Proceedings of the Informing Science and Information Technology Education Conference

InSITE 2013
July 1-6, 2013
University Fernando Pessoa
Porto, Portugal

Editors: Eli Cohen and Elizabeth Boyd

Published by the Informing Science Institute
131 Brookhill Court, Santa Rosa, CA, USA
ISSN: 1535-0703       ISBN: 978-1-932886-71-9

Except as noted in the paper, all submissions were double-blind reviewed by a panel of six or more external referees. The list of the 476 reviewers from 67 countries can be found at http://www.informingscience.us/icarus/conferences/insite2013/thanks

Based on these reviews, papers were published in one of the following:

- Issues in Informing Science and Information Technology
  Volume 9, 2013
- 2012 Informing Science & IT Education Conference Proceedings
  Volume 13, 2013
- Informing Science: the International Journal of an Emerging Transdiscipline
  Volume 16, 2013
- Interdisciplinary Journal of E-Learning and Learning Objects
  Volume 9, 2013
- Journal of Information Technology Education: Research
  Volume 12, 2013
- Interdisciplinary Journal of Information, Knowledge, & Management
  Volume 8, 2013
- Journal of Information Technology Education: IIP
  Volume 12, 2013
- Interdisciplinary Journal of Information, Knowledge, & Management
  Volume 8, 2013
- International Journal of Doctoral Studies
  Volume 8, 2013

Further enquiries:
Eli Cohen, InSITE co-organizer    EliCohen@InformingScience.org
A Bibliometric Study of Informing Science: The International Journal of an Emerging
   Amanda Regolini, Irstea, France
   Emmanuelle Jannès-Ober, Irstea, France

A Comprehensive View of Information Technology in Educational Management in United Arab Emirates: A Descriptive Analysis Approach
   Rima Shishakly, Ajman University of Science and Technology, United Arab Emirates

A Database Practicum for Teaching Database Administration and Software Development at Regis University
   Robert Mason, Regis University, United States

A Digital Ecosystem for the Collaborative Production of Open Textbooks: The LATIn Methodology
   Ismar Silveira, Universidade Presbiteriana Mackenzie, Brazil, et al.

A Framework for Assessing the Pedagogical Effectiveness of Wiki-Based Collaborative Writing: Results and Implications
   Said Hadjerrouit, University of Agder, Norway

A Framework for Using Questions as Meta-tags to Enhance Knowledge Support Services as Part of a Living Lab Environment
   Albertus Buitendag, Tshwane University of Technology, South Africa
   Fredrik Hattingh, Tshwane University of Technology, South Africa
   Jacobus Van Der Walt, Tshwane University of Technology, South Africa

A Guide to Educating Different Generations in South Africa
   Kevin Johnston, University of Cape Town, South Africa

A Packet Sniffer (PSniffer) Application for Network Security in Java
   Otusile Oluwabukola, Babcock University, Nigeria
   Oludele Awodele, Babcock University, Nigeria
   Chibueze Ogbonna, Babcock University, Nigeria
   Ajaegbu Chigozirim, Babcock University, Nigeria
   Anyaehie Amarachi, Babcock University, Nigeria

A Pragmatic View of Wisdom with Rational Ethics
   Zbigniew Gackowski, California State University Stanislaus, United States

A Tale of Two Cultures: Cross Cultural Comparison in Learning the Prezi Presentation Software Tool in the US and Norway
   Sabra Brock, Touro College, United States
   Cornelia Brodahl, University of Agder, Norway

An Assistant for Loading Learning Object Metadata: An Ontology Based Approach
   Ana Casali, Universidad Nacional de Rosario, Argentina
   Claudia Deco, Universidad Nacional de Rosario, Argentina
   Agustín Romano, Universidad Nacional de Rosario, Argentina
   Guillermo Tomé, Universidad Nacional de Rosario, Argentina

An E-Collaboration Activity System for Research Institutions
   Tendani Lavhengwa, Tshwane University of Technology, South Africa
   Albertus Buitendag, Tshwane University of Technology, South Africa
   Jacobus Van Der Walt, Tshwane University of Technology, South Africa

An Effective Development Environment Setup for System and Application Software
   Aleksandar Bulajic, Metropolitan University, Denmark
   Samuel Sambasivam, Azusa Pacific University, United States
   Radoslav Stojic, Metropolitan University, Serbia
An Introduction to Business Problem-Solving and Decision-Making
John Beachboard, Idaho State University, United States
Kregg Aytes, Montana State University, United States

