International Conference on Information Communication Technologies in Education



Conference Programme

9-11 July, Kos, Greece

Welcome

Welcome from the Chair of the Steering Committee

It is with great pleasure that I welcome you once again to the beautiful island of Kos for the 2015 International Conference on ICT in Education. This intimate conference in a beautiful setting will once again stimulate lively discussions, with a widely ranging scientific programme and participants from every part of the world.

We have a full range of plenary sessions and workshops, all of which will make for an interesting and engaging scientific programme. In addition, we also have our usual full social programme – an opportunity to meet new and old friends, building on the ICICTE network, which circles the globe and has led to so many great projects and great friendships.

We look forward to welcoming our Keynote Speaker, Dr Michael Auer, Professor of Electrical Engineering at Carinthia University of Applied Sciences, Austria, who will speak about "Learning through Interaction and Creativity in Online Laboratories."

As always, I must offer my heartfelt thanks to all of those who make this conference a success. In particular these include our conference Director Nancy Pyrini and our Communications Coordinator Gorg Mallia, who as usual have pulled out all the stops to make sure the operation is as smooth as possible. We also thank Greg Anderson, Linda Morris and Costas Tsolakidis for the review and editing process for the scientific program and proceedings and all the Scientific Committee members who give their time freely to review submissions to the conference.

Thanks also go once again to our registrar Matt Hickling, George Sarrigeorgiou for all his help organising the social events, and generally helping out with anything and everything, and Marie Louise Kold, both for her photography and the fantastic works of art that she has produced to be given as awards for the conference. I would also like to thank the administration and finance team at Southampton Solent University for helping us to keep the registration process as smooth as possible.

Finally, I must thank our sponsors, *Turning Technologies* and *Oracle Systems*, for providing financial support for the conference, which is greatly appreciated. I would also like to thank *Quality Matters* for once more sponsoring the conference and offering the QM workshop for no cost to delegates, which is a great additional benefit to participants.

Once again I look forward to a great ICICTE event and to meeting you all over the course of the conference.

Chris Barlow Chair, Steering Committee, ICICTE 2015, Kos

Scientific Committee

Chair

Dr Gregory Anderson Dean Office of Applied Research and Graduate Studies Justice Institute of British Columbia CANADA

Dr Foteini Asderaki

Department of International and European Studies University of Piraeus GREECE

Dr Chris Barlow

Maritime and Technology Faculty Southampton Solent University UNITED KINGDOM

Dr Marcie Boucouvalas

Department of Human Development Virginia Tech Graduate Center/ National Capital Region USA

Dr Pete Bradshaw Department of Education The Open University UNITED KINGDOM

Dr Tharrenos Bratitsis Department of Early Childhood Education School of Education University of Western Macedonia GREECE

Dr Stephen Brown

School of Media and Communication De Montfort University UNITED KINGDOM

Dr Marie Cahillane Cranfield Defence & Security Cranfield University, The Defence Academy of the United Kingdom UNITED KINGDOM

Dr William C. Diehl Education Department College of Arts and Sciences University of New England USA **Dr Maximina Maria Freire** Catholic University of Sao Paulo -PUCSP BRAZIL

Dr Robert Guecker University of Applied Sciences GERMANY

Dr Richard Hall Department of Library and Learning Services De Montfort University UNITED KINGDOM

Dr Jimmy Jaldemark Department of Education Mid Sweden University SWEDEN

Dr Clare D. Klunk

Adult Learning and Human Resource Development Program Virginia Tech Northern Virginia Graduate Centre USA

Dr Nick Linardoupoulos Department of Communication School of Communication and Information Rutgers, The State University of New Jersey, USA

Dr Jane Lugea Stylistics Research Centre University of Huddersfield UNITED KINGDOM

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

Katherine McGuire Department of Psychology University of New Brunswick CANADA

Scientific Committee

Piers MacLean Centre for Cyber Security & Information Systems Cranfield University Defence Academy of the United Kingdom UNITED KINGDOM

Dr Iain McPhee

Institute for Applied Social and Health Research University of the West of Scotland UNITED KINGDOM

Dr Sofia Meacham Department of

Computing and Informatics Faculty of Science and Technology Bournemouth University UNITED KINGDOM

Maya Georgieva

Center for Innovation in Teaching and Learning Stern School of Business New York University New York USA Dr Michael Grahame Moore The Pennsylvania State University Editor: The American Journal of Distance Education USA

Dr Linda Morris Adult Development Associates Modest Town, VA USA

Dr Zuhaira Najjar Teaching Internship Department The Arab Academic College for Education in Israel ISRAEL

Dr Anders D. Olofsson Department of Education Umeå University SWEDEN

Dr Augustin Prodan Mathematics and Informatics Department Iuliu Hatieganu University ROMANIA Dr Mary Snow Embry-Riddle Aeronautical University USA

Dr Richard Snow Embry-Riddle Aeronautical University USA

Dr Tor Söderström Department of Education Umeå University SWEDEN

Dr Alan Tait Faculty of Education and Language Studies The Open University Milton Keynes UNITED KINGDOM

Dr Costas Tsolakidis Department of Education University of the Aegean GREECE Evangeline Marlos Varonis Design and Development Services The University of Akron USA

Dr Maria Eugenia Witzler D'Esposito Faculdade Cultura Inglesa GPeAHF BRAZIL

Dr Paul Wright School of Technology Maritime and Technology Faculty Southampton Solent University UNITED KINGDOM

Dr Vicky Zygouris-Coe University of Central Florida College of Education School of Teaching, Learning and Leadership USA

Publications and Promotions Comr

Chair

Dr Ġorġ Mallia Department of Media and Communications Faculty of Media and Knowledge Sciences University of Malta MALTA

Mohamed Ahmed Mansoura University

EGYPT

Dr Khalid Al-Shahrani eLearning in teaching and learning in Higher Education King Abdullah University of Science and Technology Jeddah SAUDI ARABIA

Dr Mohammad AL-Smadi Faculty of Computer & Information Technology Jordan University of Science and Technology JORDAN

Dr Lisa Best University of New Brunswick CANADA

Dr Amine V. Bitar Department of Computer Science University of Balmand Tripoli LEBANON Helen Caldwell University of Northampton School of Education UNITED KINGDOM

Leanne Cameron School of Education Australian Catholic University New South Wales AUSTRALIA

Dr Chris Campbell School of Education The University of Queensland AUSTRALIA

Joana Carvalho Institute of Education University of Minho Braga PORTUGAL

Dr Uğur Demiray School of Communication Sciences Anadolu University TURKEY

Ken Fernstrom Communications Department University of the Fraser Valley CANADA

Dr Andrew Hall School of Nursing, Midwifery and Social Work Faculty of Medical and Human Sciences University of Manchester UNITED KINGDOM

John Hunt

School of Education University of the Sunshine Coast Maroochydore AUSTRALIA

Marcia Håkansson Lindqvist Department of Education Umeå University SWEDEN

Dr Jiao Jianli Future Education Research Centre School of Information Technology in Education South China Normal University P. R. CHINA

Dr Anastasia Kitsantas College of Education and Human Development George Mason University USA

Nicole Klassen University of the Fraser Valley CANADA

Dr Despo Ktoridou Management & MIS Department University of Nicosia CYPRUS Moshe Leiba Knowledge Technology Lab Science and Technology Education Center School of Education Tel Aviv University ISRAEL

Dimitrios Maragkos State Scholarships Foundation GREECE

Dr Iain McPhee Institute for Applied Social and Health Research University of the West of Scotland UNITED KINGDOM

Dr Ernst Neuland University of South Africa SOUTH AFRICA

Wing-Shui Ng The Hong Kong Institute of Education HONG KONG

Dr Barry O'Grady School of Economics and Finance Finance (Honours) Co-ordinator Curtin University of Technology AUSTRALIA

nittee

Dr Fanny Pettersson Department of Education Umeå University, SWEDEN

Riaan J Rudman Faculty of Economic and Management Sciences Stellenbosch University Stellenbosch SOUTH AFRICA

Kalliopi-Evangelia Stavroulia Department of Primary Education Democritus University of Thrace Xanthi GREECE

Dr Norm Vaughan

Department of Education & Schooling Faculty of Teaching & Learning Mount Royal University CANADA

Dr Maria Eugenia Witzler D'Esposito Faculdade Cultura Inglesa São Paulo BRAZIL

Dr Claudia Zentgraf Communication Trainer Darmstadt GERMANY

Steering Committee

Chair **Dr Chris Barlow** Reader in Acoustics Maritime and Technology Faculty Southampton Solent University Southampton UNITED KINGDOM

Members Nancy Pyrini GREECE Conference Director

Dr Greg Anderson Office of Applied Research Justice Institute of British Columbia CANADA Chair, Scientific Committee Dr Ġorġ Mallia Faculty of Media and Knowledge Sciences University of Malta MALTA Communications Coordinator and Chair, Publications and Promotions Committee

Dr Costas Tsolakidis Department of Education University of the Aegean GREECE *Resources Director* Matthew Hickling Maritime and Technology Faculty Southampton Solent University Southampton UNITED KINGDOM *Conference Registrar*

George Sarrigeorgiou

Technical Vocational School of Markopoulo-Oropos GREECE *Conference Management Assistant*

Dimitrios Maragkos

Communication Officer State Scholarships Foundation GREECE Communication Assistant

Thanks to

The ICICTE 2015 Steering Committee wishes to express its gratitude for their support to:

- Turning Technologies, Oracle and Quality Matters for their sponsorship.
- The American Journal of Distance Education and The International Journal of Learning and Information Technologies for their constant support of ICICTE.
- Marie Louise Kold for the art she creates for the ICICTE awards and for the ICICTE 2015 backdrop motif.
- The Scientific Committee for its professional and efficient approach to the editing process.
- The Publications and Promotions Committee for its indefatigable efforts to promote the conference.
- All those without whose help and support ICICTE 2015 would not have been possible.





Interactive Polling Made Easy

TurningPoint is an easy-to-use software that can be used to engage, assess and collect meaningful data. Using TurningPoint, students can participate with ResponseCards and mobile devices together in the same environment.

A PURPOSE-DRIVEN SOLUTION to support TEACHING & LEARNING

Historic and current research continue to validate response technology as a comprehensive solution to support **pedagogical best practices** and **positively influence learning outcomes.**





ENHANCE Instructional Strategies

Agile Teaching Assessment for Learning Engagement Game-Based Learning Immediate Feedback Peer Instruction

INCREASE Student Success

- 30% Increased Attendance
- **35%** Increased Test Scores
- 40% Increased Retention
- 63% Increased Motivation
- 70% Increased Participation
- 87% Increased Engagement

TURNINGTECHNOLOGIES.CO.UK

19 Colvin House Inspire Business Park Carrowreagh Road Belfast BT16 1QT, UK +44 (0)28 9008 0188 uk@turningtechnologies.com

THURSDAY

08:00 – 09:00 Registration Hall I

09:00 – 11:00 Opening Ceremonies and Keynote Address Welcome: Dr Chris Barlow, Chair Steering Committee, Southampton Solent University, United Kingdom Introduction of the Keynote Speaker: Dr Costas Tsolakidis, University of the Aegean, Greece

Keynote Address

Learning through Interaction and Creativity in Online Laboratories Dr Michael E. Auer, Professor of Electrical Engineering at Carinthia University of Applied Sciences Villach, Austria

Invited speakers A TurningPoint for Cloudy Days Patrice O'Hagan, Account Manager, Turning Technologies, United Kingdom

Oracle Academy 21st Century, New skills, New Jobs...Are you ready? Danny Gooris, Senior Manager, Oracle Academy, EMEA

11:00 – 11:30 Coffee

11:30 – 13:30 Concurrent Sessions 1-3



Plenary Session 1. Instructional Design Considerations

Hall 1: Artemis 1-5 Moderator: Dr Chris Barlow, Southampton Solent University, United Kingdom

RIDING THE PERFECT STORM: DESIGNING AND DELIVERING COURSE CONTENT FOR TODAY'S LEARNERS Irina Chernikova and Evangeline Varonis, The University of Akron, United States of America

BEYOND CUT-AND-PASTE: CREATING INTERACTIVE ONLINE RESOURCES TO INTRODUCE FIRST YEAR STUDENTS TO ACADEMIC CITATION Evangeline (Litsa) Varonis, Laura Monroe, April Trowbridge, Katherine Gulliford, Clifford Holcomb, John R. Reyes and Marty Smith, The University of Akron, and Maria Varonis, Stark State College, United States of America

