

Information Literacy Instruction in the Web 2.0 Library

Elizabeth Humrickhouse

4/29/2011

This paper examines how library educators can implement Web 2.0 tools in their libraries instructional programs to better prepare students for the rigors of academic research.

The library world is changing faster than ever before. The rise in Web 2.0 technologies has made us reevaluate our services and the wants and needs of our patrons have changed. The library's fundamental mission has always been to support its patrons and in an ever-changing environment of constant information, new social media technologies, and digital content determining what each of our patrons need has become more difficult. This paper will explore the needs of the Net Generation – specifically the educational requirements served by an academic library. This paper will explore how the Library 2.0 model, which advocates for constant and purposeful change (Casey and Savastinuk, 5) determines how we can best serve the growing literacy needs of this group, and finally, the future of the library as a 2.0 institution will be discussed with suggestions for effective and purposeful change.

What is Web 2.0?

Web 2.0 is a relatively new concept in the library world. Popularized in 2005, it describes, “a group of emerging online technologies characterized by the opportunity for almost anyone to contribute and participate in their ongoing creation [...] While the individual tools have developed further since then, and new ones have been introduced, the concept of participation has remained central,” (Bobish, 55). Often, we think about technology as the defining characteristic of Web 2.0, but as Bobish points out the technologies are constantly changing – the one constant is active user participation. The web allows users to create and share content in a way that has never been done before. Information has been democratized and the way we use it has fundamentally changed, so what does this mean for libraries?

There are perhaps four fundamental ways in which Web 2.0 affects the library. Web 2.0 technologies change what information looks like. It is no longer acceptable to use or disregard

information based upon the way it is presented – today a Twitter feed may be just as authoritative as a scholarly journal article. Digital information changes access points. Often, it was the library that acted as a gatekeeper for certain pieces of information. If you wanted a rare book or an obscure article you went to the library, now you can go to Google. Library services will have to change to accommodate the changes in technology and participation – this will affect all of our services, but for the purposes of this paper, it will greatly affect Information Literacy instruction. Finally, Web 2.0 allows for greater collaboration than we have ever seen. In the future, what we call a book may be vastly different than what we recognize as a book today. Web 2.0 tools will only become more collaborative and patrons will continue to create information together, so the way we catalog and assign ownership and copyright to materials may also change – libraries will have to be ahead of the curve on these issues if we want to remain relevant in our users’ lives.

In his book, Redesigning Library Services: A Manifesto, Michael Buckland describes the library’s transition to a self-service model: “With so much more service possible in the Electronic Library, expanded use of library service seems likely to depend more and more on facilitating self-service than on ever more one-on-one service by library staff, even though the latter will remain necessary and desirable and even though the tasks facing the library users are becoming more complex.” The Electronic library encourages users to participate in self-directed learning. It allows for greater access to information and library staff will have to continue to shift their focus to supporting and providing access to high-quality digital information. The Web 2.0 library will deal directly with digital content, and in fact much of its educational value will be found online and through a variety of social media technology. What

Buckland describes as the Electronic library is an early model for what the Web 2.0 library will become, and one of the first steps will be to reevaluate how we think about digital information.

For libraries there are two types of digital information. The first is what libraries have been digitizing for years – the information that was born in print but has been slowly migrated to the web. The second is born digital information. This is the content that was born on the web and will most likely never be put into a permanent physical form. For libraries, this is the future of information. The Pew Internet Project projects that the amount of information on the internet grows by 20-30% every year and most of this growth comes from the same people who use our libraries. The statistics are overwhelming: 20% of internet users remix content that already exists online, 15% regularly post videos on social networking sites, and another 15% maintain personal blogs (Rainie 5-6). In addition to this, users are writing creative, collaborative, and most importantly authoritative content online: “Digital writing isn’t between covers [...] which is to say it’s hyperlinked. This changes how we write, how we read, how we shape knowledge,” (Weinberger qtd. in Hendrix, 6). Our users live their lives online and it is no longer acceptable to say that the quality of information found on the library shelves is more authoritative than what is created on the web. In their book, Library 2.0: A Guide to Participatory Library Service, Michael E. Casey and Laura C. Savastinuk explain the way many of our patrons perceive the library: “Our community of users is not aware of the services that we offer. Users do not know that we have online databases, for example, so, of course, they do not know what those databases can provide. Our community knows one thing about the library – books. Books are not simply at the top of the list of library brands, books *are* the list,” (5). Books may always be the number one draw for library users, but we cannot ignore the fact that

