

I Hear the Train A Comin' — Web 2.0

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I remember when I made my first professional foray into the brave new world of Internet technologies. In the halcyon days of 2000, new paradigms and buzzwords were sprouting like mold in the basement utility sink. Cyberspace. eCommerce. Portals. B2B, P2P, and ZZZ (that last one is facetious, though, not surprisingly, a quick search reveals that **zzz.com** is a vessel for the hopes and dreams of the obscure **Robert and James Zarywacz**). In some ways, these terms were quite meaningful. They helped startup companies that sold fish food in bulk to other fish food companies raise \$50 million. They formed the basis of virtually unintelligible conversations among vested twentysomethings in bars from San Francisco to London. More importantly, these terms eventually provided the basic lexicon for actual Web services and interactions. I knew that the functional definitions had been distilled from the buzz when my mom engaged in a detailed explanation of her online **Sopranos** DVD purchase, liberally sprinkling in terms like eCommerce and secure connection. Just as mom grew comfortable enough with cyberspace to learn if **Patsy Parisi** would whack **Tony** to avenge his twin brother **Philly Spoons's** gangland execution, we are confronted with a paradigm shift. It's not about the Web any longer, we are told. Nope — today we must confront **Web 2.0**. Much like the gulf that divides B2B dog food and my mom's DVD purchase on **Amazon**, we are again in a cycle through which catchy yet largely meaningless phrases will be winnowed away from durable, important concepts and functionality.

Let's start with the term "**Web 2.0**" itself. What exactly does it mean? The phrase was coined by computer book mogul **Tim O'Reilly** in 2004. A quick look at **O'Reilly's** explanation (see <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>) yields more candy floss than steak. **O'Reilly's** five page explanation is actually quite good, but I lost interest mid-page one when I read, "**Web 2.0** doesn't have a hard boundary, but rather, a gravitational core." I did slog through the full treatise, and I think I came away with a fairly good sense of what is relevant for our scholarly communication solar system. **Web 2.0** refers to the emerging practices and services that use the Internet as a platform for communal partici-

pation. The **Web 2.0** movement signals an increasing collaboration among Internet users. People are sharing information, data, content, expertise, and opinions in a way that first generation static Websites could not accommodate. This sharing often takes the form of peer-to-peer communication, unvetted by any expert authority. **Britannica Online** is **Web 1.0**; **Wikipedia** is **Web 2.0**. The former is a top-down site in which information is disseminated from a team of experts, to be read by the general public. The latter is a grassroots site in which visitors are encouraged to add their own expertise to evolving definitions.

Given this applied definition of **Web 2.0**, the next few years should herald the emergence of new forms of scholarly communication. In actuality, "new" is a poor choice of words. I often insert a cartoon in my canned **PowerPoint** presentations in which one caveman is nervously showing his cave drawing to another caveman. This was peer-to-peer communication in its earliest form, of course. Intervening events (humanoid evolution and the invention of the printing press, to name but two) changed the distribution of ideas. Today's scholarly journal circulates one person's work into the hands of many people. The one communicates with the many, but true feedback loops through which the many can communicate back to the one, and to each other, are rare. Though time and financial constraints are no doubt factors in the dearth of mass scale, real time print media forums, this tells only a partial story. The culture of academic information dissemination has not been particularly geared for this type of freewheeling exchange. The tweed jacketed professor who doles out pearls of wisdom in staid journals is a cliché for a reason. That professor is an expert in his or her field, however narrowly this field may be defined. No one knows exactly what that professor knows, and therefore any discussion and debate would necessarily involve substantial differences in weight class among the participants. This is a gross oversimplification, of course, but it helps explain the general reluctance with which the scholarly communication world has met the **Web 2.0** movement.

Rereading the preceding paragraph, you will see that the first and last sentences are somewhat contradictory. The next few years

will see the emergence of new forms of scholarly communication, I began, only to conclude that there has been resistance within our community to **Web 2.0** concepts. I greatly suspect that this resistance is starting to give way. This is due to several factors. The technologies in question are becoming too widespread in other areas of the Web to ignore. Community rating systems and reader comments are ubiquitous on sites like **Amazon**. (I was particularly honored when rockstar26 said my humor book *Atomic Wedgies, Wet Willies, and Other Acts of Roguery* was "destined to be bathroom reading material for generations.") Twelve year olds are running their own blogs. As these technologies have moved into the mainstream, their ease of use, ease of implementation, and cost of implementation have improved dramatically. Implementation becomes compelling at this convergence. It also becomes expected. When **RSS** is sufficiently omnipresent and straightforward that the **Asheboro North Carolina Zoo** begins syndicating its content, it is obvious that every scholarly publisher should be on the bandwagon. And many are. So, too, will we see publishers and other content providers adopt other **Web 2.0** services as these services cross the chasm. Community rating systems and blogs, mentioned above, seem like obvious candidates. So, too, do folksonomies, in which readers and site visitors help categorize the content which they are reading. Chatting/message board technology is well established, providing a natural gateway to real-time discussions and debates among authors, editors, referees, and readers. When Web users are fully at ease with the protocol for sharing their photos on sites like **Flickr**, how big a leap will it be for the scholarly subcommunity to share their data and supplementary materials? When the **MySpace** model of community interaction is part of our cultural fabric, how great a jump are we from an academic **MySpace** at which professors and students network amongst themselves? The **Web 2.0** services that become ingrained in our everyday lives will be adapted and adopted by our scholarly communication solar system just as the printing press, and, indeed, the **Web 1.0**, were.