eLearning platforms

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Given the increasingly reciprocal nature of knowledge work, instructional designers will have to know how to teach. Each one-teach-one is at the heart of invent-as-you-go learning. Until recently, knowledge itself was thought to reside in people's heads. The new view is that knowledge is collective intelligence, a shared consensual reality that lives among us rather than inside our individual heads. We aren't mere consumers of knowledge; we're contributors as well. Increasingly, we co- create knowledge in the course of collaboration and work.

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Introduction

Back in the days when change was glacial, past principles and practices were captured in books, stored in the library, and described in lectures. You could pilot your learning by looking in the rear-view mirror. The only certainty about the future from here on out is that it won't resemble the past. Instructional designers no longer have time to develop formal courses. Survival requires people who can navigate a rapidly-changing maze at high speed. They need to find their own curriculum, figure out an appropriate way to learn it, and get on with it. It's cliché to say that people have to learn how to learn. They will also have to be their own instructional designers, selecting the best methods of learning.

In this days we build less SCORM courseware and much more Wiki-like content (web pages) with some interactive exercises, simulations, etc. embedded based on other tools or add-ins. Collaboration is a part of the environment, but we'll still be struggling with getting collaboration to work effectively as part of the system - so we'll still underuse those features. Authoring is as easy as editing a word document and updates are instantaneous.

These are instant applications which can be assembled just-in-time (and not created from scratch) from the rich palette of services and feeds available on the Web and in the enterprise. They are situational because they can be created right as the situation they are needed for appears, and even thrown away when the reason for their existence goes away. This could also result in less requirements speculation and creep, two well known problems with longer, more drawn out development processes.

But this highlights an interesting trend; the use of blogs and wikis as genuine application platforms upon which to build software by allowing the addition of widgets, version management features, analytics, domain specific structure (i.e. structured blogging), or anything that's needed to support a situational application. Now the idea of turning applications into platforms is a very Web 2.0 concept and two of the most common embodiments of the read/write Web, blogs and wikis, actually make a lot of sense as the actual foundation for building collaborative and social software.

Blogs and wikis are an excellent starting point for creating Web 2.0 applications because they are already the most basic models for capturing and sharing content. This is a large part of the reason why they have become so popular; by lowering the barrier to user contributions by offering simple usage models (usually just an input field or two and an edit/save button). As they become more popular, blogs and wikis also form a fundamental common reference model. This can make adding related functionality on top them make more conceptual sense from a user experience perspective, right from the start. Note that most blogs and wikis aren't able to be extended without real programming.

The real obstacle to using blogs and wikis as a platform is still overall context. There are two prerequistites to effective reading: motivation and context.

The original World Wide Web—the "Web 1.0" that emerged in the mid-1990s—vastly expanded access to information. The Open Educational Resources movement is an example of the impact that the Web 1.0 has had on education. But the Web 2.0, which has emerged in just the past few years, is sparking an even more far reaching revolution. Tools such as blogs, wikis, social networks, tagging systems and content-sharing sites are examples of a new user-centric information

infrastructure that emphasizes participation over presentation, that encourages focused conversation and short briefs (often written in a less technical, public vernacular) rather than traditional publication, and that facilitates innovative explorations, experimentations, and purposeful tinkerings that often form the basis of a situated understanding emerging from action, not passivity.

In the twentieth century, the dominant approach to education focused on helping students to build stocks of knowledge and cognitive skills that could be deployed later in appropriate situations. This approach to education worked well in a relatively stable, slowly changing world in which careers typically lasted a lifetime. But the twenty-first century is quite different. The world is evolving at an increasing pace. When jobs change, as they are likely to do, we can no longer expect to send someone back to school to be retrained.

We now need a new approach to learning—one characterized by a demandpull rather than the traditional supply-push mode of building up an inventory of knowledge in students' heads.

Demandpull learning shifts the focus to enabling participation in flows of action, where the focus is both on "learning to be" through enculturation into a practice as well as on collateral learning.

The demand-pull approach is based on providing students with access to rich (sometimes virtual) learning communities built around a practice. It is passion-based learning, motivated by the student either wanting to become a member of a particular community of practice or just wanting to learn about, make, or perform something. Often the learning that transpires is informal rather than formally conducted in a structured setting. Learning occurs in part through a form of reflective practicum, but in this case the reflection comes from being embedded in a community of practice that may be supported by both a physical and a virtual presence and by collaboration between newcomers and professional practitioners/scholars.

The demand-pull approach to learning might appear to be extremely resource intensive. But the Internet is becoming a vast resource for supporting this style of learning. Its resources include the rapidly growing amount of open courseware, access to powerful instruments and simulation models, and scholarly websites, which already number in the hundreds, as well as thousands of niche communities based around specific areas of interest in virtually every field of endeavor.

We cannot even begin to imagine the changes that are going to take place as the two-way nature of the Internet begins to flower, and that even those of us who have spent time imagining this future will be astounded by what happens. We are going to identify a few trends in this regard that we think have particular importance for education and learning, and then discuss some steps that we think educators can take to make a difference during this time.

