Dan Remenyi
Trinity College Dublin Ireland
October 2009
Conference Executive:

Dr Pam Moule, University of West England, UK
Dr Rikke Omgreen, Aarhus University, Denmark
Dr George Papadopoulos, University of Cyprus, Cyprus
Karim Tweddell Levensen, Danish University of Education, Denmark
Dr Roy Williams, University of Portsmouth, UK
Alfredo Moscardini, University of Sunderland, UK
Michele Bakdassane, University of Bari, Italy
Richard Hall, De Montfort University, Leicester, UK
Michele Scialla, University of Bari, Italy
Mark Brown, Massey University, New Zealand
Teresa Roselli, University of Bari, Italy
Matteo Gaeta, University of Salerno, Italy
Pierluigi Ritrovato, University of Bari, Italy
Stefano Renzi, Bocconi University, Italy
Galinia Kurganskaya, University of Irkutsk, Russia
Guglielmo Trentin, CNR, Italy

Committee members

The conference programme committee consists of key people in the e-learning community around the world.
The following people have confirmed their participation:

Ariffin Abdul Mutalib (University Utara Malaysia); Shafqat Ali (University of Western Sydney, Australia); Abdullah Al-Zoubi (Princess Sumaya University for Technology, Jordan); Jane Ardis (Stevenson College, Edinburgh, UK); Mohamed Arselimi (7th of April University, Tripoli, Libya); William Ashraf (University of Sussex, UK); Anders Axic (Örebro University, Sweden); Simon Bachelor (Gamos, Reading, UK); Joan Ballantine (Queen's University Belfast, UK); Trevor Barker (University of Hertfordshire, UK); Orlando Belo (University of Minho Campus de Guimarães, Portugal); David Benito (Public University of Navarre, Pamplona Spain); Yongmei Bentley (University of Luton, UK); Daniel Biella (University of Duisburg-Essen, Germany); Rada Bilba (George Bacovia University, Romania); Eric Bodger (University of Winchester, UK); Stephen Bowman (Ravensbourne College of Design and Communication, UK); Willem-Paul Brinkman (Delft University of Technology Netherlands); Ann Brown (CASS Business School, London UK); Nornie Brown (Napier University, UK); Mark Brown (Massey University, Palmerston North, New Zealand); Joan Burgess (University of Winchester, UK); Elizabeth Campbell-Page (Equinexus LLC, Washington, DC, USA); Jose-Raul Canay Pazos (Universidade de Santiago de Compostela, Spain); Giuseppe Cannavina (University of Sheffield, UK); Sven Carlsson (Lund University, Sweden); James Carr (University of Newcastle, UK); Maggie Carson (Edinburgh University, UK); Antonio Cartelli (University of Cassino, Italy); Maria Celestano (University of Lecce, Italy); Sathyadhyan Chickur Sonar College of Technology, Salem, India); Barbara Class (University of Geneva, Switzerland); Lynn Clouter (Coventry University, UK); Thomas Connolly (University of West of Scotland, UK); Ken Currie (Edinburgh University, UK); Valentina Dagiene (Institute of Mathematics and Informatics, Vilnius, Lithuania); Christopher Douce Institute of Educational Technology, Walton Hall, UK); Yangling Duan (University of Luton, UK); Colin Egan (University of Hertfordshire, Hatfield, UK); Bulent Gursel Eriozulu (Baskent Universitesi, Turkey); Ariwa Ezedu (London Metropolitan University, UK); Bekim Fetaji (South East European University, Tetovo, Macedonia); Andrea Flora, (Ionian University, Corfu, Greece); Tim Friesner (University College, Chichester, UK); Martin Graff University of Glamorgan, UK); Roz Graham (University of Winchester, UK); David Guralnick (Kaleidoscope Learning, New York, USA); Richard Hall (De Montfort University, Leicester, UK); Martin Harrison (Loughborough University, UK); Mike Hart (University of Winchester, UK); Patricia Harvey (Greenwich University, London, UK); Paul Haslam (University of Winchester, UK); Misha Hebel (Dogwhistle Ltd, London and Cass Business School, UK); Alan Hilliard (University of Hertfordshire, Hatfield, UK); Uwe Hoppe (Bildungswerk der Sächsischen Wirtschaft, Germany); Stefan Hrantian (Uppsala University, Sweden); Aghbar Ali Jafari Ali (Majan College, University College, Muscat, Oman); Amanda Jefferies (University of Hertfordshire, Hatfield, UK); Rona Jesmin (Global Heart Forum, UK); Noraini Jones (University of Nottingham, Malaysia Campus, UK); Paul Jones (University of Glamorgan, UK); Michail Kalojiannakis (School of Pedagogical and Technological Education, Crete); Jana Kapounova (University of Ostrava, Czech Republic); Harald Kjellin (Stockholm University, Sweden); Jasna Kujis (Brunel University, UK); Sunaina Kumar (Indira Gandhi National Open University, New Delhi, India); Eleni Kyza (Cyprus University of Technology, Lemesos, Cyprus); Maria Lambrou (University of the Aegean Business School, Greece); Andy Lapham (Thames Valley University, UK); Mona Laroussi (Institut National des Sciences, Appliquées et de la Technologie, Tnis and Lille, Tunisia); Fotis Lazarini (Applied Informatics in Management and Finance, Greece); Denise Leahy (Trinity College, Dublin, Ireland); Kate Lennon
Biographies of Conference Chairs, Programme Chairs and Keynote Speakers

Programme Chair

Agostino Marengo’s research activity as Assistant Professor in Faculty of Economics at University of Bari, takes place primarily on didactic methodologies implemented by the use of ICT tools, particularly the development of e-learning web-based platforms that compete to introduce the technologies of distance learning in traditional institutional campus courses and activities. As coordinator of OSEL (Open Source e-learning research project, http://www.osel.it/), currently his research plan is to create a database of Open Source LCMSs in order to choose and compare them. The research group is actually involved in usability, accessibility and quality evaluation of LMS (Learning Management Systems) and CMS (Content Management Systems) with a special goal to evaluate Open Source e-learning platforms. Website: http://www.agostinomarengo.it, Skype: agomare.
Conference Chair and Keynote Speaker

Jane Klobas is a researcher at Bocconi University in Milan, Italy, where she is joint leader of a multi-national study of students' psychological responses to online learning. She also holds an appointment as Professorial Fellow in the Graduate School of Management at the University of Western Australia in Perth, Australia. Jane has many years of experience in both distance and online teaching, and has won awards for her innovative teaching at the University of Western Australia. Her research concerns the role of the Internet in communication of information. She uses principles of social psychology and economics to study the role of the Internet in education and in tourism.

Keynote Speaker

Julià Minguillón received his PhD from the Universitat Autònoma de Barcelona (UAB) in September 2002. In January 2001 he joined the Universitat Oberta de Catalunya (UOC) where he is a faculty member of the Computer Science, Multimedia and Telecommunication Studies department. He has developed learning resources for object oriented programming, abstract data types engineering and compiler construction. He is also involved in the integration of e-learning standards in virtual learning environments, such as IEEE LOM, SCORM and IMS LD. His main research interests include the formal description of the learning process by means of ontologies, personalizing the learning process by means of adaptive itineraries based on reusable learning objects, and user modeling in virtual e-learning environments applying web mining techniques for improving user experience and usability, accessibility and mobility issues. He is also interested in open educational resources and the uses of social tools for teaching and learning in virtual learning environments. He was in charge of the UOC participation in the OLCOS (Open Learning Content Observatory Services) EU funded project. He leads the Spanish Government funded PERSONAL(ONTO) project, the framework that articulates all the aforementioned research lines and the E-MATH++ project which promotes the use of learning object repositories in virtual learning environments.

Biographies of contributing authors (in alphabetical order)

Ahamed Bakeri Abu Bakar has served the National Library of Malaysia for 24 years. He currently holds the position of professor at the Department of Library and Information Science, International Islamic University Malaysia, Kuala Lumpur, Malaysia. He has published a number of articles in refereed journals and has presented numerous papers at international conferences worldwide covering areas such as digital libraries, e-governments, and information access.

Gemma Aguado received her degree in Pedagogy at the University of Barcelona in Postgraduate Design and Production of Multimedia Instructional Materials at the Autonomous University of Barcelona. University Master in Educational Psychology at the University of Barcelona. Currently technical research of IN3 (UOC) and professor in the Faculty of Education at the University of Barcelona. Her interest is currently focused on the Psychology of Education, and especially in the processes of teaching and learning computer based learning.

