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# Towards School Library 2.0: An Introduction to Social Software Tools for Teacher Librarians

Jo-Anne Naslund

*Instructional Services Librarian, Education Library, University of British Columbia, Canada*

Dean Giustini

*Biomedical Branch Librarian, MEd student, University of British Columbia, Canada*

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*This article is an introduction to some of the most popular Web 2.0 learning tools for teachers and teacher librarians. The authors supplement their discussion of social software by describing the major tools of Web 2.0 and by illustrating how they are being applied in various school settings. Most importantly, the authors (both academic librarians) believe that social software is critical to learning in the digital age, and cite several major educators in this area to bolster their perspectives. A number of these emerging tools impact "teaching, learning and creative expression within learning-focused organizations" (Horizon Report, 2008) and encourage collaboration, knowledge-building and collective intelligence ('wisdom of the crowds'). In promoting Web 2.0, we argue that teacher librarians can play prominent roles in K-12 schools and raise awareness of relevant pedagogies for the iGeneration (Wikipedia, 2008). Many teachers have already dubbed this trend School Library 2.0 (Harris, 2005).*

## Introduction

Today's digital youth are in the process of creating a new kind of literacy...

an evolving skill beyond the traditions of reading and writing into a community of expression and problem-solving ...changing [our] world. (Fantom, 2007)

In the 21st century, teachers and teacher librarians are charged with providing instruction in "information, visual and technological literacy" as well as teaching the specific skills of digital literacy for K-12 students using a variety of software tools (Horizon, 2008). By utilizing social software in schools and learning resource centres (SLRCs), teachers and librarians can find ways to demonstrate their knowledge of information and communication technologies (ICTs) (Richardson, 2006) and work to promote digital learning across the lifespan.

According to Statistics Canada (2004), teacher librarians have a considerable positive influence in promoting the ideals of lifelong learning. They contribute to the intellectual life of schools by promoting information literacy (AASL, 2008) and integrate information technologies into their work (Kirkland, 2007). In the Web 2.0 era, all educators can use social software tools or social media to promote online participation, digital literacy and lifelong learning for their K-12 students.

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## What is School Library 2.0?

Beyond the tools themselves, Web 2.0 is often described as an interactive, highly *social* digital milieu (Solomon & Schrum, 2007; Richardson, 2006). This media-rich space is conducive to student interaction and collaboration due to an infinite variety of Web 2.0 tools--blogs, wikis, RSS, podcasts and social networking sites such as [MySpace](#) and [Facebook](#) (Kirkland, 2007). As many of these Web 2.0 tools are brought into the classroom, the nature of student work and learning changes. "When a student's work is seen, and commented on, and collaboratively enhanced by a larger *participative* audience, students are drawn into extended educational 'conversations'" (Hargadon, 2008).

A critical question in this discourse, however, is which Web 2.0 tools are the most useful and which promote learning? Generally, we believe that social media encourages students to interact in new, meaningful ways and engages them in a technological universe that they have grown up in. As Harris (2005) rightly suggests,

The digitally reshifted school library draws upon ideas from Web 2.0 and Library 2.0 to create a vision for School Library 2.0. ...School Library 2.0 is about creating a participatory, social, user-centered environment rich with technology that is focused on interactivity and collaboration. This transformation must be based on one primary goal - student success (§ 28).

The social, participatory Web now seems increasingly important to academic success, even integral to building a digital identity for many teens and pre-teens (Boyd & Ellison, 2007). However, compared to their technology-infused lives at home, Prensky (2008) reports that middle- and high-school students state that activities at school are 'boring' between 50-70% of the time. He recommends using social media to meet curricular objectives while getting K-12 students to play in the interactive digital playground that is Web 2.0 (Prensky, 2008).

Some educators are using social software to engage students bored by traditional classroom activities (Kirkland, 2007). However, deciding whether social software tools are pedagogically appropriate, and how to implement them effectively, is critical to their successful application in K-12. As a first step, teacher librarians can examine software closely and learn about its impact in the lives of students after school (Kirkland, 2007).

The California School Library Association (CSLA) encourages its members to learn about and critique Web 2.0 tools. It advocates [Learning 2.0](#), an online tutorial which grew out of [PLCMC's Learning 2.0 program](#). The Learning 2.0 program was designed by Helen Blowers and inspired by Stephen Abram's "43 Things I (or You) Might Want to Do This Year" (2006). Many school and public libraries have used this model successfully, tailoring it to meet their needs.

