

Due Sept. 10, 2007

**Online International Conference Proceedings
December 2007**

Web 2.0, Library 2.0, and Librarian 2.0: Preparing for the 2.0 World

By Stephen Abram, Vice President, Innovation, SirsiDynix

This article explores some of the concepts in the highlight presentation for the Online International 2007 Conference in London, UK on Dec. 4, 2007. The original PowerPoint slides will be available my blog Stephen's Lighthouse at: <http://stephenslighthouse.sirsi.com>.

Recently I was asked if some software applications I was involved in were Web 2.0 compliant. This was amusing and distressing on so many levels. It's amusing because what is being called Web 2.0 isn't a 'standard' in almost any sense of the word. It's distressing because it shows how quickly a conversation becomes an expectation in today's world. This is a perfect example of the power of the 95 Theses of the Cluetrain Manifesto. You can remind yourself about these at <http://www.cluetrain.com/>. The major thesis to me is number one – "Markets are conversations." Anyway, I thought it might be useful to explore the opportunities for libraries to use web 2.0 technologies to generate further success.

The global Web 2.0 discussion is birthing a number of newborn babies, Law 2.0, Advertising 2.0 and Library 2.0 and Librarian 2.0 among them. And why should you read this piece? You've heard it all before but in a few years these Web. 2.0 conversations have the power to drive huge transformations in our media landscape and therefore our life, work, and play environments. Sigh. We are entering a period of enormous change – far greater than what we've ever experienced in our lives to date. Major forecasters like the Gartner Group and Morgan Stanley have noted that this will be transformational on a very global scale. It'll be exciting too, although those of us who care about communities, research, discovery, invention, learning and information will be tasked with some pretty heavy strategic planning goals. We're going to need to stay alert and nimble.

Web 2.0

According to some sources, the term Web 2.0 has been around since about October 2004. From Wikipedia, the free web encyclopedia it is defined as:

"Web 2.0 is a term often applied to a perceived ongoing transition of the World Wide Web from a collection of websites to a full-fledged computing platform serving web applications to end users. Ultimately Web 2.0

services are expected to replace desktop computing applications for many purposes. (http://en.wikipedia.org/wiki/Web_2.0)”

I think Web 2.0 goes much further than this, actually beyond an application focus. It's really about the 'hot' web. I am talking here about 'hot' in the McLuhanesque sense of the hot and cold or the warm and cool aspects of technology. What makes the web warmer or hotter? Interactivity. Of course the web is already interactive in a cooler sense. You can click and get results. You can send e-mail and get responses. You can go to websites and surf. The old World Wide Web was based on the "Web 1.0" paradigm of websites, email, search engines and surfing. Tim Berners-Lee's vision was originally much richer (see his current thinking on the semantic, and neutral web) but we had to spend a few years filling in the details. Web 2.0 is about the more human aspects of interactivity. It's about conversations, interpersonal networking, personalization, and individualism. It is focused on content in the context of people, workplaces, markets, community and learning. In the library world this has relevance not just to our public web portals but also to workplace intranets and the imperative for greater social cohesiveness in virtual teams and global content engagement. Plain intranets and plain HTML websites are fast becoming old stuff, just so last century. The emerging modern user needs the experience of the web, and not just content, to learn and succeed. Are the expectations of our users increasing faster than our ability to adapt?

We can already see some of these modalities emerging in the gaming environment. We see it clearly in the convergence of web 2.0 type features and functions as they emerge in the high growth sites like MySpace, YouTube, Second Life, Active Worlds, Facebook, Ning, Twitter, Meebo, et al. Context is the word of the day here. Such technologies as are listed below serve as the emerging foundation for Web. 2.0:

- RSS (really simple syndication)
- Wikis
- New, simple and revised programming methods like AJAX, J2EE, widgets, gadgets, Mashups, and API's
- Blogs and blogging
- Advanced portals and portlets
- Commentary and comments functionality - everywhere
- Personalization and "My Profile" features
- Personal media such as Podcasting and MP3 files
- Streaming media audio and video formats
- Reviews and user driven ratings
- Personalized Alerts
- Web Services for enhancement and data mining
- Instant messaging and virtual reference including co-browsing
- Folksonomies, Tagging and tag clouds
- Photos (e.g. Flickr, Picasa)
- Social networking software
- Open Access, Open Source, Open Content

architecture and a greater variety of web display modes like visualization. Ultimately this will result in another shift in economic value of the web, potentially equalling that of the dotcom boom and, probably driving an even higher level of social, political, institutional, and economic disruption. We better be ready.

What is truly exciting is that Web 2.0 is just the title of a conversation. There is no standard (at least not just a single one). We can all participate and influence the development of the next generation of the web. To the detail oriented this conversation may be too high in the stratosphere without enough concrete recommendations, and for the theoretically inclined it may remain too visionary for real implementation. Among all of us, it is worth following. Web 2.0 is probably the series title of the most important conversation of our age and one whose impacts can be truly transformational on a global scale.

