**Book Review**

# Emergence and Innovation in Digital Learning: Foundations and Applications

George Veletsianos, editor
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In *Emergence and Innovation in Digital Learning: Foundations and Applications*, scholars with diverse expertise in online learning and educational technology address four key themes: (a) the emergence of novel learning technologies and online learning practices; (b) the interactions between educational technologies and pedagogical practices; (c) the tension between high-tech and high-touch approaches to education, or the importance of in-person interaction in learning; and (d) "how emerging technologies and associated phenomena reconfigure the role of learners and instructors and how learners and instructors reconfigure the roles that technologies play in digital education" (p. xi). In the first half of the book, the authors explore conceptual and theoretical foundations; in the second half, they examine specific applications. Note that this volume is intended to be a sequel to Veletsianos' *Emerging Technologies in Distance Education* (2010), and some chapters from the first book were revised and reprinted in the second.

The chapters are divided into two parts: "Foundations," which contains chapters on theory, and "Applications," which contains chapters that present empirical research or that explore practical considerations relevant to digital learning technologies. In the "Foundations" section, chapter 1 explores the concept of "emergence" with which the subsequent chapters are concerned; chapter 2 examines the "messiness" of the interplay between emerging technologies and emerging practices in education; chapter 3 surveys theories of learning with online learning technologies; chapter 4 explores models for integration of learning technologies into education practice; and chapter 5 examines educator and learner roles in the context of online learning technologies. In the "Applications" section, chapter 6 summarizes the potential and impact of learning analytics and educational data mining for the improvement of online learning; chapter 7 looks at the use of learning management systems; chapter 8 surveys personal learning environments, or systems that learners use to facilitate and manage the learning process; chapter 9 explores design considerations for open and social learning; chapter 10 looks at the social and cultural effects of Massive Open Online Courses on perceptions of education; and chapter 11 discusses arts-based technologies and community creation in online learning.

Because topics such as online learning, digital pedagogy, and educational technology are so vast, it is necessary to delineate the corner of that massive sandbox in which a given conversation takes place. In the five chapters that comprise the "Foundations" section of the book, the authors focus primarily on how the features of the modern Internet influence what is

possible in education. This discussion pertains less to specific theories of learning than to more general conceptualizations of how basic web affordances—social networking, open informational resources, user-generation of content, &c.—affect education. On one hand, these chapters provide a brief and accessible overview of many issues for readers who may not know much about the topic; on the other hand, despite arguing that discussions of emerging learning technologies and practices often "ignore or resist the complex conditions under which learning occurs" (p. x), the first five chapters are remarkably decontextualized. For example, there is virtually no discussion of differences across learner levels (e.g., higher education, early childhood education) or educational settings (e.g., schools, corporate training).

Not surprisingly, the "Applications" chapters are better grounded, with concrete examples and more explicit links between practice and theory. The chapters cover a diverse range of topics, though it is somewhat strange that the chapters were split into "theoretical" and "practical" sections, the more so because the argument about emergence is that it is a phenomena not of newness but of the interaction of technologies, theories, and practices. The book would have been more compelling if every chapter (or at least more chapters) addressed all three aspects of this concept.

It is, of course, impossible for one book to cover all of the topics in a field this large and this diverse, but several omissions are surprising. There is virtually no consideration of mobile technologies, one of the most significant changes since the first book was published, nor is there discussion of serious games, immersive simulations, automated tutors, or other prominent educational technologies that have become widespread in the last decade. One or two additional chapters would have made the book considerably more comprehensive.

Overall, the book will be useful for students new to education and for teachers who want to develop online curricula and want a brief overview of some of the more prominent technological options and practical considerations. Because the book summarizes very large areas of research, education scholars in the respective fields will find little with which they are not already familiar. However, the chapters nicely condense existing research and debates for those who want a concise review of the state of the art.

## Reference

Veletsianos, G. (2010). *Emerging technologies in digital education*. Edmonton, Canada: AU Press.

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