A New Publishing Revolution

The Internet is becoming a platform for unparalleled creativity, and we are creating the new content of the Web. The Web that we've known for some years now has really been a one-way medium, where we read and received as passive participants, and that required a large financial investment to create content. The new Web, or Web 2.0, is a two-way medium, based on contribution, creation, and collaboration--often requiring only access to the Web and a browser. Blogs, wikis, podcasting, video/photo-sharing, social networking, and any of the hundreds of software services preceded by the words "social" or "collaborative" are changing how and why content is created.

A Tidal Wave of Information

The publishing revolution will have an impact on the sheer volume of content available to us that is hard to even comprehend. If fewer than 1% of the users of Wikipedia actually contribute to it, what will happen when 10% do? Or 20%? There are over 100,000 blogs created daily, and MySpace alone has something over 375,000 new users (content creators) every day. Now, we must figure out what information to give our time and attention to when we are engulfed by it. Web 2.0 is the cause of what can only be called a flood of content--and while we don't know what the solutions will be to the information dilemma, we can be pretty sure they will be brought forth from the collaborative web itself.

Everything Is Becoming Participative

Amazon.com is a great example of how participation has become integral to an industry, and in a delicious irony, the book industry itself. The reviews by other readers are the most significant factor in decision to purchase a book. Not only that, but Amazon takes the information of its users and by tracking their behavior provides data from them that they are most often not even aware that they are

helping to create: of all the customers who looked at a certain book, here is what they actually ended up buying. This feature often leads to other books that we might otherwise not have heard of.

The Age of the Collaborator

We are most definitely in a new age, and it matters. There is no question that historical eras favor certain personalities and types, and the age of the collaborator is here or coming, depending on where you sit. The era of trusted authority is giving way to an era of transparent and collaborative scholarship (Wikipedia).

An Explosion of Innovation

Imagine all of us as creators, bringing our own particular experiences and insight to increasingly diverse and specific areas of knowledge. The combination of an increased ability to work on specialized topics by gathering teams from around the globe, and the diversity of those collaborators, should bring with it an incredible amount of innovation.

The Long Tail

When Amazon.com sells more items that aren't carried in retail stores than are, it's pretty apparent that an era of specialized production is made possible by the Internet. We can find a tutor in almost any subject who can work with us via video-conference and shared desktop. If a student cares about something--if they have a passion for something--they can learn about it and they can actually produce work in the field and become a contributing part of that community.

Web 2.0 was amazing when blogs and wikis led the way to user-created content, but the party really began when sites that combined several Web 2.0 tools together created the phenomenon of "social networking." (blogging is not that easy to start doing... and wikis can intimidate anyone). If MySpace / WordPress were a country, it would be the third most populous in the world. The potential for education is astounding.

We think educators can take to make a difference during this time by learning about web 2.0 and helping build the new playbook.

Learn About Web 2.0

WordPress is not a bad place to start, since it's a social network for educators who are interested in learning about Web 2.0.

Selecting the main platform certainly it is the most important decision. You might want to build the entire website as a blog, so that collaborative content development and dynamic content syndication would come for free. WordPress is a fantastic blogging tool as the underlying engine for any website. Configuring WordPress is very easy, and you can install a couple of plugins

Even though most of the website is developed as WordPress blog posts, some pieces of content such as press releases can be developed with the Zoho Writer Office 2.0 word processor. There are multiple reasons for that: Zoho Writer offers the best support for the Microsoft Word document format currently available from any online word processor. Second, using Zoho Writer's sharing capabilities is a much more efficient way of getting the job done. Third, integrating a real word processor into the website's architecture opens up the door to the collaborative development of white papers and marketing brochures, which is something that I want to add down the road.

Most of the images used by the websites are stored on a Flickr accounts. These currently include banners, logos, screenshots and large icons. There are several reasons why using an online picture management tool such as Flickr makes sense. First, through the use of tagging, it offers a far superior user interface for file management than what WordPress provides. Second, when manipulating large images such as screenshots, Flickr's automated generation of multiple image sizes makes it easy to display thumbnails on the website without having to resize the image manually, or letting the web browser download the full-size image when just displaying the thumbnail. Third, images can account for a fairly substantial amount of your website's bandwidth consumption, and Flickr offers free account with unlimited download bandwidth.

Conclusions

For centuries we have had to teach students how to seek out information – now we have to teach them how to sort from an overabundance of information. We've spent the last ten years teaching students how to protect themselves from inappropriate content – now we have to teach them to create appropriate content. They may be "digital natives," but their knowledge is surface level, and they

desperately need training in real thinking skills. More than any other generation, they live lives that are largely separated from the adults around them, talking on cell phones, and connecting online. We may be afraid to enter that world, but enter it we must, for they often swim in uncharted waters without the benefit of adult guidance. To do so we may need to change our conceptions of teaching, and better now than later.

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