The CSLA's Learning 2.0 includes 23 activities and was built using [Blogger](#), [Flickr](#) (photo-sharing), [Odeo](#) (podcasting), [YouTube videos](#), [PBWiki](#) (hosted wiki site) and [Bloglines](#) (an RSS reader). Each tutorial begins with exercises that expose participants to a variety of tools and sites. Many topics are included such as blogs, [LibraryThing](#) (social cataloguing), wikis, [GoogleDocs](#), Zoho writer and [Del.icio.us](#). Using their own blogs, participants post comments about what they are learning. The opportunity to experiment with social software, and engage in exploration and discovery, is a high priority for teacher librarians interested in School Library 2.0.

## Blogs & Online Journaling

According to [Blogger.com](http://Blogger.com) "...a blog is a website where you write entries on an ongoing basis, sometimes daily. Blogs are published by individuals and their style is personal and informal." In essence, blogs are closely related to journaling where authors use the format to chronicle their experiences, perceptions and feelings.

In the context of education, blogs provide ample opportunity for online chat, debate and reflective practice (Ellison & Wu, 2008, Warlick, 2007). This functionality places them in a tradition of reflective learning. As an extension of the face-to-face (F2F) classroom, blogs encourage students to share their personal stories. Within the last decade, a growing community of international education bloggers (called *edubloggers*) have experimented pedagogically and professionally with blogs (Felix, 2008; Warlick, 2007). Edubloggers, for example, are said to enjoy reading about other schools and their challenges, and what students and teachers are thinking, talking about and feeling.

Today, education blogs are used by teacher librarians for a variety of purposes from community outreach to creating gathering places for professional development (Solomon & Schrum, 2007, Warlick, 2007). Some educators point out that edublogs have raised the profile of the teaching profession, revealing its challenges and joys (Richardson, 2006). Increased transparency and providing a window into teaching makes it possible for teachers to organize and empower themselves in the Freirian sense, and helps to get information out to the public about teachers, and what they do (Felix, 2008).

Some blog platforms offer free content management for students and teachers (Warlick, 2007). Registration is often required and some charge added fees based on the extra features and number of users needed. The most popular platforms include [Blogger](http://Blogger) (free Google tool), [Blogmeister](http://Blogmeister) and [WordPress](http://WordPress).

[Edublogs](http://Edublogs) is an Australian project that encourages educators to use a range of social software, not just blogs, and provides forums for teachers who want to use technology to engage their students in collaborative classwork and online journaling. [Edublogger](http://Edublogger), one of the fee-based blogging tools, is an innovative teaching tool blending technology and pedagogy to assist teachers by integrating blogging, education, and teacher responsibilities. Edublogger is a wonderful complement to any classroom or curriculum. Edublogger also has a built-in grading system, and a notification is sent to teachers when students do not complete assignments.

In 2008, various education-related blogs are used to share information about current issues and practices of interest (Felix, 2008). Many teacher librarians use education listservs combined with edublogs as their sources of information. A good place for teacher librarians who want to explore blogs is [Alice Yucht's EduBiblioBlog List](http://Alice Yucht's EduBiblioBlog List) which identifies over 50 library media-related blogs divided by category: kidlit blogs, young adult lit blogs, school library blogs, infolite blogs, edtech blogs, library land blogs and association blogs. Many of these blogs are created for teacher librarian associations while others are written by teachers who share their views about school library issues, children's and young adult literature. In addition, several award-winning blogs can be found at the [Edublog Awards 2007](http://Edublog Awards 2007) site or by browsing the 'blogroll' at your favourite blogger's site.

Some school libraries are using blogs as a primary webpage and set them up to communicate information about their activities. Teacher librarians use them to post information

about programs, library hours, policies and collections for schools and neighbouring communities. These school library blogs act as library news bulletins, and are easily updated and Web accessible.