STUDY MATERIALS FOR UNIVERSITY STUDY AND FURTHER EDUCATION: COMPARATIVE ANALYSIS OF LEARNING PREFERENCES IN 2010 AND 2014 Ivana Simonova and Petra Poulova, University of Hradec Kralove, Czech Republic

SOCIAL ENTERPRISE AND SUSTAINABLE DEVELOPMENT: E-LEARNING PROFESSIONAL TRAINING PROGRAM FOR YOUTH IN THE GLOBAL SOUTH Cherie Enns and Nicole Klassen, Eminus Academy, University of the Fraser Valley, Canada

Plenary Session 2. Embedding ICT in Teacher Training Hall 2: Artemis 6-7

Moderator: Dr Gorg Mallia, University of Malta, Malta

UBIQUITIOUS COMPUTING DEVICES IN THE TRAINING OF TEACHER-TRAINERS Neil Smith, The Open University and Helen Caldwell, University of Northampton, United Kingdom

SIMULATION-BASED TRAINING FOR GREEK PRESERVICE TEACHERS: DEVELOPING A 3D CLASSROOM ENVIRONMENT FOR PROFESSIONAL DEVELOPMENT VIA PRACTICAL EXPERIENCE Kalliopi Evangelia Stavroulia, Technological University of Cyprus, Cyprus

PRE-SERVICE TEACHER PERCEPTIONS OF ICT TEACHERS John Hunt, University of the Sunshine Coast, Australia

TEACHER EDUCATION AND CONSTRUCTIONISM WHEN TEACHING WITH DIGITAL TECHNOLOGIES Anthony Jones, University of Melbourne, Australia

Plenary Session 3. Evaluation and Assessment Practices

Hall 3: Artemis 8-9 Moderator: Dr Greg Anderson, Justice Institute of British Columbia, Canada

RETHINKING EVALUATION'S PRACTICE IN HIGHER EDUCATION TO MEET DAY-TO-DAY CHALLENGES: BRIDGING THE GAP BETWEEN EXPECTATIONS AND REALITY Lamia Badra-Belaziz, University of Clermont 2, France

INNOVATIVE ASSESSMENT AND PERSONALISED FEEDBACK IN HIGHER EDUCATION Jill Barber and Steven Ellis, University of Manchester, United Kingdom

IS MATHEMATICS STILL RELEVANT AS AN ADMISSION CRITERION FOR ENTRY INTO AN INFORMATION AND COMMUNICATION TECHNOLOGY COURSE AT A SOUTH AFRICAN UNIVERSITY?

Glenda Barlow-Jones and Duan van der Westhuizen, University of Johannesburg and Carla Coetzee, Tshwane University of Technology, South Africa

EXPLORING STUDENT EXPERIENCES OF ASSESSMENT IN HIGHER EDUCATION IN SCOTLAND AND BRAZIL: EMBARGO OR EMPOWERMENT? Maria Eugenia Witzler D'Esposito, Faculdade Cultura Inglesa, Brazil and Iain McPhee, University of the West of Scotland, United Kingdom

13:30 – 15:30 Lunch Main Restaurant

15:30 – 17:30 Workshops

BEST PRACTICES CONTRIBUTIONS FOR TECHNOLOGIES IN EDUCATION Facilitators: Gjoa Andrichuk, Faculty, and Lisa O'Neill, Instructional Development Consultant, British Columbia Institute of Technology, Canada



Welcome drinks at Cafeino during ICICTE 2014

FUTURE QUEST: THE GAMIFICATION OF EMPLOYABILITY LEARNING Facilitators: Richard Sant and Nick Hampton, Southampton Solent University, United Kingdom

ICT MEDIATED PROBLEM SOLVING: USING MOBILE DEVICES AND CROSS PLATFORM APPS TO ACHIEVE DEEP LEARNING Facilitators: Rose-Marie Thrupp, Adjunct Lecturer, and John Hunt, Lecturer in Education, University of the Sunshine Coast, Australia

18:30 – 20:00 Welcome Drink Kafenio

FRIDAY

09:00 – 10:00 Posters Session Hall 1: Artemis 1-5

Adjudicating Panel: Dr Piers MacLean, Cranfield University, United Kingdom Dr Nick Linardoupoulos, The State University of New Jersey, United States of America Dr Iain McPhee, University of the West of Scotland, United Kingdom Dr Zuhaira Najjar, The Arab Academic College for Education in Israel, Israel Dr Maria Eugenia Witzler D'Esposito, Faculdade Cultura Inglesa, São Paulo, Brazil

THE UPTAKE AND USE OF DIGITAL TECHNOLGIES IN TWO SCHOOLS WORKING IN A 1:1 INITIATIVE Marcia Håkansson Lindqvist, Umeå University, Sweden

VISUALIZING THE ANTHROPOCENE: TWITTER, SOCIAL NETWORK ANALYSIS, AND TEACHING Paul Wright and Laurie Wright, Southampton Solent University, United Kingdom

USE OF VIRTUAL LEARNING ENVIRONMENTS BY STUDENTS ON UNDERGRADUATE CAMPUS-BASED COURSES Christopher A. Barlow, Paul Bourne, and Bernard Griffin, Southampton Solent University, United Kingdom

ELECTRONIC REGENERATED FREIREAN LITERACY THROUGH EMPOWERING COMMUNITY TECHNIQUES (e-REFLECT)

Presenters: Nancy Pyrini, 1st Primary School of Rafina and Costas Tsolakidis, University of the Aegean, Greece

Contributors: Stavroula Alexandropoulou, Sarantis Chelmis, Maria Latzaki, Sevasti Mouxtoupi, 1st Primary School of Rafina, Greece; Charalambos Vrasidas, Centre for Advancement of Research and Development in Educational Technology Ltd-Cardet, Cyprus; Riitta Korhonen, University of Turku, Finland; Gráinne Conole, Bath Spa University, United Kingdom

OPEN WINGS TOWARDS THE DEVELOPMENT OF THE GREATER SENSE OF SELF Orestes Varonis, Varonis NDE Consulting LLC, United States of America Nancy Pyrini, 1st^t Primary School of Rafina, Greece

WHAT DOES THE UN'S "POST - 2015" CLARION CALL MEAN TO ICT PROFESSIONALS: MAINTAINING CUTTING - EDGE GLOBAL AWARENESS Marcie Boucouvalas and Linda Morris, Virginia Tech Graduate Center/National Capital Region, United States of America

10:00 – 17:55 Workshop

Applying the QM Rubric Facilitator: Evangeline Varonis, Quality Matters, United States of America

10:00 - 11:30 Concurrent Sessions 4 & 5

Plenary Session 4. The Shifting Role of the Teacher in Today's Classroom *Hall 1: Artemis 1-5* Moderator: Dr Maria Eugenia Witzler D'Esposito, Faculdade Cultura Inglesa, Brazil

MODEL OF THE "MEDIATING TEACHER" IN DISTANCE LEARNING ENVIRONMENTS: CLASSES THAT COMBINE ASYNCHRONOUS DISTANCE LEARNING VIA VIDEOTAPED LECTURES Aryeh Ben-Chayim and Baruch Offir, Bar-Ilan University, Israel

BUILDING TEACHER CONFIDENCE IN ADDRESSING INDIGENOUS ISSUES IN THE CLASSROOM

Rose-Marie Thrupp and John Hunt, University of the Sunshine Coast, Stacey Cowell and Ben Crowley

Urangan State School, and Leanne Whittaker, Sunbury State School, Australia

ENCOURAGING STUDENT ENGAGEMENT WITH COLLABORATIVE SERIOUS GAMES: THE COCO FRAMEWORK Prins Butt, Southampton Solent University, and Gary Wills, University of Southampton,

United Kingdom

ON THE NATIONAL EDUCATIONAL TECHNOLOGY STRATEGIC PLAN 2012-2017: THE IMPORTANCE OF ESSENTIAL CONDITIONS AND RIGOROUS PILOTING Maria Ghosn-Chelala, Notre Dame University, Lebanon

Plenary Session 5. Educating in the Digital World

Hall 2: Artemis 6-7 Moderator: Dr Marcie Boucouvalas, Virginia Tech Graduate Center/National Capital Region, United States of America

11

A LEARNING MANAGEMENT SYSTEM'S EFFECT ON PEDAGOGY Voula Karvelas, The University of Melbourne, Australia

E-LEARNING SPACES AND THE DIGITAL UNIVERSITY: WHERE THE PHYSICAL MEETS THE DIGITAL Dominic Pates and Neal Sumner, City University London, United Kingdom

PRODUCING OPEN EDUCATIONAL RESOURCES THROUGH MASSIVE COLLABORATION Vilson J. Leffa, University of Pelotas, Brazil

AN ONLINE MASTER'S DEGREE: TEACHING AND LEARNING STRATEGY VS. MANAGERIAL CONSTRAINTS Andrew Doig and Claire Pekcan, Southampton Solent University, United Kingdom

11:30 - 12:00 Coffee

12:00 – 13:30 Concurrent Sessions 6 & 7

Plenary Session 6. Extending Student Learning Opportunities *Hall 1: Artemis 1-5* Moderator: Dr Marie Cahillane, Cranfield University, United Kingdom

EFFECTIVE USE OF LECTURE CAPTURE IN LARGE LECTURE HALLS Nick Linardopoulos and Steve Garwood, Rutgers University, United States of America

STUDENT AND STAFF PERCEPTIONS ON THE IMPACT OF LECTURE CAPTURE Daran Price and Timos Almpanis, Southampton Solent University, United Kingdom

LIVING DOLL

Sue Dean, University of Technology Sydney and Claire Williams and Mark Balnaves, University of Newcastle, Australia

Plenary Session 7. ICT Fostering Knowledge and Skills Development *Hall 2: Artemis 6-7* Moderator: Dr Iain McPhee, University of the West of Scotland, United Kingdom

COGNITIVE AND METACOGNITIVE PROMPTING IN ILL-STRUCTURED TASKS: THE ART OF ASKING Victoria Smy, Marie Cahillane, and Piers MacLean, Cranfield University, United Kingdom

KNOWLEDGE AND SKILLS RETENTION IN SUSTAINING E-LEARNING CAPABILITY Marie Cahillane, Piers MacLean, and Victoria Smy, Cranfield University, United Kingdom

EXTENSION OF A KNOWLEDGE AND SKILLS TAXONOMY TO INCLUDE A COMPLEX AND INTEGRATED SKILLS CATEGORY Piers MacLean, Marie Cahillane, and Victoria Smy, Cranfield University, United Kingdom

13:30 – 15:30 Lunch Main Restaurant

15:30 – 17:30 Graduate Student Award Symposium & Workshops

ICICTE Graduate Student Award Symposium

Hall 1: Artemis 1-5 Panel: Dr Greg Anderson, Justice Institute of British Columbia, Canada Dr Michael E. Auer, Carinthia University of Applied Sciences Villach, Austria Dr Ġorġ Mallia, University of Malta, Malta Dr Costas Tsolakidis, University of the Aegean, Greece Dr Linda Morris, Virginia Tech Graduate Center/National Capital Region, United Stares of America

EMOTIONAL EXPERIENCES IN SIMULATED CLASSROOM TRAINING ENVIRONMENTS Kalliopi Evangelia Stavroulia, Democritus University of Thrace, Evanthia Makri-Botsari and Sarantos Psycharis, ASPETE, and Gerassimos Kekkeris, Democritus University of Thrace, Greece

TOWARDS AN INSTRUCTIONAL TOOL FOR THE TEACHING OF ENGLISH AS A SECOND/FOREIGN LANGUAGE (ESL/EFL) IN HIGHER EDUCATION Evriklea Dogoriti, University of Ioannina, Greece

LANGUAGES, HUMANITIES AND TECHNOLOGIES: BLENDING INTO ONE IN ORDER TO PROMOTE A CONSCIOUS CITIZENSHIP EDUCATION FOR CILDREN IN A VULNERABLE SITUATION IN BRAZIL Sabrina Hax Duro Rosa, Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, Brazil

SATURDAY

09:00 – 12:00 Concurrent Workshops

HOW TO PRODUCE OPEN EDUCATIONAL RESOURCES (OERS) FOR THE HUMANISTIC AREAS: A HANDS-ON EXPERIENCE Facilitator: Vilson J. Leffa, Catholic University of Pelotas, Brazil