our users are not coming to us for digital content – they are going to Google and Wikipedia and Facebook and any other number of social networking or collaborative websites to learn and interact with their peers. The library’s most important role now, and in the future, will be to provide access and guidance to quality information through Web 2.0 tools. As librarians, we may know that our library can offer more in-depth and authoritative information than a simple Google search, but our users may not. A truly successful 2.0 library will combine everyday social media and Web 2.0 tools with library services that enhance critical thinking and evaluation skills. For one particular set of our users this guidance will be essential in shaping how they learn, create, evaluate, and use information.

Who Are the Net Generation?

Web 2.0 affects every library user, but if there is a generation that puts a face to the Web 2.0 name then it is the Net Generation. The Net Generation are Digital Natives – they have grown up using the internet and they access, use, and learn from information differently than any generation before them. For this group, learning and literacy are about the, “ability to multitask, to navigate through different streams of information in addition to processing text,” (Hendrix, 6). The Net Generation know how to move through different spheres of information. They know how to efficiently search for information and they know how to use it. This is the group that uses social networks to, “solve problems, make decisions, and gain social support,” (Rainie, 4). According to Lee Rainie, author of *How Libraries Can Survive in the New Media Ecosystem*, and member of the Pew Internet Project, 73% of teenagers today have created and shared content online. Not only is this group turning to their peers and friends in their social

networks for information, but they are also creating the information themselves. The majority of the 20-30% of new information that is created online every year is created by Digital Natives.

Even though the Net Generation are adept at creating, sharing, searching for, and finding information online they are limited to the Web 2.0 tools with which they are familiar and the Information Literacy skills that they have picked up along the way. Facebook, RSS feeds, and Flickr are tools that can be molded to fit a user's needs and for many Digital Natives the social aspect of these tools is enough. When asked to set more stringent standards for searching and using information this group often struggles. Because the library no longer acts as a gatekeeper to information the responsibility will fall to our patrons: "readers themselves have become the gatekeepers, provided that they enhance their evaluation skills," (Koltay, 3). This is where the library can help. By adapting our Information Literacy services to reflect an understanding of and enthusiasm for the changes brought on by Web 2.0 we can better prepare our patrons for long-term critical thinking and evaluation skills. The problem that libraries may face is determining the best course of action for meeting the needs of this user group.

Web 2.0 Information Literacy Instruction

Traditionally, IL instruction in libraries has been about how to use the library, how to access databases, and how to find books and journal articles in the OPAC. Today we have more opportunities and responsibilities to instruct our patrons in the use of Web 2.0 tools in terms of scholarly and authoritative research.

Academic libraries may have the biggest impact in this type of instruction. Today's higher education students learn differently than the generations before them. These students

often rely on the knowledge of their peers over authority figures, they prefer to receive information in small chunks, and they search quickly for their information (Godwin, 266). This is the generation that has grown up with Google and there is no expectation that searching for information in the library should be a different experience. Librarians today can help students improve their Information Literacy skills by using tools with which the students are most comfortable. “Library 2.0 librarians seek to be where their users are, whether that is Facebook or a VLE,” (Godwin, 271). Rather than imposing traditional academic standards of authority when it comes to research, Web 2.0 librarians can help their patrons understand how to use a Web 2.0 tool as a starting point and how to move their search fluidly from there into a library database. The most important responsibility of the Web 2.0 librarian may not be to teach Information Literacy, but rather to build upon and refine the skills that students already have.

