Putting the Activity Back Into Our Tools

Abstract
When exploring the success or failure of technologies designed for learning (or any other goal), it is all too easy to focus exclusively on the design of the tool itself, or on a thriving ecosystem in which a tool is one simple element. In this talk, I suggest that we re-focus on the role of activity in shaping the impact of tools in learning environments. I will briefly summarize Cultural Historical Activity Theory as a framework for exploring the role that technological tools play in activity systems. Then, I draw upon examples from my own research and teaching with technology to suggest three ways of expanding our thinking: beyond the tool, beyond the screen, and beyond the culture. To move beyond the tool, I highlight the importance of social structures, peers, and teachers in shaping one’s experiences with educational software. To move beyond the computer, I focus on alternative interfaces outside of the traditional desktop environment, such as augmented reality or ePuppet. Finally, I end with a consideration of the kinds of assumptions we make regarding the cultures of our users, and describe work in Culturally Relevant Pedagogy as a way of moving beyond traditional framing to support more diverse populations of users.

Biographical Sketch
Joshua Danish is an assistant professor in the Learning Sciences program in the School of Education at Indiana University. To explore learning in activity systems, he experiments with computer simulations, augmented reality, programming languages, and other technologies in and out of the classroom and combines play, technology, and active learning. In 2010, he received a Sakai Foundation “Teaching with Sakai Innovation Award” honorable mention for his submission “Computational Technologies in Educational Ecosystems.” Prior to his academic career, he spent seven years as a software engineer, designer, and producer in the educational software industry. For more about his research and examples of recent software, see his website at: