Guest editorial
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Anybody born after 1982 has had access to, and even immersion in, a networked world of digital technology. This group of people has been variously referred to as Digital Natives, Millennials, and the Net Generation and is assumed by many to be fundamentally different from previous generations (Palfrey and Gasser, 2008; Tapscott, 2009) to the point of being described as behaving differently, having different social characteristics, different ways of using and making sense of information, different ways of learning, and different expectations about life and learning. These claims have potentially significant and costly implications (Rickes, 2009) for the educational sector across all levels, and if true, may fundamentally shift how teaching and learning is supported. It was once assumed that new technologies would "transform learning and teaching processes from being highly teacher-dominated to student-centered and that this transformation would enable students to develop their problem-solving abilities, information reasoning skills, communication skills, creativity, and other higher order thinking skills (Guri-Rosenblit and Gros, 2011)". However, there is little empirical evidence to support these claims and the few studies that uphold them are fraught with methodological issues or have made inappropriate generalizations concerning their results from limited or unrepresentative sampling strategies (Bennett *et al.*, 2008; Bullen *et al.*, 2009; Kennedy *et al.*, 2010). The belief that frequent use of technologies in everyday life develops competent users of technology that are able to transfer their digital skills to learning environments – the so called Digital Native – is not well supported (Gros *et al.*, 2012), and to base institutional or sector-wide-policy direction or teaching and learning strategies on this assumption may be flawed.

Understanding how to support teaching and learning, and the learning needs of the next generation of learners, is important for students' intellectual development and their readiness to contribute to a thriving economy upon graduation. In the context of student-centered instructional models, the proliferation of new technologies and diminishing institutional budgets, there is a need to conduct a more focussed investigation of which educational technologies are actually required by students to support their learning, and one that is sensitive to the different needs of students in academic, trades, or vocational programs across the sector from K-12 to post-secondary and lifelong learning. To this end the International Conference on Information Communication Technologies in Education (ICICTE) has met each year since 2001 to discuss the appropriate use of technology in education, seeking to address the many challenges and new directions presented by technological innovations in educational settings.

As scholars and educators we labor to determine the shape of meaning in our experience of the world as well as to provide the means for our students to do the same. Our active participation in ICICTE supports this endeavor as we collectively acknowledge not only the value of teaching and learning and the dynamic interface between teacher and student, but also the learning platform and outcome. ICICTE

2015 was a time to reflect on, and re-imagine the role of the teacher and the methods we employ to create meaningful learning experiences in the face of rapid advances in information technology, methods of social interaction, and the political and economic climates we are presently within.

As with previous years, the breadth of topics and diversity of cultures and countries represented provided a true global perspective on issues surrounding the use of technologies in education. The papers presented in this special issue come from Europe (including the student paper prize winning paper), from North America and Australia. The topics range from the emotional experiences of students taking an online course, to the design of the course itself and tools to enhance the learning experience.

Reflecting on the diversity of discussion at the conference, it is our hope that the reader will appreciate how these papers add to the current dialogue around the use of information communication technologies in education globally, and their impact on learning outcomes. I encourage you to join the conference community and share your ideas and insights.

Greg Anderson

Office of Applied Research, Justice Institute of British Columbia, New Westminster, Canada

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Further reading

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