Asma Al-Ayed is a lecturer in Computer Science department at Umm AlQura University, Makkah, Saudi Arabia. Her Master thesis was about intelligent FAQ answering system for e-learning platforms. Her interests include knowledge management, e-learning, and adaptive systems.

Nahla Aljojo worked as an IT manager in the economics and administration department at King Abdul Aziz University in Saudi Arabia. She has a master’s degree in computer systems and Information Technology from the Washington International University (USA). She is also a Ph.D. doctoral student at the School of Computing at the University of Portsmouth (UK).

Antonios Andreatos is a Professor at the Computer Engineering Division of the Hellenic Air Force Academy. He received the Diploma in Electrical Engineering from the University of Patras, the M.S. from the University of Massachusetts (Amherst), the M.Ed in Adult Learning from the Hellenic Open University and the Ph.D. from the National Technical University of Athens.

Sara Archard is a lecturer at the University of Waikato, Aotearoa/New Zealand. She teaches in an online Graduate Diploma of Teaching–Early Childhood. Sara is currently undertaking her M Ed and is researching how personalising the eLearning environment may impact on developing a community of Learners.

Mikel Asensio Ph.D. is senior professor at the Universidad Autònoma de Madrid (Spain). Since 1987, he is teaching Cognitive Psychology, Informal Learning and Art Psychology. Into the museum field, he is the Director of different projects about museum planning, heritage interpretation and education. He is the director of different research projects form European, National, and Regional Agencies. He is the author for more than one hundred publications. Last years became interest on TICs and museums.

Ana Barata graduated in Modern Languages and Literature at the Faculty of Humanities of Oporto University in 1998. She developed her Master dissertation in English Culture at the same faculty, and is currently a PhD student in
Communication Sciences in the field of Interactive Audiovisual and Media at the New University of Lisbon. She teaches languages skills in the Computer Engineering degree at ISEP and collaborates with GILT and the Multimedia Laboratory.

Ghiţă Bârsan is Professor and Vice-Rector for Academic Studies at Land Forces Academy, Sibiu, Romania, in the Technical Sciences Department. Author of 14 books and 114 articles and studies in International Conferences Proceedings and specialized reviews. He is responsible for "Army-e-Learn" project for Romanian Land Forces. His main research expertise areas are in the following domains: Defense Modeling and Simulation, Advanced Distributed Learning and Mechanical Engineering.

Josep Batalla Since 1998 has been a lecturer in Economics and Business Studies at the Universitat Oberta de Catalunya (UOC). He holds a PhD and is a graduate in Economics and Business Sciences from the University of Barcelona. At UOC he carries out his teaching and research activities in the field of applied economics. He is author of several articles on these subjects and researcher of the Observatory of the New Economy (ONE), which belongs to the Internet Interdisciplinary Institute (IN3-UOC).

Yongmei Bentley is Senior Lecturer in Logistics at the University of Bedfordshire. She teaches business and management related subjects at both undergraduate and postgraduate levels. Her current research interests include applications of e-learning, logistics and supply chain management in a downturn. She is an active researcher, Fellow of HEA, and holds membership of CILT, and UKAIS.

David Bond is currently a lecturer in the School of Accounting after joining the School in 2003. He completed his BBus (Hons) in 2002, and has recently submitted his PhD. He has taught financial reporting at both an undergraduate and postgraduate level.

Mark Brown Associate Professor is the Director of Blended Learning and Distance Education at Massey University. He has over 20 years experience in the university sector. Dr Brown has an extensive background in the use of new educational technologies for flexible and distance learning and serves on several journal editorial boards. Notably, he was centrally involved in developing the Mahara open source eportfolio system. Dr Brown's holds a National Award for Sustained Excellence in Tertiary Teaching.

Margaret Bruce has been enthusiastically involved in podiatric education for more than 25 years, mostly spent at the University of Plymouth. I have been engaged in the development, organisation and delivery of the curriculum and am focused on supporting learning in practice.

Richard Caldarola is an Assistant Professor of Business with Troy University, Atlanta, USA. He facilitates on ground and online courses in Marketing, Accounting, Research, and Strategy. He holds a Doctorate in Business Administration (D.B.A.) from Nova Southeastern University (Fort Lauderdale, USA), and is a Certified Management Accountant (CMA) and Certified Financial Manager (CFM).

Antonio Cartelli is researcher in Didactics and special pedagogy, he manages the Laboratory for Teaching-Learning Technologies and the Centre for ICT and on line teaching in the Faculty of Humanities at the University of Cassino Italy. Among his most relevant publications there is the Encyclopedia of Information Communication Technology, edited in collaboration with M. Palma. He is also editor in chief of the “International Journal of Digital Literacy and Digital Competence” starting its publications in 2009.

Ines Casanova was born in Buenos Aires in 1953. She is an Engineer in Information Systems, Master in Higher Education and Master in Informatics. At present she is professor and researcher at UTN (National Technological University) and at University of Buenos Aires. Since 2003 she has been Guest Lecturer at Jonkoping International Business School in Sweden, where she is currently performing her doctoral studies in Informatics. She is also member of the CenIT International Research Group and Director for Special Projects and Researches in UNEDISC (Foundation for Knowledge Developing) of Argentina. As professional she has worked as IT auditor for the Argentinean Government and IT Project Manager for private companies. She has been Academic Coordinator of the career Llicentiate in Educational Technology and Evaluator of Final Projects and Thesis in Information Systems Engineering at UTN. She has had intense participation in International Conferences and publishing in IT and Educational Technology fields.

Mark de Groot works for the Technologies for Learning team at Leeds Metropolitan University. He has more than 10 years experience initiating and supporting a wide program of staff development activities across and beyond the University.

Antonio De Nicola is a researcher at IASI of the Italian National Research Council (CNR). He is the author of several papers on eLearning, business processes, ontology building methodologies, and semantic technologies. He has participated in the activities of several European and national projects. Among them, there are LEMAIA, Web-Learning, COIN, Interop NoE, and LD-CAST.

Carmen de Pablos is a Professor in the Business Administration Area at the Rey Juan Carlos University in Madrid from 1994. She is specialised in the impact of information technologies over organisational systems where she develops main research. She has presented communications in different international venues and has published in specialised journals.

Vincenzo Di Lecco received the Doctoral degree in electric engineering (cum laude) from the University of Bari Italy, in 1980. Today he is Associate Professor of Computer Science at the Polytechnic of Bari. He is the author and coauthor of
about 100 papers. His current research interests include image retrieval and analysis, parallel and distributed computing, and ontological approach to artificial intelligence.

Patricia Dias teaches at the Catholic University of Portugal and is a member of its Research Center in Communication and Culture. She graduated in Social Communication, is a Master in Communication, Organization and New Technologies and is currently researching for her PhD in Communication Sciences, focusing ICT mediated communication in organizations.

Jiří Dlouhý is specialist on cybernetics, since 1992 works in Environmental Center of the Charles University, Prague – responsible for environmental informatics, databases, computer network, and co-ordination of educational projects – he is the head of Environmental Education department. He is also a member of executive board of the European Environmental Bureau, a chairman of the Society for Sustainable Living; a founding member of the International Society of Information Specialists (in 1995 president of this society).

Elisabeth Dunne is Head of Project Development in Education Enhancement at the University of Exeter, UK. Her career has been devoted to the promotion of innovation and change through coordinating and directing major research, development and evaluation projects, and initiating a range of institutional developments, to support the enhancement of learning, teaching and assessment.

Alan Durrant is Head of Work Based Learning, School of Arts & Education at the University of Middlesex. His current research interests include Developing Learning and teaching in higher education, The role of student feedback in developing academic programmes and Supporting established practitioners in the creative and cultural sectors.

Jane Eberle is an associate professor in Instructional Design and Technology in The Teachers College at Emporia State University in Emporia, KS. She earned her Ph.D. from Kansas State University and taught in Manhattan, KS, prior to joining the ESU faculty in 2003. She teaches Instructional Technology for Educators to preservice teachers and graduate courses in visual literacy, universal design for learning, and integrating technology into the classroom. Her research interests include heutagogy, universal design for learning, assistive technology, and classroom teacher practices.