According to Rainie, the Net Generation uses social networks to “help them succeed in life,” and libraries are an essential part of this. “Technology has enabled the immediate, spontaneous creation of networks that can include libraries. When people are their own media creators and when they can reach out to many, many others online for help, then librarians can even better serve their mission to assist others find what they need,” (9). We know that Web 2.0 tools and social networks as educational tools are here to stay – Digital Natives have made that clear, but what does this mean for Information Literacy programs and instruction librarians in academic libraries? There are specific steps that instruction librarians can take to determine the best pedagogical methods for this group.

According to Lane Wilkinson, contributor to the *Libraries and Transliteracy* blog, there are two spheres of information – normal and academic - and students often have trouble applying their information literacy skills to the academic sphere.

“Information literacy is often needlessly segmented and compartmentalized. Popular vs. Scholarly. Library vs. Google. Print vs. Digital. You get the picture. Transliteracy comes into play as a pedagogical method, a way to break down the barrier between the student and the library. It encompasses established methods like transfer of learning and analogical reasoning in the library classroom. It’s using Wikipedia to find keywords for a search in CINAHL. It’s reading an academic journal article and then looking up the author’s personal blog for more context. It’s comparing hashtags to subject headings and Amazon reviews to abstracts,”

At the Library we can mold our Information Literacy programs to meet students where they are comfortable. Understanding how the Net generation learns, works, and interacts with one another will be key in shaping these programs to help close the gap between this group’s normal, social lives and the academic sphere which can prove confusing.

Two well-discussed learning theories for information literacy courses are constructivism and more recently transliteracy. These two methods work particularly well in Web 2.0 Information Literacy instruction because they support active, reward-based learning that builds on prior knowledge. In his article, *Participation and Pedagogy: Connecting the Social Web to ACRL Learning Outcomes*, Greg Bobish writes, “Constructivism is the idea that ‘learning is in the doing,’ and promotes active learning. Learners construct their own knowledge, individually and

in a social context, rather than receiving known information from the instructor in a lecture format,” (55). We already know that the Net Generation are constructivist learners. They live their lives online and gather their information from the people and organizations that they have included in their social networks. Essentially, a Digital Native’s social network has become a personal learning network where they can pose a question, answer a question, and verify information. At the library, we can help them do this in a way that complies with the rigorous standards set by institutions of higher education.

The ACRL has set a number of learning outcomes for, “assessing the information literate individual,” (Bobish, 54). The report outlines standards for information literacy using a constructivist pedagogy and offers examples of what this might look like in the classroom. Specifically, the report outlines a set of standards for combining Web 2.0 with constructivism. It states that there should be, “complex and challenging learning environments, social negotiation and shared responsibility, multiple representations of content, and the understanding that knowledge is constructed,” (55). The use of Web 2.0 tools in the library classroom meets all of these requirements. We know that knowledge is constructed because it is our students who are building it, as Wilkinson points out they are using Twitter hashtags to come up with subject headings for database searches and personal blogs to verify information found on a social networking site. What we can do is continue to guide the process and promote the transfer of information and critical thinking skills from a strictly social sphere to an academic one.

How the Net Generation Learn

Overwhelmingly, the Net generation are visual learners. Today, more than ever, students learn just as much from viewing and posting photographs on a slide sharing site as they do by reading text on a page and librarians can take advantage of this. In his article, *Information Literacy and Web 2.0: Is it just hype?* Peter Godwin writes that rather than requiring students to understand how a Venn diagram works before they can even begin to comprehend Boolean searching, we can use a tool like Boolify, “which helps to explain Boolean searching, and allows a search to be built up visually,” (270). Additionally, databases like EBSCO’S Academic Search Premier allow users to build visual searches through suggested limiters and search topics rather than requiring a user to understand subject headings. One could argue that database vendors and librarians are doing a disservice to students when we make searches this easy. Building knowledge from the ground-up, in other words, teaching subject headings for more effective searches rather than just teaching the visual search tool is arguably a more effective teaching strategy. In her article, *New Tools for Online Information Literacy Instruction*, Simone Williams quotes a study conducted by Gurney and Wilkes in 2008 which found that there is, “a confounding disconnect with students between receiving IL instruction and effectively making critical evaluations to understand the information,” (149). The study goes on to state that, “it would be beneficial for students to attempt to acquire these skills in an environment they are accustomed to and will readily engage in: online course management systems, specific academic organizations’ websites, blogs, podcasts, screencasts, and web games,” (161). While it may be beneficial to the profession to have a deep understanding of databases and research, it seems that for our students it is more important that we use tools that are already adapted to their learning style. In this case, our students are

already digitally literate and this type of literacy does not require deep background of how something works, but rather an understanding of how to use a tool to meet one's needs.

