Contents

Full Papers

A Semantic-Driven Model for Ranking Digital Learning Objects Based on Diversity in the User Comments................................................................. 3
  Entisar Abolkasim, Lydia Lau, and Vania Dimitrova

Social Facilitation Due to Online Inter-classrooms Tournaments .............. 16
  Roberto Araya, Carlos Aguirre, Manuel Bahamondez, Patricio Calfucura, and Paulina Jaure

How to Attract Students’ Visual Attention ............................................. 30
  Roberto Araya, Danyal Farsani, and Josefina Hernández

Creating Effective Learning Analytics Dashboards: Lessons Learnt ........... 42
  Sven Charleer, Joris Klerkx, Erik Duval, Tinne De Laet, and Katrien Verbert

Retrieval Practice and Study Planning in MOOCs: Exploring Classroom-Based Self-regulated Learning Strategies at Scale ......................... 57
  Dan Davis, Guanliang Chen, Tim van der Zee, Claudia Hauff, and Geert-Jan Houben

“Keep Your Eyes on ‘em all!”: A Mobile Eye-Tracking Analysis of Teachers’ Sensitivity to Students............................................................... 72
  Philippe Dessus, Olivier Cosnefroy, and Vanda Luengo

Flipped Classroom Model: Effects on Performance, Attitudes and Perceptions in High School Algebra ......................................................... 85
  Peter Esperanza, Khristin Fabian, and Criselda Toto

Argumentation Identification for Academic Support in Undergraduate Writings................................................................. 98
  Jesús Miguel García Gorrostieta and Aurelio López-López

Mobile Grading Paper-Based Programming Exams: Automatic Semantic Partial Credit Assignment Approach.............................................. 110
  I-Han Hsiao

  Simone Kopeinik, Dominik Kowald, and Elisabeth Lex
Discouraging Gaming the System Through Interventions of an Animated Pedagogical Agent ................................. 139
   Thiago Marquez Nunes, Iq Ibert Bittencourt, Seiji Isotani, and Patricia A. Jaques

Multi-device Territoriality to Support Collaborative Activities: Implementation and Findings from the E-Learning Domain ............... 152
   Jean-Charles Marty, Audrey Serna, Thibault Carron, Philippe Pernelle, and David Wayntal

Refinement of a Q-matrix with an Ensemble Technique Based on Multi-label Classification Algorithms .......................... 165
   Sein Minn, Michel C. Desmarais, and ShunKai Fu

When Teaching Practices Meet Tablets’ Affordances. Insights on the Materiality of Learning ............................. 179
   Jalal Nouri and Teresa Cerratto Pargman

A Peer Evaluation Tool of Learning Designs .......................................................... 193
   Kyparisia A. Papanikolaou, Evagellia Gouli, Katerina Makrh, Ioannis Sofos, and Maria Tzelepi

Learning in the Context of ManuSkills: Attracting Youth to Manufacturing Through TEL .................................. 207
   Stefano Perini, Maria Margoudi, Manuel Oliveira, and Marco Taisch

Does Taking a MOOC as a Complement for Remedial Courses Have an Effect on My Learning Outcomes? A Pilot Study on Calculus .......... 221
   Mar Pérez-Sanagustin, Josefina Hernández-Correa, Claudio Gelmi, Isabel Hilliger, and María Fernanda Rodriguez

Are You Ready to Collaborate? An Adaptive Measurement of Students’ Arguing Skills Before Expecting Them to Learn Together ............. 234
   Chrysi Rapanta

Examining the Effects of Social Media in Co-located Classrooms: A Case Study Based on SpeakUp ............................. 247
   María Jesús Rodríguez-Triana, Adrian Holzer, Luis P. Prieto, and Denis Gillet

Enhancing Public Speaking Skills - An Evaluation of the Presentation Trainer in the Wild ................................... 263
   Jan Schneider, Dirk Börner, Peter van Rosmalen, and Marcus Specht

