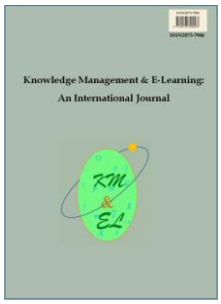
Knowledge Management & E-Learning



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Editorial: Technology for higher education, adult learning and professional development

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Editorial: Technology for higher education, adult learning and professional development

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Abstract: The basis of competition has shifted more towards the assimilation and creation of knowledge in the fiercely competitive and evolving digital age. Learning has therefore become crucial for sustainable development and innovation across individual, organizational, and community levels. Papers in this special issue are representative of ongoing research on integration of technology with learning and knowledge management in higher education institutions and organizational and community environments.

Keywords: Educational technology; Higher education; Adult learning; Professional development

Biographical notes: Dr. Minhong Wang is an Associate Professor in the Faculty of Education, The University of Hong Kong. She has been involved in academic research in the areas of technology-enhanced learning, higher education and workplace learning, knowledge visualization, design-based research, and artificial intelligence. She has published papers in Educational Research Review, Computers & Education, Information & Management, IEEE Transactions on Education, The Internet and Higher Education, Educational Technology & Society, Innovations in Education & Teaching International, Expert Systems with Applications, Knowledge-based Systems, Journal of Knowledge Management, among others. She is the Editor-in-Chief of

Knowledge Management & E-Learning and Associate Editor of Information & Management. She also serves on the editorial board of several international journals including Educational Technology Research and Development, and Educational Technology & Society. More details can be found at http://web3.edu.hku.hk/magwang/.

Dr. Seng Chee Tan is an associate professor with the National Institute of Education, Nanyang Technological University, Singapore. His research interest includes teacher learning, technology-mediated learning, and computer-supported collaborative learning. He leads a nation-wide study on the evaluation of third ICT masterplan in Singapore and has conducted a number of studies on the knowledge creation paradigm of learning at different grade levels, from primary schools to university setting. His recent publication includes a book titled "Knowledge Creation in Education" that discusses theoretical and methodological issues related to research on knowledge creation perspective of learning and case reports on studies conducted in various countries.

Dr. Jyh-Chong Liang is currently an Associate Professor of the Graduate Institute of Applied Science and Technology at National Taiwan University of Science and Technology, Taiwan. Currently his research interests deal with scientific epistemological beliefs, conceptions of and approaches to learning science, Web information assessment and online peer assessment. His research work has been published in Australasian Journal of Educational Technology, Chemistry Education Research and Practice, Computers in Human Behavior, Educational Research Review, Educational Technology & Society, Instructional Science, Interactive Learning Environments, International Journal of Science Education, Journal of Science Education and Technology, The Internet and Higher Education, The Asia-Pacific Education Researcher and other educational journals.

Dr. Haisen Zhang is an associate profession at the University of International Business and Economics, Beijing. His area of research interest centers around use of emerging technologies in language education, including computer-assisted language learning (CALL), virtual environments (educational gaming and simulation), mobile-assisted language learning (MALL), self-autonomy, blog-mediated feedback, and hybrid learning. He has had papers on CALL and MALL published in British Journal of Educational Technology, Turkish Journal of Educational Technology, and International Journal of Computer-Assisted Language Learning and Technology. His recent paper on blog-mediated peer feedback has been accepted by the Australasian Journal of Educational Technology.

1. Introduction

An individual's or organization's competitiveness depends on the capacity to innovate and upgrade. In a world of increasingly global competition, the basis of competition has shifted towards the assimilation and creation of knowledge, rather than on physical resources and assets. Learning has therefore become crucial for sustainable development and innovation. Further, learning in this context has expanded from individual to organizational and community levels that are distinct from one another but closely interrelated (Wang, Jia, Sugumaran, Ran, & Liao, 2011). New issues such as self-directed and life-long learning, externalization of tacit knowledge embedded in professional

experience, and systemic retention of knowledge for long-term development have received increased attention (Rosenberg, 2012).