Web 3.0

There is even discussion and dreaming about a 'Web 3.0'. One could speculate that the Google / Sun Microsystems alliance to create a web-based operating system for applications like word processing, spreadsheets, E-mail, readers and presentations is an early indicator of this trend. Perhaps it will look something like the Croquet Project which is very exciting and worth reviewing (<http://www.opencroquet.org/>) as a potential scenario of what Web 3.0 might look like. Can we imagine the merger of Google Earth and Second Life to truly create a parallel world experience – Second Earth? Web 3.0 will probably be even more distributed in form than Web 2.0 and maybe some of the Web 2.0 applications will disappear or merge with a new integrated whole. Web Services or the emerging semantic web may replace such things as social networking sites and repositories. Either way, it rises to a new plateau in terms of the user experience and user control.

Library 2.0

In the library and information professional world, I believe that we generally deal with a savvier audience of users relative to the general consumer demographic. We also tend to the digital divide issues of the more challenged user. This means that what our most critical users don't know about or use, we can often inform them and train them in the newest technologies that can have an impact on their success. For those users who can quickly become comfortable using technologies such as wikis, RSS, instant messaging, news aggregators and blogs, we can help them to leverage these in making a difference in reaching their goals and your institutional or enterprise goals. For those libraries that block access to the newest applications, they are positioning their technological presence as one which is poor. This is not a good position to take as a bridge in the digital divide for their communities.

Library 2.0 is another 'conversation'. This narrative is mainly around the concept of how to use the Web 2.0 opportunities in a library environment. It's an exciting

concept and one which can create a conversation that creates the next generation of library websites, databases, OPACs, intranets and portals in a way that allows the end user to thrive and survive (and libraries along with them!). It's also about having a conversation about some of the human aspects of this emerging environment. Are we entering an era where the user experience for learning and research will finally top the technology? I hope so.

Clearly every one of the technologies listed in Web 2.0 above – RSS, Wikis, blogging, personalization, podcasting, streaming media, ratings, alerts, folksonomies, tagging, social networking software and the rest – could be useful in an enterprise, institutional research or community environment and could be driven or introduced by the library. Yes, I know that many of these are already used individually in many of your environments. The beauty of Web 2.0 and Library 2.0 is the level of integration and interoperability that is designed into the interface through your portal or intranet. That's where the real power to enhance the user experience is. In order to take advantage of the concepts inherent in Library 2.0 is the imperative to not shy away from adding advanced functionality and features directly into the content. This would provide the context and workflow-oriented features that users will demand or are demanding already. We're seeing the beachfront on this trend in services like Second Life Library 2.0, and the MySpace and Facebook development platforms.

Librarian 2.0

We cannot have these changes without some improvements in the capacity, competences, aptitudes and attitudes of library workers. Librarians have a once in a generation opportunity to invent a new future. Librarian 2.0 is the guru of the information age. Librarian 2.0 strives to

- Understand the power of the Web 2.0 opportunities.
- Learns the major tools of Web 2.0 and Library 2.0.
- Combines e-resources and print formats seamlessly
- Is container and format agnostic.
- Is device independent and uses and delivers to everything from laptops to PDAs to iPods.
- Develops targeted federated search and adopts the OpenURL standard.
- Connects people and technology and information in context.
- Doesn't shy away from non-traditional cataloguing and classification and chooses tagging, tag clouds, folksonomies and user-driven content descriptions and classifications where appropriate.
- Embraces non-textual information and the power of pictures, moving images, sight and sound.
- Understands the 'long tail' and leverages the power of old and new content.
- Sees the potential in using content sources like the Open Content Alliance, Google Book Search and OpenWorldCat.

- Connects users up to expert discussions, conversations and communities of practice and participates there as well.
- Uses the latest tools of communication (such as Skype) to connect content, expertise, information coaching and people.
- Uses and develops advanced social networks to enterprise advantage.
- Connects with everyone using their communication mode of choice – telephone, Skype, IM, SMS, texting, e-mail, virtual reference, etc.
- Encourages user driven metadata and user developed content and commentary.
- Mines their usage data for insights into user behaviors.
- Understands the wisdom of crowds and the emerging roles and impacts of the blogosphere, web syndicasphere and wikisphere.

First and foremost, Librarian 2.0 understands their users at a deep level – not just as pointers and clickers. Librarian 2.0 understands end users deeply in terms of their goals and aspirations, workflows, and social and content needs, and more. Librarian 2.0 is where the user is, when the user is there. This is an immersion environment that librarians are eminently qualified to contribute to. Aspects of librarian influenced e-learning and distance education as implemented by our institutions and communities should allow us to contribute to the preparation of our users to acquire and improve their skills and competencies.

It is essential that we start preparing to become Librarian 2.0 now. The Web 2.0 movement is laying the groundwork for exponential business growth and another major shift in the way our users live, work and play. We have the ability, insight and knowledge to influence the creation of this new dynamic – and guarantee the future of our profession. **Librarian 2.0 – now.**

*Stephen Abram, MLS is Vice President, Innovation for SirsiDynix. He is president-elect of SLA and an SLA Fellow. He is the Chief Strategist for the SirsiDynix Institute (<http://www.sirsidynixinstitute.com/>). He is the past president of the Ontario Library Association and the past president of the Canadian Library Association. In June 2003 he was awarded SLA's John Cotton Dana Award. Stephen blogs at Stephen's Lighthouse: <http://stephenslighthouse.sirsi.com>. He is the author of ALA Editions' **Out Front with Stephen Abram**. Stephen would love to hear from you at stephen.abram@sirsidynix.com*