How to Quantify Student’s Regularity? ................................................................. 277
   Mina Shirvani Boroujeni, Kshitij Sharma, Łukasz Kidziński, Lorenzo Lucignano, and Pierre Dillenbourg
Nurturing Communities of Inquiry: A Formative Study of the DojoIBL Platform .................................................. 292
Ángel Suárez, Stefaan Ternier, Fleur Prinsen, and Marcus Specht

Inferring Student Attention with ASQ .................................. 306
Vasileios Triglianos, Cesare Pautasso, Alessandro Bozzi, and Claudia Hauff

Chronicle of a Scenario Graph: From Expected to Observed Learning Path ... 321
Mathieu Vermeulen, Nadine Mandran, and Jean-Marc Labat

Adaptive Testing Using a General Diagnostic Model .................. 331
Jill-Jènn Vie, Fabrice Popineau, Yolaine Bourda, and Éric Bruillard

How Teachers Use Data to Help Students Learn: Contextual Inquiry for the Design of a Dashboard ......................... 340
Françeska Xhakaj, Vincent Aleven, and Bruce M. McLaren

Short Papers
Assessing Learner-Constructed Conceptual Models and Simulations of Dynamic Systems ........................................... 357
Bert Bredeweg, Jochem Liem, and Christiana Nicolaou

Learning Analytics Pilot with Coach2 - Searching for Effective Mirroring ... 363
Natasa Brouwer, Bert Bredeweg, Sander Latour, Alan Berg, and Gerben van der Huizen

Predicting Academic Performance Based on Students’ Blog and Microblog Posts .................................................. 370
Mihai Dascalu, Elvira Popescu, Alexandru Becheru, Scott Crossley, and Stefan Trausan-Matu

Take up My Tags: Exploring Benefits of Meaning Making in a Collaborative Learning Task at the Workplace .................. 377
Sebastian Dennerlein, Paul Seitlinger, Elisabeth Lex, and Tobias Ley

Consistency Verification of Learner Profiles in Adaptive Serious Games ... 384
Aarij Mahmood Hussaan and Karim Sehaba

Johannes Konert, Henrik Bellhäuser, René Röpke, Eduard Gallwas, and Ahmed Zucik
<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towards a Capitalization of Processes Analyzing Learning Interaction Traces</td>
<td>397</td>
</tr>
<tr>
<td>Alexis Lebis, Marie Lefevre, Vanda Luengo, and Nathalie Guin</td>
<td></td>
</tr>
<tr>
<td>Improving Usage of Learning Designs by Teachers: A Set of Concepts for Well-Defined Problem Resolution</td>
<td>404</td>
</tr>
<tr>
<td>Anne Lejeune, Viviane Guéraud, and Nadine Mandran</td>
<td></td>
</tr>
<tr>
<td>Immersion and Persistence: Improving Learners’ Engagement in Authentic Learning Situations</td>
<td>410</td>
</tr>
<tr>
<td>Guillaume Loup, Audrey Serna, Sébastien Iksal, and Sébastien George</td>
<td></td>
</tr>
<tr>
<td>STI-DICO: A Web-Based ITS for Fostering Dictionary Skills and Knowledge</td>
<td>416</td>
</tr>
<tr>
<td>Alexandra Luccioni, Jacqueline Bourdeau, Jean Massardi, and Roger Nkambou</td>
<td></td>
</tr>
<tr>
<td>PyramidApp: Scalable Method Enabling Collaboration in the Classroom</td>
<td>422</td>
</tr>
<tr>
<td>Kalpani Manathunga and Davinia Hernández-Leo</td>
<td></td>
</tr>
<tr>
<td>From Idea to Reality: Extensive and Executable Modeling Language for Mobile Learning Games</td>
<td>428</td>
</tr>
<tr>
<td>Iza Marfisi-Schottman, Pierre-Yves Gicquel, Aous Karoui, and Sébastien George</td>
<td></td>
</tr>
<tr>
<td>Combining Adaptive Learning with Learning Analytics: Precedents and Directions</td>
<td>434</td>
</tr>
<tr>
<td>Anna Mavroudi, Michail Giannakos, and John Krogstie</td>
<td></td>
</tr>
<tr>
<td>An Adaptive E-Learning Strategy to Overcome the Inherent Difficulties of the Learning Content</td>
<td>440</td>
</tr>
<tr>
<td>Anna Mavroudi, Thanasis Hadzilacos, and Charoula Angeli</td>
<td></td>
</tr>
<tr>
<td>Evaluating the Effectiveness of an Affective Tutoring Agent in Specialized Education</td>
<td>446</td>
</tr>
<tr>
<td>Aydée Liza Mondragon, Roger Nkambou, and Pierre Poirier</td>
<td></td>
</tr>
<tr>
<td>MOOC Design Workshop: Educational Innovation with Empathy and Intent.</td>
<td>453</td>
</tr>
<tr>
<td>Yishay Mor, Steven Warburton, Rikke Toft Nørgård, and Pierre-Antoine Ullmo</td>
<td></td>
</tr>
<tr>
<td>OERauthors: Requirements for Collaborative OER Authoring Tools in Global Settings</td>
<td>460</td>
</tr>
<tr>
<td>Irawan Nurhas, Jan M. Pawlowski, Marc Jansen, and Julia Stoffregen</td>
<td></td>
</tr>
<tr>
<td>Virtual Reality for Training Doctors to Break Bad News</td>
<td>466</td>
</tr>
<tr>
<td>Magalie Ochs and Philippe Blache</td>
<td></td>
</tr>
</tbody>
</table>
User Motivation and Technology Acceptance in Online Learning Environments .......................................................... 472
Maxime Pedrotti and Nicolae Nistor

