Making the Transition to Ubiquitous Learning

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Abstract

This symposium includes four papers addressing the transformative effects of new media on learning and the way such media underpin a move to ubiquitous learning. Authors examine and discuss what new technologies afford for learning, and how their widespread dissemination and use affects who learns what and from whom. Key among the affordances of the new media are transformations in the production process, with new media creating a need for multimodal literacy both in understanding and producing new texts, and significant change in roles of reader and user, consumer and producer, learner and teacher brought about by the new ways in which meaning is created, stored, delivered and accessed.

Keywords

Ubiquitous learning, ubiquitous computing, multimodality, new media literacy, networked learning

The four papers in this symposium explore and alert us to on the transformative effects of new media on learning as they provide the underpinning for a move to *ubiquitous learning*. The authors pay particular attention to what new technologies afford for learning, and how their widespread dissemination and use affects media literacy and relationships in who learns what from whom and where. Key among the affordances of the new media are transformations in the production process, with new media creating a need for multimodal literacy both in understanding and producing new texts. Significant changes also occur in the roles of reader and user, consumer and producer, learner and teacher. The reach of new media beyond classroom walls and beyond formal learning contexts challenge the boundaries of education, transforming learning from a managed activity to an ubiquitous – anywhere, anytime, with anyone – and continuous part of daily life. New ways in which meaning is created, stored, delivered and accessed are appearing daily, each influencing what it means to participate in learning.

Cope and Kalantzis begin with identifying seven moves associated with new media that particularly drive change in learning practices. As they state, while the pedagogical thought or social agenda that is not new to the era of ubiquitous computing, there is now no practical reason not to make each of these moves. The moves are:

> 1: To blur the traditional institutional, spatial and temporal boundaries of education.
> 2: To shift the balance of agency.
> 3: To recognise learner differences and use them as a productive resource.
> 4: To broaden the range and mix of representational modes.
> 5: To develop conceptualising capacities.
> 6: To connect one's own thinking into the social mind of distributed cognition.
> 7: To build collaborative knowledge cultures.

The authors tie these moves to learning as schools transform into knowledge-producing communities; differences across learners become more present in the learning groups; expression becomes both multimodal and self-chosen; and pedagogy reaps the benefits of using new modes of communication and practice.

Bruce continues the examination of transformation, making clear that ubiquitous computing is insufficient for ubiquitous learning. He notes that success of a medium for education depends much more on how it fits with others media, how it relates to course content, how instructors use it, and other contextual factors than to any intrinsic media properties. Bruce stresses the need for a vision of ubiquitous learning, not just technology implementation. In his vision, ubiquitous learning extends far beyond the confines of the classroom, being found in the home, the workplace, the playground, the library, museum, and nature center, and in our daily interactions with others. As new media penetrate nearly every aspect of daily life, so does learning and thus daily life becomes the arena for new pedagogies and new learning practices.

Duffy and Clark follow up the theme of new media with a description of a new undertaking to produce a grid-enabled collaborative environment for the production of comics, also known as sequential art. The increasingly popular medium of comics is on its way to outgrowing its characterization as only relevant to the restricted world of superheroes. It is poised to be taken up in education circles for increasing reading literacy, presenting principles in combinations of image and text, and for inclusion in education to support student production. Their work introduces us to an up and coming new means of meaning, and of participating in ubiquitous learning. Their work also combines attention to high-end computing with attention to teaching and learning as a key deliverable.

Haythornthwaite finishes up this symposium, picking up the themes of production and learning under conditions of widespread, ubiquitous computing. The paper draws attention to the unanticipated outcomes and hidden work associated with abandoning information intermediaries in the rush to make all information equal online, and explores the changing relationships in who learns from whom. As our learning increasingly depends on online sources and the hidden work of retrieval algorithms, Haythornthwaite argues that this raises the need for not only critical media literacy, but also critical retrieval and retrieval technology literacy. This paper picks up from Bruce in turning out attention to the full scope of implications of the new media and ubiquitous computing.