Here are some notable examples:

### *School Library Blogs*

- AASL Blog - <http://blogs.ala.org/aasl.php> (American Association of School Librarians)
- CSLA Research Updates - <http://cslaresearchupdate.blogspot.com/> (tracks research that impacts library media teachers)
- Chris Harris' Infomancy - <http://schoolof.info/infomancy/> (what's happening in the world of school libraries and technology)
- Frances Jacobson's Gargoyles Loose in the Library - <http://www.uni.uiuc.edu/library/blog/> (news and views from University High School Library)
- Peggy Creighton Infactory Blog - <http://infactory.blogspot.com/> (a practicing library media specialist)
- IASL School Library Happenings Worldwide - <http://iasl.wordpress.com/>
- Justin Ashworth's School LibraryLand - <http://ashworth.wordpress.com/>
- School Library Learning 2.0 - <http://www.schoollibrarylearning2.blogspot.com/>

### *Teacher Blogs*

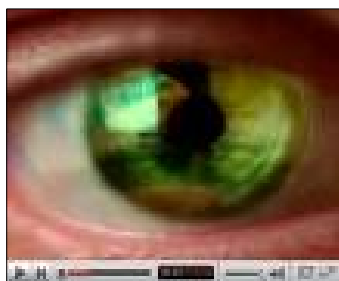
- Alan November's AlanNovember Weblog - <http://nlcommunities.com/communities/alannovember/default.aspx>
- Alice in Infoland - <http://www.aliceinfo.org/> (links to videos, Periodic Table of Visualization Methods, cool stuff)
- David Warlick's 2 Cents Worth - <http://davidwarlick.com/2cents/>
- Doug Johnson's Blue Skunk blog - <http://doug-johnson.squarespace.com/>
- J. Linda Williams' Lantern Room Reflections - <http://www.lindasreflections.blogspot.com>
- Kathy Schrock's Kaffeeklatsch - <http://kathyschrock.net/blog>
- Will Richardson's Weblogg-ed - <http://weblogg-ed.com/> (blogs, wikis, RSS and other Web 2.0 technologies in K-12)

For many teacher librarians and educators, blogs are natural tools for writing instruction and building information literacy (Solomon & Schrum, 2007). Prominent edublogger, Joyce Valenza, suggests that "blogging" the research process "inspires interaction and social (constructivist) knowledge building" (2007). In other words, teachers and librarians can participate and blog "new zones of intervention" as they work to accommodate, guide and coach learners. Valenza (2007) encourages her students to conduct their research and record their experiences using a [ResearchLog Template](#). It can be used as a basic organizer and students can grant permission for others to access their research on their blogs as the school term progresses.

Blogs may also have other roles to play, for example, in reducing plagiarism (Warlick, 2007). By engaging in open and frank discussion on blogs, K-12 students participate in their own knowledge-building for all to see, so there is less temptation to 'cut and paste' their work. Blogs focussing on literature provide 'book club'-like opportunities for students to exchange ideas about their favourite authors and specific titles they are reading. Using blogs transforms

the learning experience and engages students with books and ideas in new ways. As Richardson (2004) suggests, blogs promote metacognitive reflection or 'metablognition'. To inspire teachers to use technology to help students develop higher-level thinking skills, see the following YouTube video:

*A Vision of K-12 Students Today*



[Play YouTube video](#)

## Wikis & Collaborative-Writing Tools

According to Harris (2005), a wiki is "a community editable website (or easily updated closed site) that can be used for dynamic documents like collaborative lessons, curricula, or pathfinders." The wiki concept dates back to the 1980s but was recognized as a powerful collaborative tool by the 1990s. Ward Cunningham, who created the Portland Pattern Repository, was the first to use the mnemonic wiki (what I know is - 'quick' in Hawaiian).

In 2008, teachers are using wikis for a variety of purposes, such as assembling students for note-taking, group assignments and other collaborative work (Warlick, 2007). According to some Web 2.0 experts, students today are not satisfied to find information--now, they want to play a part in creating it (Solomon & Schrum, 2007).

One creative wiki produced by a global community of writers, teachers, students and young people is [Wikijunior books](#) which aims to produce age-appropriate non-fiction for children from infancy to age 12. [Wikijunior books](#) presents factual information that can be verified, and students can participate in the creation of these books. Some teacher librarians are also exchanging lesson plans and teaching materials on [TeacherLibrarianWiki](#) and their favourite Web 2.0 tools, links and tips and tricks on the excellent, handy [WebTools4u2use](#).

To create your own niche in the wiki world, some commonly-used, free tools are [WetPaint](#), [PBWiki](#), [SeedWiki](#), [Wikispaces](#) and [Wikia](#), all with positive features that recommend them. WetPaint is an intuitive wiki host with a range of page designs to choose from; [PBWiki](#) (also known as Peanut Butter Wiki) is mostly free and easy to upgrade as needs or demands change; with no ads, unlimited space and users; [SeedWiki](#) is also extremely popular among school media specialists. In [Wikispaces](#), simple webpages can be created and edited by students; and [Wikia](#) hosts hundreds of free community wikis, running on the same software that powers [Wikiiversity](#)--an all-purpose educational wiki devoted to learning resources for all age groups and styles of education from pre-school to university.

