Editorial

Simon K.S. Cheung*

The Open University of Hong Kong,
30 Good Shepherd Street,
Homantin, Kowloon, Hong Kong
Email: kscheung@ouhk.edu.hk
*Corresponding author

Fu Lee Wang

Caritas Institute of Higher Education,
18 Chui Ling Road, Tseung Kwan O, Hong Kong
Email: pwang@cihe.edu.hk

Oliver T.S. Au

The Open University of Hong Kong,
30 Good Shepherd Street,
Homantin, Kowloon, Hong Kong
Email: oau@ouhk.edu.hk

Lam-For Kwok

City University of Hong Kong,
Tat Chee Avenue, Kowloon, Hong Kong
Email: cslfkwok@cityu.edu.hk

Biographical notes: Simon K.S. Cheung is the Director of IT in the Open University of Hong Kong, and the former Director of IT Services in the HKU School of Professional and Continuing Education. He received his BSc and PhD in Computer Science from the City University of Hong Kong, and Master of Public Administration from the University of Hong Kong. His research interests are in the areas of software engineering and IT in teaching and learning, where he has published 12 books and over 100 refereed journal articles, book chapters and conference papers.

Fu Lee Wang is the Vice-President (Research and Advancement) in the Caritas Institute of Higher Education. He received his PhD in Systems Engineering and Engineering Management from The Chinese University of Hong Kong. Prior to joining Caritas, he was a faculty member at the City University of Hong Kong. His research interests include e-business, e-learning, financial engineering, and information retrieval. He has over 150 publications and has received 16 grants with a total of more than $20 million Hong Kong dollars.

Oliver T.S. Au received his BA, MSc and PhD in Computer Science from the York University, University of Toronto and Loughborough University respectively. His research interests are in the areas of formal methods, requirements engineering, student motivation and study habits. As an Assistant Professor, he teaches software engineering at the Open University of Hong Kong where he serves as a member in a number of quality assurance committees including the Senate, President's Advisory Committee on Research and Development, Advanced Standing Committee, Academic Standards Review Group and Programme Review and Validation Committee.

Lam For Kwok received his PhD in Information Security from the Queensland University of Technology, Australia. He is an Associate Professor in the Department of Computer Science and the Executive Director of CUBIC (CityU Business and Industrial Club) at City University of Hong Kong. His research interests include information security and management, intrusion detection systems, and computers in education. He has extensive teaching and academic planning experience. He actively serves the academic and professional communities and was the Conference Chair of International Conference on Hybrid Learning 2015.

Technology has become an integral part in the learning process. With the advent of new mobile and communication technology, the learning process is undergoing revolutionary changes through the innovative use of technology. With a focus on the latest advances in technology-enhanced learning, including hybrid learning, blended learning, collaborative learning and online learning, this special issue explores how to align the innovation in teaching and learning into practice. It aims to disseminate research and share experience in transforming the learning process with technological innovation.

This special issue contains seven refereed papers, which are selected from the papers presented at the 8th International Conference on Hybrid Learning, held in the Central China Normal University, Wuhan, Hubei, China on 27 to 29 July 2015, with substantial expansion and revision.

Within the context of technology-enhanced learning, the first paper, 'A study on the effectiveness of electronic and paper dictionaries: comparing the hybrid use of both and the pure use of either', investigates the effective use of electronic and paper dictionaries in the learning process. Various usages of the dictionaries, including the hybrid use of both electronic and paper dictionaries, and the pure use of either electronic dictionaries or paper dictionaries, were critically evaluated with respect to learning effectiveness for second language learners. The results affirmed the effectiveness of the hybrid use of both paper and electronic dictionaries from the perspectives of the significance of processing for constructing memory, the significance of repetition for consolidating memory and the significance of diversity for reinforcing memory.

The second paper, 'A development of context awareness vocabulary immersion system to support vocabulary learning in Thai primary school students', shares the experience in implementing a context model of innovative English vocabulary learning using the CAVIS. It investigates English vocabulary learning in an appropriate environment, which supports learning through a real situation and enhances the learner's motivation to review vocabulary knowledge, for primary school students in Thailand. A series of experiments were conducted to evaluate the learning effectiveness of using the CAVIS, as compared to the traditional teaching model. Pre-test and post-test results were

compared. It is shown that the learners were more engaged and demonstrated positive attitudes toward vocabulary learning.

In moving towards a technology-enhanced environment, the learning process would inevitably undergo many changes such as on learning styles and preferences. The third paper, 'Learning styles in the e-learning environment: the approaches and research on longitudinal changes', analyses the learning styles in the e-learning environment in the past 14 years. Following a review on learning styles, the authors conducted two meta-analyses for two time periods, 2001 to 2007 and 2008 to 2014. A total of 5,361 related papers were selected from various literature databases. It was found that strong attention was paid to the fields of learning styles and e-learning, but co-occurrence of two fields was rather rare. The results showed that serious systematic research on learning styles in the e-learning environment is still missing.

The fourth paper, 'Ways to enhance metacognition through the factors of learning processes, achievement goals and self-efficacy', places the emphasis on the learning processes. It investigates various factors influencing students' preferences in the learning processes and orientations of achievement goals, and the factors enhancing the students' self-efficacy in learning. A total of 54 full-time undergraduate students were randomly selected for a survey measuring their metacognitive level, and an interview inquiring the reasons for tendencies to use surface or deep processing, motivates for achievement goals, and way to enhance self-efficacy in learning. Ways for enhancing students' self-efficacy were identified, but no clear connection between students' achievement goals and students' metacognitive level was identified.

Blended learning is a promising learning model that integrates traditional learning with innovative means. The fifth paper, 'Non-prescribed collaborative learning using social media tools in a blended learning course', explores the students' experience in collaborative learning using media tools in the blended learning context. A total of 160 students of an institution participated in a study, where social media tools were used for meeting the learning needs due to changes on online technology. The results confirmed that the students were more engaged in learning through the use of social media, and that non-prescribed collaborative learning using social media was initiated by the students. It was proposed that social dimension of learning autonomy should be considered in the community of inquiry framework.

Also in the areas of blended learning, the sixth paper, 'Learning from practice: improving blended learning strategies in an educational technology course', reviews how a blended learning model is developed and implemented. The authors shared their experience in carrying out and improving the learning strategies in a course, where the lab-rotation blended learning model was applied to two stages of the teaching process, namely, the initial implementation and the follow-up enhancement. Students' learning behaviours were analysed, and students' feedbacks were collected through classroom observations and interviews. The result proved that this lab-rotation blended learning model would be effective for the general curricula which usually accommodate a large number of students with diversified background.

The seventh paper, 'Flexible hybrid learning: comparison of two approaches and learning results', presents a comparison of two approaches to adapting the learning process to learners' individual preference. One is being adopted by the University of Ostrava and the Technical University of Ostrava, where an automatic adaptive e-learning model is exploited. The other one is being adopted by the University of Hradec Kralove,

based on the theory of learning styles. Though not showing clear differences in terms of the contribution of flexible hybrid learning, the results reveal the importance for students to be aware of their learning styles, strengths and weaknesses, and the importance of using suitable instructional methods.

Finally, we would like to thank Dr. Kongkiti Phusavat, the Editor-in-Chief of the *International Journal of Innovation and Learning*, for his kind acceptance of publishing this special issue. We also like to express our appreciation to Miss Barbara Curran for her efforts in assisting the publication of this special issue.

We hope that you would enjoy reading the papers.