Editorial

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Biographical notes: June Wei is an Associate Professor of the Department of Management and Management Information Systems at the University of West Florida. She earned a PhD from Purdue University. She is an Editor-in-Chief of three peer-reviewed journals. She is also a Guest Editor of two journals and an Editorial Board Member of six journals. She has published about 100 articles in peer reviewed journals and conference proceedings. She has over five years of industry working experience as a Software Engineer, and has extensive working experience with Enterprise Information Systems Development.

A. Ant Ozok is an Associate Professor at the Department of Information Systems, UMBC. His research includes web design and usability, usability and user preferences on the internet and in e-commerce, usability design for the elderly population, and user performance and satisfaction evaluation techniques. He has published numerous articles in refereed international journals and presented his work in international conferences. He has several ongoing projects funded by several government agencies including the National Science Foundation (NSF). He currently serves on the Editorial Board of the *Int. J. Human–Computer Interaction* and as associate editor of the *Int. J. Electronic Finance*.

1 Introduction

Research and development by using the internet and emerging information communication technology infrastructure improved the quality and reduced costs of online learning and education among industries and institutions. The adoption of emerging mobile learning (m-learning) environments in education domain will enhance

the flexibility and effectiveness of learning owing to the mobile components made possible by the inheritance of a variety of mobile devices, including cell phones and personal digital assistants (PDA). However, the adoption of m-learning in industries and institutions is still slow and has not yet been widely implemented. The development of effective m-learning environments is important in accelerating the adoption of m-learning in industries and education. Therefore, this special issue on *Emerging Mobile Learning Environments for Industries and Pedagogies* is presented, which will be a timely contribution for both industries and institutions that are interested in the development of effective m-learning environments. Based on a rigorous double-blind review process, six manuscripts were selected with high quality in this special issue. The acceptance rate for this issue was less than 20%.

2 Inside this issue

This special issue includes papers written by academic scholars and industrial experts across the globe. Nineteen scholars and experts from four countries contributed to this special issue.

The first paper, 'Development of a dual-modal information presentation of sequential relationship' by Xu (Motorola Inc), Fang (DePaul University), and Chan (DePaul University) focuses on designing a visual-auditory presentation to minimise the interference in information processing between modality channels and improve the effectiveness of mental integration of multimodal information. A method was proposed to convert textual information describing sequential relationships into a 'graphic + voice' presentation. It was hypothesised that this dual-modal presentation would result in superior comprehension performance and user satisfaction as compared with the pure textual display. Findings from their experimentation fully supported their hypothesis and will benefit interface design of mobile applications by alleviating the overabundance of information output in the visual channel.

The second paper, 'A conceptual model of m-commerce customers' continuance intention based on the customers' perceived value' by Wu, Chen, Sheng, and Wang (Zhejiang University) proposed the dimensions of the m-commerce customer's perceived value and the conceptions of these dimensions through contrasting the dimensions of customers' perceived value and factors that affect the m-commerce customer's behaviour. Based on the key conception of mobile commerce customers' perceived value, the expectation-confirmation model for information technology (ECM-IT) was extended and a conceptual model of m-commerce customers' continuance intention was built.

The third paper, 'Web disclosures of substandard and fraudulent mobile learning institutions' by Sun, Liu, and Koong (University of Texas Pan America) examined the web disclosures of institutions and their programme offerings that were labelled as substandard and fraudulent by states that maintain a public watch list. The primary mode of delivery was via electronic or mobile technologies and methodologies. Based on the watch lists, there were 302 such institutions in the US and another 188 operating out of some 54 nations. These substandard programmes and fraudulent institutions appear to operate from certain countries or states more than others. From the perspective of compliance and enforcement, this major trend identified is important because prospective students and employers can now have a more focused group of institutions and their locations to monitor.

The fourth paper, 'Literature trends for mobile learning: word frequencies and concept maps' by Ha (Coppin State University), Du, Holden, and Rada (University of Maryland, Baltimore County) aims in identifying patterns in the m-learning literature. The hypothesis is that the literature will demonstrate a growth over years and will cluster around the concepts in a published concept map. Four citation databases were systematically analysed for this purpose. While the number of publications has been increasing in the engineering databases, the growth has been less apparent in the education and business databases, which may reflect a faster growth in the technology than in its applications to education and business. All the many concepts of the map were recognised except for 'ethics' and 'discourse', which merit future attention.

The fifth paper, 'Simple mobile phone-based games to adjust the player's behaviour and social norms' by Hildmann, Uhlemann, and Livingstone (University of the West of Scotland) gives an overview of games-based learning and theories from the field of psychology. Two types of games are suggested as the basis for serious gaming to teach positive behaviour and social norms: a resource management game and a virtual pet. The games are outlined and evaluated by comparison of the key aspects of game-based learning in the literature. To asses the feasibility of the suggested games, the respective prototype implementations for both have been benchmarked and tested and the results are reported.

The sixth paper, 'Understanding users' perception of speech recognition errors in mobile communication' by Xu (Motorola Inc.) investigated the users' perceptions concerning a proposed multimodal interface design that allows a user to send and receive voice-dictated text messages on cell phones. Task-based interviews were performed to examine participants' understanding, acceptance, and overall satisfaction. Findings indicate that an audio readout significantly improves users' understanding of the misrecognised messages. An in-depth investigation reveals how users' perception is impacted by speech recognition errors in m-communication.

The last paper, 'A fuzzy cognitive map approach for analysis of electronic consumer products in terms of usability among different age groups' by Yücel, Bayraktaroğlu, and Ünal (Istanbul Technical University) proposed a methodology to explore the importance of usability dimensions of electronic consumer products among old, middle-aged and young people using fuzzy cognitive maps. In the case study, mobile phones were chosen as the target product. According to the findings, learnability and efficiency are the most important factors for all age groups. Screen size is found to be the third most important factor for old user groups. Moreover, the number and function button sizes emerge as important factors for young users.

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issue. They also would like to take this opportunity to thank Dr Jason Chen, the Editor-in-Chief, for his great support to this special issue. Finally, the authors thank the m-learning experts in the academics and organisations across the globe. They hope that this special issue is useful to all in the research endeavours of m-learning in industries and pedagogies and implementation of m-learning in all organisations.