Ubiquitous Learning: New Contexts, New Processes

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“Ubiquitous learning: New contexts, new processes,” *Queens University Education Letter* (Spring/Summer 2014): 18-20.

 More and more people are recognizing that mobile handheld devices and pervasive wireless connectivity bring structured learning opportunities to more people, in more contexts, often at little or no cost. This idea of *ubiquitous learning* means that learning becomes an anywhere, anytime proposition, and that as a result the processes of learning are more thoroughly integrated into the flow of everyday activities and relationships.

 There are many aspects of this transformation. Increased demand for online and blended courses (including “MOOCs”), social networks that are dedicated to sharing information and skills within virtual online communities, and myriad web-based resources that allow direct access to information, videos, and expert advice on nearly every topic imaginable, all put structured learning opportunities directly into the hands of learners.

 In this short article, I want to explore some of the implications of these changes for thinking about learning in new ways. *Where* and *when* learning happens has consequences for the *how* and *why* of learning.

 First, we need to abandon the traditional distinction of formal and informal learning. This distinction is normally taken to reflect two aspects of difference: (1) two contexts of learning, one institutional, the other situated in ordinary circumstances, such as the home; and (2) two processes of learning, one structured and intentional, the other more causal and serendipitous. Both of these aspects, I believe, need to be rethought in ubiquitous learning. On the one hand, pervasive access means that people can interact with formal, institutional learning resources wherever they happen to be (for example, in the workplace). On the other hand, the nature of many online learning resources is to provide structure even to spontaneous, quotidian learning needs (for example, by linking a resource on one topic to related information that allows further learning to occur; or by annotating raw information with access to commentary and explanation that can scaffold learning).

 A second shift, I believe, is that ubiquitous learning allows for a more social mode of learning even when the individual learner is alone. One of the striking things about many online learning resources is how they are thoroughly integrated with social media and social networks organized with and around that information (I call these “self-educating communities”). There are countless examples of these social forms, from the Comments posted after online articles; to cross-linked blogs, Facebook pages, Wikipedia, and other social media devoted to nearly every learning subject imaginable; to commercial sites that include detailed consumer reviews and tell you, “If you liked this, you might like that” (based on the preferences and patterns of other customers). The sociality of online information and learning resources is so pervasive that it is more useful to think of individual facts or chunks of information not as discrete pieces, but as nodes situated within social webs of meaning and purpose. (Of course, for advocates of strong social constructivism, this is what they always were, anyway).

 A third shift is from “curriculum-based” to “problem-based” learning, which comprises a rethinking of content, process, and motivations for learning. Learning in situated, ubiquitous contexts is more likely to be driven by immediate, practical questions and purposes. And this is related to a fourth shift, between what I call the “learn it now, use it later” model of much traditional learning, to what could be called “just in time” learning: accessing information, knowledge and skills for specific needs in specific contexts of use where those resources are immediately relevant and useful. I do not imagine that an entire curriculum can be presented this way: but certainly some things will be learned better and retained more effectively when they are learned in contexts of use – uses that are of intrinsic importance to the learner in a place, time, and circumstance that matters to them.

 A fifth shift, which in one sense comprises all the others, is a shift from a teacher-oriented frame of reference, about what the educator wants the student to learn, to a learner-oriented frame of reference that focuses more on the needs, interests, and motivations of the student. One of the most striking aspects of putting online learning opportunities into the hands of learners is that they have far greater autonomy and choice about pursuing lines of inquiry that are interesting and important to them. It is far more productive, I would argue, to recognize and embrace this circumstance, *using* it to advance the teacher’s agenda and priorities, than to set these two purposes against each other.

 Finally, let me clarify two points. One is that in challenging certain dichotomies and points of emphasis, I do not want to create new dichotomies. By talking about a shift of emphasis, I do not mean that the first element in each of these pairs is elided or rendered “obsolete”; rather, we need to see these pairings in dynamic interaction with each other. Developing learning opportunities within institutional contexts with an active eye toward how they migrate into other contexts, *and vice versa*, is the challenge for educators in a time of ubiquitous learning. (Alert readers will recognize that this is not fundamentally different from John Dewey’s *School and Society*, published a hundred years ago.) The other point follows from this: the role of the teacher is still crucially important: in helping learners organize and integrate their learning in meaningful ways; in helping learners to sequence learning opportunities; in helping to inspire, motivate, and model learning as an active endeavor; and in providing supplementary assistance and support for learners who are struggling. These activities don’t become any less important in contexts of ubiquitous learning; they simply can no longer be seen in isolation from all these other influences.