An Object-Oriented Relational Algebra Query Language
Kirby McMaster, Fort Lewis College, United States
Samuel Sambasivam, Azusa Pacific University, United States
Brian Rague, Weber State University, United States

Applying a Modified Technology Acceptance Model to Qualitatively Analyse the Factors Affecting
E-Portfolio Implementation for Student Teachers’ in Field Experience Placements
Eugenia Ng, The Hong Kong Institute of Education, Hong Kong
Ronnie H. Shroff, Hong Kong Baptist University, China
Cher Ping Lim, The Hong Kong Institute of Education, Hong Kong

Are We Really Having An Impact? A Comprehensive Approach to Assessing Improvements in
Critical Thinking in an MBA Program
Luis Noel Alfaro Gramajo, INCAE Business School, Costa Rica
Felipe Pérez Pineda, INCAE Business School, Costa Rica
Carlos Quintanilla, INCAE Business School, Costa Rica
Luis J. Sanz, INCAE Business School, Costa Rica

Attitudes Towards e-learning and Satisfaction with Technology among Engineering Students and
Instructors in Libya
Amal Rhema, Victoria University, Australia
Iwona Miliszewska, Victoria University, Australia
Ewa Sztendur, Victoria University, Australia

Case Studies in Agribusiness: An Interview with Ray Goldberg
T. Grandon Gill, University of South Florida, United States

Challenges in Adopting Open Innovation Strategies in SMEs: An Exploratory Study in Portugal
Hakikur Rahman, University of Minho, Portugal
Isabel Ramos, University of Minho, Portugal

Comparative Analysis of Two Risk Assessment Methods in Information Systems
Božo Nikolic, Higher Education Technical School of Professional Studies, Serbia
Ljiljana Ruzic-Dimitrijevic, Higher Education Technical School of Professional Studies, Serbia

Critical Success Factors for ERP Systems Implementation in Public Administration
Ewa Ziembka, University of Economics in Katowice, Poland
Iwona Obłak, Bytomska Spółka Informatyczna, Poland

Culture, Complexity and Informing: How Shared Beliefs Can Enhance Our Search for Fitness
T. Grandon Gill, University of South Florida, United States

Dealing with Student Disruptive Behavior in the Classroom – A Case Example of the Coordination
between Faculty and Assistant Dean for Academics
Azad Ali, Indiana University of Pennsylvania, United States
Dorothy Gracey, Indiana University of Pennsylvania, United States

Defining and Classifying Learning Outcomes: A Case Study
Maria Jose Goncalves, Polytechnic of Porto, Portugal
Pedro Pimenta, Minho University, Portugal
Luis Braga, Polytechnic of Porto, Portugal
Manuel Pérez Cota, Vigo University, Spain

Developing Cross-Cultural Awareness in IT: Reflections of Australian and Chinese Students
Anne Venables, Victoria University, Australia
Grace Tan, Victoria University, Australia
Iwona Miliszewska, Victoria University, Australia

Do Operating Systems Affect Perceptions of Smartphone Advantages and Drawbacks?
Ruti Gafni, The Academic College of Tel-Aviv Yaffo, Israel
Nitza Geri, The Open University of Israel, Israel
ECOM Coffee Group: The Hybrid Plant Decision
Roy Zúñiga, INCAE Business School, Costa Rica
Bernard Killian, INCAE Business School, Costa Rica

Enhancing Students’ Interest in Science and Technology through Cross-disciplinary Collaboration and Active Learning Techniques
Donna Grant, North Carolina Central University, United States
Gail P. Hollowell, North Carolina Central University, United States
Alisha Malloy, North Carolina Central University, United States

Evaluating How the Computer-Supported Collaborative Learning Community Fosters Critical Reflective Practices
Ada Ma, The Hong Kong Institute of Education, China

Experience with Teaching Program Design
Mirela Djordjevic, Manhattanville College, United States

Exploring Enterprise Architecture and Change Management
Raafat Saadé, Concordia University, Canada
James Wan, International Civil Aviation Organization, Canada

Exploring the Addition of Mobile Access to a Healthcare Services Website
Ruti Gafni, The Academic College of Tel-Aviv Yaffo, Israel
Ory Barak, Open University of Israel, Israel

Factors Associated with Digital Readiness in Rural Communities in Israel
Moshe Yitzhaki, Bar-Ilan University, Israel
Simha Djuraev, Bar-Ilan University, Israel

Gamification in a Social Learning Environment
David Giannetto, Bowling Green State University, United States
Joseph Chao, Bowling Green State University, United States
Anthony Fontana, Bowling Green State University, United States

