Personal Learning Environments

Scenario

For the fall semester, David signed up for a digital photography course, and during the first class, he was assigned to a critique group with four other students. The professor explained that students would be creating personal learning environments—exploring free applications and networking sites, sharing what they learn with each other, and submitting work for feedback from those in the critique group. Each week students were to photograph something in a public venue and upload the photos to a website where the group could view them, critique and discuss the images, and blog about what they learned. David enjoyed looking through the blogs of his fellow students and subscribed to the RSS feeds of his favorites so he would know when each was updated.

David found the feedback from his in-class critique group so useful in improving his photography that he created an open group in Flickr for his growing collection, inviting the wider photo community to comment on his work. During a zoo trip, he photographed a llama that looked oddly taken aback. Everyone smiled at the comic expression, but the image was a chance shot with hasty framing, so his in-class group suggested cropping and minor clean-up work. Then he asked his group on Flickr to suggest titles, from which he chose his favorite, "Whoa, Dude." He later sold the photograph to a newspaper editor who had seen it on Flickr. It ran with an article about an upcoming music festival at the zoo.

The final course assignment was a joint photojournalism exercise for the class. Students were to cover the local Trout Day Parade along the riverfront, where floats and costumes took an aquatic theme and the river offered a consistent backdrop. Images would accompany a brief article or interview to be posted on student blog sites. One student compiled the articles and ran the text through Wordle, posting the resulting word collage. Two other students used the collage as a background and pasted all the class photos on top. When the completed group project was published online, several images received outside recognition. Students gathered those comments for Wordle, too, using the result as a sidebar for a page of final reflections on the course.

The following semester, when David submitted some of his work for a fine arts student fellowship, he felt confident about his submission, having integrated input from his group at Flickr, which now included several of his former classmates.

What is it?

The term *personal learning environment* (PLE) describes the tools, communities, and services that constitute the individual educational platforms learners use to direct their own learning and pursue educational goals. A PLE is frequently contrasted with a learning management system in that an LMS tends to be course-centric, whereas a PLE is learner-centric. At the same time, a PLE may or may not intersect with an institutional LMS, and individuals might integrate components of an LMS into the educational environments that they construct for themselves. A typical PLE, for example, might incorporate blogs where students comment on what they are learning, and their posts may reflect information drawn from across the web—on sites like YouTube or in RSS feeds from news agencies. While most discussions of PLEs focus on online environments, the term encompasses the entire set of resources that a learner uses to answer questions, provide context, and illustrate processes. As used here, the term refers not to a specific service or application but rather to an idea of how individuals approach the task of learning.

Who is doing it?

In the United Kingdom, a team at the University of Bolton developed the PLEX application to provide students with a platform for easy, coherent access to networks of people and resources. At the University of Mary Washington in Virginia, students and faculty use UMW Blogs, a WordPress multiuser publishing platform customized by the university to offer flexible web spaces where students present their work, share ideas, and collaborate on projects. The system is flexible enough to allow students to present internally developed content side by side with work they cultivate and maintain elsewhere on the web. Similar approaches have been used at Baylor University, Penn State, and the University of British Columbia. Educators who want to encourage an approach to learning in which students create PLEs might offer a site where students can house their personal reflections and digital content, return to it, share it, and repurpose it in other tools. Instructors might also invite students to explore freely available stand-alone services like StumbleUpon, Flickr, YouTube, and other venues that let users store and share information and connect to peers and their collections of resources.

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How does it work?

On campuses that formally support PLEs, instructors or institutions generally provide a framework for student study. This framework might be a desktop application or a web-based service and could include links to web tools, as well as traditional research and resources to which students can add their own network of social contacts and collection of educational resources. Students are encouraged to draw upon these networks and collections of external resources, using them as tools for discovery in an effort to expand their learning experiences beyond campus boundaries. As ideas are generated, problems queried, and content created in this environment, feedback becomes the combined output of peers, colleagues, and friends as well as experts and critics. The result becomes a PLE when the integration of resources starts to include the work and voice of others as readily as a student's own critical reflection and scholarly work.

Why is it significant?

PLEs represent a shift away from the model in which students consume information through independent channels such as the library, a textbook, or an LMS, moving instead to a model where students draw connections from a growing matrix of resources that they select and organize. In this context, the PLE functions as an extension of the historical model of individual research. Because they emphasize relationships, PLEs can promote authentic learning by incorporating expert feedback into learning activities and resources. A PLE also puts students in charge of their own learning processes, challenging them to reflect on the tools and resources that help them learn best. By design, a PLE is created from self-direction, and therefore the responsibility for organization—and thereby for learning—rests with the learner.

What are the downsides?

Personal learning environment is an evolving term, one without a single, widely accepted definition. Even as defined here, the concept remains somewhat amorphous, made up of disparate resources—including people—often beyond the boundaries of the institution or the user, that can come and go, creating a lack of continuity. For academics, a simple reference to sources may not be enough in such an environment, as data can easily disappear. As a learning platform that is by definition always evolving, a PLE requires students to engage in ongoing decision making to maintain, organize, and grow their learning environments. The process of self-directed learning requires a degree of self-awareness, and it must be given time to mature. Some students, however, may have never taken the time to think about their own metacognition or to reflect on how they learn best. These less experienced students may not be ready for the responsibility that comes with building and managing a PLE. Furthermore, despite their ability to quickly learn new online tools and computer applications, many students lack the information fluency necessary to recognize

when a writer speaks from authority, for example, or when a narrative is opinion. While the PLE offers the opportunity to sharpen these skills, instructors may find it useful to discuss the hallmarks of a well-thought-out argument and to underscore caution in accepting "facts" presented by peers and anonymous posters.

Where is it going?

The PLE is a result of the evolution of Web 2.0 and its influence on the educational process. As such, the concept is likely to become a fixture in educational theory, engendering widespread acknowledgment of its value, both of its framework and of its components. Scholars might find it important to maintain web updates on their own scholarship as new findings are posted elsewhere. Students will find themselves increasingly working collaboratively and relying on their network of contacts for information. As a result, students will probably more quickly develop the skill to sort the authoritative from the noise. A few institutions may continue developing campus-specific solutions for PLEs, such as customizable portals or dashboards that help students organize their research and resources and post their reflections. Yet because so much institutional involvement conflicts with the philosophy of a PLE, many educators may prefer to use free applications like iGoogle and My Yahoo!, which offer adequate platforms for learner-centric PLEs. As increased mobile access shifts the technological landscape, the PLE may represent our acknowledgment of the need to organize and present the tools, resources, and gateways that scholars use on a regular basis so that they are available with instant access from any location.

What are the implications for teaching and learning?

The concept of the PLE marks a fundamental change in the role resources (people and media) play in teaching and learning. In an environment where information is ubiquitous and needs only to be located, there is a greater premium on skills that support fast and accurate access to information and on the ability to assess that information. In this regard, teaching is less a matter of data transmission and more a collaborative exercise in collection, orchestration, remixing, and integration of data into knowledge building. The goal for the student shifts from a need to collect information to a need to draw connections from it—to acquire it, disseminate it, and collaborate in its use. Furthermore, the use of PLEs may herald a greater emphasis on the role that metacognition plays in learning, enabling students to actively consider and reflect upon the specific tools and resources that lead to a deeper engagement with content to facilitate their learning.

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