COLLABORATIVE ONLINE SPACES FOR SOCIAL LEARNING Facilitator: Ariane Skapetis, Learning Technologist, UTS, Sydney, Australia

CREATING AN ICICTE 2015 ONLINE COMMUNITY OF PRACTICE Facilitators: Helen Caldwell and Rebecca Heaton, Senior Lecturers, University of Northampton, United Kingdom



12:00 – 12:30 Philosophers' Café

The Philosophers' Café held during ICICTE 2014

12:30 – 14:00 Concurrent Sessions 8-10

Plenary Session 8. Online Student Engagement

Hall 1: Artemis 1-5

Moderator: Dr Nick Linardoupoulos, The State University of New Jersey, United States of America

THE ROLE OF INSTANT MESSAGING DURING PRACTICUM: LESSONS LEARNED FROM A CASE STUDY

Apostolos Kostas, Alivisos Sofos and Constantinos Tsolakidis, University of the Aegean, Greece

EFFECTIVENESS OF AN E-LEARNING SYSTEM AND STUDENTS' PERCEIVED SATISFACTION IN A PUBLIC ADMINISTRATION PROGRAMME USING THE MOODLE E-LEARNING PLATFORM

Lan Umek, Damijana Keržič, Aleksander Aristovnik and Nina Tomaževič, University of Ljubljana, Slovenia

THE INTERDISCIPLINARY USE OF BLOGS AND ONLINE COMMUNITIES IN HIGH-ER EDUCATION Helen Caldwell and Rebecca Heaton, University of Northampton, United Kingdom

SOCIAL NETWORKS SUPPORTING HIGHER EDUCATION IN IT AND MANAGEMENT Petra Poulova and Ivana Simonova, University of Hradec Kralove, Czech Republic

Plenary Session 9. Educating Our Children and Youth

Hall 2: Artemis 6-7

Moderator: Evangeline Varonis, The University of Akron, United States of America CREATING ENVIRONMENTALLY ORIENTED ONLINE LEARNING COMMUNITIES: THE CASE OF ELEMENTARY SCHOOLS IN GREECE

Konstantinos Karampelas, 2nd Model Experimental Primary School of Rhodes and Sarantis Karvounidis, 1st Model Experimental Primary School of Rhodes, Greece.



CHILDREN'S LITERATURE AND READING IN AN ERA OF DEVELOPING TECHNOLOGY Roseland Da'eem, The Arab Academic College for Education in Israel-Haifa, Israel

INTEGRATING ICT IN THE ARABIC GRAMMAR LESSONS AT THE ELEMENTARY SCHOOL: ATTITUDES AND EFFECT! Zuhaira Najjar, The Arab Academic College for Education in Israel-Haifa, Israel

COMPARISON OF ACADEMIC PERFORMANCE AND ATTENTION SPAN OF CHILDREN BETWEEN MONTESSORI AND TRADITIONAL PEDAGOGICAL APPROACHES OF PRESCHOOLS

Jean Marie Villamor Juanga and Ar Caryn Ressureccion, University of the Philippines, Philippines

Plenary Session 10. ICT in Science-based Education

Hall 3: Artemis 8-9 Moderator: Dr Linda Morris, Virginia Tech Graduate Center/National Capital Region, United States of America

USING MOBILE TECHNOLOGY TO DEVELOP UNDERSTANDING OF HEARING RISKS USING AN EXPERIENTIAL APPROACH Lee Davison and Christopher Barlow, Southampton Solent University, United Kingdom

CLOUD-BASED TIME-EFFECTIVE LABORATORY REPORTS GRADING Samuel Kosolapov and Nissim Sabag, ORT Braude Academic College of Engineering, Israel

INTRODUCING MICROCONTROLLER- BASED COMPUTER PLATFORMS INTO ENGINEERING COMPUTER EDUCATION Jian Jiang, Southampton Solent University, United Kingdom

DOES IT MATTER IF A FIRST YEAR PROGRAMMING STUDENT IS DIGITALLY LITERATE? THE EFFECT OF DIGITAL LITERACY ON A STUDENT'S PERFORMANCE IN COMPUTER PROGRAMMING Glenda Barlow-Jones, Jacqui Chetty and Pieter Joubert, University of Johannesburg, South Africa

14:00 – 14:45 Closing Ceremonies

Hall 1: Artemis 1-5

ICICTE Graduate Student Award Dr Greg Anderson, Chair Scientific Committee

ICICTE Best Poster Award Dr Ġorġ Mallia, Chair Publications and Promotions Committee

Friend of the Conference Award Nancy Pyrini, Conference Director

Acknowledgements and Closing Remarks Dr Chris Barlow, Chair Steering Committee

Kerogialis Sea Side Soo

The Akrogiali Taverna in Mastichari, where the ICICTE 2015 Greek Night will be held

20:30 Pick up from the Conference Venue Closing "Greek Night"Dinner Taverna "Akrogiali" Mastichari, Kos

A family photo of the Steering Committee and some of the delegates that attended ICICTE 2014



ICICTE 2015 Sponsor



Applying the Quality Matters Rubric

This workshop will explore the Quality Matters Project and Processes and will prepare you to be part of an initiative that positively impacts the design of online/blended courses and ultimately, student learning and success. Quality Matters (QM, http:// www.qmprog.org) is a non-profit program currently in use in over 600 institutions in the U.S. as well as institutions in Australia, Canada, Fiji, Greece, Ireland, Saudi Arabia, and Singapore.

QM is designed to improve the quality of online and blended courses by establishing a peer-reviewed quality assurance review process. All participants will receive a copy of the current Quality Matters Rubric, which includes annotations that explain each standard. You will become familiar with the Quality Matters standards and participate in a practice peer course review of an online course using the review tools. After successfully completing this workshop, you will gain ideas to improve your own courses using the QM Standards, be able to print a certificate of completion, and be eligible to enroll in the QM Online Peer Reviewer Certification course

Upon completion of this Quality Matters (QM) workshop, participants will be able to: Identify the underlying principles of QM.

- Identify the critical elements of the QM quality assurance program, including the QM Rubric, materials, processes, and administrative components.
- Apply the QM Rubric to review online courses in higher education.
- Make decisions on whether the SPH113 course meets selected QM Rubric standards.
- Apply the concept of alignment.
- Write helpful recommendations for course improvement by citing annotations from the QM Rubric and evidence from the course.

Facilitator: Evangeline (Litsa) Varonis, University of Akron. QM Facilitator and Master Reviewer

Seats Available: 30

Who should attend? Faculty, instructional designers, and administrators interested in learning more about effective online course design and/or the Quality Matters peer review process.

Cost: As a result of QM's sponsorship of ICICTE 2015, regular fees for this course (\$200 for subscribers and \$300 for non-subscribers) have been waived. Registration is required!

Date: Friday, June 10, 10.00 to 17.55 (see page 35 for agenda).

THURSDAY

11:30 – 13:30 Concurrent Sessions 1-3

Plenary Session 1. Instructional Design Considerations

RIDING THE PERFECT STORM: DESIGNING AND DELIVERING COURSE CONTENT FOR TODAY'S LEARNERS

Irina Chernikova and Evangeline Varonis, The University of Akron, United States of America

In a time that could be described as a "perfect storm" in higher education, faculty and administration have been exploring all possible tools to attract students and help them stay on a curriculum path so they can graduate within a reasonable time. Having a diverse ever-changing college population is challenging: it is crucial to understand what current and prospective students want and need to be able to do when they graduate. In order to meet their needs, it is also necessary to think far beyond traditional methods of teaching and learning.

This presentation results from the collaboration of two individuals from the same university: a department chair who is also faculty and an instructional designer who is also an adjunct faculty. In the context of the overarching goal of creating a flexible schedule utilizing a variety of course delivery methods (including but not limited to online, hybrid, and accelerated sequels), we will document how we redesigned a traditional face-to-face class in Technical Data Analysis by converting penciland-paper assessment documents (quizzes, exams, etc.) to online while ensuring accessibility and the achievement of learning objectives.

BEYOND CUT-AND-PASTE: CREATING INTERACTIVE ONLINE RESOURCES TO INTRODUCE FIRST YEAR STUDENTS TO ACADEMIC CITATION

Evangeline (Litsa) Varonis, Laura Monroe, April Trowbridge, Katherine Gulliford, Clifford Holcomb, John R. Reyes and Marty Smith, The University of Akron, and Maria Varonis, Stark State College, United States of America

Higher education students need to master the skills that will allow them to identify as members of an academic community, including the ability to cite the work of others and avoid the mistake of plagiarism. In order to address the high incidence of plagiarism among first year students, a team composed of staff and graduate students at The University of Akron collaborated to create interactive online training in citation and plagiarism, including multimedia, text presentations, and automatically-scored quizzes. This paper reports on the design, development, implementation, and evaluation of the Spring 2015 pilot project.

STUDY MATERIALS FOR UNIVERSITY STUDY AND FURTHER EDUCATION: COMPARATIVE ANALYSIS OF LEARNING PREFERENCES IN 2010 AND 2014 Ivana Simonova and Petra Poulova, University of Hradec Kralove, Czech Republic

Learners' preferences in various types of study materials differ reflecting the criteria of learning objectives, forms of education, learner's age and level of knowledge, time and others. The paper presents results of a survey dealing with comparative analysis of learners' preferences from three criteria: (a) ways of getting study materials, (b) types of preferred formats of study materials (full-texts, short texts structured for the distance education, presentations, animations, links to sources, others), and (c) using different mobile devices to access the materials. The data were collected in 2010/11 and 2013/14 academic years from 300 students.

SOCIAL ENTERPRISE AND SUSTAINABLE DEVELOPMET: E-LEARNING PROFESSIONAL TRAINING PROGRAM FOR YOUTH IN THE GLOBAL SOUTH

Cherie Enns and Nicole Klassen, Eminus Academy, University of the Fraser Valley, Canada

The research goal of this paper is to initiate the examination of the effectiveness of a mobile e-learning program as a professional training tool for youth in the global south offered through the UN Habitat Youth Fund. The challenges and opportunities are to be considered including the suitability of mobile technology, curriculum content, completion rates, gender balance and as well community impact. The Eminus Academy program offered in collaboration with University of the Fraser Valley, Eliademy learning management system and sponsored by Basf Foundation is a pilot program offering free on-line courses to youth affiliated with the UN Youth Fund in areas of social enterprise, community mapping, urban agriculture and project management. Youth in this report are defined as the age group 15 to 35 years.

Plenary Session 2. Embedding ICT in Teacher Training

UBIQUITIOUS COMPUTING DEVICES IN THE TRAINING OF TEACHER-TRAINERS

Neil Smith, The Open University and Helen Caldwell, University of Northampton, United Kingdom

In September 2014, the computing curriculum in English schools changed to one with a much greater emphasis on computer science. However, 66% of existing ICT teachers are non-specialist and require significant continuing professional development (CPD) to deliver this new curriculum. One initiative to provide this is the Computing At School (CAS) Master Teacher programme. This paper describes some physical computing projects that were used in training a cohort of Master Teachers, preparing them to deliver both improved lessons in classrooms and CPD tailored for the requirements of their peers.

SIMULATION-BASED TRAINING FOR GREEK PRESERVICE TEACHERS: DEVELOPING A 3D CLASSROOM ENVIRONMENT FOR PROFESSIONAL DEVELOPMENT VIA PRACTICAL EXPERIENCE

Kalliopi Evangelia Stavroulia, Technological University of Cyprus, Cyprus

The last few years, the evolution of technology allowed the development of new and innovative tools to train future teachers. Simulation games gave a new perspective in teacher training by providing an alternative method of gaining an authentic practical experience within a safe virtual environment similar to that of the real world. This paper presents a framework for the development of a 3D virtual classroom environment for the preparation of Greek pre-service teachers.

PRE-SERVICE TEACHER PERCEPTIONS OF ICT TEACHERS

John Hunt, University of the Sunshine Coast, Australia

What does an ICT teacher look like? Using the ideas pioneered by Goodenough and Chambers, preservice education students were initially asked to Draw an ICT Teacher. In 2013, the task given was: Draw what an ICT Teacher looks like, sounds like and feels like. This elaboration on the task produced remarkably different results. The pictures produced focused on teacher attributes not previously evident: qualities such as open-mindedness, compassion and understanding, collaboration and sharing became evident. This paper examines four years of data and draws messages that can inform teacher educators and demonstrates views and perceptions of the qualities and attributes of ICT Teachers.