Geo-hazard Vulnerability Mapping for Early Warning Systems in Sinai Peninsula
Mohamed Nagib Hegazy, National Authority for Remote Sensing and Space Sciences, Egypt

How Business Departments Manage the Requirements Engineering Process in Information Systems Projects in Small and Medium Enterprises
Ruediger Weissbach, Hamburg University of Applied Sciences (HAW), Germany

Implications of Voluntary Communication Based on Gender, Education Level and Cultural Issues in an Online Environment
Vicki Gregory, University of South Florida, United States
Kiersten Cox, University of South Florida, United States

Information and Adaptation in a Public Service Sector: The Example of the Dutch Public Housing
Hendrik Koolma, VU University, Netherlands

Informing Minority Communities
Clarence Bayne, Concordia University, Canada
Raafat Saadé, Concordia University, Canada

Informing Patterns of Student Case Writing
John Ickis, INCAE Business School, Costa Rica
Mislav Omazić, University of Zagreb, Croatia

Informing via Websites: Comparative Assessment of University Websites
Stefka Toleva-Stoimenova, State University of Library Science and Information Technologies, Bulgaria
Dimitar Christozov, American University in Bulgaria, Bulgaria

InkBlog: A Pen-Based Blog Tool for e-Learning Environments
Andre da Silva, IFSP, Brazil
Heloísa Vieira da Rocha, UNICAMP, Brazil

Innovation Transfer Management in the Medical Sector
Malgorzata Nycz, Wrocław University of Economics, Poland
Integrating Online Assignments Checking in Introductory Courses
David Pundak, Kinneret College and ORT Braude College, Israel
Miri Shacham, ORT Braude Engineering College, Israel
Orri Herscovitz, Technion Science University, Israel

Investigating Ways to Use Facebook at the University Level: A Delphi Study
Michael Magro, Shenandoah University, United States
Jason Sharp, Tarleton State University, United States
Katie Ryan, Blue Cross Blue Shield of Texas, United States
Sherry Ryan, University of North Texas, United States

Issues in Doctoral Studies - Forty Years of Discussion: Where have we been and where are we
Michael Jones, University of Wollongong, Australia

Knowledge Development Taxonomy and Application Scenarios
Eckhard Ammann, Reutlingen University, Germany

Learning Anywhere, Anytime: Student Motivators for M-learning
Romana Martin, Curtin University, Australia
Tanya McGill, Murdoch University, Australia
Fay Sudweeks, Murdoch University, Australia

Learning Community or Community of Practice: Preliminary Findings of a Transfer of Learning
John Egan, The University of Auckland, New Zealand

Management of the National System of Sharing Knowledge Using the Example of the SYNAT
Jerzy Kisielnicki, Warsaw University, Poland
Anna Maria Misiak, University of Technology, Poland

Mobile Certificate Based Network Services
Göran Pulkkis, Arcada University of Applied Sciences, Finland
Farzan Yazdani, Arcada University of Applied Sciences, Finland

Models to Inform Capstone Program Development
Nicole Buzzetto-More, University of Maryland Eastern Shore, United States

Multi-Agent Framework for Social Customer Relationship Management Systems
Celina Olszak, University of Economics in Katowice, Poland
Tomasz Bartusi, University of Economics in Katowice, Poland

Navigating the Framework Jungle for Teaching Web Application Development
Joseph Chao, Bowling Green State University, United States
Kevin Parker, Idaho State University, United States
Bill Davey, RMIT University, Australia

New Technology Acceptance in Europe and Arabic Cultures: Comparative Study
Abdullah Rashed, University of Minho, Portugal
Henrique Santos, University of Minho, Portugal

Novel Genetic Algorithm for Highly Accurate Data Classification using Evolutionary Decision Tree
Chuan Huang, Johns Hopkins University, United States

Novelties in “Business Informatics” Education: Towards Apprenticeship and Interdisciplinarity
Jerzy Korczak, Wrocław University of Economics, Poland
Mieczysław Owoc, Wrocław University of Economics, Poland

Online Learning and Case Teaching: Implications in an Informing Systems Framework
Eduardo Montiel, INCAE Business School, Nicaragua

Openness of Information-Communications Systems: The Rescue Tool for Preserving Information
Age Heritage [Abstract]
Fjodor Ruzic, Institute for Informatics, Croatia