Reflective Learning at the Workplace - The MIRROR Design Toolbox .... 478
Sobah Abbas Petersen, Ilaria Canova-Calori, Birgit R. Krogstie, and Monica Divitini

Toward a Play Management System for Play-Based Learning ............... 484
Eric Sanchez, Claudine Piau-Toffolon, Lahcen Oubahssi, Audrey Serna, Iza Marfisi-Schottman, Guillaume Loup, and Sébastien George

The Blockchain and Kudos: A Distributed System for Educational Record, Reputation and Reward .................................................. 490
Mike Sharples and John Domingue

Game-Based Training for Complex Multi-institutional Exercises of Joint Forces ................................................................. 497
Alexander Streicher, Daniel Szentes, and Alexander Gundermann

Demo Papers

DALITE: Asynchronous Peer Instruction for MOOCs ............................ 505
Sameer Bhatnagar, Nathaniel Lasry, Michel Desmarais, and Elizabeth Charles

Digital and Multisensory Storytelling: Narration with Smell, Taste and Touch ........................................................................ 509
Raffaele Di Fuccio, Michela Ponticorvo, Fabrizio Ferrara, and Orazio Miglino

A Platform for Social Microlearning .................................................. 513
Bernhard Göschlberger

A Framework to Enhance Adaptivity in Moodle ................................. 517
Ioannis Karagiannis and Maya Satratzemi

Refugees Welcome: Supporting Informal Language Learning and Integration with a Gamified Mobile Application .............................. 521
Hong Yin Ngan, Anna Lifanova, Juliane Jarke, and Jan Broer

DEDOS-Player: Educational Activities for Touch Devices ..................... 525
David Roldán-Álvarez, Estefanía Martín, Óscar Martín Martín, and Pablo A. Haya

The Booth: Bringing Out the Super Hero in You .................................. 529
Jan Schneider, Dirk Börner, Peter van Rosmalen, and Marcus Specht
DojoIBL: Nurturing Communities of Inquiry .................................................. 533
   Angel Suarez, Stefaan Ternier, Fleur Prinsen, and Marcus Specht

Poster Papers

Towards an Automated Assessment Support for Student Contributions
on Multiple Platforms ................................................................. 539
   Oula Abu-Amsha, Nicolas Szilas, and Daniel K. Schneider

Experiments on Virtual Manipulation in Chemistry Education .......... 543
   Shaykhah S. Aldosari and Davide Marocco

