

Contents

Knowledge Management and E-Learning

A Clustering Algorithm Based on Minimum Spanning Tree with E-learning Applications	3
<i>Siyang Wang, Zeping Tang, Yanghui Rao, Haoran Xie, and Fu Lee Wang</i>	
Analysis of Heart Rate Monitors for Evaluating Student's Mental Working Capacity	13
<i>Elena Berdnikova, Andrey Lyamin, and Anton Skshidlevsky</i>	
Pedagogical Principles of the Implementation of Social Networks at Schools	23
<i>Blanka Klimova and Petra Poulova</i>	
Virtual Reality Assistant Technology for Learning Primary Geography	31
<i>Zhihan Lv and Xiaoming Li</i>	
Setting up a Virtual Test Environment for User Group Specific Practical Exercises in eHealth eLearning Courses	41
<i>Alexander Mense, Mathias Forjan, Juliane Herzog, Philipp Urbauer, and Stefan Sauermann</i>	
Development of the 'Learning to Learn' Competence Through Wiki Tools in CA-CLIL: Pilot Course	48
<i>Vladimira Froidova and Ivana Simonova</i>	
Learning Styles in the e-Learning Environment: Meta-analysis of Longitudinal Changes	57
<i>Pavel Doulik, Jiri Skoda, and Ivana Simonova</i>	
Social Networks Supporting the Higher Education in the Czech Republic . . .	67
<i>Petra Poulova and Ivana Simonova</i>	
e-Learning in Practice: Tracking Students' Performance	77
<i>Ivana Simonova and Petra Poulova</i>	
Investigating the Determinants of Information Sharing Intentions of Learners in Collaborative Learning	87
<i>Yong Wee Sek, Hepu Deng, Elspeth McKay, and Wei Xu</i>	

Towards an Architecture for e-Learning Infrastructures on a National Level:
A Case Study of AfgREN 98
Salim Saay, Alex Norta, and Mart Laanpere

User Modeling for Web-Based Learning

Predicting Pre-knowledge on Vocabulary from e-Learning Assignments
for Language Learners 111
*Di Zou, Haoran Xie, Tak-Lam Wong, Yanghui Rao, Fu Lee Wang,
and Qingyuan Wu*

A Density-Based Clustering Algorithm with Educational Applications 118
Zitong Wang, Peng Kang, Zewei Wu, Yanghui Rao, and Fu Lee Wang

Personalized Resource Recommendation for Staff Training in Complaint
Management Systems 128
Li Guangjie, Ling Junmin, Shengguang Meng, and Liao Yumin

Social Network Application Development Based on Cloud Computing
for Web-based Learning. 134
Zhongyin Guo, Yanghui Rao, and Fu Lee Wang

Exploring Reviews and Ratings on Reviews for Personalized Search 140
*Yang Yang, Shuyue Hu, Yi Cai, Qing Du, Ho-fung Leung,
and Raymond Y.K. Lau*

Designing an Online Learning and Peer Feedback Platform for GRE
Writing Test Preparation 151
Simon Ho Wang

Individualization of Foreign Language Teaching Through Adaptive
eLearning. 159
Katerina Kostolanyova and Stepanka Nedbalova

Learning Analytics

Research on Visualized Design for Role-Based Online Learning Analytics. . . 173
Lamei Wang, Jun Xiao, Yuanyi Qi, and Ye Yu

Construction on Learning Analytics Object for Sharing and Interoperation
of Educational Big Data. 186
Yonghe Wu, Wei Zhong, Chun Zhou, and Xiaoling Ma

Using Learning Analytics to Support Personalized Learning and Quality
Education: A Case Study of China's "Everyone Connected" Project 196
Xiaohua Yu, Jueqi Guan, and Jing Leng

Author Index 203

<http://www.springer.com/978-3-319-32864-5>

Current Developments in Web Based Learning
ICWL 2015 International Workshops, KMEL, IWUM, LA,
Guangzhou, China, November 5-8, 2015, Revised
Selected Papers
Gong, Z.; Chiu, D.K.W.; Zou, D. (Eds.)
2016, XII, 203 p. 60 illus., Softcover
ISBN: 978-3-319-32864-5