Optimal Pump Scheduling by Non-Linear Programming for Large Scale Water Transmission System
Jacek Błaszczyk, Research and Academic Computer Network (NASK), Poland
Krzysztof Malinowski, Research and Academic Computer Network (NASK), Poland
Alnoor Allidina, IBI-MAAK Inc, Canada
Output-Classes for Faculty-Based Design-Oriented Research on Digital Learning Resources in Higher Education
Rob Hartog, Wageningen University, Netherlands
Huub Scholten, Wageningen University, Netherlands
Adrie Beulens, Wageningen University, Netherlands

Ownership and Use of Laptops By Communication And Information Sciences Undergraduates At The University Of Ilorin Nigeria
Adeyinka Tella, University of Ilorin, Nigeria
Ganiat Adebola Kosoko-Oyedeko, Michael Otedola College of Primary Education (MOCPED), Nigeria

Pattern-Based Enterprise Systems: Models, Tools and Practices
Sergey Zykov, National Research University Higher School of Economics, Russian Federation

Personal Collection in MERLOT as a Compilation of Learning Object Repository
Anat Cohen, Tel Aviv University, Israel
Sorel Reisman, California State University, United States
Barbra Bied Sperling, California State University, United States

Planning an Iron Ore Mine: From Exploration Data to Informed Mining Decisions
Jim Everett, University of Western Australia, Australia

Planning and Financing Continuing and Non-Formal Education in Nigeria
Olasunkanmi Gbadamosi, Olabisi Onabanjo University, Nigeria
Luke Onuoha, Babcock University, Nigeria
Jonathan Nwosu, Babcock University, Nigeria

Practicing M-Application Services Opportunities with Special Reference to Oman
Syed Naqvi, Sultan Qaboos University, Oman
Hafedh Al-Shihi, Sultan Qaboos University, Oman

Presenting an Alternative Source Code Plagiarism Detection Framework for Improving the Teaching and Learning of Programming
Fredrik Hattingh, Tshwane University of Technology, South Africa
Albertus Buitendag, Tshwane University of Technology, South Africa
Jacobus Van Der Walt, Tshwane University of Technology, South Africa

Project Management Principles Applied in Academic Research Projects
Pollyana Mustaro, Mackenzie Presbyterian University, Brazil
Rogério Rossi, Mackenzie Presbyterian University, Brazil

Scripting the Collaboration for Exploiting the Learning Affordances of a Modeling Environment
Rachel Or-Bach, The Academic College of Emek Yezreel, Israel
Bert Bredeweg, University of Amsterdam, Netherlands

Securing the Information and Communications Technology Global Supply Chain from Exploitation: Developing a Strategy for Education, Training, and Awareness
Elizabeth McDaniel, Institute for Defense Analyses, United States

Seeing the Big Picture: Principles for Dynamic Process Data Visualization on Large Screen
Alf Braseth, Institute for Energy Technology, Norway
Trond Øritsland, Norwegian University of Science and Technology, Norway

Shifting Socioecological Paradigms while Processing Interdisciplinary Topics
Christine Yukech, The University of Akron, United States

Social Media and Prosumerism
Nicole Buzzetto-More, University of Maryland Eastern Shore, United States

Statistical Properties of Alpha-Beta Coding
Vilius Normantas, Institute of Mathematics, Tajikistan

Student Engagement With Online Resources And Its Impact On Learning Outcomes
Lily Wong, Victoria University, Australia
Student Interaction with Content in Online and Hybrid Courses: Leading Horses to the Proverbial
Meg Murray, Kennesaw State University, United States
Jorge Pérez, Kennesaw State University, United States
Debra Geist, Kennesaw State University, United States
Alison Hedrick, Kennesaw State University, United States

Studying the Effects of Instance Structure in Algorithm Performance
Tania Turrubiates López, Instituto Tecnologico Superior de Alamo Temapache, Mexico
Satu-Elisa Schaeffer, Universidad Autonoma de Nuevo León, Mexico

Systematic and Grounded Theory Literature Reviews of Software Process Improvement Phenomena: Implications for IS Research
Samuel Utulu, University of Cape Town, South Africa
Kosheek Sewchurran, University of Cape Town, South Africa
Barry Dwolatzky, University of the Witwatersrand, South Africa

Systematically Evaluating the Effectiveness of an Information Systems Capstone Course: Implications for Practice
T. Grandon Gill, University of South Florida, United States
Albert Ritzhaupt, University of Florida, United States

The Challenge of Motivation in e-Learning: Role of Anxiety
Raafat Saadé, Concordia University, Canada
Dennis Kira, Concordia University, Canada
Fassil Nebebe, Concordia University, Canada