At the same time, advances in technology have been increasingly enabling and facilitating learning and knowledge-related initiatives by changing the ways people access knowledge and communicate with others and by affording new ways of representing knowledge. A variety of technology-enhanced solutions and novel approaches have been promoted in educational institutions, corporations, governments, and communities. A recent review of e-learning in the workplace reported four main research themes in the field, among which e-learning in the healthcare sector was found as one of the most prolific e-learning initiatives (Cheng, Wang, Mørch, Chen, Kinshuk & Spector, 2014).

This special issue is dedicated to technology-afforded novel solutions and methodical approaches for improving higher education, adult learning, and professional development in the fiercely competitive and evolving digital age.

2. Preview of papers

Higher education is facing opportunities and challenges of the digital age. In the first paper "Remediation of print: On the current restructuration of higher education", Helge Høivik discussed a new Grammar of Schooling featured by technologically and socially driven participation modes that address educational needs and cost considerations in higher education. As a result of digitization, higher educational institutions face the challenge of establishing educational publishing and presentation modes that are incrementally transformed to and blended with computer-supported collaborative work. The challenge will also push higher educational institutions to develop a new logic of production in its educational mission.

The second paper "Designing learning scenarios for serious games with ARGILE" by Nour El Mawas investigated the design of serious games for training in complex areas of expertise. The study proposed a participatory architecture for co-design of games by designers, experts and players, as well as the design of knowledge-intensive games that transmit complex knowledge embedded in practical activities.

Facebook and other social media technologies have been increasingly used for informal learning in a social context. In the third paper "Evolution of Facebook groups: Informal e-learning among medical laboratory scientists in Nigeria", Jarret Cassaniti, Lisa Mwaikambo, and Rebecca Shore examined the use of Facebook Groups and their effects on supporting e-learning-based continuing professional development for medical laboratory scientists in Nigeria.

The use of social media for learning in the community is discussed in the fourth paper "Social media for informal science learning in China: A case study" by Ke Zhang and Fei Gao. The paper reported a case study of GuoKr, a popular informal science learning community in China, and examined its success in attracting and engaging the community in informal science learning via using social media and traditional media tools.

In the fifth paper "Analysis of learners' behaviors and learning outcomes in a massive open online course", Dong Liang, Jiyou Jia, Xiaomeng Wu, Jingmin Miao and Aihua Wang introduced a massive open online course (MOOC) on educational

technology, and analyzed the factors that influenced learners' participation and performance in the MOOC using regression analysis and data mining methods.

e-Learning in the workplace has received increased attention. The sixth paper "Learning paradigms in workplace e-learning research" by Isabella Norén Creutz and Matilda Wiklund analyzed the academic research publications in this field, and identified four metaphors (Celebration, Questioning, Reflection and Dissolution) that represent workplace e-learning research in four overlapping time periods.

The seventh paper "Factors determining learners' acceptance of Facebook in a higher education classroom" by Mathupayas Thongmak examined the antecedents and consequences of the adoption of Facebook in the classroom of a university in Thailand. The findings revealed that students' perceived usefulness and ease of use and instructor characteristics significantly drive students' intention to adopt Facebook.

In the last paper "An exploratory study on knowledge sharing practices among professionals in Bangladesh", Md. Shiful Islam and S.M. Ashif analyzed the knowledge sharing practices of professionals from different sectors in Bangladesh. While most professionals found technology useful, they faced technological problems in addition to communication and social problems in sharing knowledge.

3. Conclusions

The papers in this special issue are intended to be representative of ongoing research on technology in higher education, adult learning, and professional development, with an international scope. We hope that this special issue will foster further interest in what we believe will become an area of increasing importance, in which new technologies are developed and their efficacy explored to support and transform learning for innovation and sustainable development at individual, community, and organizational levels.

Acknowledgements

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