Sara Kajder is the creator of the [Promise Into Practice wiki](#) and a proponent of the role of wikis in literacy-building; she finds them to be "incredibly compelling tool(s)" (Kajder, 2007). Linked from Kajder's wiki is a useful sandbox for Web 2.0 exploration called [TeachersFirst Edge](#), a handy website for educators who want to share ideas about blogs and wikis. Where her students formerly used word processors, Kajder now advocates that they use wikis to revisit their writing and examine its evolution; wikis are a way for her students to track ideas as well as to evaluate information technologies from critical perspectives (Kajder, 2007).

## Social Bookmarking Sites

[Wikipedia](#) defines [social bookmarking](#) as "classifying resources by the use of informally assigned, user-defined keywords or tags." Further, "users collect their favourite resources in an online, open environment, which others are free to read and use. The end result is the sharing of resources and the easy distribution of those resources" (Barsky & Purdon, 2006).

Social bookmarking sites are research tools that enable students to share websites, references or any linked materials with others. The most powerful feature of bookmarking is the collaborative nature of finding, evaluating and sharing knowledge objects. Tagging is sometimes called 'subject headings for the masses' (Harris, 2005). Although [del.icio.us](#) is one of the most widely-used utilities, [Furl](#) and [Diigo](#) are also among the most popular. Because bookmarking is portable, users' accounts can be accessed from any Web-connected computer. Students can track their favourite websites and group them using descriptive words, called tags. Tags are sometimes called 'memes' and grouped in 'concept clouds'.

Good bookmarking practices can be modelled by teacher librarians to provide links for students, and point them to authoritative information. Further, bookmarking sites can be used to generate RSS feeds and incorporated into blogs, wikis and aggregating tools like [Bloglines](#). By learning how to tag, students can categorize what they read and learn the principles of classifying information. With [Diigo](#) and [Furl](#), it is possible to highlight sections and save comments within articles. Students should be encouraged to bookmark sites and highlight specific passages so that teacher librarians can monitor their attempts at knowledge-making.

Simple language tags, arranged as "information clouds," help students to browse the Web for resources that have been similarly tagged. Teacher librarians argue that they aid students in resource discovery, and point to vetted forms of information--similar in concept to library catalogues and indexes.

## Social Networking Sites

In 2008, [Facebook](#) and [MySpace](#) are among the most popular Web 2.0 tools for young people--but [Bebo](#), [Friendster](#), [Student.com](#) and [Xanga](#) are also well-known. Membership on social networking sites (SNSs) is growing across all ages. [MySpace](#) is second only to Yahoo in page views per day, listing over 47 million members and 16 million websites. [Facebook](#) is rated as the top site for 18- to 24-year-olds with 55,000 work-related collegiate and high school networks (Auchard, 2008).

SNSs allow students to create their own Web profiles where they can load pictures, write narratives and make new "digital friends." However, most SNSs require that users confirm they want to be friends with their new contacts. Some parents are concerned about



their children revealing so much information about themselves to strangers; educators should understand the associated risks of SNSs, especially given the Web's attraction to predators (Marwick, 2008).

SNSs are used for all kinds of reasons including identity formation, digital performance, civic engagement and relationship maintenance (Boyd & Ellison, 2007). However: "...what makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their social networks" (Boyd & Ellison, 2007). While the social aspects are compelling, SNSs also mediate learning through a "social lens" and have excellent pedagogical potential.

In an attempt to attract new users, SNSs market aggressively to the Internet generation (iGen). However, there is a sense that the tactics of many SNSs are intrusive, raise a flag of concern for parents who monitor their children's Internet activities, and provide fodder for teachers who question their value.

That said, SNSs provide a central place for networking and information exchange for teacher librarians who want to meet other educators experimenting with social software. Other networking opportunities for teacher librarians include groups on [Facebook](#), such as the Information Literacy Interest Group (ILIG) of the Canadian Library Association. On [Facebook](#) we connected with a colleague, Laura Wolfram, who wrote:

[as an] elementary/middle school librarian ...with a big laptop program - all 5th through 8th graders have their own laptops, and younger students have access to several mobile labs. In assisting students with research, as well as in teaching library skills classes, I've noticed that students are much more enthusiastic about and engaged in research projects that involve a web 2.0 component than they are in more traditional types of research activities. For instance, when the 6th grade found one map activity kind of uninspiring, they perked right up when I suggested that they might post the results of their research on Google Earth. Given this apparent interest in communication, I'm trying to make both the library as a whole and the research projects my students do there more interactive and student-directed, as well as more technology-oriented, since this is also a big draw for a lot of kids.