TEACHER EDUCATION AND CONSTRUCTIONISM WHEN TEACHING WITH DIGITAL TECHNOLOGIES

Anthony Jones, University of Melbourne, Australia

Today's university graduates might be avid users of social networking communication, but this does not make them skilled users of IT. It is probable that there is little transfer of social media technological skills into teaching with IT in schools. The concepts of *constructionism* are appraised and reports on changes to classroom pedagogical theory and practice using IT are reviewed. A trend towards emphasising the technology rather than the pedagogy used or the content taught is noted. The trend is linked to a project that involved introducing constructionist principles and practices to a cohort of prospective secondary teachers. This paper is an initial report of that project.

Plenary Session 3. Evaluation and Assessment Practices

RETHINKING EVALUATION'S PRACTICE IN HIGHER EDUCATION TO MEET DAY-TO-DAY CHALLENGES: BRIDGING THE GAP BETWEEN EXPECTATIONS AND REALITY Lamia Badra-Belaziz, University of Clermont 2, France

Evaluating a training offer has been seen as an evidenced practice in higher education for a long time in France. Its objective has been mainly the same: meeting both students' demands and market demand. But this objective has been hardly achieved because solutions and recommendations for implementation often come late and prove inadequate for the changing needs. A qualitative study conducted for ten years shows that the evaluation grids and methods had been routinely applied without carrying out a flexible, standardizing and adaptable evaluation process. The results of this study will be presented and discussed in this paper.



Listening to a paper delivery during ICICTE 2014

INNOVATIVE ASSESSMENT AND PERSONALISED FEEDBACK IN HIGHER EDUCATION

Jill Barber and Steven Ellis, University of Manchester, United Kingdom

Since adopting summative on-line examinations in 2005, we have increased the range of question types to include short essays and questions incorporating chemical structures and now achieve time savings of up to 90% in the marking process. Online assessments allow two novel forms of feedback: (a) an anonymised spreadsheet containing all the marked exam scripts is made available to all students and (b) *Smallvoice*, a novel app, provides confidential personalised feedback. Feedback statements, though written by the instructor, are selected by a computer in response to various aspects of a student's performance. There is evidence of improved student satisfaction and improved learning.

IS MATHEMATICS STILL RELEVANT AS AN ADMISSION CRITERION FOR ENTRY INTO AN INFORMATION AND COMMUNICATION TECHNOLOGY COURSE AT A SOUTH AFRICAN UNIVERSITY?

Glenda Barlow-Jones and Duan van der Westhuizen, University of Johannesburg and Carla Coetzee, Tshwane University of Technology, South Africa

It is well documented in the literature that computer programming modules in higher education institutions are characterised by low success rates. Several reasons could be attributed to this situation, from the difficulty of the subject itself to the lack of problem solving abilities of the students. This paper reports on a study which was conducted at a South African university to determine, the extent to which students' Grade 12 mathematics results, can predict the success of first-year students enrolled for a programming module in an ICT course.

EXPLORING STUDENT EXPERIENCES OF ASSESSMENT IN HIGHER EDUCATION IN SCOTLAND AND BRAZIL: EMBARGO OR EMPOWERMENT?

Maria Eugenia Witzler D'Esposito, Faculdade Cultura Inglesa, Brazil Iain McPhee, University of the West of Scotland, United Kingdom

Education Policy in Scotland and Brazil has increased the number of students in higher education institutions (HEIs) presenting challenges in learning and teaching in online, conventional and hybrid contexts. Academic writing remains a key factor in assessment of academic achievement. Using indepth semi-structured interviews, 14 participants (Scotland n=7, Brazil n=7) who completed assessable written work were interviewed. Using Paulo Freire's concept of empowerment (1971), this paper explores students' perceptions of assessment in the two countries. Results presented thematically indicate that perceptions of the purpose of both the assessment and academic qualification are at odds with institutional habitus (Bourdieu, 1984).

FRIDAY

Plenary Session 4. The Shifting Role of the Teacher in Today's Classroom MODEL OF THE "MEDIATING TEACHER" IN DISTANCE LEARNING ENVIRONMENTS: CLASSES THAT COMBINE ASYNCHRONOUS DISTANCE LEARNING VIA VIDEOTAPED LECTURES

Aryeh Ben-Chayim and Baruch Offir, Bar-Ilan University, Israel

This study investigated a distance-learning model that includes a *mediating teacher* in the classroom, in addition to the teacher teaching from a distance. The study compares the characteristics of the mediating interaction between teachers and students in high school classes that include asynchronous

distance learning, in which a mediating teacher is present in the classroom in addition to the teacher who is teaching from a distance via videotaped lectures. Teachers who had training for mediated teaching in the classroom in an asynchronous distance- learning environment were better mediators than teachers who did not receive training for mediated teaching.

BUILDING TEACHER CONFIDENCE IN ADDRESSING INDIGENOUS ISSUES IN THE CLASSROOM

Rose-Marie Thrupp and John Hunt, University of the Sunshine Coast, Stacey Cowell, and Ben Crowley, Urangan State School, and Leanne Whittaker, Sunbury State School, Australia

During the 2014 ICICTE Conference John Hunt (2014) described the pedagogical and technological requirements for the Wondervision Project, reporting on the project's first phase, resource development. This paper focuses on its second, data collection. It addresses three questions.

- 1. How have the resources contributed to teachers embedding Indigenous perspectives in the learning they design?
- 2. To what extent do the different resources in digital learning environments engender changing attitudes to learning?
- 3. How have these resources contributed to reconciliation with our Indigenous peoples?

This paper adopts a case study approach to two of the participating schools. The study identified a number of positive attributes created by accessing the range of resources, including the structure and content of the resources and the provision of resources for independent use by children.

ENCOURAGING STUDENT ENGAGEMENT WITH COLLABORATIVE SERIOUS GAMES: THE COCO FRAMEWORK

Prins Butt, Southampton Solent University, and Gary Wills, University of Southampton, United Kingdom

Collaborative serious games may offer new methods for encouraging student engagement but are currently underexplored in the literature. Their construction remains difficult partly due to a lack of conceptualisation. In this paper, we present COCO—a conceptual framework for collaborative serious games. We explore the validity of its components using t-tests to analyse the data from surveying and interviewing 10 experts and surveying 23 students. We find the results validate the framework and conclude that our framework provides an appropriate theoretical foundation for further research and can aid understanding and communication about collaborative serious games.

ON THE NATIONAL EDUCATIONAL TECHNOLOGY STRATEGIC PLAN 2012-2017: THE IMPORTANCE OF ESSENTIAL CONDITIONS AND RIGOROUS PILOTING

Maria Ghosn-Chelala, Notre Dame University, Lebanon

The National Educational Technology Strategic Plan 2012-2017 of the Ministry of Education and Higher Education (MEHE) advocates access to and integration of technology in Lebanese public school classrooms to support curricular goals. The rationale for the plan is grounded in research based on a literature review. Considering the critical task of technology integration currently underway in Lebanon, this paper explores associated problems, namely ineffective piloting and procurement procedures. Recommendations are made to help ensure a data-driven ICT selection approach and essential conditions for achievement in the context of local public schools considering Lebanon's challenging education landscape.



Plenary Session 5. Educating in the Digital World

A LEARNING MANAGEMENT SYSTEM'S EFFECT ON PEDAGOGY

Voula Karvelas, The University of Melbourne, Australia

A study of a Learning Management System (LMS) used by two secondary school teachers to deliver a unit of work to middle-school students was conducted to examine the planning and development of a Virtual Learning Environment (VLE) and determine the LMS's effect on pedagogy. Data was elicited via observation of the teachers' planning sessions, interviews and a survey rating teachers' perceptions of their VLEs. The study revealed that pedagogical design using an LMS was governed by three key factors: teachers' philosophies about teaching and learning, teachers' teaching styles and repertoires, and the LMS's pedagogical bias and usability.

E-LEARNING SPACES AND THE DIGITAL UNIVERSITY: WHERE THE PHYSICAL MEETS THE DIGITAL

Dominic Pates and Neal Sumner, City University London, United Kingdom

How do we realise the potential of flexible learning spaces in the digital university? What skills and literacies will help users to take maximum advantage of the digitally-enhanced learning space? Drawing from lessons learned and work in progress, we explore City University London's policies and initiatives in rethinking and redesigning several physical classroom environments. Through an examination of a number of institutional initiatives and the current work of the Learning Spaces team, this paper highlights the need for the development of digital literacies among academic staff and students in order to realise the potential of technology-enhanced active learning spaces.

PRODUCING OPEN EDUCATIONAL RESOURCES THROUGH MASSIVE

COLLABORATION

Vilson J. Leffa, University of Pelotas, Brazil

Open Educational Resources (OERs) have drawn the attention of professionals in the area of Computer Assisted Language Learning (CALL) for their potential in making classroom activities more rewarding. OER expansion in CALL, however, has been hindered by two recurring problems: (a) custom-made production of OERs is expensive or time consuming for the teacher, and (b) off-the-rack OERs typically do not meet the specific educational contexts faced by the teacher. To solve these problems we offer an authoring system that allows both teachers and students to work collaboratively, producing, remixing, adapting, distributing and sharing their OERs.

AN ONLINE MASTER'S DEGREE: TEACHING AND LEARNING STRATEGY VS. MANAGERIAL CONSTRAINTS

Andrew Doig and Claire Pekcan, Southampton Solent University, United Kingdom

This paper illustrates the work of a course team at Southampton Solent University to establish a delivery model for an online distance master's degree. Working under the managerial constraint of ensuring that the course delivery is sustainably affordable, the focus was to develop a model that structures tutor to student engagement in such a way as to ensure the maintenance of a high standard of teaching and learning. This model is put forward as an approach that is applicable in a variety of contexts, and hence of value to course developers from other institutions investigating ways of effectively delivering online courses.

Plenary Session 6. Extending Student Learning Opportunities

EFFECTIVE USE OF LECTURE CAPTURE IN LARGE LECTURE HALLS

Nick Linardopoulos and Steve Garwood, Rutgers University, United States of America

This paper will report on the results of an iterative project that has been taking place at the School of Communication and Information (SC&I) at Rutgers University in the area of integrating lecture capture technology into a large lecture hall course. One gap that has been identified in the literature is that students are rarely trained in how to successfully use lecture recordings for learning; they often apply surface instead of deeper, more strategic approaches. Based on this understanding, a study was conducted focusing on the incorporation of a learning strategies training activity that utilizes self-explanation with recorded lectures viewing.

STUDENT AND STAFF PERCEPTIONS ON THE IMPACT OF LECTURE CAPTURE

Daran Price and Timos Almpanis, Southampton Solent University, United Kingdom

This paper summarises interim research findings from a pilot project on lecture capture. The background and the objectives of the pilot are described, followed by a literature review on the subject in order to contextualise the research focus of the project. The methodology followed is outlined, and the project findings with a focus on staff and student perceptions of lecture capture's impact on satisfaction, attendance and performance are subsequently described and discussed. The main outcomes from the research are summarised and ideas for further research on the subject are indicated in the conclusion.

LIVING DOLL

Sue Dean, University of Technology Sydney and Claire Williams and Mark Balnaves, University of Newcastle, Australia

SimMen are artificial bodies used in nursing education in order to simulate clinical practise. Their use is increasingly common in most health care professionals' education, and proponents argue on numerous grounds for their continuance, including the argument that engagement with these "bodies" is seen as a way of educating with "no harm." However, there is little empirical evidence about the impact of SimMen and artificial bodies in general on learning, particularly in the area of interpersonal skill development. Indeed the simulation environment created by artificial bodies may be having unanticipated effects. Can artificial bodies used in education accidently remove empathy in interactions with real patients when behavioural cues are absent when students practise on disembodied mannequins, for example? Effective professional education in the health arena is an integration of technical knowledge and the interpersonal dimension. This paper argues that whilst the development of clinical skills may be assisted in simulated learning environments practising on SimMen, the interpersonal dimensions may not only be neglected but also actively developed "out" of interactions. There is evidence to support that whilst the interpersonal communication aspects of the health care worker and the patient can result in positive outcomes for both the practitioner and patient, and there is increasing concern in the medical and nursing literature that this fundamental core of practice may be at risk. This paper looks at data from focus groups of final year nursing students to support those claims and suggest ways to address the concerns.