Erik Engh from Sør-Trøndelag University College, has collaborated with mechanical industries world wide during the last 30 years. He has obtained experience from education and training of industry personnel in a range of different countries. Mr. Engh has been developing and implementing systems for Quality Assurance and Quality Control. He has participated in several Leonardo da Vinci and Eureka projects targeting skills upgrading process in industry during the last years.

Nuno Escudeiro is an Assistant Teacher at the Computer Science and Informatics Department at ISEP – Instituto Superior de Engenharia do Porto. He is a PhD student and a researcher at UAAD INESC Porto LA – Laboratory of Artificial Intelligence and Decision Support. His main research interests are related to information retrieval and automatic edition of unstructured digital objects.

Sebastian Fiedler is a researcher at the Centre for Social Innovation in Vienna, Austria. From 2005-2008 he was the pedagogical manager of iCamp, an EU funded research and development project that explores the potentials and limits of supporting competence advancement in respect to collaborating, self-directing and social-networking within landscapes of distributed tools and services in higher education.

Álvaro Reis Figueira, PhD, is presently a lecturer at Faculty of Sciences in University of Porto. In the last years Prof. Figueira has been conducting most of his research in semantic digital libraries, web-based learning and standards in education coordinating the information systems development team at the FCUP’s Computer Centre.

Duncan Folley BSc(Hons) MSc is a Principal Lecturer at Leeds Metropolitan University. He has been the Faculty wide level 1, 2 and 3 leader and is currently the Placement Manager. His main area of research involves ALT and the use of Blended Learning Technology to enhance the student experience.

Susana Gaytan starts at the University of Seville as a Ph. student in Neurobiology. After her Ph. D. she obtained an Assistant Professor position, generating abundant resources, articles, and practical designs on education. Right now she has the post of Vicedean on Educational Innovation in the Faculty of Biology.

Andreas Giannakoulopoulos is a Lecturer at the department of Audio and Visual Arts of the Ionian University. With an interdisciplinary background including Economics, Logic and Communication studies, his main field of academic activities is Computer Mediated Communication and especially the web development technologies. His research interests focus on information architecture, web-based media, content management platforms and e-learning systems as means of effective communication via the web. Personal website: http://www.media.uoa.gr/~andreas

Lumița Giurgiu is Associate Professor at "Land Forces Academy", Sibiu, Romania, in the Technical Sciences Department. Her interest's domains refer to web programming, social software, the use of Information Technology in education, virtual learning environments.

Neil Glen works primarily in the field of tangible computing and web 2.0 as consultant, practitioner and researcher. His interests lie in connections between the physical spaces we occupy through the virtual spaces we create. At Bath School of Art and Design Neil heads up the school's interest in interactive media. Through his consultancies, nextdesign.co.uk
and just-pressed, he has worked for organisations including Apple Inc, Nokia, Transport for London, IDEO, FutureLab, and the RCA in London.

Scott Grabinger is associate professor emeritus at University of Colorado Denver, USA in learning technologies. He developed the framework of Rich Environments for Active Learning for student-centered learning. Current interests include using Web 2.0 applications to develop more accessible instruction for the range of diverse online learners and the intersection of neuroscience and education builds things, takes pictures, and travels.

Colin Gray started life as an astrophysicist before drowning in maths and escaping to web design. Soon he moved into education, teaching web-development at Jewel and Esk College. This led to an e-learning development role at Edinburgh Napier University where he is now an Academic Development Advisor, helping lecturers to enhance their teaching through technology.

Sue Greener BA MBA EdD Chartered FCIPD FHEA is a Senior Lecturer in Brighton Business School, University of Brighton, UK. Her teaching is currently focused on undergraduate Business courses and postgraduate study and research into Human Resource Management and Development, and working with online elements in the teaching and learning strategy of all these modules. Sue is also Country Tutor (and guest lecturer) for ESPEME Business School in Lille and Nice, France and undertakes student supervision at undergraduate and postgraduate level. Sue won a Teaching Excellence award from her university in 2007. Sue achieved a professional doctorate in Education in 2006, and as co-founder of the Business eLearning Research Group at Brighton, Sue holds a Fellowship with colleague Asher Rospigliosi for research into staff adoption of e-learning. In addition to working with Brighton Business School, Sue runs a management consultancy partnership, Positive Images, with her husband Tony Greener (www.posimages.co.uk).

Thanos Hatziapostolou is a Senior Lecturer in the Computer Science Department and Course Director of the MSc in Technology, Innovation and Entrepreneurship at CITY College, International Faculty of the University of Sheffield in Thessaloniki, Greece. He has been concerned with the development, evaluation and deployment of innovative teaching-learning technologies and methods for higher education in blended and distance learning settings. His primary interests also include intelligent and personalised learning management systems, computer science education, and entrepreneurial education.

Rose Heaney has been a Learning Technology Advisor at the University of East London since 2004. Initially my main remit was to support academic staff in their use of the VLE (Blackboard Vista) but increasingly I find myself working with many other technologies, a current area of interest being the use of Second Life® in healthcare education. Prior to UEL I worked in a variety of IT training and e-learning roles in both educational and commercial settings.

Margery Hornibrook is an honorary at the University of Sydney, Australia. Prior to this she worked in senior management positions at a state and national level most recently for The Learning Federation a national schools online curriculum content initiative managed by Curriculum Corporation until April 2008. She was responsible for managing the facilitation, coordination and implementation associated with all communication activity for The Learning Federation. The role ensured effective, quality controlled, ongoing collaboration with all shareholders and stakeholders and continued support for and understanding of the initiative. She also managed the research program and activity associated with that program for The Learning Federation. The design and implementation of online curriculum content relies on ongoing research to provide both qualitative and quantitative data which can inform and improve further development and take-up in jurisdictions and schools.

Paul David Henry is an e-learning consultant and principal at Program House where he provides strategic planning and design of online learning environments for corporate and academic clients. He has taught online since 1995 - taking a journeyman's approach to e-learning innovation by conducting action research to improve instruction. He teaches online courses in research, education, business, and information systems at the University of Maryland University College, University of Phoenix, and George Mason University.

Margery Hornibrook is an honorary at the University of Sydney, Australia. Prior to this she worked in senior management positions at a state and national level most recently for The Learning Federation a national schools online curriculum content initiative managed by Curriculum Corporation until April 2008. She was responsible for managing the facilitation, coordination and implementation associated with all communication activity for The Learning Federation. The role ensured effective, quality controlled, ongoing collaboration with all shareholders and stakeholders and continued support for and understanding of the initiative.

Alex Ibáñez is Professor at the Faculty of Education at the University of the Basque Country in Bilbao, Spain. Degree in History and Ph.D. in Educational Sciences, has worked as a professional archaeologist for over 15 years. At present research on informal learning and archaeological sites.

Richard Hall is the e-Learning Co-ordinator for De Montfort University, Leicester, UK. He is responsible for the academic implementation of web-based technologies in the curriculum. These technologies include both institutional and non-institutional learning environments, alongside mobiles and Web 2.0 applications. He is also the project manager at DMU for the MoRSE project, which is a partnership with Kingston University funded by JISC, focusing upon the use of Web 2.0 tools with remote learners. For more information on this project see: http://www.morse.ac.uk and http://www.learnex.dmu.ac.uk
Mathias Hatakka is a PhD student in informatics at Örebro University (Swedish Business School) in Sweden. His research area is ICT supported distance education focusing on how available and appropriate technology can be used to improve the situation in developing countries. Mathias is also involved in several development projects mainly in Bangladesh and Sri Lanka.

Alan Hilliard is a Principal Lecturer in Diagnostic Radiography and a University Teaching Fellow at the University of Hertfordshire. Alan qualified in 1988 as a Diagnostic Radiographer and worked within the NHS until 2001. Since moving into education in 2001, Alan has developed his interests in motivating students to engage in active learning. From the introduction of the university’s MLE “StudyNet” Alan has worked to investigate methods of integrating it into teaching and learning, and to explore new ways of collaborative learning, to create a blended learning environment. He is currently continuing his development and evaluation of collaborative learning in his role as a teacher for the Blended Learning Unit.

Kim J. Hyatt: Director, Graduate Elementary Leading Teacher Program Duquesne University School of Education Department of Instruction and Leadership.

