Editorial

This special issue of the *International Journal of Information and Learning Technology* provides a snapshot of the current state of research in the field of instructional technology. The technologies and contexts described in these papers echo many of those identified by the 2017 New Media Consortium (NMC) Horizon Reports for Higher Education (Adams Becker *et al.*, 2017) and K-12 (Freeman *et al.*, 2017) as likely to be adopted imminently, or in the medium term, including maker spaces, mobile learning, and learning analytics. Given that the NMC Horizon Reports are often used as a benchmark for identifying technology trends, we can say that research in the field is indeed keeping pace with the changes in the technological and pedagogical landscape of schools and universities. This is important, given that the role of research is to understand how and why technology is currently being used to support teaching and learning, in order to provide guidance for best practice.

At the same time, in the context of an ever-changing technological landscape, it is easy – perhaps too easy – to point to the new technologies represented in these articles as evidence of progress or relevance. Selwyn (2011) noted that as a field, instructional technology tends to celebrate progress, stemming from "the widespread belief that digital technologies are leading toward a general improvement and even transformation of most areas of society" (p. 20), including education. Arguing that we often get too caught up in chasing the "latest and greatest" technology tools, Reeves and Reeves (2015) challenged the field to re-focus our individual and collective research agendas on solving problems related to improving teaching and learning, and specifically, problems that have a concrete and positive impact on the world.

So, while the research represented in this special issue focuses on recent technological developments and related practices, such as maker spaces, e-textiles, 1:1 device programs, and learning analytics, they also illuminate the ways in which technology can be used to address challenges in the learning environment. Cohen, Huprich, Jones, and Smith's article on maker spaces provides needed longitudinal data on perceptions and outcomes related to making during a semester-long undergraduate course. Lee proposes a model to predict student success in solving problems in mathematics, using an educational data mining approach. Lee and Fields developed a rubric to examine transfer of understanding from students' work with e-textiles to other design tasks. Peterson and Scharber describe the implementation of student technology teams as a unique solution to address the challenges of supporting a high school's 1:1 device initiative. Theiman and Cevallos examine the issues of equity around implementation of a 1:1 iPad program in an urban high school with a diverse and predominately low-income population of students. Polly and Urbina use TPACK as a lens to explore elementary mathematics teacher decision making related to the selection and implementation of technology to support meaningful learning in their 1:1 classrooms.

Finally, in addition to a renewed focus on solving problems, I suggest along with Reeves and Reeves (2015), Vossoughi *et al.* (2016), and Warschauer and Matuchniak (2010) that the field of instructional technology also needs to engage more with the issues of equity and social justice. Technology is not value-neutral, nor does it operate within value-neutral contexts. As such, its implementation privileges some students, while disadvantaging others. It is interesting to note that the 2017 NMC Horizon Report Summary for K-12 does not address issues of equity at all, while "advancing digital equity" is listed as a "difficult challenge" with

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"elusive solutions" in the 2017 Horizon Report for Higher Education. A closer reading of their definition of digital equity, however, shows an understanding and orientation rooted deeply in the first digital divide – access to broadband internet, and internet access globally – without addressing issues around the second digital divide, defined as access to the powerful practices that are valued in a digital society (Warschauer *et al.*, 2004). I am encouraged to see themes related to equity reflected in several of the papers in this special issue, and I hope to see more instructional technology research attend to these critical issues.

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