Plenary Session 7. ICT Fostering Knowledge and Skills Development

COGNITIVE AND METACOGNITIVE PROMPTING IN ILL-STRUCTURED TASKS: THE ART OF ASKING

Victoria Smy, Marie Cahillane, and Piers MacLean, Cranfield University, United Kingdom

This review of prompting and its applications within ill-structured problems connects a number of literature/research bases to derive prompting principles that foster learning and skill acquisition among trainees/novices performing complex, ill-structured problem-solving tasks. Relevant theoretical inputs and research is reviewed, from which a practical model is derived outlining how reflective metacognitive prompting can support learning and the adoption of an internalized learning approach. Future research should aim to empirically test the proposed model.

KNOWLEDGE AND SKILLS RETENTION IN SUSTAINING E-LEARNING CAPABILITY Marie Cahillane, Piers MacLean, and Victoria Smy, Cranfield University, United Kingdom

Cognitive science suggests that periods of no practice in performing tasks may impact on the retention of the requisite Knowledge and Skills (K&S). This paper reports a study that predicted the retention of the K&S required for the effective design and delivery of e-learning content in Virtual Learning Environments (VLEs). A predictive retention model was applied to VLE requisite K&S, resulting in a series of indicative retention curves. Outputs from this research can inform development of targeted training to mitigate skills fade and maintain institutional capability to sustain effective e-learning content organisation activities.

EXTENSION OF A KNOWLEDGE AND SKILLS TAXONOMY TO INCLUDE A COMPLEX AND INTEGRATED SKILLS CATEGORY

Piers MacLean, Marie Cahillane, and Victoria Smy, Cranfield University, United Kingdom

Understanding the nature of the tasks to be performed by learners in online and conventional contexts is essential in designing effective training and education programmes. Task analysis also determines the knowledge, skills, and attitudes (KSA) to be developed during learning programmes and subsequently expected of individuals for competent performance of a task to the standard required. A taxonomy developed by the researchers has, to date, proved appropriate for analysis of most tasks. However, a requirement for an additional category has emerged. Theoretical analysis of complex skills provides a basis for a working definition of a proposed integrated skills category.

ICICTE Graduate Student Award Symposium

EMOTIONAL EXPERIENCES IN SIMULATED CLASSROOM TRAINING ENVIRONMENTS Kalliopi Evangelia Stavroulia, Democritus University of Thrace, Evanthia Makri-Botsari and Sarantos Psycharis, ASPETE, and Gerassimos Kekkeris, Democritus University of Thrace, Greece

The aim of the current research is to investigate the emotional experiences of pre-service teachers after the implementation of a simulated classroom environment during the semester. SimSchool classroom simulation was used for the training of pre-service teachers in classroom management issues. The research took place at the Democritus University of Thrace and the School of Pedagogical and Technological Education (ASPETE) in Greece. This paper presents the empirical data relative to the emotions pre-service teachers experienced during the simulated activities. Results indicated

that participants experienced more negative than positive emotions including anxiety, nervousness, disappointment, insecurity, inability to deal with simSchool activities, defeat, dissatisfaction, fatigue, fear and stress. However, participants also experienced positive emotions including excitement, motivation and satisfaction.

TOWARDS AN INSTRUCTIONAL TOOL FOR THE TEACHING OF ENGLISH AS A SECOND/FOREIGN LANGUAGE (ESL/EFL) IN HIGHER EDUCATION

Evriklea Dogoriti, University of Ioannina, Greece

This study seeks to determine the way EFL can be taught online, focusing on learners' needs and envisioning a web tool to meet the dynamic needs of today's foreign language students in higher education. Hence, this paper provides a discussion about the difference that the incorporation and integration of social networking platforms make to teaching with a LMS. To meet this end, the study investigated EFL university students' perceived beneficial value of the ICT tools used in the learning process in relation to (a) motivation (b) engagement (c) performance and (d) communication in a technology-enhanced language classroom.

LANGUAGES, HUMANITIES AND TECHNOLOGIES: BLENDING INTO ONE IN ORDER TO PROMOTE A CONSCIOUS CITIZENSHIP EDUCATION FOR CILDREN UNDER A VULNERABLE SITUATION IN BRAZIL

Facilitator: Sabrina Hax Duro Rosa, Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, Brazil

This paper aims at discussing the importance of activities that promote psycho-social-cultural development of children under social vulnerability in Brazil. An extension project of Critical Pedagogy was organized in order to raise the self-esteem of the subjects involved and to promote the feeling of community belonging, making them understand their role as citizens in a globalized world. We observed that students improved their future perspectives after finishing the English Language and Informatics Course along with philosophical discussions, proving that a critical education that deals with communication, technology and humanities has positive influence on students' development.

SATURDAY

Plenary Session 8. Online Student Engagement

THE ROLE OF INSTANT MESSAGING DURING PRACTICUM: LESSONS LEARNED FROM A CASE STUDY

Apostolos Kostas, Alivisos Sofos and Constantinos Tsolakidis, University of the Aegean, Greece

The use of technological infrastructure in academic departments for teacher preparation can provide support for student teachers during practicum, since school placement can be a particularly intense and emotional experience. Using a Web 2.0 social network as a collaborative space, students were encouraged to share their experiences in order to establish a supportive learning environment. In this article, we present the results of a content analysis research based on electronic messages of the Instant Messaging (IM) mechanism. Content analysis revealed that synchronous communication via instant messaging served as a Query and Answer (Q&A), support and self-expression mechanism within a social context.

EFFECTIVENESS OF AN E-LEARNING SYSTEM AND STUDENTS' PERCEIVED SATISFACTION IN A PUBLIC ADMINISTRATION PROGRAMME USING THE MOODLE E-LEARNING PLATFORM

Lan Umek, Damijana Keržič, Aleksander Aristovnik and Nina Tomaževič, University of Ljubljana, Slovenia

The use of e-learning techniques in higher education is becoming ever more frequent. In some institutions e-learning has completely replaced traditional teaching methods, while in others it supplements classical courses. This paper presents a study, conducted in a member institution of the University of Ljubljana, providing public administration programmes. We analysed the relationship between the proportion of the course implemented in a Moodle e-learning platform and students' effectiveness and satisfaction. The empirical findings reveal positive correlation for both elements. The results can help decision makers to learn more about how to enhance students' success and satisfaction using an e-learning platform.

THE INTERDISCIPLINARY USE OF BLOGS AND ONLINE COMMUNITIES IN HIGHER EDUCATION

Helen Caldwell and Rebecca Heaton, University of Northampton, United Kingdom

With online learning developing rapidly in higher education we have experimented with methods to embed blogs and online communities into our courses to enhance learning for staff and students. In this paper we provide a critical analysis of the approach used to analyse multi-sensory content on blogs and communities whilst demonstrating how they have been utilised across the Initial Teacher Education Division at The University of Northampton in the United Kingdom. We show how blogs and communities have enhanced interdisciplinary subject teaching, staff development and student engagement. By sharing a series of case studies we model the strengths and limitations of the practices adopted and demonstrate how reflexivity, communities of practice and the adoption of 21st century teaching and learning strategies fuel learning. We demonstrate how learning models can be applied and analysed within higher education institutions to enhance provision in progressive digital learning, and we draw conclusions about how tools can be used in combination to support learning.

SOCIAL NETWORKS SUPPORTING HIGHER EDUCATION IN IT AND MANAGEMENT

Petra Poulova and Ivana Simonova, University of Hradec Kralove, Czech Republic

The paper presents results of survey focused on social networking; particularly on the role social networks play in higher education. The research question is what social networks are preferred and who their users are. Data were collected from the research sample of 203 students of the University of Hradec Kralove. Three social networks were detected as the most frequently accessed (Facebook, Google+ and LinkedIn) by both male and female users. The collected data resulted in several didactic recommendations on how the potential of social networks can be used towards independent learning on the higher education level in selected subjects.

Plenary Session 9. Educating Our Children and Youth

CREATING ENVIRONMENTALLY ORIENTED ONLINE LEARNING COMMUNITIES: THE CASE OF ELEMENTARY SCHOOLS IN GREECE

Konstantinos Karampelas, 2nd Model Experimental Primary School of Rhodes and Sarantis Karvounidis, 1st Model Experimental Primary School of Rhodes, Greece

This study examines the possibility of an Online Learning Community (OLC) of primary school classes to promote environmental literacy. The community was composed of four primary school classes in Greece, on the E-twinning platform. The community members carried out common activities focusing on constructing knowledge on environmental concepts and issues and developing skills required to approach problem solving on environmental challenges. Through a qualitative approach, based on the activity theory, it was concluded that to an extent environmental literacy was promoted and learners respected the potential of the OLC. However barriers emerged.

CHILDREN'S LITERATURE AND READING IN AN ERA OF DEVELOPING TECHNOLOGY

Roseland Da'eem, The Arab Academic College for Education in Israel-Haifa, Israel

This paper explores the children's literature in an era of developing technology. The research relies on several studies of children's literature and reading development since 2005. Four main dilemmas are addressed: the language of literature, the contents of the literature, the production of the books, and the act of reading. Creating good literature for print or for the media is a great responsibility. Our aspiration as authors, parents, educators, and change agents is to present the child with an artistic story that includes rich language, connotations and style, worldly knowledge, art, an aesthetic experience, and an emotional and pleasurable experience.

INTEGRATING ICT IN THE ARABIC GRAMMAR LESSONS AT THE ELEMENTARY SCHOOL: ATTITUDES AND EFFECT!

Zuhaira Najjar, The Arab Academic College for Education in Israel-Haifa, Israel

Teaching grammar aims to encourage learners to achieve accuracy in language. However, learning Arabic grammar is difficult for Arabic-speaking pupils at all teaching levels due to its complicated structures, forms and derivatives. This study explores the impact of information communication technologies (ICT) in teaching Arabic grammar on the achievement of elementary school pupils at Arab schools and their attitudes towards learning Arabic grammar. Findings show that ICT has been found to have remarkable potential for promoting achievement in Arabic grammar. Following the computerized tutorials, there was significant improvement in pupils' achievement in Arabic grammar and in their attitudes towards learning Arabic grammatical rules.

COMPARISON OF ACADEMIC PERFORMANCE AND ATTENTION SPAN OF CHILDREN BETWEEN MONTESSORI AND TRADITIONAL PEDAGOGICAL APPROACHES OF PRESCHOOLS

Jean Marie Villamor Juanga and Ar Caryn Ressureccion, University of the Philippines, Philippines

This study compares test scores of preschoolers ages 5-6, when exposed to the Montessori prepared environment and teaching pedagogy with those of preschoolers experiencing the traditional lecture classroom approach. A case study done in Davao City Philippines on six preschools and an experiment were conducted by providing preschool children who were schooled in the traditional lecture method approach with activities that were modelled from a Montessori teaching pedagogy.

Comparisons between the two pedagogies were done through experimental observation and by conducting pretests and posttests to find out if there was a difference in the academic performance and attention span of children exposed to the Montessori prepared environment while learning compared to children exposed to the traditional classroom lecture method only. The results of the t-tests showed that children exposed to the Montessori prepared environments with active outdoor learning approaches achieved higher mean gain results in their test scores in both math and science compared to those children inside the traditional classroom. Children learn more when exposed to active learning with an appropriate environment with different learning activities. The research also documented the attention span of children while being given writing and manipulative classroom activities. The preschoolers exhibited longer attention spans when given activities in a Montessori prepared environment than inside the traditional classroom one.

Plenary Session 10. ICT in Science-based Education

USING MOBILE TECHNOLOGY TO DEVELOP UNDERSTANDING OF HEARING RISKS USING AN EXPERIENTIAL APPROACH

Lee Davison and Christopher Barlow, Southampton Solent University, United Kingdom

Over 10 million people in the UK suffer with a hearing loss, with noise exposure identified as the biggest preventable cause (Bennett, 2007). Young people are particularly at risk, due to the rising level of personal media player (PMP) usage among their age group (Holloway, Green, & Livingstone, 2013). Lack of education results in poor understanding of hearing health, and, therefore, risk taking behaviour, which starts before university age (Barlow, 2011). Current Education is typically didactic in approach and programmes studied have had minimal impact on cohort behaviours (Borchgrevink, 2003; Portnuff, Fligor, & Arehart, 2009). This paper examines the initial stage of an action research project aiming to improve hearing health education by use of an experiential e-learning system.