Alex Ibáñez is Professor at the Faculty of Education at the University of the Basque Country in Bilbao, Spain. Degree in History and Ph.D. in Educational Sciences, has worked as a professional archaeologist for over 15 years. At present, research on informal learning and archaeological sites.

Antonín Jančarík, Ph.D., graduated at the Faculty of Mathematics and Physics, Charles University in Prague, specialization Algebra. He has been working at the Department of Mathematics and Didactics of Mathematics since 2004. He is the head of the section for preparation of upper secondary school teachers. He focuses especially on the teaching of algebraic subjects, their applications (Game theory, Cryptology, …) and the use of computers in mathematics education. He likes playing Bridge and Chess.

Amanda Jeffries is a University Teaching Fellow and Principal Lecturer at the University of Hertfordshire, UK. She is now seconded to their Blended Learning Unit, one of the UK’s Centres for Excellence for Teaching and Learning. From 2007-09 she was Director for the JISC funded STROLL project.

Tuomo Kakkonen Dr received his PhD in computer science from the University of Joensuu, Finland in 2007. His main research interests are related to natural language processing and educational technology. Kakkonen’s research topics include syntactic parsing of natural languages, document comparison methods, automatic assessment of students’ texts and plagiarism detection.

Andrea Kelz studied English and philosophy at Karl-Franzens-University Graz, Austria. She is professor and foreign language coordinator at Campus Pinkafeld (University of Applied Sciences Burgenland, Austria). Five years ago she became responsible for the institution’s e-learning strategy and its implementation. Research interests include widening access to higher education and blended learning scenarios in language teaching.

Swapna Kumar Dr is a Clinical Assistant Professor at the College of Education, University of Florida, USA. Her teaching and research interests include the use of online technologies to supplement classroom teaching and learning, professional development for teachers and faculty, blended learning, online course design, collaborative learning, and learning communities.

Eugenius Kurilovas is a Doctor of Technological Sciences (Informatics Engineering), Research scientist in the Institute of Mathematics and Informatics, Associate Professor in Vilius Gediminas Technical University and The Head of International Training Department of the Centre for Information Technologies in Education of the Ministry of Education and Science of Lithuania. The main scientific interests: Technology-enhanced learning problems analysis, e-Learning systems architecture and interoperability, adaptation and personalisation of e-learning content and software and optimisation of learning software and learning process.

Karlin Tweddell Levinsen is an associate professor in online education at university level at the Danish School of Education at Aarhus University. She is a member of the internationally acknowledged Research Programme on Digital Media and ICT in a Learning Perspective. Currently her research is focused on both university pedagogy and ICT and ICT learning in the primary school. Of special interest is the implementation of ICT support for children with reading and writing difficulties. Karlin Tweddell Levinsen has many years of experience as a professional user centred design developer of digital educational solutions, and she has been in the field since the two-screen solution and the laserdisc.

Hwee Ling Lim Dr is an Assistant Professor at Petroleum Institute (Abu Dhabi, UAE), a university specializing in engineering education and research. She has a PhD (Murdoch University, Australia), Bachelor and Master degrees from National University of Singapore. Her research interests are educational technology, computer-mediated communication and distance learning.

Shuangyan Liu is currently a PhD candidate in the Department of Computer Science at the University of Warwick, UK. She is a member of both the Intelligent and Adaptive Systems and Educational Technologies research groups. Her primary research areas are intelligent web-based educational systems, collaborative on-line learning, and agent-based systems in the field of e-learning.
Jenny Lorimer works at the University of Hertfordshire within the School of Health and Emergency Professions. As a qualified radiographer she maintains a key interest in her profession. Jenny is seconded to the Learning & Teaching Institute as a principal lecturer. Her interest in blended learning initiatives is focussed on using technologies to enhance the student experience. She has been using podcasting and EVS within her teaching and as a research focus since 2005.

Tanya MacNeil is an information technology faculty at American InterContinental University (Atlanta, USA). She holds a Bachelor of Business Administration from Mount Saint Vincent University (Halifax, Canada), a Master of Information Technology Education from Dalhousie University (Halifax, Canada), and is currently pursuing her PhD in Information Systems from Nova Southeastern University (Fort Lauderdale, USA).

Lindsey Martin is the eLearning Strategy and Development Manager, a role that aims to achieve an institution-wide implementation of technology-enhanced learning and teaching. Her role also includes responsibility for managing SOLSTICE. Her interests include academic and digital literacies, pedagogy, e-learning and cultural change, and learner & tutor experiences of e-learning.

María Martínez-Argüelles is an Associate Professor of Economics and Business Administration at the Open University of Catalonia (Barcelona, Spain). She holds a Ph.D. in Economics and Business Administration (University of Barcelona), and a M.S. in Economics (Pompeu Fabra University). Her research interests include organization management, quality and e-learning. She has published several papers, book chapters and proceedings regarding these fields.

Toyoji Matsumoto obtained his PhD in Signal Processing from the Kanazawa University in Japan. He is currently an associate professor at the Information Media Center of Kanazawa University in Japan. His research interests include Educational technology, e-Learning, and System construction.

Dawn McLoughlin is Academic Support Manager at a new UK university, within a large converged service which supports students in developing their study, information and ICT skills along with providing learning resources, media and ICT equipment and facilities and the online learning environment.

Rosina Merry is a senior lecturer in the Department of Professional Studies in Education at The University of Waikato in Hamilton. Rosina was one of the Flexible Learning Leaders (FLLLinNZ) during 2005/2006 and is currently working on a PhD, through which she is exploring ways in which ICT can be integrated into The University of Waikato’s Teacher Education degree programme. The rationale being that when students graduate they will have the confidence, knowledge, dispositions and skills to use ICT as another tool in their teaching practice.

Linda Mesh, who has taught English as a Second Language, Business and Medical English for many years, completed her MA degree in Online and Distance Education, Institute of Educational Technology, Open University, UK. She is currently Learning Technologies Designer and coordinates online courses for the Siena University Language Center, Italy. Her research interests include ubiquitous learning, re-thinking pedagogies for more student-centered approaches, and the effects of sociocultural and psychological factors on online, collaborative second language discourse.

George Mouzakis is a Prof. He is currently academic dean at Educational Organization eDEKA offering educational and training courses linked with USA and UK Universities via e-Learning. He is also the manager of the LinkedIn group "e-Learning Think Tank Team". He received his M.A. degree from Western Michigan University in Special Education and his Ph.D. from Columbia State University in Communication. His interests are focused on Market Research, Training Needs Analysis and Material Production for Specific Education/Training fields.

Peter Mozellus is a researcher and lecturer at the Department of Computer and Systems Sciences, Stockholm University, Sweden. His research interests are in ICT4D, e-learning, software engineering and software visualization. He has been working in and evaluating aid projects in developing countries in Asia. In an ongoing Swedish aid project in Sri Lanka he is a member of the team that is developing a Learning Object repository at the University of Colombo, School of Computing (UCSC).

Will Murray is the CEO of nLearning Ltd, the leading provider of plagiarism prevention services in Europe with over 90% of UK universities and all major awarding bodies subscribing to the plagiarism detection software turnitin™. nLearning continues to provide advice and consultancy through plagiarismadvice.org and also runs the largest biennial conference dedicated to plagiarism.

Minoru Nakayama graduated from Tokyo Gakugei University in 1983 and completed the M.E. program in 1985. He received a Dr. of Engineering degree from Tokyo Institute of Technology in 1989, and has been an associate professor at the Center for Research and Development of Educational Technology (CRADLE), Tokyo Institute of Technology since 1993. His research concerns educational technology.

Kamila Oštěvková received her MS in mathematics and computer science and PhD in system engineering in 2001 and 2005, respectively. She is now an assistant professor in the Department of Information Technologies, University of Hradec Králové, Czech Republic. Her current research interests include multi-agent systems, constraint satisfaction and knowledge modelling. She participates in e-learning projects.
Rikke Orngreen research area lies in the cross-field of interaction design, IT didactical design and learning theory. In an applied way, she investigates the development, implementation and evaluation of IT supported learning and teaching processes.

Jennifer Patterson is senior lecturer in Education at the University of Greenwich, she has been recently introduced to e-portfolios. She is currently extending her original research in French Feminist critical readings of visual and verbal identities, by reading representations and communications in student-centred creative constructions of digital e-selves, using reflection and negotiated learning. A complementary therapist, other research interests include narrative diagnostics, sustainability and outdoor learning.