In his article, *The Web 2.0 Contradiction: Commercial and Library Use*, Tibor Koltay argues that a traditional approach to literacy - one where people receive information, but do not actively participate in the creation of it – is outdated. Rather digital literacy – an important aspect of information literacy and a term that accurately describes the Net generation – is what libraries need to be concerned with:

“A distinctive feature of digital literacy is that it ‘touches on and includes many things that it does not claim to own. It encompasses the presentation of information, without subsuming creative writing and visualization. It encompasses the evaluation of information, without claiming systematic reviewing and meta-analysis as its own. It includes organization of information but lays no claim to the construction and operation of terminologies, taxonomies and thesauri’ (Bawden qtd. in Koltay, 5).

Instruction librarians today need to be less concerned with the ‘why’ and more focused on the ‘how.’ Our students are already information literate in that they have the, “set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” (Allen, 23). What they may not have in terms of academic research are the critical thinking skills necessary to meet higher education standards, but rather than spending time teaching students about the intricacies of database searching we can use Web 2.0 tools like class blogs and wikis which require reflection after active learning to enhance critical thinking skills.

What the Future Holds for the Web 2.0 Library

The rise of Web 2.0 tools has changed the face of literacy. Today, librarians have unique options for delivering literacy services and students have just as many options for how they want to learn. In 2009, the John D. and Catherine T. MacArthur Foundation released the results of a 5-year survey in which it was discovered that, “researchers found that the Internet is empowering a tech-savvy generation to pursue a central element of 21st century education – self-directed learning [...] This finding compels educators to find a way to be open and receptive to the things students are doing online,” (Hendrix, 7). Because of their inherent flexibility, Web 2.0 tools are easily embedded into IL instruction and have proven themselves to be of great educational value. Blogs – both personal and professional – are used as tools for reflection. Social media like Facebook, Twitter, and Flickr are used as information gathering tools, and Wikipedia has become invaluable as a point of reference. All of these tools have a solid place in the 2.0 library.

The 2011 Horizon Report identifies key trends and emerging technologies in the library profession. Since 2008, one of the most critically ranked challenges facing the library world is digital media literacy. The report states that, “although there is a broad consensus that digital media literacy is vitally important for today’s students, what skills constitute digital literacy are still not well-defined nor universally taught. [...] The challenge is exacerbated by the fact that digital technologies morph and change quickly at a rate that generally outpaces curriculum development,” (3-4). Librarians have already identified that digital literacy and how to include it in library services will be a trend to watch, but it is worth remembering that although digital technologies do change rapidly digital literacy stays the same. Web 2.0 Information Literacy

instruction is not about the technology; it is about guiding students through the process of using Web 2.0 tools in academic work, promoting critical thinking skills, and focusing on the most effective teaching methods. The technology that we use in the classroom will be determined by the technology that our students are using in their daily lives.

Because this paper has focused primarily on the role Information Literacy instruction in academic libraries plays in a student's education it is worth discussing how the academic library may change in the future. Traditionally, the academic library has, "collected, preserved, and made available an array of resources needed by scholars. [...] Because scholarship has been primarily print and artifact based, the library was bound to acquire and then maintain in usable form scholarly literature and primary resources in order to make them accessible," (Smith). In Part 2 of the CLIR report, *The Research Library in the 21st Century: Collecting, Preserving, and Making Accessible Resources for Scholarship*, Abby Smith contends that the role of the academic library already has and will continue to change drastically. The most notable difference will be the technology. Smith notes that the "handheld library is foreordained," and that no longer will students use the library for its physical resources, but rather for the access it provides to digital information. This begs the question, however, of how useful academic libraries will be in the short-term future. We can provide access to resources, but students can often get that same access somewhere else. What we will be able to offer is a social space for learning. Academic libraries support their institution's mission of learning and by embracing Web 2.0 tools our libraries will become spaces where the learning, "becomes as much social as cognitive [...] and it becomes intertwined with judgment and exploration," (Seely Brown qtd. in Hendrix, 12). Additionally, academic libraries, in fact all libraries, will continue to place