CLOUD-BASED TIME-EFFECTIVE LABORATORY REPORTS GRADING

Samuel Kosolapov and Nissim Sabag, ORT Braude Academic College of Engineering, Israel

In the frameworks of the described time-effective cloud-based approach, educators are able to prepare a specific laboratory MS Word template file containing an exact list of student assignments to be executed. The student (or pair of students) compiles and finalizes the report during the laboratory by using a computer connected to the Internet. Students log all relevant measurements directly into the MS Word template file. Additionally, students are able to use their smartphones to add photos of important laboratory steps (e.g., oscilloscope' screenshots) to their report as proof of successful execution of relevant laboratory steps. Educators are able to periodically check student' progress. The graded reports are electronically signed and are stored in the cloud.

INTRODUCING MICROCONTROLLER BASED COMPUTER PLATFORMS INTO ENGINEERING COMPUTER EDUCATION

Jian Jiang, Southampton Solent University, United Kingdom

Computer skills have become essentials for most of us living and working in this modern world. For engineering students, an understanding of computer architecture, interfacing, resource management and networking is fundamental. The current module used in our university to teach students this knowledge is facing some problems, including poor student engagement, lack of practical experience and weak linkage between content. One reason for this is that modern computers are highly integrated and are well designed to prevent non-specialists from making changes to the system. Students rarely

have the opportunity to look into a real computer to understand how the hardware links together. A potential solution is introducing microcontroller platforms, such as Raspberry Pi, Arduino and Phidgets, into the module. These beginner-friendly computer platforms can give students the chance to explore and actually take control of the system. Although they are less powerful, they have a similar structure to PC's. Knowledge and skills gained from the microcontroller platforms can be easily transferred to other more complicated modern computer systems. These microcontroller platforms are also cost effective and benefit from huge open sources. They have been very popular with students as well as professionals in recent years. By introducing the microcontroller platform into our module, we hope to help students' learning and improve their engagement. Building, using and working on these microcontroller platforms, students can get a better understanding of how computer systems work and a better linkage among content taught in class.

DOES IT MATTER IF A FIRST YEAR PROGRAMMING STUDENT IS DIGITALLY LITERATE? THE EFFECT OF DIGITAL LITERACY ON A STUDENT'S PERFORMANCE IN COMPUTER PROGRAMMING

Glenda Barlow-Jones, Jacqui Chetty and Pieter Joubert, University of Johannesburg, South Africa

Information Technology is an increasing part of our everyday lives, and it is not uncommon to see students at a university walking around with smartphones, iPad's and laptops. Today, students are perceived to be digitally literate when starting their first year of studies. This, however, may not necessarily be true. This study is twofold: firstly, we examine the digital literacy level of the first year students at a South African university who are enrolled for a computer programming course; and secondly, we determine whether these students' digital literacy level has an impact on their programming ability. A quantitative approach was taken with a closed ended questionnaire used to collect data. The data that were collected were (a) analysed according to the students' access to and use of technology and (b) brought in relation to the students' final mark for their computer programming module. The results showed that there was a significant but weak positive correlation between (a) a student's computer experience and (b) use of common applications and their computer programming mark. However, the other four factors of use identified do not correlate significantly.

ICICTE 2015 Poster Sessions

THE UPTAKE AND USE OF DIGITAL TECHNOLGIES IN TWO SCHOOLS WORKING IN A 1:1 INITIATIVE

Marcia Håkansson Lindqvist, Umeå University, Sweden Corresponding author: Marcia Lindqvist <marcia.lindqvist@pedag.umu.se>

The uptake and use of digital technologies in schools provides possibilities and challenges in the classroom. The uptake and use of laptop computers and the conditions for *Technology Enhanced Learning* (TEL) was studied in the research project Unos Umeå, a joint One-to-One (1:1) research project between Umeå University and the municipality of Umeå in Sweden. The research project followed a 1:1 initiative in four classes in two schools -- two classes in an upper-secondary school and two classes in a compulsory school. The research questions posed regarded expectations and activities related to laptop use for teachers, students and school leaders as well as how these expectations and activities transformed over time and affected school change. Based on surveys, interviews, focus group interviews and ethnographically inspired classroom observations, the Ecology of Resources Model (Luckin, 2010) was used as a theoretical framework for analysis.

For students, possibilities were seen in accessing information, producing professional texts and work variation, while challenges were seen in the laptop as a distraction and technical problems. Teachers

Poster abstracts

saw possibilities in new methods of teaching but also the need for time, professional development, teacher collaboration and targeting low student use. School leaders saw possibilities in increased teacher collaboration, documenting best practice and following up students' and teachers' work, while challenges were seen in prioritizing leadership for 1:1. In conclusion, how teachers and school leaders support the uptake and use of digital technologies through creating collaborative work environments and furthering ICT-skills will have implications for technology enhanced learning for teachers and students as well as for school change.

VISUALIZING THE ANTHROPOCENE: TWITTER, SOCIAL NETWORK ANALYSIS, AND TEACHING

Paul Wright and Laurie Wright, Southampton Solent University, United Kingdom Corresponding author: Paul Wright <Paul.Wright@solent.ac.uk>

The *Anthropocene* is a relatively new and contested concept in environmental science. It is often defined as a new geological epoch characterised by human activity making a permanent modification to the planet. The debate has framed a range of discussions within earth and social sciences. Understanding the complexity of the concept and the need for a far-reaching appreciation of a range of bodies of evidence has proved problematic for students. There is so much to learn, over so many subjects.... where do you start?

This poster documents the use of social network analysis of Twitter in defining key interest groups and significant actors in the network and in developing a list of important twitter feeds. As this is a new concept, debate outside of the peer-reviewed literature is undertaken by social media savvy academics and practitioners. Using open source software, Twitter feeds using the term *Anthropocene* have been visualised as a network of connections between various interested parties clearly showing differences between the social and natural sciences communities.

This not only helps learners to see the differences in opinion, and where these are formed, but it will also help tutors develop activities that explore the myriad of ideas attached to the concept, provoking debates upon the nature of knowledge and the role of science in understanding this idea. Further student-centred activities, such as the changing nature of this network over time, could be developed so as to introduce students to an interesting research methodology, but also to enhance their understanding of the shifting points of view within the debate.



USE OF VIRTUAL LEARNING ENVIRONMENTS BY STUDENTS ON UNDERGRADUATE CAMPUS-BASED COURSES

Christopher A. Barlow, Paul Bourne, Bernard Griffin, Southampton Solent University, United Kingdom

Corresponding author: Christopher Barlow <Christopher.Barlow@solent.ac.uk>

Virtual Learning Environments (VLEs) -- also known as *content management systems* or *learning management systems* -- were developed in the 1990s and are now used by the majority of UK higher education institutions to support a variety of different types of learning (Walker et al., 2014).

HE institutions appear to favour a blended learning approach, using technology to support campusbased students (Parkes et al., 2013), and institutional expectations often focus on the staff using the VLE to deliver content or provide supporting materials. For the majority of institutions this particularly concentrates on providing electronic access to lecture and tutorial notes, and there is commonly a rule that these must be uploaded to the VLE as core content. This reflects stage one of Zemsky and Massy's model of adoption of e-learning (2004), with management expectation that this will enhance the student learning experience.

The research literature makes it clear however that the use of technology alone cannot deliver transformation (Graham, 2006). Good pedagogic practice makes use of the possibilities of the VLE to add aspects such as flexibility, extension of course materials, experiential learning, formative assessment and feedback to a course. However, "Practitioners routinely report that 'good practice' entails a significant extension of workload" (Parkes et al., 2013, p. 22). A lack of appropriate preparation time in the work schedule means that many academics still use VLEs simply to deliver traditional lecture/seminar materials in order to meet their contractual requirements, without extending significantly beyond the classroom materials.

The question is how much are students, who typically use mobile devices for Internet access, and are used to enriched learning content through other Internet sources such as social media, actually making use of these resources? Is there a significant difference in VLE usage between those modules designed to make the VLE integral to the module, compared to those for which the VLE is a content repository? This poster examines access data from a range of large undergraduate campus-based modules (40-100 students), all of which use classroom- based learning as the primary approach, but which have a requirement for utilisation of the VLE. These include 'traditional' lecture-seminar modules and modules designed to make more integrated use of the VLE.

References

- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.). *Handbook of blended learning: Global perspectives on local designs*. San Francisco, CA: Pfeiffer Publishing.
- Walker, R., Voce, J., Nicholls, J., Swift, E., Ahmed, J., Horrigan, S., Vincent, P. (2014). 2014 Survey of *Technology Enhanced Learning for higher education in the UK*. Oxford: Universities and Colleges Information Systems Association.
- Parkes, T., Jones, C., Randall, D., Crow, G., Pryke, M., & Jones, R. (2013). *The Potential of Virtual Learning and Virtual Learning Environments for Advanced Doctoral Training in the UK*. Swindon: Economic and Social Research Council.
- Zemsky, R., & Massy, W. (2004) *Thwarted innovation: What happened to e-learning and why.* Westchester, PA: The Learning Alliance.

ELECTRONIC REGENERATED FREIREAN LITERACY THROUGH EMPOWERING COMMUNITY TECHNIQUES (e-REFLECT)

Presenters: Nancy Pyrini, 1st Primary School of Rafina and Costas Tsolakidis, University of the Aegean, Greece

Contributors: Stavroula Alexandropoulou, Sarantis Chelmis, Maria Latzaki, Sevasti Mouxtoupi 1st Primary School of Rafina, Greece; Charalambos Vrasidas, Centre for Advancement of Research and Development in Educational Technology Ltd-Cardet, Cyprus; Riitta Korhonen, University of Turku, Finland; Gráinne Conole, Bath Spa University, United Kingdom

Corresponding author: Nancy Pyrini < nancypyrini@icicte.org>

The e-Reflect project is an Erasmus+ KA200 project, which embraces the European Commission's invitation towards Member States to push forward educational reforms in adult learning that "boost skills supply through offering tailored learning opportunities to individual learners" (European Commission/EACEA/Eurydice, 2013, p. 57). Through the agency of schools, higher education institutions and NGO's of Europe the e-Reflect project seeks to develop and implement a high quality continuing professional development e-course on active citizenship education for teachers and young children education professionals.

The project objectives can be summarized as follows:

- Strengthening of educator's professional profile.
- Internationalization at the level of education and training institutions.
- Enhancement of Information and Communication Technologies (ICT) uptake in teaching and learning.
- Improvement of the quality of school-based learning provision in fostering reflective thinking and entrepreneurship.
- Empowerment of school children to fully participate in society change initiatives.

A main intellectual output of the e-Reflect project is the design, development and the implementation of an e-course aiming at: (a) introducing school educators in a rich technological environment for the implementation of the Reflect Approach in contemporary school settings and (b) encouraging inter-European teacher collaboration in active citizenship projects.

The e-Reflect course fuses digital literacy in stimulating active citizenship and social entrepreneurship. Particularly, it takes advantage of contemporary digital technology (course authoring and Web 2.0 tools, LMS) to cultivate democratic spaces for communication, collaboration and action, and to encourage discussion so that people can develop their own learning materials, basing their analysis on the systematization of their own knowledge.

Reference

European Commission/EACEA/Eurydice. (2013). Education and Training in Europe 2020: Responses from the EU Member States. Eurydice Report. Brussels: Eurydice. Retrieved from http://eacea.ec.europa.eu/education/eurydice doi:10.2797/49490

OPEN WINGS TOWARDS THE DEVELOPMENT OF THE GREATER SENSE OF SELF

Orestes Varonis, Varonis NDE Consulting LLC, United States of America Nancy Pyrini, 1st Primary School of Rafina, Greece Corresponding author: Nancy Pyrini < nancypyrini@icicte.org>

The "OPEN WINGS Towards the Development of the Greater Sense of Self" project is the continuation of the "HIGH TECH-HIGH TOUCH": The Creation of a Community of Self-Directed Learners in Primary Education for Social Development—Piloting A Wiki project (Pyrini, 2013).

Poster abstracts

According to Boucouvalas (Pyrini, 2012):

Change is a constant in life but during some eras and in certain countries the call for change permeates life itself, requiring shifts that are sometimes of a transformative nature. Such is the case in Greece right now. These moments in the lives of both individuals and countries afford opportunities for growth. Driving and restraining forces towards growth can be internal or external to the individual, relationships, organizations, communities, the culture, the nation, and international forces. (p. 201)

The poster presentation will demonstrate the effort of a sixth grade class from the 1st Primary School of Rafina in Greece to open their wings and connect with Dr Orestes J. Varonis, Ph.D. in the state of Ohio of the United States of America via WebEx, a Cisco web-conferencing tool.