Andriani Piki is a doctoral researcher in Technology and Information Management at the School of Management, Royal Holloway University of London. She holds a BSc in Computer Science and an MSc in Business Information Systems. Her research interests are centred on computer-supported collaborative learning in both educational and work environments.

Luboš Popelínský is Associated Professor at the Faculty of Informatics Masaryk University Brno, Czech Republic. His research interests include logic and machine learning, especially inductive logic programming, and data and text mining. He is responsible for e-learning at the Faculty of Informatics MU. He has been a reviewer of JCAL - Journal of Computer-Assisted Learning and a member of program committee or a reviewer of several international conferences including ISMIS, DaWak and PKDD.

Andy Pulman currently works for the School of Health and Social Care (HSC) at Bournemouth University in the UK, where he is involved in the management and creation of web resources and e-learning developments and initiatives. His research interests concern exploring educational solutions around web 2.0, gaming experiences, personal narratives and simulation.

Rosa Reis is a Professor at the Institute of Engineering of the Polytechnic Institute of Porto, Department of Informatics Engineering where she teaches Database Technology, Software Engineering and Multimedia Information Systems. In December of 1997, she concluded her MSc degree in Information Systems in Education at the Faculty of Sciences and Technology/University of Coimbra, Portugal. Presently she is a PhD student at the University of Trás-os-Montes e Alto Douro, Portugal. Her research area is the application of software engineering techniques to the design of collaborative virtual worlds.

Liana Razmerita is Assistant Professor at Copenhagen Business School, Department of International Language Studies and Computational Linguistic. Her PhD research work was on the subject of Ontology-based User Modeling for Knowledge Management Systems. She has served as program committee member in several international conferences and workshops. She has participated in several international and EU funded projects and she has published more than 40 refereed papers including journal articles, book chapters and conference papers in domains such as: User Modeling, e-Learning, Knowledge Management and e-Government.

Anne Robertson Dr is the programme director of the MSc Advancing Nursing Practice at University of Edinburgh. She is the E-learning co-ordinator for Nursing Studies. She has an interest in education and digital learning.

Andréé Roy is an engineer and a professor of Management Information Systems in the Business Faculty, Université de Moncton, Canada. Her doctorate focused on the exploration of e-learning as a potential solution to the problem of training in the context of small and medium-sized enterprises (SMEs). She has written several articles on e-learning and SMEs. Professor Roy is also an e-learning consultant and the owner of a business specialising in the field of e-learning called Web Training Solutions. Prior to that, Professor Roy worked as an industrial engineer and manager for several companies and has worked in the information technology and economic development sectors.

Malcolm Ryan is a Principal Lecturer in the School of Education and Training at the University of Greenwich in London. He is Head of the Teaching And Learning Enhancement Team (TALENT), Manager of the Student Experience of E-Learning (SEEL) project, Programme Co-Leader of the Certificate of Professional Development in e-Learning, Teaching and Training (CeLT2) and a trans-national consultant in e-learning.

Tatyana Ryzhkova is Deputy Director of the Institute of Education, Psychology and Sociology, Siberian Federal University in Krasnoyarsk, Russia. She was awarded the Master of Education Degree in the area of English Language Teaching, Trainer Development by Exeter University, UK. Her professional interests are learner-centred assessment, language acquisition, and professional teacher development.

Nihan Sahinkaya was graduated from Samsun University, Education Faculty in 1998. I got my master and Doctoral Degree from Education Faculty of Gazi University, Turkey. During my master and doctoral studies I studied on teacher efficacy and teaching mathematics. Currently, I am working at Education Faculty of Harran University, Turkey, as an Assistant Professor.

Nadia Sansone is a training research assistant in Psychology at the University of Bari (IT), having a training internship with the Collaborative Knowledge Building Group (www.ckbg.org). Her research work is focused on planning blended university course, with a main interest on virtual role-play. Her expertise is about tutoring online. She participated to a few Italian projects about technology.
Kathy Seddon Dr completed her PhD at Exeter in 2003 on the topic of ‘Teacher motivation learning and practice in international online communities’. She is currently working for the National College for School Leadership (UK) as an e-learning specialist leading on consultation and research communities that are using NCSL’s WebEd and talk2learn environments for school leaders. Presentation at ECEL 2008 was on ‘Understanding the experience of non-contributory online participants (readers) in NCSL communities’ Recent publications include: Seddon, K. and Postlethwaite KC. (2007) ‘Creating a model for self-evaluation and facilitation of co-construction of knowledge through online interaction’ and Seddon, K., Skinner NC., and Postlethwaite KC.(2008) ‘Creating a model to examine motivation for sustained engagement in online communities’.

Angela Shapiro has been a lecturer in the Effective Learning Service at Glasgow Caledonian University for eight years and adopts an academic literacies pedagogy. This focuses on working with students to make explicit and meaningful, implicit and taken-for-granted academic practices through a blended learning approach.

Carmen Sheridan works as a Dental Nurse Tutor in the Dublin Dental Hospital, Trinity College Dublin. She has a Masters Degree in Online and Distance Education and is responsible for the National Dental Nurse Training Programme of Ireland. This programme aims to break down geographical barriers to education utilising technological assisted learning mediums.

Jukki Sheridan-Ross is a Research Officer and Lecturer at Leeds Metropolitan University on the HEFCE funded CETL ALIC project (Centre for Excellence in Teaching and Learning, Active Learning in Computing), focusing on innovative ways of using technology to engage and support students in their studies. Other research interests include social networking, serious games; and podcasting in HE.


Allisdair Smithies is a member of the Technology Enhanced Workplace Learning research and development group based in Manchester Medical School. He has years of experience in teaching and learning with technology as the focus, building on his experiences from lecturing Computing and I.T. in Further and Higher Education to more recent experiences of pedagogic research in eLearning and practice development in Higher Education.

Olga Smolyaninova Prof is Director of the Institute of Education, Psychology and Sociology, Siberian Federal University in Krasnoyarsk, Russia. She was awarded the Doctor of Education Degree in 2002. In 2008 she became a Correspondent Member of Russian Academy of Education. Her main professional interests include improving master-degree in education programme, e-portfolio, educational management.

Keith Smyth is a Senior Teaching Fellow and Senior Lecturer in Higher Education at Edinburgh Napier University. Keith leads Edinburgh Napier’s MiSc Blended and Online Education, an applied and practice-based programme on which a diverse cohort of education professionals are supported in enhancing and transforming their learner’s experiences through technology.

John Stav Dr is an Associate Prof at Ser-Trendelag University College. He has coordinated many European R&D projects. They have targeted pedagogical use and development of new ICT and video solutions within continuing education, in-company based training, e-learning, and distance training solutions. He has published more than 80 papers, and he is currently leading 3 EU-funded R&D projects. This includes the pedagogical development of new student response systems for iPhone.

Binod Sundararajan Dr is an Assistant Professor-Business Communication in the School of Business Administration at Dalhousie University, Halifax, NS Canada. His interests lie in organizational, professional and business communication, computer-mediated communication, CSCW, CSCL and social network analysis. He conducts research in business and professional communication practices, adoption and diffusion of mediated technologies, use of CMC in such diverse areas as entrepreneurship, justice, teaching, collaborative work and learning and management education.

Yana Taishe began their teaching career 15 years ago with an FE college, latterly as a Senior Lecturer on PGCE LLS programmes in the School of Education and Training at the University of Greenwich and now as Director of Resources in the same school. They are studying for a Doctorate in Education exploring identity and culture in Deaf communication in cyberspace and They are an IT advisor for a colleague on the EdD programme.

Louise Terry teaches and researches in the area of health and social care law and ethics. She has a keen interest in harnessing the potential of the Internet as a way to facilitate deep learning and helping health and social care professionals think beyond their own culture and country.

Pam Thompson is a Senior Lecturer in Academic Professional Development at De Montfort University and Programme Leader for the Post-Graduate Certificate of Higher Education. She was involved in the HEA Pathfinder Project investigating the use of Web 2.0 technologies within the curriculum and in finding appropriate development activities to support this. She is particularly interested in creativity within the curriculum and in experiential/work-based learning. Pam is also a freelance poet and performer.
Melanie Thorley has worked at the University of Greenwich for the past 13 years working with, and supporting disabled learners in lectures, field trips, seminars and laboratories. She co-ordinates the *AccessAbility Project which has disability and access to higher education as its central concept. She is also studying for a Doctorate in Education exploring the experiences of Deaf and hard of hearing learners in higher education.