emphasis on providing access to high-quality and authoritative information. The difference will be in what we now consider authoritative and much of that will be determined by our students and librarians open-mindedness about constructing a curriculum around always evolving Web 2.0 technologies.

Conclusion

The Web 2.0 library is not a concept or theory for how we might operate in the future. Rather, it is a reality. Libraries are already offering Information Literacy services that are constructed around the ideas of participatory service and Web 2.0 technologies. Take for example, the 'Unquiet Library' at Creekview High School in Georgia. Students here are encouraged to text answers and questions to a smartboard in the library – doing this helps fuel class discussions. Additionally, the library space is designed to accommodate active learning, reflection, and social encounters. The result? The library has 3 times the amount of Facebook fans as the football team. Of course, the number of Facebook fans is not the best measure of success, but the Library hosts over 1,500 class sessions every year which is an indicator of how well it is doing. It may be many years before we see the 'Unquiet Library' as the standard in participatory service and IL instruction, but for now it is a great example of where we are headed and how successful these services can be.

Works Cited

- Allen, Maryellen. "Promoting Critical Thinking Skills in Online Information Literacy Instruction Using a Constructivist Approach." *College & Undergraduate Libraries* 15.1-15.2 (2008): 21-38. Print.
- Bobish, Greg. "Participation and Pedagogy: Connecting the Social Web to ACRL Learning Outcomes." *The Journal of Academic Librarianship* 37.1 (2010): 54-63. Print.
- Buckland, Michael. "Serving the User." *Redesigning Library Services: A Manifesto*. Chicago: American Library Association, 1992. N. pag. *Berkeley Digital Library*. Web. 17 January 2011.
- Casey, Michael E. and Laura C. Savastinuk. *Library 2.0: A Guide to Participatory Library Service*. Medford: Information Today, 2007. Print.
- Godwin, Peter. "Information Literacy and Web 2.0: Is it Just Hype?" *Electronic Library and Information Systems* 43.3 (2009): 264-274. Print.
- Hendrix, Jennifer C. "Checking Out the Future: Perspectives from the Library Community on Information Technology and 21st-Century Librarians." *American Library Association*. ALA, n.d. Web. 1 April 2011.
- Johnson, L., Smith, R., Willis, H., Levine, A., and Haywood, K., (2011). *The 2011 Horizon Report*. Austin, Texas: The New Media Consortium.
- Koltay, Tibor. "The Web 2.0 Contradiction: Commercial and Library Use." *Library Philosophy and Practice* 2010 12.2 (2010): 1-5. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed April 25, 2011).
- Mathews, Brian. "Unquiet Library Has High-Schoolers Geeked." *American Libraries Magazine*. ALA, June 2010: N. pag. Web. 15 April 2011.
- Rainie, Lee. "How Libraries Can Survive in the New Media Ecosystem." Barcelona and Madrid, Spain. 19 May 2010 and 21 May 2010. Print. 1 April 2011.
- Smith, Abby. "Part II The Research Library in the 21st Century: Collecting, Preserving, and Making Accessible Resources for Scholarship." *Council on Library and Information Resources*. CLIR, n.d. Web. 28 April 2011.
- Wilkinson, Lane. "Why Transliteracy?" *Libraries and Transliteracy*. Libraries and Transliteracy Blog, 20 December 2010. Web. 3 March 2011.
- Williams, Simone. "New Tools for Online Information Literacy Instruction." *The Reference Librarian* 51 (2010): 148-162. Print.

