Chapter X
Activity Theory Approaches for Authentic Web 2.0 Learning

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ABSTRACT

This chapter discusses activity theory approaches to authentic online learning through Web 2.0 media tools and practices. With the proliferation of Web 2.0 software, many have access to the tools, but it is more difficult to harness the power in them toward authentic and meaningful action. Activity theory provides a lens to examine the “unit of activity” as a way to describe, analyze, and understand activity en route to learning goals. The first part of this chapter briefly defines activity theory and its main tenets, and the last few sections specifically address learning in authentic situations and developing authentic communities. Web 2.0 tools and practices allow learners to be engaged in content-related challenges using the tools as mediating devices and therefore facilitating more authentic and successful learning trajectories.

INTRODUCTION

Oftentimes, educational media tools and technologies provide opportunities for teachers to design rich interactive learning experiences, but just as often they are too prohibitive to integrate into practice either because the cost of the tools or the cost of the training is out of reach (Moser, 2007). Even when conditions are conducive to appropriating media tools for instructional purposes, many teachers do not adopt constructivist approaches to learning though they are considered best practices for higher order thinking and learning in media-rich environments (Ertmer, 2005). Today’s media-tool landscape, by contrast, represents a unique period in the continued movement to integrate and design new media tools and practices toward effective and meaningful teaching and learning. At the center are today’s tools, dubbed Web 2.0, that offer educators op-
opportunities to easily implement rich interactivity and participation to foster meaningful learning without excessive overhead.

The term Web 2.0, originally coined by Dale Daugherty and made popular by O'Reilly Media International, is essentially meant to capture an idea rather than any particular media tool or technology. Though the meaning is difficult to capture and continues to change, at its most basic level it means that participants in the new media Internet landscape are now afforded more opportunities to create, change, control, and participate with the media rather than acquiring information from it (Boutin, 2006; Madden & Fox, 2006; O'Reilly, 2005). The tools and practices afforded by the Web 2.0 concept, along with an increasingly information-rich 21st-century world, furthermore demand instructional design strategies, practices, and models that are able to capture the potential that these accessible, adaptable, and growing list of tools offer (Kaiser Foundation, 2005; Reigeluth, 1999).

Reigeluth’s 1999 contention that the paradigm of instructional design “needs to be changed” continues to be a response to a “new science of learning” (p. 19) that represents a move away from knowledge acquisition models to those that are more participatory, flexible, emerging, and codesigned. He states that current paradigms of training and education are “counterproductive for meeting the emerging needs of the information age,” and the new paradigm requires “a shift from teacher initiative, control, and responsibility to shared initiative, control, and responsibility. It requires a shift from de-contextualized learning to authentic meaningful tasks” (p. 19). Reigeluth’s assessment of the field of instructional design in 1999 has fueled the emergence of new frameworks for learning in subsequent years that has created a healthy tension between designing instruction before learning and instructional designs that accommodate and support learners during and throughout the learning process. Accommodating learners en route to their goals requires support for learning in context-specific situations in ways that question and transform traditional instructional models. Because of the abundance, ease of use, and flexibility, today’s Web 2.0 tools and practices have the potential to bring us closer and perhaps beyond Reigeluth’s nearly-decade-old call for a new learning paradigm.

While many have focused on the changing landscape, definition, and the abundant, ever-evolving Web 2.0 tools (Alexander, 2006; Driscoll, 2007; O’Reilly, 2005; Seitzinger, 2006), this chapter attempts to ground and guide the discussion of Web 2.0 media tools toward effective and meaningful use through activity theory. It is argued that the seemingly boundless growth of Web 2.0 tools and concepts requires a robust theoretical lens like activity theory that can potentially augment the understanding about how to harness them toward meaningful authentic learning.

**BACKGROUND: ACTIVITY AND GENRE THEORIES**

Though there is no easy definition or description of activity theory, it essentially provides a rich descriptive and analytic lens for complex learning environments, especially those that are mediated by tools including anything from computers to pencils (Jonassen, 2000; Nardi, 1996). Activity theory can be difficult to understand because activity systems are both nouns and verbs. That is, activity systems are things, but they are not stationary; rather, they change, grow, and overlap, and some are nested within other activity systems. They resist easy definition because activity systems change from moment to moment. Moreover, they cannot remain stationary if they are to be worthwhile constructs for examining human activity and learning. Hyysalo (2005) offers a rare succinct definition stating that activity theory’s concepts “bring to the fore the ways