Sasalak Tongkaw is an Assistant Professor at Songkhla Rajabhat University, Thailand and she is also a third year Ph.D. candidate in Business System, MBS at the University of Manchester. Her research related with learning styles and online learning.


Nazime Tuncay is a doctoral student in Computer Education and Instructional Technology Department, in Near East University. She holds a BSc in Mathematics and Computer Education and a MSC in Applied Mathematics and Computer Science. Her research interests include e-education, vocational education, web tools and distance education.

Mustafa Tuncay holds a BSc in Information and Communication Technologies and a a masters degree in Computer Education and Instructional Technology. He is an expert in Delphi programming language. His research interests include e-education, primary school education, teacher education and web tools.

Terje Väljataga is a researcher at Tallinn University, Center for Educational Technology and a PhD student at Tampere University of Technology, Hypermedia Lab. She has been involved in different educational projects since 2004. Her background is natural sciences, teacher education and educational technology. She has experience teaching at secondary school and university. Her research interests are related to adult education in (in)formal settings, competence advancement, self-direction and personal learning environments.

Henri Verhaaren (1946) trained as Pediatric cardiology. Since 2002 he is director of the Biomedical library of Ghent University, Belgium. He is member of the Interfacultary Library board, the ICT Commission of Ghent University, the faculitary ICT commission, and the Educational Committee of Medicine.

Albin Wallace Since 2003 he was Group ICT Director for the United Learning Trust before becoming Director of Educational Development and Technologies in 2008. Albin is a Fellow of the British Computer Society and the Institute of IT Training and holds a doctorate in education. He has spoken at many international conferences on education and ICT.

Anne Wheeler joined Aston University as the Head of Curriculum and Learner Development in May 2008. She works with staff and students across the University in curriculum and learner development, including facilitating the dissemination of good practice and the implementation of blended and flexible learning to enhance student learning and achievement.

Steve Wilkinson Dr has have been a lecturer for over 27 years and he currently teach Animation Concepts. he has written 2 books and numerous papers on Manufacturing Automation. More recently He has published on serious games for medical simulation and augmented reality for surgery. His recent publications involve learning communities to help teach animation.

Ruth Wilson (MA, PG Diploma in Librarianship, PG Cert in Teaching & Learning in H.E.) is Information & Research Development Co-ordinator within Learning Services at Edge Hill University, Ormskirk, UK where she co-ordinates all information literacy developments for the Faculty of Education. She has published on changing learner support roles in information environments and the emergence of the new academic team. Her current research interests include the development and growth of academic partnerships, supporting outreach and part time students and information literacy in the widening participation agenda.

Rowena Yeats joined Aston University as Occupational e-Learning Advisor in June 2008. She works with work-based learners across the university to develop good practice in e-learning. This involves piloting and evaluating new technologies as well as facilitating their implementation into the curriculum at Aston.
New Technologies in Siberia: e-Portfolio for Student Evaluation and Professional Development

Olga Smolyaninova and Tatyana Ryzhkova
Siberian Federal University, Krasnoyarsk, Russian Federation
smolga@mail.ru
ryzhkovatatyana@hotmail.com

Abstract: One of the fields of interest of Siberian Federal University today is improving the quality of education, assessment and evaluation via the use of modern technologies. That is why the university launched a project supported by Russian Humanitarian Fund and aimed at exploring the potential of student e-portfolio. The project is directed at bachelor- and master-degree students with a major in education. It seems reasonable to start the project in this field of study, because future teachers and educators can provide more professional feedback and participate in the project development. The task of the project is to work out the main principles and the methodology of e-portfolio for student assessment and professional teacher development. The paper describes the first experience of e-portfolio methodology being introduced at both levels of the university including e-portfolio effectiveness and possible threats, its impact on assessment, learning, and teaching. These are presented as a result of a survey aimed at studying teachers’ and students’ opinions about e-portfolio.

Keywords: e-Portfolio, student assessment, teacher accreditation, educational and professional achievements.

1. Introduction

Modern economies set new requirements to student assessment. As a consequence universities try to overcome the existing ‘mismatch between educational outcomes and society’s needs’ (Boyle and Christie 1996). New forms of assessment are emerging to replace or complement the more traditional multiple-choice and other tests. Russian universities are also undergoing a similar process. Educators are trying to introduce student-centred forms of assessment, which evaluate individual student progress and exploit a variety of tools for the purpose of objectivity.

In line with the Bologna Declaration (Bologna Declaration of 19 June 1999) Siberian Federal University (SFU) is introducing the system of credit points, the module-based system of education, and the rating scales. Attempts are being made to base assessment on the expected results and the amount of effort students are supposed to undertake in order to achieve the results. The interpretation of educational outcomes has changed. Now it focuses on what students are aware of and are able to do. The introduced changes in assessment scheme also aim to be consistent with regional, national, and European qualification frameworks.

The system of assessment at Siberian Federal University has already achieved a few positive results:

- Students now get informed about the assessment criteria and procedure beforehand
- Students are actively involved in the development of their individual educational trajectory
- Assessment becomes more regular
- Every student can have an individual tutor

Unfortunately, the study process itself has not changed a lot with the introduction of the new assessment scheme. Also the credit system and the 100-point assessment scale undergo additional calculations and transformation for the traditional Russian 5-band scale, which undermines the role of the Bologna system.

The Institute of Education, Psychology and Sociology (IEPS) is one of the seventeen institutes of Siberian Federal University. Naturally, the institutes share the main university policies. But at the same time they enjoy certain freedoms and can choose issues and topics for research as well as innovative projects for development and implementation. One of the projects in IEPS is aimed at enhancing assessment and evaluation system by introducing the technology of electronic portfolio in the process of student and teacher assessment. E-portfolio has been introduced in the syllabus of the first year of Bachelor of Education programme and both years of Master of Education programme. The decision to introduce e-portfolio for teacher development and assessment has been taken by the Institute Council and preliminary research has been carried out. This paper will describe the experience acquired during the e-portfolio project, research results, and issues raised.
2. Why e-portfolio?

Traditional assessment forms employed in Russian universities are far from being objective, reliable and effective. The main problems are presented below:

- Widely used multiple-choice tests are made so that they only provide information about students' knowledge ignoring acquired skills, competences, and other student achievements (Kilbane and Milman 2003).

- Assessment results are converted into one of the four remaining grades of the Russian "five-grade scale", where '5' means 'excellent', '4' - 'good', '3' - 'satisfactory', '2' - 'poor', and '1' is not being used anymore. This information is extremely insufficient. When students graduate from the university all they can offer their employers are diplomas with the grades. Unfortunately they are unable to present any evidence of their skills and competences. There is no place for students' articles, certificates, diplomas, developed professional materials, etc.

- Students do not have much opportunity to measure their individual progress in the course of study. Norm-referenced assessment is still predominant as it is convenient for teachers.

- Teachers have access to the artefacts of students’ work; therefore, they can assess their work and improve it. However, university administration does not have direct access to their work at all. This causes conflicts in the area of student assessment.

- Students are not motivated to demonstrate their professional, educational and personal achievements. This deprives them from seeing the opportunities used by their peers.

The above mentioned problems can be solved with the help of electronic portfolio introduced in the scheme of study, evaluation and assessment. The purpose of e-portfolio is to give learners an opportunity to identify and reflect over their strengths and weaknesses, make use of peer and teacher feedback, and allow teachers to appreciate and support the learners (Beetham 2005). Besides, e-portfolio can help university not only prepare students for future professional activities but also focus on:

- transition between study and work
- successful employment with further career development
- next education stage (postgraduate education, master courses, doctoral courses, life-long professional development)
- successful social adaptation

3. First experience

In 2007 Siberian Federal University launched the e-portfolio project supported by Russian Humanitarian Fund and aimed at exploring the potential of student e-portfolio. The project involves both levels of higher education (Bologna Declaration of 19 June 1999) and is carried out by the Institute of Education, Psychology and Sociology.

