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## Editorial

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**Biographical notes:** Kam Cheong Li currently serves as Director of Research at the Open University of Hong Kong. He is also Visiting Professor at the Department of Education of Middlesex University. Besides serving as an editor for the *Asian Association of Open Universities Journal*, he is an editorial board member for the academic journals: *Higher Education Quarterly* and *Interactive Technology and Smart Education*. His research interests lie in e-learning and technology in education.

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Reggie Kwan is a Professor of Computer Science and currently the Provost of the Open University of Hong Kong. He served as the Chair of Computer Science at Montana Technological University, the Head of Computing and Mathematics at the Open University of Hong Kong, and the President of the Caritas Institute of Higher Education. Though trained as a computer scientist, he has been fascinated by e-learning and teaching innovations.

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Innovations in mobile technology have been playing a key role in transforming education. The prevalent adoption of mobile devices has not only enhanced teaching and learning effectiveness but also transformed various aspects of educational practice ranging from curriculum design to learning delivery, interaction and assessment. The advances in mobile-related technologies, such as cloud computing, big data, and social media, have enabled new ways of understanding the education process as well as new

interventions. The rapid developments in mobile learning have also produced a pressing need to examine their impact and unresolved issues in the education process.

This special issue is devoted to revealing how innovations in mobile technology have transformed educational practices. It includes the extended version of five of the best papers presented in the 2019 International Conference on Open and Innovative Education which was held at the Open University of Hong Kong. The papers range in focus from learner behaviours to disciplinary practices, technological advances and institutional management.

In the paper 'Exploring learning behaviour under an integrated mobile and web-based learning environment', Lam et al. report research findings on the differences in learners' learning behaviours across mobile and web-based learning environments. They show how learners make use of a mobile platform to supplement a web-based platform for various types of learning activities, and self-regulate their learning across the two platforms. In particular, high performing learners demonstrate clearer tactics than low performing ones in the use of mobile and web-based platforms, in aspects such as the amount, type and sequence of learning activities. The results also reveal learners' self-regulation as a possible factor accounting for the differences, and thus highlight the need for teaching self-regulated learning skills for learners to engage more effectively in mobile and web-based learning environments.

The study 'Learning curriculum vocabulary through mobile learning: impact on vocabulary gains and automaticity' by Chen et al. investigates the effect of mobile learning on learning vocabulary. They present the use of a mobile learning system for university students to participate in vocabulary drill activities such as crossword games and real-time quizzes. In comparison with a control group using a traditional approach to reviewing the vocabulary, they show the benefits of mobile vocabulary learning in terms of a better learning performance and a longer time devoted to learning. They also examine the users' feedback on the mobile vocabulary learning experience, highlighting the advantages of convenience and efficiency, as well as the challenge of changing learning habits.

In the paper 'A literature review of augmented reality, virtual reality, and mixed reality in language learning', Li and Wong provide a comprehensive review of 111 studies in the past 15 years on using these technologies for language learning. With the feature of blending real and virtual information, these technologies allow learners to access additional language materials, or engage in social interaction with an interactive and digitally enhanced environment for exposure to a target language in mobile and ubiquitous ways. The review covers a broad range of areas such as the trends in their use, target learners, devices, areas and issues of language learning and research needs. In addition to the use of technology, the results also reveal the importance of the design of curricular and learning contents for improving learners' language proficiency.

In their paper 'Shepherds for modern times: designing a blended learning course for communication theology', Stanislaus and Lee demonstrate how mobile technology can be effectively adopted in theology education with a particular emphasis on communication. Their work addresses the need to change the traditional conservative teaching in the Catholic Church for future priests. Through a questionnaire survey, this study reveals the learning needs of theology students, and their use and preferences for social media, competence in information and communication technology (ICT),

perceptions of e-learning, and learning habits. Based on their results, recommendations are provided on how theological institutes can develop and provide blended learning courses supported by mobile technology.

In the last paper ‘The role of organisational performance in moderating human resource management and outstanding outcomes in open distance learning context’, Sembiring et al. investigate the relationship between organisational performance, human resources management in higher education, and outstanding outcomes in the provision of distance education, such as service excellence and quality products. In this study, ICT is shown to be a key component that contributes to organisational performance. As the provision of distance education has involved substantial use of ICT and other educational technologies, the results provide insights into how innovations in mobile technology facilitate the transformation of higher education management.

These papers address issues related to the educational transformation with mobile technology innovations, such as learner behaviours, curriculum design and delivery, effective use of mobile technologies, and education management. Their results also provide information for possible work to be carried out in the future. We look forward to more insights and discussion stimulated by these papers for further advances in this area.