The Challenges of Migration from 2D to 3D Internet (3DI)
Micheal Agbaje, Babcock University, Nigeria
Oludele Awodele, Babcock University, Nigeria
J. V. Joshua, Babcock University, Nigeria

The Complexity of Complexity: Structural vs. Quantitative Approach
Marcin Schroeder, Akita International University, Japan

The Impact of Digital in Learning Spaces: An Analysis on the Perspective of Teachers in Higher Education
Pedro Silva, Polytechnic Institute of Castelo Branco, Portugal
Luis Borges Gouveia, University Fernando Pessoa, Portugal

The Implementation of Hypertext-based Learning Media for a Local Cultural Based Learning
Made Kesiman, Universitas Pendidikan Ganesha, Indonesia
Ketut Agustini, Universitas Pendidikan Ganesha, Indonesia

The Message/Moral through Photography - TV and a Child
Sibila Petenji Arbutina, Higher Technical School of Professional Education, Serbia
Jelena Kovacevic Vorgucin, Higher Technical School of Professional Education, Serbia

The Optimization of Assessment in E-Learning by Adaptive Testing, Item Response Theory and Zones of Students Development
Victor Zvonnikov, State University of Management, Russia
Marina Chelyshkova, State University of Management, Russia

The Role of Warranty of Misinforming for New Product Adoption
Dimitar Christozov, American University in Bulgaria, Bulgaria
Stefanka Chukova, Victoria University of Wellington, New Zealand
Plamen Mateev, Sofia University "St. Kliment Ohridski", Bulgaria

The Usage of ISOTYPE Charts in Business Intelligence Reports - The Impact of Otto Neurath Work in Visualizing the Results of Information Systems Queries
André Monat, Wuppertal University, Germany
Marcel Befort, Wuppertal University, Germany

Towards a Method for Mobile Learning Design
Genevieve Stanton, University of Cape Town, South Africa
Jacques Ophoff, University of Cape Town, South Africa
Towards the Construction of a Cybernetic Organism: The Place of Mental Processes
R. Balvetti, ENEA C.R. Frascati, Italy
M. L. Bargellini, ENEA C.R. Frascati, Italy
M. Battaglia, ENEA C.R. Frascati, Italy
A. Botticelli, ENEA C.R. Frascati, Italy
G. Casadei, ENEA C.R. Frascati, Italy
A. Filippini, ENEA C.R. Frascati, Italy
E. Pancotti, ENEA C.R. Frascati, Italy
L. Puccia, ENEA C.R. Frascati, Italy
C. Zampetti, ENEA C.R. Frascati, Italy
G. Bozanceff, ENEA C.R. Frascati, Italy
G. Brunetti, ENEA C.R. Frascati, Italy
A. Guidoni, ENEA C.R. Frascati, Italy
L. Rubini, ENEA C.R. Frascati, Italy
A. Tripodo, ENEA C.R. Frascati, Italy

Transitioning from Data Storage to Data Curation: The Challenges Facing an Archaeological
User's Survey of North Indian University Libraries
Maria Simbulan, University of the Philippines, Philippines

Using a Mobile Phone to Support Learning: Experiences of Engineering Students in Libya
Amal Rhema, Victoria University, Australia
Ewa Sztendur, Victoria University, Australia

Using Student e-Portfolios to Facilitate Learning Objective Achievements in an Outcome-Based University
Abdallah Tubaishat, Zayed University, United Arab Emirates
Azzedine Lansari, Zayed University, United Arab Emirates

Using Technology to Enhance a Project Management Course in the United Arab Emirates
Tony Jewels, Al Ghurair University, United Arab Emirates
Rozz Albon, Sharjah Womans College, HCT, United Arab Emirates
Carmen de Pablos, Rey Juan Carlos Universidad, Spain

Using Youtube© in the Classroom for the Net Generation of Students
Sumarie Roodt, University of Cape Town, South Africa
Peier Dominic, University of Cape Town, South Africa

Weapons of Mass Instruction: The Creative Use of Social Media in Improving Pedagogy
Michael Ralph, Southern University of New Orleans, United States
Lynette Ralph, Xavier University, United States

Web-based Tutorials and Traditional Face-to-Face Lectures: A Comparative Analysis of Student Performance
Retta Guy, Tennessee State University, United States
Millicent Lownes-Jackson, Tennessee State University, United States

WoT (Web of Things) for Energy Management in a Smart Grid-Connected Home
Sita Ramakrishnan, Monash University, Australia
Subramania Ramakrishnan, Australian Academy of Technological Sciences and Engineering, Australia