It was common for the bachelor-degree and the master-degree students that the process of e-portfolio development included the following stages:

- Get motivated, set goals
- Discuss, develop and adopt e-portfolio structure
- Discuss and adopt assessment criteria
- Plan artefact collection
- Collect, classify, and make digital versions of artefacts
- Design individual e-portfolio (get peer or teacher feedback if needed)
- Present draft version in the group, get feedback, discuss, get tutorials
- Publish the final version of e-portfolio in the net of IEPS

The students also discussed specific features of e-portfolio for the following purposes:

- to present themselves as professionals to prospective employers
- to reflect over and consolidate their professional experience
Assessment criteria for e-portfolio were discussed with the students at one of the early stages. Some criteria required explanation, others were edited. As a result the following ten criteria were agreed upon:

- Layout
- Evidence of computer skills
- Evidence of multimedia skills
- Content
- Evidence of reflective skills
- Structure
- Effectiveness of navigation tools
- References and cross links
- Diversity and effectiveness of artefacts
- Evidence of progress

Closer to the end of the course the students presented their draft versions to teachers and other students. They tried to assess each other against the criteria, while teachers assisted and guided them. As a result, the final assessment, which was done by teachers, caused no tension on the part of the students as all potential problems had been solved during the preliminary assessment session. The vast majority of the students agreed that their portfolios were assessed objectively. Also for bachelor-degree and first year master-degree students the assessment was not final and they will be able to improve their portfolios next year.

The students could get maximum ten points for each criterion. The points then were added and the students could get their scores out of 100 points. Also students had an opportunity to get verbal comment of their work. Unfortunately these results can not be recorded in the students' university diplomas, as the 'five-grade scale' is still predominant. What we can do, is provide a supplement with verbal comment and use student portfolios as the best evidence of their skills, competencies and experience.

There were other features in the process of e-portfolio development specific only for bachelors or for master-degree students. They are presented below.

### 3.1 e-Portfolio in bachelor-degree programme

The e-portfolio method has been used at lower stages of Bachelor in Education course within the block of information technologies disciplines. This block includes such disciplines as Multimedia in Education, Computer Practice, and Informatics. It is specific for this programme that e-portfolio is introduced during the Constructive Student Game (CSG) which takes place in the first year of study and helps students shape their individual educational trajectories. The Game is a tradition in the Institute of Education, Psychology and Sociology. It launches reflection on students' future professional careers, educational principles, own resources, required and acquired professional competences.

During the game students create their own 'myths' - imaginary stories that reflect their view on teacher's mission and educational principles. Students with similar views form groups, create a 'group myth' and share it with the others. Then the groups are classified. Usually there are groups of teachers-craftsmen, teachers-mediators, teachers-masters, teachers-rangers, teachers-researchers. The Constructive Student Game is an opportunity to introduce the rules of professional communication, to meet teachers and other students in a play-like relaxed situation, and to launch reflection upon the teaching profession. In order to develop reflection skills it is important to create a relaxed atmosphere and make learners raise problems that they would be highly motivated to solve.

Since portfolio is considered to be a 'container that holds examples of student or teacher work (the "artefacts") and reflections on that work that transforms the artefacts into "evidence" of achievement' (Barrett 2002), it seems logical to introduce e-portfolio early in the course of study.
Therefore, during the CSG in April 2009 the students were offered to start their individual e-portfolios in order to help them develop reflection skills and keep the game artefacts. The ideas behind e-portfolio were discussed at one of the sessions and the students were offered a possible e-portfolio structure. They were given a chance to discuss the issue and as a result came up with their own structure (Table 1).

<table>
<thead>
<tr>
<th>№</th>
<th>Section name</th>
<th>Section description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Author’s photo or a collage, a greeting from the author</td>
</tr>
<tr>
<td>2</td>
<td>Resume</td>
<td>Professional author’s resume for prospective employers</td>
</tr>
<tr>
<td>3</td>
<td>Educational principles</td>
<td>Author’s own view and reflection of the main educational principles, choice of profession; author’s plans for education, expectations from the course</td>
</tr>
<tr>
<td>4</td>
<td>Personal page</td>
<td>Author’s autobiography, photos, credo in life, personal principles</td>
</tr>
<tr>
<td>5</td>
<td>Achievements</td>
<td>Personal, professional and educational achievements, including awards, certificates, publications, etc.</td>
</tr>
<tr>
<td>6</td>
<td>Reflection</td>
<td>Reflection on the Constructive Student Game, professional expectations, author’s learning resources</td>
</tr>
<tr>
<td>7</td>
<td>Resources</td>
<td>References to author’s favourite or preferred literature (including professional literature), Internet sites and other resources</td>
</tr>
<tr>
<td>8</td>
<td>Contact information</td>
<td>Author’s telephone, e-mail address, fax, home or work address, etc. It is author’s decision what information to include</td>
</tr>
</tbody>
</table>

The teachers and the students agreed that the “Achievements” section would include artefacts from the subjects of the Information Technologies module: Multimedia in Education, Information Technologies for Education and Research, Web-Design. So in the first year of the Bachelor-degree programme e-portfolio was mainly used to assess and evaluate students’ achievement in this field. Requirements to the course completion and assessment criteria were also discussed with the students. Video-files, animation, graphics, and other materials served as artefacts of their e-portfolios. E-portfolios were published on-line for others to see and discuss which raised the students’ motivation and made the process of assessment and evaluation more open and objective. Observation during the course and reflection upon this new method of student assessment and evaluation demonstrated certain progress in the development of the students’ information and communication competences, self-esteem, and reflection skills.

3.2 e-Portfolio in master-degree programme

E-portfolio at the Institute of Education, Psychology and Sociology was introduced into the master-degree programme in September 2008. It was introduced in the programme of the following disciplines: Multimedia in Education, Web-Design and Distance Education Technologies, and E-portfolio in Higher Education. The level of proficiency in information technologies as well as students’ progress were assessed against a set of criteria presented to and discussed with the students. The artefacts included the students’ projects, presentations, essays, videos, graphics, analytical reports, research articles, course papers, certificates and diplomas, and reference letters. The process of e-portfolio introduction, development, discussion and assessment involved a variety of participants, including the students and the IT teachers themselves, other bachelor- and master-degree students, teachers of other subjects, students’ parents, and university staff. The learning process comprised classwork, independent work, and university activities for students and teachers.

The structure of e-portfolio was adopted as a result of discussion between the teachers and the students (Table 2.) It was agreed that the students’ educational beliefs and principles would be covered in the ‘Reflection’ section. The “Achievements” section apart from the information about the students’ educational and personal accomplishments contains professional information since master-degree students already have some real professional experience.
Table 2: e-Portfolio structure for master-degree students

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Resume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal page</td>
<td>Achievements</td>
</tr>
<tr>
<td>Reflection</td>
<td>Resources</td>
</tr>
<tr>
<td>Contact Information</td>
<td></td>
</tr>
</tbody>
</table>

It should be mentioned that sections “Personal page” and “Reflection” caused confusion and misunderstanding with the students. First, the students could not come to an agreement about what personal information should be placed in the portfolio. By the end of the discussion it was agreed that the “Personal page” section would include autobiography, photo album and some information about their personal successes. Also every student decided whether she would make her “Personal page” public or not. The “Reflection” section caused discussion for two reasons. First, it was necessary to agree about the limit of material for this section. The students agreed to include essays about their educational principles, analyses of their courses, views on their professional careers, their professional values and beliefs. Secondly, reflection is a comparatively new type of activity for Russian education. Most teachers lack any experience in this area and have a vague vision of how to develop reflection skills. So, the discussion turned out to be extremely valuable for both the teachers and the students.

By the end of the academic year the students presented their e-portfolios at the joint session with bachelor-degree students (Figure 1). Most of the works had clear evidence of the progress the students had made during the course. In general, the students were highly motivated to create their e-portfolios. They admitted the motivation came from the fact that they did the work for a number of purposes. They presented their educational and professional achievements as well as learned about the educational role of e-portfolio. They learned why, when, and how to introduce e-portfolio for educational purposes. They also gave quite professional feedback about each other’s portfolios. They studied professional literature on the subject and international experience of using e-portfolio method for a variety of purposes. Therefore it seems possible to say that the process of assessment was really authentic (Mueller 2005).