A Survey Study to Gather Requirements for Designing a Mobile Service
to Enhance Learning from Cultural Heritage ................................ 547
   Alaa Alkhafaji, Sanaz Fallahkhair, Mihaela Cocea,
   and Jonathan Crellin

Inspiring the Instructional Design Process Through Online
Experience Sharing ................................................................. 551
   Grégory Bourguin, Bénédicte Talon, Insaf Kerkeni,
   and Arnaud Lewandowski

An Approach to the TEL Teaching of Non-technical Skills
from the Perspective of an Ill-Defined Problem ............................ 555
   Yannick Bourrier, Francis Jambon, Catherine Garbay,
   and Vanda Luengo

Towards a Context-Based Approach Assisting Learning Scenarios Reuse ........ 559
   Mariem Chaabouni, Mona Laroussi, Claudine Piau-Toffolon,
   Christophe Choquet, and Henda Ben Ghezala

Revealing Behaviour Pattern Differences in Collaborative Problem Solving ...... 563
   Mutlu Cukurova, Katerina Avramidis, Rose Luckin,
   and Manolis Mavrikis

DevOpsUse for Rapid Training of Agile Practices Within Undergraduate
and Startup Communities .......................................................... 570
   Peter de Lange, Petru Nicolaescu, Ralf Klamma, and István Koren

Towards an Authoring Tool to Acquire Knowledge for ITS Teaching
Problem Solving Methods ......................................................... 575
   Awa Diattara, Nathalie Guin, Vanda Luengo, and Amélie Cordier

Kodr: A Customizable Learning Platform for Computer Science Education .... 579
   Amr Draz, Slim Abdennadher, and Yomna Abdelrahman
A Reflective Quiz in a Professional Qualification Program for Stroke Nurses: A Field Trial. ................................. 583

Angela Fessl, Gudrun Wesiak, and Viktoria Pammer-Schindler

Helping Teachers to Help Students by Using an Open Learner Model .... 587

Blandine Ginon, Matthew D. Johnson, Ali Turker, and Michael Kickmeier-Rust

Personalized Rooms Based Recommendation as a Mean for Increasing Students’ Activity .................................. 591

Veronika Gondova, Martin Labaj, and Maria Bielikova

Detecting and Supporting the Evolving Knowledge Interests of Lifelong Professionals ........................................... 595

Oluwabukola Mayowa Ishola and Gordon McCalla

Boosting Vocational Education and Training in Small Enterprises .......... 600

Miloš Kravčík, Kateryna Neulinger, and Ralf Klamma

Supporting Teaching Teams in Personalizing MOOCs Course Paths ....... 605

Marie Lefevre, Nathalie Guin, Jean-Charles Marty, and Florian Clerc

Increasing Pupils’ Motivation on Elementary School with Help of Social Networks and Mobile Technologies .................... 610

Václav Maněna, Roman Dostál, Štěpán Hubálovský, and Marie Hubálovská

Understanding Collective Behavior of Learning Design Communities ...... 614

Konstantinos Michos and Davinia Hernández-Leo

A Value Model for MOOCs ................................................. 618

Yishay Mor, Marco Kalz, and Jonatan Castano-Munoz

Framework for Learner Assessment in Learning Games .................... 622

Mathieu Muratet, Amel Yessad, and Thibault Carron

A Bayesian Network for the Cognitive Diagnosis of Deductive Reasoning ... 627

Ange Tato, Roger Nkambou, Janie Brisson, Clauvice Kenfack, Serge Robert, and Pamela Kissok

Finding the Needle in a Haystack: Who are the Most Central Authors Within a Domain? ........................................ 632

Ionut Cristian Paraschiv, Mihai Dascalu, Danielle S. McNamara, and Stefan Trausan-Matu

Bio-inspired Computational Algorithms in Educational and Serious Games: Some Examples ...................................... 636

Michela Ponticorvo, Andrea Di Ferdinando, Davide Marocco, and Orazio Miglino
Adaptive and Adaptable Learning
Verbert, K.; Sharples, M.; Klobučar, T. (Eds.)
2016, XX, 686 p. 177 illus., Softcover
ISBN: 978-3-319-45152-7