The students over the past two school years (grades 5 and 6) have been able to embed themselves in contexts that contribute to homonomous identification and development with an interdisciplinary approach. First they connected within small working groups of the class, then with students and teachers from other classes in the school, then with the local community, then with the country and the European Union, and finally they opened their wings to the world by connecting with the United States of America.

The main aim of the three on-line synchronous sessions was to hear a real life success story by Dr. Varonis is order to develop a positive attitude towards major life changes and imagine the possibility of their own mobility around the globe for educational or professional purposes.

The impact of the on-line sessions far exceeded our expectations and can be summarised as follows:

- Impact on the teacher: the teacher was offered a great seminar on how different subjects of the curriculum such as local history, history, geography, physics, and religion can be embedded in a life story that makes learning meaningful and engaging.
- Impact on the students: students were empowered in terms of their mobility potential for educational or professional purposes and developed insight into how humble beginnings are not necessarily an obstacle to educational, professional, and spiritual growth.
- Impact on the presenter: the presenter was grateful for the opportunity to review his life's journey, to document it for the class and therefore for his family, and to reflect on the circumstances, goals, hard work, persistence, and faith that led to his success.
- Impact on all participants: in addition to providing an exciting opportunity to interact, the experience also demonstrated the potential of web-conferencing to facilitate international communication and collaboration with minimal technology requirements.

What has been amazing was that one of the students is actually moving to the United States of America and this learning experience as she stated "made me more confident and hopeful about my future in the new country."

References

- Pyrini, N. (2013). "High tech-high touch": The creation of a community of self-directed learners in primary education for social development—Piloting a Wiki. In L. Morris & C. Tsolakidis (Eds.), ICICTE 2013: International Conference on Information Communication Technologies in Education (pp. 144-157). Retrieved from www.icicte.org/Proceedings2013/HOME2013.htm
- Pyrini, N. (2012): Speaking personally—With Marcie Boucouvalas. *American Journal of Distance Education*, 26(3), 200-207.
WORKSHOPS

APPLYING THE QUALITY MATTERS RUBRIC (HIGHER EDUCATION VERSION)

Facilitator: Evangeline (Litsa) Varonis, The University of Akron, Quality Matters Master Reviewer, Workshop Facilitator, and Member of 2014-2016 Rubric Committee, United States

See page 17 for workshop description. Date: Friday, June 10, 10.00 to 17.55.

Allotted time	Time	Activity	
30 minutes	10:00 - 10:30	Welcome o Introductions o Review Scenario Activity	
15 minutes	10:30 - 10:45	About Quality Matters o Design vs. Delivery Activity	
30 minutes	10:45 - 11:15	The QM Rubric o Rubric Puzzle Activity	
10 minutes	11:15 - 11:25	o Course Worksheet Activity	
	11:30 - 12:00	Coffee Break	
10 minutes	12:00 - 12:10	Strategies for Applying the QM Rubric	
30 minutes	12:10 - 12:40	Begin at the Beginning o General Standard 1 o Apply Specific Review Standard 1.1 to the SPCH 1113 course	
60 minutes	12:40 - 13:40	Importance of Learning Objectives • Measurable/Precise Activity • Learning Objectives or Competencies Worksheet	
	13:40 - 14:30	Lunch	
60 minutes	14:30 - 15:30	Practice Alignment • Apply Specific Review Standards 3.1, 4.1, 5.1, and 6.1 • Alignment Worksheet	
60 minutes	15:30 - 16:30	 Draft Helpful Recommendations Improve Recommendations Apply Specific Review Standard 7.2 Draft a Recommendation for Specific Review Standard 7.2 Apply Specific Review Standard 8.3 Draft a Recommendation for Specific Review Standard 8.3 	
	16:30 - 16:40	Break	
20 minutes	16:40 - 17:00	Effects of Helpful Recommendations • Course Improvements – Revised SPCH 1113 course (Specific Review Standards 7.2 and 8.3)	
15 minutes	17:00 - 17:15	Peer Review Process	
10 minutes	17:15 - 17:25	Self-Review Tool Serving as a Peer Reviewer	
10 minutes	17:25 - 17:35	Reflections	
10 minutes	17:35 - 17:55	eLearning Marketplace, Evaluation, and Wrap Up	

BEST PRACTICES CONTRIBUTIONS FOR TECHNOLOGIES IN EDUCATION

Facilitators: Gjoa Andrichuk, Faculty, and Lisa O'Neill, Instructional Development Consultant, British Columbia Institute of Technology, Canada

Workshop Objectives

- 1. To develop best practices that build effective technology enabled pedagogies.
- 2. To exchange interdisciplinary education technology affordances and constraints.
- 3. To probe instructional design and delivery constructs that evaluate the effective integration of technology in educational contexts.
- 4. To contribute workshop developed resources to the ICICTE conference community as an open educational resource.
- 5. Discover. Grow. Contribute.

Methods

The purpose of this workshop is to create a shared artifact to contribute to the conference delegates and non-attendees. The participants will work together to create solutions for issues identified in pedagogies being used with education technology in the teaching environments of the workshop members. Challenges of education technology in the classroom will be identified, discussed, questioned, and debated as to proposed solutions. A document of results and findings will be produced and shared in an open-source medium with the conference delegates and future ICICTE participants.

Outline

This collaborative workshop is structured to help participants create a collective response to the question "What challenges are confronted by learners and the designers of learning to deliver technology enabled learning?" in order to examine the complexities in designing equitable access to 21st century learning. After the workshop, facilitators will disseminate participant contributions as an open educational resource.

The first phase of the workshop addresses a few of the key ICICTE themes that impact educational technology integration (intellectual property, ethical considerations, equitable access to learning, and the psychology of ICT-mediated learning). Participants, guided by the workshop facilitators and two Canadian cases presented, will contribute challenges, enablers, actions, and impacts to technology enhanced learning and teaching in these contexts.

In the second phase of the workshop, participants will be asked to move beyond the cases presented and think about other scenarios where technology deployments might positively impact learning and/or teaching. This phase seeks to identify additional challenges, enablers, actions, and impacts. This phase, thanks to the contribution of participants in discussion and brainstorming, will draft a map of "spreadable" design approaches that support connected learning, which may include technical resources that make approaches easy to circulate, structures that support or restrict circulation, attributes that encourage circulation, and networks that promote meaningful exchange. At the workshop close the facilitators will collate participant contributions to create a summative document. This document will be shared through conference social media streams as a summary of participant responses and as a general conference contribution.

Optimum number of participants – 10-20 people

FUTURE QUEST: THE GAMIFICATION OF EMPLOYABILITY LEARNING

Facilitators: Richard Sant and Nick Hampton, Southampton Solent University, United Kingdom

Workshop objectives

• For those interested in developing an understanding of gamification and how the theories

and practices of gamification can (and are) being harnessed within university higher education the workshop will provide the chance to interactively engage with the Future Quest pilot software.

• For those already knowledgeable in the area of gamification, the workshop will provide the opportunity to see how the concept is put into practice in relation to university student employability.

Method

An interactive demonstration of the current version of the Future Quest software

Outline

Over the past decade gamification (the harnessing of game mechanics to increase engagement) has spread from its traditional ground in computer gaming to other areas. Particularly interesting is the power of gamification to increase student engagement (Muntean, 2011), especially in areas in which intrinsic motivation may be lacking.

One area of the student experience that can be deprioritised is that of employability learning. The extrinsic motivator of a future career may seem a long way off for students engaged in their studies. Yet, at the same time, the pressure from employers for graduates to have more than a good degree, to be armed with employability skills and work experience, increases (BIS 2013, High Fliers 2013).

In order to address these issues, the researchers have developed a prototype piece of gamification software, called Future Quest. Fully realised, Future Quest will be a multiplayer online game in which students undertake various employability learning challenges and gain points for doing so, engage in employability learning and achieve a higher goal of visualising their own graduate identity.

The workshop will provide participants with the opportunity to engage with and discuss FutureQuest, which is currently in development (and a pilot version being tested) at Southampton Solent University.

Optimum number of participants - 15 to 20

ICT MEDIATED PROBLEM SOLVING: USING MOBILE DEVICES AND CROSS PLATFORM APPS TO ACHIEVE DEEP LEARNING

Facilitators: Dr. Rose-Marie Thrupp, Adjunct Lecturer and Mr. John Hunt, Lecturer in Education, University of the Sunshine Coast, Australia

Objectives

- Use ICT to develop higher order thinking
- Explore and understand the potential of ICT in problem-solving
- Work collaboratively to design challenges for learners that require the use of mobile devices

Methods

Our teaching approaches utilise strategies that we have developed over a number of years and that are grounded in research and practical publications. In this workshop, we will explore these pedagogical approaches in an ICT-mediated environment. The workshop is presented as a blended learning opportunity that can be adapted to all age groups and subject scenarios. It starts with a problem and moves towards a collaboratively developed solution. You will interact with workshop participants as a whole group and in smaller groups of 3-4, just as we organise our classrooms. We want you to leave with different perspectives of problem solving in different contexts, contexts of your choosing.

Outline

Our belief: Combining ICT creates a more powerful "tool," that is, enhanced learning with ICT happens when a range of hardware and software application are combined and interact with each other, when students have choices as to how they will present their learning and when learning is accessible to all.

You will develop task cards, conversations, video clips and ebooks that challenge learners in the discovery of new knowledge and problem solving. The language of Bloom will be used to create differentiated tasks for the range of learners found in most classes. Task cards provide differentiated activities for group or individual completion on themes and contexts relevant to learners. Conversations provoke argumentation in whole class or small group discussion and are designed to produce robust argumentation (discussion) in a safe and supportive environment. This can be problematic in some cultures where adults are not to be questioned and learning is driven by the use of books. Ebooks are used to draw together tasks, conversations and video clips, providing a model for learners to share their work

Our strategies have been used in pre-service teacher education courses and with practicing teachers from across Australia and Indonesia.

The efficacy of work created will be quality assured using the Productive Pedagogies framework.

Optimum number of participants – 20

HOW TO PRODUCE OPEN EDUCATIONAL RESOURCES (OERS) FOR THE HUMANISTIC AREAS: A HANDS-ON EXPERIENCE

Facilitator: Dr. Vilson J. Leffa, Catholic University of Pelotas, Brazil

Workshop objectives

At the end of the workshop, participants are expected to:

- Develop interactive modules for their students
- Integrate text with image, sound, and video
- Share their modules online with other teachers
- Remix modules from other teachers into their own
- Integrate multiple modules into a single activity
- Save their activity in a repository for free access on the Web

Methods

- PowerPoint presentation
- Hands-on experience in producing OERs
- Pair work, sharing laptops, if necessary (Participants will bring their own laptops)

Outline

On the theoretical side (What we are talking about):

- The promises of Open Educational Resources (OERs): what makes an OER open, educational and a resource?
- Two important meanings of "Open": open to universal access and open to change.
- How to define the "Educational" content of an OER.
- How "Resource," as an instrument, can empower teachers and students, so that students learn more than what is taught by teachers.
- The four Rs: Reuse, Revise, Remix and Redistribute.

On the practical side (What we can do about it):

- How to adapt OERs to different contexts.
- Crowd sourcing and mass collaboration in the production of OERs.

- Elastic modularity: how to disassemble OERs into their basic components, modify the components, reorder and reassemble them into new OERs.
- Producing OERs and storing them in a cloud repository to be freely redistributed to other teachers.

References

- Leffa, V. J. (2013). Distributed agency in avatar-based learning. In E. S. Junqueira & E. K. Buzato (Eds.), *New literacies in the context of Brazilian historical social-economic inequality: past, present, and future trends* (pp. 69-87). New York: Peter Lang.
- Tapscott, D., & Williams, A. (2007). *Wikinomics: How mass collaboration changes everything*. New York: Penguin.
- Wiley, D. A. (2007, August 8). Open education license draft [Blog post]. Retrieved from http://opencontent.org/blog/archives/355

Resource

http://www.elo.pro.br/cloud/

Optimum number of participants - 20

COLLABORATIVE ONLINE SPACES FOR SOCIAL LEARNING

Facilitator: Ariane Skapetis, Learning Technologist, UTS, Sydney, Australia

Workshop objectives

- Identify and explore online spaces that best support collaboration and sharing for social e-learning
- Demonstrate class workflow using online spaces to best support group work, collaboration and sharing both synchronously and asynchronously
- Explore pedagogical frameworks that focus on student engagement, group work, social learning and authentic learning experiences and feedback

Methods

Participants will have the opportunity to explore a variety of online tools that support asynchronous and synchronous learning. They will identify the best tools to support their educational contexts and settings. Collaboration and sharing and the huge shift towards a seamless paperless workflow will be the focus.