Figure 1: Examples of “Introduction” section

4. First results

4.1 Advantages

As a result of the two years of the e-portfolio project the following accomplishments have been formulated:

- Being a kind of ‘authentic assessment’ (Kilbane and Millman 2003) portfolio provides an opportunity to complete real-life tasks and to assess students’ own progress.
- E-portfolio contributes to the development of thinking culture, logic, analytical skills, ability to generalize, classify and evaluate.
- The process of collecting artefacts (projects, course and research papers, etc.) is purposeful, systematic, and reflective. It is performed in cooperation and through interaction with other stakeholders.
E-portfolio technology influences students' interaction and produces a feeling of community and builds responsibility for what they publish on-line.

We also think that e-portfolio technology encourages the emergence of a new kind of learning culture that is characteristic of a society based on knowledge. This culture can be developed when:

- students take active part in the design of their own educational trajectory
- students are aware of the criteria for portfolio artefacts selection
- students are aware of and accept the criteria of their progress assessment
- students have a right to decide what personal qualities can be presented and how they are presented

The students shared their feedback on the effectiveness of e-portfolio as a tool of assessment, evaluation, learning, and professional development. They mentioned that e-portfolio enhances thinking and raises responsibility for one's learning and development. E-portfolio gives additional opportunities for learning, research and communication. It involves students in the process of learning, assessment, and evaluation and raises awareness of the principles of assessment (Falchikov 2005). The students appreciated it that e-portfolio motivated them to start reflecting on their professional experience and future career. They agreed that e-portfolio helped them identify professional and learning problems and find effective solutions.

4.2 Possible threats

There are three inter-related elements in the process of assessment: (1) data collection, (2) data interpretation, and (3) presentation of results (Lambert and Lines 2000). We will look at what possible threats can be faced at each of the stages.

One of the advantages of e-portfolio over traditional assessment forms is that it is students themselves who are responsible for data collection. Still it turned out to be not very simple. Students easily provide formal information about their achievements, e.g. certificates, diplomas, but feel rather uncomfortable with the information that witnesses their skills and thinking. Reflection has so far proved to be the most difficult section. Students are not used to contemplate over their beliefs, values and life principles because it is not in the culture of Russian university education. Nobody observes how their professional views develop in the course of time. Instead, students provide evidence of their knowledge of distinguished educationalists’ principles. This also explains why it turned out to be a problem for the majority to present evidence of their professional experience – lesson plans, videoed lessons, pupils’ works. Among the threats connected with data collection students mentioned plagiarism and manipulation. We think it is a signal that plagiarism is developing faster than the university staff imagines. Therefore, further e-portfolio development needs to deal with this problem.

The stage of data interpretation relies mainly on teachers. The main problem here at the moment lies in the fact that Russian teachers may be unable to interpret the e-portfolio information effectively as they have no experience in the required area. The experience of IEPS has proved that teachers do indeed have a problem assessing students' reflective writing. Teachers do not have a clear vision of how this or that reflective conclusion or idea serves as evidence of student personal, educational, and professional development. And lastly, presentation of results will remain ineffective if we stick to the 'five-grade scale' (see 2. and 3.). Therefore, one of the issues to consider when introducing e-portfolio for assessment purposes is to provide efficient training, continuous support, and teacher cooperation.

5. Further research and issues

In order to decide how to continue the e-portfolio project, IEPS conducted a survey among the teachers and the students of Siberian Federal University. The purpose of the survey was to find out teachers' and students' awareness of and attitude to the e-portfolio method for the purposes of assessment, evaluation, learning and development. A questionnaire was spread among the teachers, bachelor- and master-degree students of humanities and social sciences of Siberian Federal University. Altogether 200 teachers and students gave their responses to the questionnaire. Some of the findings as well as issues raised by the survey are presented below.
5.1 Awareness of e-portfolio

The first question focuses on student and teacher awareness of the e-portfolio technology. As shown in Figure 2, 86% of the respondents are familiar with e-portfolio, though 20% answered that they have only heard something. Only 66% of the respondents are well aware of the technology. This is not enough to be able to say that electronic portfolio has gained popularity in Siberia, and in SFU in particular, so we can expect certain tension on the part of the target groups. To overcome this some measures will need to be undertaken, including sessions explaining the rationale, the potential and the mechanism of the e-portfolio technology.

![Figure 2: Are you familiar with the e-portfolio method?](image)

5.2 e-Portfolio potential for various educational and professional tasks

Next the survey focused at discovering how different target audiences see e-portfolio as a tool to solve educational and professional problems. The majority of the respondents believe that the technology can be effective for the following purposes: 1) presentation of achievements (56%) 2) evaluation of personal achievements (48%) 3) reflection upon one’s educational/professional activity (Figure 3.)

At the same time it is interesting to compare the views of teachers-respondents and the students. Both groups do not see much potential in e-portfolio for the purpose of educational assessment, though it is widely used for this purpose as an alternative to traditional methods of assessment and evaluation. A possible explanation is that the traditional tests and the “five-grade scale” are deeply rooted in the hearts and minds of people in Russia. Therefore, alternative ways of assessment and evaluation may need time and special effort to be appreciated by the system of education in this country.

In contrast with educational assessment, reflection is viewed differently by the two groups of respondents. While teachers recognise the effectiveness of e-portfolio for this purpose, students are of different opinion. This can be explained by the idea that reflection is still a new phenomenon in Russian education system and educational institutions need to undertake certain measures in order to help learners develop reflection skills.

As can be seen from the chart, both groups of respondents agree that e-portfolio can be effective when someone wants to present her/his achievements. It seems natural because this purpose is not associated with stress, and of course, e-portfolio is so convenient for gathering all certificates, diplomas, projects, articles, etc. and so easy to access.

Another surprising result of the questionnaire is connected with the use of e-portfolio as a means of developing ICT and multimedia competences. Both teachers and students are unanimous in this matter. The biggest question is why the students are of negative opinion. Usually students get really involved in practical tasks that require access to computer. A possible explanation is that the students did not get enough support of information technologies specialists. At the moment this question needs further research.

Similarly professional development gathered fewer voices than it deserves. Again, this could be explained by the fact that reflection, direct and indirect (while selecting materials for the portfolio), is not recognised as a tool for learning and development.
Figure 3: For which purposes can e-portfolio be used effectively?

5.3 e-Portfolio for teacher accreditation and professional development

Providing highest quality education is the main priority at Siberian Federal University. The university tries to do its best to improve teaching. This involves teacher evaluation and assessment. At the moment the scheme is old and ineffective. Teachers present information about the courses they teach, the papers they publish, and the teacher development seminars they attend.

Our research into e-portfolio and the first experience with students revealed e-portfolio potential for teacher development and accreditation. The Institute Council of IEPS agreed to develop the project in this direction. Therefore this focus was also included in the survey because teacher assessment, evaluation and accreditation are among the most sensitive and complicated areas in education. As it was expected, the teachers’ and students’ opinion of e-portfolio for the purpose of teacher evaluation and accreditation was rather low. Most respondents do not think e-portfolio should be introduced as a tool for teacher accreditation. Also, the respondents mentioned excessive workload as one of the possible threats. On the whole the respondents see the role of e-portfolio as shown in Figure 4.

Figure 4: Purposes of e-portfolio use for university teachers
Interestingly, most of the respondents do not trust e-portfolio as an objective means of teacher assessment. It is especially surprising because a large number of the respondents were the students who had previously mentioned the high level of e-portfolio objectivity. At the same time most respondents state the high potential of e-portfolio to present professional achievements and to reflect over professional issues. We see some inconsistency here, because teacher assessment and accreditation covers 90% the first three most popular items in Figure 4. We explain this inconsistency by the fact that assessment is much more stressful to teachers than to students. Students at the university are in the position of learners, those who are not expected to be perfect. Teachers, on the contrary, are supposed to be experts and this is why any little threat to their proficiency and professionalism causes immediate negative reaction.

This problem needs to be dealt with. A possible solution could be to introduce and develop e-portfolio gradually, by demonstrating e-portfolio potential for professional development and evaluation as a tool that implies active participation of the portfolio creator and provides more objectivity than most other forms of assessment.

6. Conclusion

Geographically Siberia can seem a remote place for Europe. Nevertheless, it strives to follow European standards in many aspects, education being one of the most important. The e-portfolio project being developed by Siberian Federal University is an attempt to raise the quality of higher education. It has achieved some positive results and has gained appreciation with the students and teachers. At the same time it has raised a number of issues. Some problems are rooted in educational tradition, some emerge due to lack of experience. The key to success is human resources, in our case, developing and cooperative teachers and students that have gained positive e-portfolio experience and can support the project.

References