Introduction to Special Issue

Emerging Technologies and Transformative Learning

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Guest Editors

This special issue is in part the result of a conversation the guest editors have had over the last two years about emerging technologies and their potential to foster unique types of learning. We have found that these unique types of learning share many characteristics with Jack Mezirow's original notion of transformative learning such as disorienting dilemmas, critical reflection, dialogue, and changes to frames of reference (1978, 1991, 1997). We also agree with many in this special issue, who have described these unique types of learning as qualitatively different than goal-based and performance-oriented learning. By emerging technology, we mean tools, concepts, innovations, and advancements that are utilized in diverse educational settings, to serve varied educational purposes, and that can be described as evolving organisms existing in a state of "coming into being" (Veletsianos, 2010). Although many articles in this issue discuss technology or learning technology in this more general sense, some more concrete examples from our collection include virtual worlds, online gaming, digital video, online and blended learning, and web 2.0.

The authors of this issue were asked to address the relationship between emerging technologies and transformative learning, whether and how it exists, and what it means to our field. As a result, the papers in this issue address our theme in a number of important, albeit varied ways:

- Some authors have taken Mezirow's theory of transformative learning as a starting point for their work, bringing light to the theory and how it can be used in our field;
- others have outlined critical elements that need to be considered when designing for technology-enhanced transformative learning;
- and others have used the theory to help define unique learning processes and outcomes they have observed in their systematic investigations of specific technology-enhanced learning contexts.

The Articles

King opens this issue by presenting an overview of transformative learning theory from its origins to its application in our field. She demonstrates how characteristics of transformative learning fit with current societal and educational trends, and she notes that transformative learning embraces a deeper view of learning that focuses on process and being rather than solely on performance or learning outcomes. **Wilson** and **Parrish** also discuss a deeper view of learning, depicting a transformative learning experience as "an especially meaningful encounter that leaves a lasting impact on a person's sense of competence or place in the world" (this issue). They then present indicators for transformative learning, and discuss preliminary guidelines to foster conditions in which it might occur. **Parrish**, **Wilson** and **Dunlap** discuss situational and individual qualities that influence transformative learning experiences, which they describe as being both personal and shared. **Mishra**, **Koehler**, and **Henriksen** explore the roles that trans-disciplinary thinking and contemporary technologies can play in fostering transformative teaching and learning. The authors propose seven cognitive tools needed for this kind of teaching and learning in the 21st century.

Other papers in this issue highlight more specific instances of how emerging technologies can enhance transformative learning activities. For example, **Harmon** examines how virtual worlds can be used to provide transformative learning experiences as he maps characteristics of transformative learning onto affordances of virtual worlds. **Calandra and Puvirajah** describe a video-enhanced process for promoting teachers' transformative learning. The non-linear process includes awareness, immersive reflection, and dialogue. The desired result is holistic change that can be evidenced through change in teaching practice. **Bolger**, **Rowland**, **Reuning-Hummel**, and **Codner**, note the similarities between transformative and *powerful* learning experiences. Using these concepts, the authors present their vision of utilizing online technologies for transformative learning. In his discussion of emerging technologies in education, **Veletsianos** describes approaches and design tactics that can aid in designing technology-enhanced transformative learning, and presents examples of transformative learning experiences in online and blended education. As an example of how technology-enhanced transformative learning might work, **Rogers** describes how he and colleagues in Scandinavia used techno-social affordances to connect university students from very different cultures, explaining how these connections can be transformative. Finally, **Hughes, Guion, Bruce, Horton,** and **Prescott** discuss the power of using web 2.0 technologies to provide transformational learning experiences in schools, while proposing a model uniquely suited for diffusion and adoption of these technologies in the schools.

The articles in this issue shed light on the complex relationship between emerging technology and transformative learning. We recommend that future investigations build upon this work by examining in more depth how transformative learning might be negotiated in

technology-enhanced contexts, and how emerging technologies might foster and influence transformative outcomes.

References

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