Outline

With the advance of various web 2.0 technologies and cloud based learning suites, there are a wide range of educational tools that can best support students in and out of the classroom. Students can collaborate and share in safe online class spaces, and the teacher moderate and facilitate. Discussion, backchannel, quizzes, polling and the curation of resources are some of the areas of social e-learning to be explored in this workshop.

The workshop will allow all participants the opportunity to explore, engage and interact with other participants using online tools such as: Google Apps, Google Classroom, Evernote, OneNote, Microsoft Office 365, Wikispaces, blogs and Google Communities. Participants will use their mobile devices to access a range of mobile apps that best support collaborative cloud-based learning in the K-12 and Tertiary setting. All the tools explored will demonstrate how cloud based storage is making it easier for students and educators to access information, collaborate and share on the fly with a range of devices.

Optimum number of participants - 20

All participants are required to bring along a Wi-Fi enabled laptop or mobile device for more

engaging and interactive sessions. Also, as the session will be both interactive and collaborative, all participants are required to have set up a Google account and have the Google Drive app on their mobile devices.

References

- Byrne, R. (2012, April). The best sites and tools for collaborative online studying. *School Library Journal*. Retrieved from http://www.thedigitalshift.com/2012/05/k-12/the-best-sites-forcollaborative-online-studying/
- Kock, N. (Ed.). (2013). Interdisciplinary applications of electronic collaboration approaches and technologies. Hershey, PA: IGI Global.
- Mei-jung, W. (2010). Online collaboration and offline interaction between students using asynchronous tools in blended learning. *Australasian Journal of Educational Technology*, 26(6), 830-846.
- Pozzi, F., & Persico, D. (Eds.). (2011). *Techniques for fostering collaboration in online learning communities: Theoretical and practical perspectives*. Hershey, PA: IGI Global.
- Regis, D., & Ingle, K. (2015). The benefits of Google for Education in higher ed: Google for Education tools can foster collaboration and benefit learning on campus. *University Business Jan.2015.* Retrieved from http://www.universitybusiness.com/article/benefits-googleeducation-higher-ed
- Sweigart, S. (2012). Cloud-based collaboration connects engineering tteachers. Techniques, 87(8). Retrieved from https://www.questia.com/magazine/1G1-309173875/cloud-basedcollaboration-connects-engineering-teachers

CREATING AN ICICTE 2015 ONLINE COMMUNITY OF PRACTICE

Facilitators: Helen Caldwell and Rebecca Heaton, Senior Lecturers, University of Northampton, United Kingdom

Workshop objectives

- To demonstrate how a number of digital tools for online collaboration can make a more seamless connection between online and offline learning
- To demonstrate how learning can occur through the promotion of participant voice, the creation of communities of practice and reflexivity
- To create an online community of practice capturing ICICTE 2015

Methods

Delegates will be invited to make contributions to a community of practice throughout the conference using a Google Plus (G+) community, Twitter and a number of online tools that facilitate collaboration. We will set a 10-minute daily task in order to build familiarity with the tools, and encourage regular posts and comments so as to capture practice and demonstrate the value of the online interactions.

Outline

The workshop session will begin with a review of the contributions to the G+ community and Twitter. We will look at how the conference tweets might be captured and shared on the G+ community using Storify. Other collaborative apps and tools that can be embedded in G+ such as Google Docs, Padlet, Prezi, Popplet and Thinglink will be explored. We will discuss how these models can provide a fertile ground for social learning and show how they might be applied across higher education institutions to enhance provision in progressive digital learning. We will illustrate how they can provide opportunities for blended learning, flipped learning, the capture of crowdlearning events, CPD with dispersed audiences, and the design of connectivist MOOCs.

Optimum number of participants – up to 20

Delegates requested to bring their own devices.

List of Abstracts

Riding the perfect storm: designing and delivering course content for today's learners 18	conditions and rigorous piloting22A learning management system's5effect on pedagogy23	Children's literature and reading in an era of developing technology 28
Beyond cut-and-paste: creating interactive online resources to introduce first year students to academic citation 18	E-learning spaces and the digital university: where the physical meets the digital 23	Integrating ICT in the Arabic grammar lessons at the elementary school: attitudes and effect! 28
Study materials for university study and further education: comparative analysis of learning preferences in 2010 and 2014 18	Producing open educational resources through massive collaboration 23 An online master's degree: teaching and learning strategy vs. managerial	Comparison of academic performance and attention span of children between montessori and traditional pedagogical approaches of preschools 28
Social enterprise and sustainable developmet: e-learning professional training program for youth in the global south 19	constraints23Effective use of lecture capture in large lecture halls24	Using mobile technology to develop understanding of hearing risks using an experiential approach 29
Ubiquitious computing devices in the training of teacher-trainers 19	Student and staff perceptions on the impact of lecture capture 24	Cloud-based time-effective laboratory reports grading 29
Simulation-based training for Greek preservice teachers: developing a 3d classroom environment for professional development via	Living Doll 24 Cognitive and metacognitive	Introducing microcontroller based computer platforms into engineering computer education 29
practical experience 19 Pre-service teacher perceptions of ICT teachers 19	prompting in ill-structured tasks: the art of asking 25 Knowledge and skills retention in sustaining e-learning capability 25	Does it matter if a first year programming student is digitally literate? The effect of digital literacy on a student's performance in
Teacher education and constructionism when teaching with digital technologies 20	Extension of a knowledge and skills taxonomy to include a complex and integrated skills category 25	computer programming 30 The uptake and use of digital technolgies in two schools working
Rethinking evaluation's practice in higher education to meet day-to-day challenges: bridging the gap between expectations and reality 20	Emotional experiences in simulated classroom training environments 25 Towards an instructional tool for the teaching of english as a second (in a 1:1 initiative 30 Visualizing the anthropocene: twitter, social network analysis, and teaching 31
Innovative assessment and personalised feedback in higher education 21	the teaching of english as a second / foreign language (ESL/EFL) in higher education 26 Languages, humanities and	Use of virtual learning environments by students on undergraduate campus-based courses 32
Is mathematics still relevant as an admission criterion for entry into an information and communication technology course at a South African	technologies: blending into one in order to promote a conscious citizenship education for cildren	Electronic regenerated freirean literacy through empowering community techniques (e-Reflect) 33
technology course at a South African university? 21 Exploring student experiences of	under a vulnerable situation in Brazil 26 The role of instant messaging during	Open Wings towards the development of the greater sense of self 33
assessment in higher education in scotland and Brazil: embargo or empowerment? 21	practicum: lessons learned from a case study 26	Applying the Quality Matters Rubric (higher education version) 17, 35
Model of the "mediating teacher" in distance learning environments:	Effectiveness of an e-learning system and students' perceived satisfaction in a public administration	Best practices contributions for technologies in education 36
classes that combine asynchronous distance learning via videotaped	programme using the Moodle e-learning platform 27	Future quest: the gamification of employability learning 36
lectures 21 Building teacher confidence in addressing indigenous issues in the	The interdisciplinary use of blogs and online communities in higher education 27	ICT mediated problem solving: using mobile devices and cross platform apps to achieve deep learning 37
classroom 22 Encouraging student engagement with collaborative serious games: the	Social networks supporting higher education in it and management 27	How to produce open educational resources (OERS) for the humanistic areas: a hands-on experience 38
COCO framework 22 On the national educational	Creating environmentally oriented online learning communities: the	Collaborative online spaces for social learning 39
technology strategic plan 2012- 2017: the importance of essential	case of elementary schools in Greece 28	Creating an ICICTE 2015 online community of practice 40

Post-Conference Activities

July 12 Boat trip to Bodrum-Alkarnassos in Turkey

Although more than a million tourists flock to its beaches, boutique hotels and clubs each summer, Bodrum (Halicarnassus in ancient times) never loses its cool. More than any other Turkish seaside getaway, it has an enigmatic elegance that pervades it, from the town's grand crowning castle and glittering marina to its flower-filled cafes and whiteplastered backstreets. Even in the most hectic days of high summer, you can still find little corners of serenity, in the town and especially in its outlying coastal villages (www.lonelyplanet.com).



Schedule (approximate times - to be confirmed on site): TBA Pick up from Neptune; 10:00 Departure

from Kos harbor; 11:00 Arrival at Bodrum and free time.; 17:00 Departure from Bodrum; 18:00 Arrival at Kos and drop off to the hotel.

July 13 Boat trip to Nisyros, the volcanic island



Nisyros is one of the most beautiful Aegean islands, still untouched by the tourism growth. It is part of the Dodecanese group of islands, situated between Kos and Tilos. The island extends over a surface of 41 km and its coastline is 28 km long. It can be reached by ferry from Piraeus, Kos and Rhodes.According to mythology, it was created during the war between Gods and Giants. Poseidon chased the Giant Polyvotis down to Kos, cut a part of it and threw it to his enemy, sinking him forever in the bottom of the Aegean Sea. The legendary rock is the modern Nisyros and it is said that the volcano's explosions are the angry breathing of the defeated Giant. These explosions shaped the island, which is considered to be the youngest volcanic centre in Greece, still active –

along with the volcanoes of Milos, Santorini and Methana. During antiquity the island thrived on obsidian commerce, extracted by the inhabitants of Nisyros, from the nearby island, Gyali (www.visitgreece.gr).

Schedule (approximate times - to be confirmed on site): TBA Pick up from Neptune; 09:40 Coach pick up starts and coaches head to Kardamena; 12:00 Boat Departs from Kardamena; 12:45 Arrive in Mandraki – free time for lunch and to explore village; 15:15 Island Tour starts including Nikia and Volcano; 18:00 1 hour in Mandraki before boat departs; 19:00 Boat departs Nisyros; 20:00 Coaches depart from Kardamena for hotels.

What You Study Matters

Computer science opens doors to careers across industries like no other subject. Master must-have skills and enhance your academic experience with industry-leading software, Java development environments, curriculum, and certifications.

Own your future with the Oracle Academy. www.oracle.com/academy

Big Data • Engineering • Mol on • Certification • E-Comme ance • E-Business • Middlew Java • Application Developm uter Science • Cloud Comput nent Information Systems • 9 ngineering • Big Data • PL/8 cation • Business Administrat E-Business • Quality Assura Java • Industry-leading Softw puter Science • Database Des

ig Data • Engineering • Mo • Certification • E-Common nce • E-Business • Middlew ava • Application Developm ter Science • Cloud Compuent Information Systems • 2 gineering • Big Data • PL/ tion • Business Administra E-Business • Quality Assura ava • Industry-leading Softw uter Science • Database Dev

ICICTE 2015 Keynote Speaker

Professor Michael E. Auer

Professor of Electrical Engineering at Carinthia University of Applied Sciences Villach, Austria, and International Association of Online Engineering, Vienna, Austria

Dr. (mult) Michael E. Auer is Professor of Electrical Engineering at Carinthia University of Applied Sciences Villach, Austria. His current research is directed to technology enhanced learning and remote working environments especially in engineering.

He is author or coauthor of more than 180 publications and leading member of numerous national and international organizations in the field of Online Technologies.

Michael Auer is founder and chair of the annual international IEEE EDUCON, ICL and REV conferences and chair or member of the Program Committees of several international conferences and workshops.



He works as an evaluator and coordinator of European Union funded research projects and is member in expert groups of the European Commission.

Michael Auer is Founding-President and CEO of the "International Association of Online Engineering" (IAOE) since 2006, a non-governmental organization that promotes the vision of new engineering working environments worldwide. In 2009 he was appointed as member of the Advisory Board of the European Learning Industry Group (ELIG).

In September 2010 he was elected as President of the "International Society of Engineering Education" (IGIP).

Furthermore, he is one of the founders and Secretary General of the "Global Online Laboratory Consortium" (GOLC). GOLC is the result of an initiative started in 2009 at MIT to coordinate the work on educational Online Laboratories worldwide.

Organised by



Co-organised by



www.icicte.org