Guest Editorial Preface

Special Issue on Innovation in Mobile Learning

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Recent advances in mobile technology, especially in the last decade, have created new opportunities and possibilities to extend and enhance learning, teaching and assessment. Alongside technological innovations, new models of when, where and how learning can take place – mediated by mobile devices and infrastructures – have created new potential to design inclusive, engaging pedagogy and andragogy that challenge traditional physical/geographical barriers, and synergise formal and informal educational spaces.

Developments with new technology have been underpinned and supported by robust, principled, and bespoke theoretical frameworks, such as iPAC.

The technology advances have been matched with a more nuanced understanding of the design of mobile learning, and therefore, perhaps the time is now ripe to really push forward the state-of–the-art, and see it applied more widely in education, schools and colleges.

Mobile learning has assumed an even greater importance considering the current global pandemic and the need for access to education, schools, and training, while maintaining physical distance. It is imperative that we can devise and explore the best approaches, strategies, and models for learning with portable digital technology. Furthermore, the current challenges we face in education perhaps present an opportunity to reimagine and redesign education, learning and teaching in ways that surpass outmoded approaches that previously prevailed.

The call for papers in this special issue was made prior to the emergence globally of COVID-19, in particular from the work of DEIMP (*Designing and Evaluating Innovative Mobile Pedagogies*), an EU-funded transnational consortium project focused on the development of novel mobile and blended learning, both with and for teachers and schools. Emerging from the work of the DEIMP partners, led by the University of Hull (DEIMP Coordinator); University of Technology, Sydney; and National University of Ireland, Galway, this special issue was first announced at the international DEIMP workshop at the EC-TEL Conference in Delft, The Netherlands in September 2019: http://www.deimpeu.com/ec-tel-workshop-delft-2019.html. In addition to the workshop and participants' collaborations there, a general call was issued to the international educational technology community.

This special issue compiles five international articles that discuss and outline a number of innovations, each illustrating the conceptualisation, design and application of mobile learning in a range of diverse leaning contexts.

In the first article, 'A Multi-Stakeholder Perspective of Analytics for Learning Design in Location-Based Learning', Pishtari and colleagues provide a case study highlighting insights into the application of analytics in learning designs for location-based tools.

In 'A Socio-Cultural Approach to Evaluating and Designing Reading Comprehension Apps for Language Learning', Robles and colleagues outline the evaluation of twenty-five English language learning mobile apps, using the iPAC as a framework for analysis. Identifying extant gaps and shortcomings in current applications, the paper makes recommendations for how we can design apps that exploit the unique affordances of mobile learning for language comprehension specifically.

In the third article, 'Personalized Mobile Learning and Course Recommendation System', Madhubala and Akila outline a system for customising multimedia for learners' preferences and the personalisation of mobile learning content, predicated on the salient idea that quality of learning content impacts significantly on the mobile learning experience.

In their article, 'Mobile Learning to Support Computational Thinking in Initial Teacher Education: A Case Study', Connolly and colleagues present a study on the introduction of computer science education using mobile devices and applications in pre-service, initial teacher education. The paper illustrates the potential of mobile apps in teacher education in the discipline of computer science.

In the fifth and final article of the special issue by Moya and Camacho, 'Design Principles of Mobile Learning Frameworks', the authors provide an analysis of key m-learning frameworks, identifying and analysing important design principles to develop a model for the sustainable adoption and use of mobile learning in education.