## Contents

**Information Technologies Supporting Learning**

Using Wikis to Evaluate Students’ Contributions to Collaborative Writing in Teacher Education .................................................. 3  
*Said Hadjerrouit*

Removing the Barriers to Adoption of Social OER Environments .............. 19  
*Henri Pirkkalainen, Jussi P.P. Jokinen, Jan M. Pawlowski, and Thomas Richter*

Vygotsky Based Sequencing Without Domain Information:  
A Matrix Factorization Approach ............................................ 35  
*Carlotta Schatten, Ruth Janning, and Lars Schmidt-Thieme*

The Temporal Change of Attentional Levels Under Different Music Environments ......................................................... 52  
*Fumiya Mori, Fatemeh Azadi Naghsh, and Taro Tezuka*

An Evaluation Methodology for Concept Maps Mined from Lecture Notes:  
An Educational Perspective ...................................................... 68  
*Thushari Atapattu, Katrina Falkner, and Nickolas Falkner*

An Exercise Assistant for Practical Networking and IT Security Courses in Higher Education ...................................................... 84  
*Jens Haag, Stefan Karsch, Harald Vranken, and Marko Van Eekelen*

MOOCs: What Motivates the Producers and Participants? ...................... 99  
*Su White, Hugh Davis, Kate Dickens, Manuel León, and Ma Mar Sánchez-Vera*

Toward an Adaptive Gamification System for Learning Environments ...... 115  
*Baptiste Monterrat, Élise Lavoué, and Sébastien George*

Comparing Multiple-Choice and Constructed Response Questions  
Applied to Engineering Courses ............................................. 130  
*Dimos Triantis, Errikos Ventouras, Ioanna Leraki, Charalampos Stergiopoulos, Ilias Stavrakas, and George Hloupis*

*Patricia Harpur and M.R. (Ruth) de Villiers*
Innovating Academic Knowledge Communication with Social Classroom Response Systems ......................................................... 160
Bastian Schwennigcke, Jonas Vetterick, Kristina Marquitz,
Clemens H. Cap, and Wolfgang Sucharowski

Learning/Teaching Methodologies and Assessment

Simultaneously Developing a Serious Game and Its Classroom Use for Fostering Conceptual Understanding of Electrical Circuits: The Effect of the Game ‘E&E Electrical Endeavours’ on Secondary Students Conceptual Understanding of Electrical Circuits ..................... 181
Ruurd Taconis, Mariette Dubois, Lesley de Putter,
and Henry van Bergen

Geometry Question Generator: Question and Solution Generation, Validation and User Evaluation. .................................................. 196
Rahul Singhal and Martin Henz

An Analysis of Courses Evaluation Through Clustering ......................... 211
Renza Campagni, Donatella Merlini, and Maria Cecilia Verri

Competence Assessment Framework for Project Management Learners and Practitioners ................................................................. 225
Ana González-Marcos, Fernando Alba-Elias, Joaquin Ordieres-Meré,
and Fermín Navaridas-Nalda

Learning About the Semantic Web in an Information Systems Oriented Curriculum: A Case Study ............................... 242
Daniela Giordano and Francesco Maiorana

Extending the Database Curriculum: From Design Principles to Web and Mobile Programming ..................................................... 258
Francesco Maiorana

Mathematical Machines and Integrated Stem: An Intersubjective Constructionist Approach .................................................... 272
Pratim Sengupta, Gokul Krishnan, Mason Wright, and Cherifa Ghassoul

Social Context and Learning Environments

Structuring Collaboration Scripts: Optimizing Online Group Work on Classroom Dilemmas in Teacher Education ......................... 291
Hans Hummel, Walter Geerts, Aad Slootmaker, Derek Kuipers,
and Wim Westera
The State of MOOCs from 2008 to 2014: A Critical Analysis
and Future Visions .......................................................... 305
Ahmed Mohamed Fahmy Yousef, Mohamed Amine Chatti,
Ulrik Schroeder, Marold Wosnitza, and Harald Jakobs

Technological Imagination for Accessible Design: Invoking Blind Users
for Sighted Computer Science Students ............................... 328
Răzvan Rughiniș and Cosima Rughiniș

Designing, Implementing and Sustaining a Technology-Rich STEM
Classroom Using Participatory Design Practices .................... 341
Mary L. Stephen, Sharon M. Locke, and Georgia L. Bracey

Domain Applications and Case Studies

Fostering Information Literacy in German Psychology Students: Objective
and Subjective Evaluation of a Blended Learning Course ........... 359
Nikolas Leichner, Johannes Peter, Anne-Kathrin Mayer,
and Günter Krampen

Ubiquitous Learning

Recommendations for Mobile Virtual Campus Design Based
on Student Feedback ...................................................... 375
Pablo Rebaque-Rivas and Eva P. Gil-Rodríguez

Author Index ............................................................... 389
Computer Supported Education
6th International Conference, CSEDU 2014, Barcelona, Spain, April 1-3, 2014, Revised Selected Papers
Zvacek, S.; Restivo, M.T.; Uhomoibhi, J.; Helfert, M. (Eds.)
2015, XVII, 390 p. 112 illus. in color., Softcover
ISBN: 978-3-319-25767-9