Foreword

I don’t know a single person who is not immersed in the digital universe. Even people who are strongly anti-technology are probably voicing that view on a Web site somewhere. Third-world villagers without electricity have cellphones. ~ George Dyson

The digital universe indeed seems to have encompassed and impacted us all whether we’re active participants or not. It’s difficult now to conceive of a single cultural human activity that has not been significantly influenced by technology – including, of course, education. In recent years, educational technologies have relentlessly evolved commensurate with and driving changes throughout all levels of the education sector and emerged as a viable market industry (Global Silicon Valley, 2012). The variety of learning experiences afforded via technology has grown considerably across and within the disciplines in both formal and informal environments. Disruptive change in education abounds and there are few signs that the pace of innovation will slow anytime soon.

As the New Media Consortium’s most recent Horizon Report (2014) highlights, post-secondary institutions are beset by a host of trends accelerating the use of technology in the classroom: by the near ubiquity of social media, the integration of online, hybrid, and online learning, the rise of data-driven learning and assessment, a shift from students as consumers to students as creators, agile approaches to change, and a continued rapid evolution of online learning, itself. These trends represent fundamental dimensions of the learning enterprise that are transforming for everyone involved. The ways that people access, illustrate, interpret, navigate, produce, and demonstrate what they know in formal and informal learning settings are substantively changing. Such dynamism renders the need for evidence of “what works” in education more valuable, as the best practices of yesteryear no longer apply to fundamentally changed conditions while simultaneously creating cultural, technical, and disciplinary difficulties in gathering, intercorrelating, and maintaining the sought-after relevance.
The call for comprehensive, timely, and high quality research in educational technology has never been more urgent.

Of course, the ubiquitous use and impact of digital technology as referred to by Dyson in the opening quote of this Foreword refers to an ontologically different form of “immersion” than is meant by researchers investigating the situated, ecological contexts afforded by digital technologies such as video games, virtual worlds, and augmented reality experiences. That form of *immersion*—rather than describing the relative market penetration of digital tools across the social nexus of our lives as he refers to it—is concerned with the psychological and phenomenological experience afforded by a given digital application. Digitally immersive educational experiences, while not yet ubiquitous or even common, are also on the rise.

This too, represents an opportunity to highlight another, related frequently encountered challenge that beset educational researchers: the speed of innovation and change is visibly outpacing the field’s ability to operationally define and implement common nomenclature and a foundational evidence base for investigating emergent tools and their corresponding phenomena. What does “immersive” learning mean, exactly?

While answering educational practitioners’ call for useful research requires that investigators at some point go beyond describing the phenomena under inquiry to begin replicating findings and illustrating larger patterns in the implementation of educational tools across various contexts and populations of learners, the shifts in underlying dynamics and the lack of coordination amongst educational research results perniciously contradicts these efforts. The speed of research is outpaced by the speed of innovation and the utility of research findings is thus, evasive.

In many disciplines, movements toward open scholarship and the use of digital tools including social networking, shared research data, common metadata structures, and interdisciplinary collaboratories have grown in response to these global dynamics and the alarming decreasing connection between research and practice (Veletsianos & Kimmons, 2012). Digital Scholarship is beginning to impact the field of education and related disciplines too.

The American Educational Research Association and a number of their official Special Interest Groups have been incorporating social media and experimenting with digital scholarship techniques for some years. The Applied Research in Immersive Environments for Learning (ARiEL SIG) is worthy of note in this field. That group has recently joined with an international group of scholars across the disciplines with the mission to collaborate using a combination of traditional and digital mechanisms to define the meaning and situate the scholarship on immersive learning. Through this Immersive Learning Research Network, or ILRN, the potential for rising beyond mere scholarly description within the silo of educational research journals and conferences is appealing.
Yet, even as scholarship and research reporting itself transforms to accommodate
the digital universe as reflected by such activities described above, there is a tradi-
tional way of summarizing and intercorrelating research through a form invented
hundreds of years ago that is still relevant as an efficient means for distributing and
connecting evidence to the people who need it most: the book.

The collection of research-based chapters represented here reflects some of that
diversity in learning technologies applied across a rich variety of learning situa-
tions and effort to share descriptions of the evidence-based contexts. Divided into
four (4) sections, one is devoted to immersive environments – of Virtual Worlds
and Augmented Reality. Another section is dedicated to Personal Learning Envi-
ronments and Electronic Portfolios. There’s also a section dedicated to Identity
and Community, and one on Research Methodologies. Taken together, this book
represents a good measure of the breadth of possibilities in virtual and personal
learning environments and a survey of evidence on the affordances and effects of
their design on student achievement.

The focus throughout each chapter and across the book is facilitated from a
learning perspective, representing research and inquiry that is both established and
cutting edge. Indeed, while we still have much work to do in educational research
to interconnect the evidence to inform relevant practice using digital scholarship
techniques, it is in addition to – not in replacement of – quality tomes such as the
one before you that will propel our practices and results forward to their best situ-
at ed application.

I invite you to peruse the contents herein, discuss them using your social net-
working tools, and participate in the conversation.

Jonathon Richter
University of Oregon, USA

REFERENCES

Global Silicon Valley Advisors Global Education Factbook. (2012). Available
Factbook-Apr-13-2012.pdf

org/pdf/2014-nmc-horizon-report-he-EN.pdf

Veletsianos, G., & Kimmons, R. (2012). Networked participatory scholarship: Emer-
gent techno-cultural pressures toward open and digital scholarship in online networks.