Here are some of the ideas I've come up with so far:

- . Look into adding a tagging feature to the OPAC, possibly through [LibraryThing](#).
- . Instead of traditional paper reports, have students upload their work to a wiki and comment on one another's projects;
- . Continue looking for good quality electronic databases.

Students are generally much more enthusiastic about conducting their research online than through books, and as far as I'm concerned, this is probably a good thing. After all, by the time my 4th graders are in college, they'll probably \*need\* to do most of their research online, what with the way things seem to be trending.

- Wolfram, Laura (Personal communication on [Facebook](#). January 6, 2008)

Gretchen Schroeder said that she had

...done a wiki project with some of [her] middle school students, it is only visible in-house, but the fact that other students can use it, definitely raised the bar on both interest in the projects and in the quality of the final result. Since [their] Middle school studies

different regions of the world by trimester, articles written now may be used by other students in the future." She added that they were "looking at creating an online book club chat for summer reading list. Students who log on and participate sufficiently can use it in lieu of an end of summer book report.

- Schroeder, Gretchen (Personal communication on [Facebook](#), January 23, 2008)

## Microblogging

One of the hottest social networking trends in 2008 is microblogging. On sites like [Twitter](#), microbloggers respond to the recurring question "What am I doing?" and post *brief messages* (less than 140 characters) for their network of "friends." These posts form a "town-square" of ideas, observations and useful, or pointless, information. Early adopters of microblogging compare it to reading someone's thoughts and "being telepathic" (Giustini, 2008).

[Twitter](#) has its charms and is very popular, but [Jaiku](#) and [Pownce](#) are two microblogging tools that are gaining ground. Some teacher librarians are experimenting with [Tumblr](#), an aggregation service that is part of the tumble-logging trend. A tumble-log is a variation of a traditional blog in that it pulls together different types of media such as photos, videos and blog entries into a central space, no matter where these media items originate.

For some librarians, microblogging has an immediate appeal because it helps to stay in touch with colleagues and to initiate conversation with students (Giustini, 2008). Some educators, including those at [Teachers Teaching Teachers](#), are finding ways to integrate microblogging into school curricula.

In an EduTalk program "Microblogging our way toward global awareness", David Karp - the 21-year-old founder of [Tumblr](#), discusses his interest in new communication platforms (Allison, 2008). "Karp's description of ...[Tumblr](#), suggests to some teachers that such short forms would fit well into our classrooms. 'Posts can be a small encapsulated piece of data.' says Karp. 'It doesn't have to be the nicely formatted four paragraphs of text that a WordPress post sort of forces you to make each one of your posts...When you have a thought to post or just have a link or a photo to post, it can go up.' Teachers who find it difficult to squeeze blogging into an already bloated curriculum might consider adopting microblogging" (Allison, 2008).

Steve Muth, a developer of [EdVoiceThread](#), says that "casual" ways of publishing are becoming more popular: "People are interested in doing what blogs do. All the stuff that blogging is, they want to do that stuff, but they simply don't want to make that big investment in time. And that's the same thing with a lot of things people like to do online. They want to do it; they don't want to make a big investment in time doing it. And so, they're looking for casual answers... If you give people a vehicle that's incredibly simple and still looks really good, it's so easy for them to set aside the five or ten minutes or the twenty minutes." (Allison, 2008).

It is easy to imagine implementing microblogs in school libraries and classrooms. Teachers can invest up to ten minutes a day to explain to students how to post one *ah-ha moment* or question to their microblog, which could be used between classes as a trigger for further learning or as talking points for debate and discussion (Giustini, 2008).



## Social Media-sharing Sites



From [Futuristmovies.com](http://Futuristmovies.com)

*Visuals are powerful teaching, learning and study tools for teacher librarians.* The millennial generation has grown up chatting online with their friends, sharing free video clips to learn new skills and tagging their own digital photographs, according to a recent Pew report (Rainie, 2008). Further, there is an increasing awareness among teacher librarians that millennials prefer to learn by doing, insist on personalization and want to take part in shaping their learning environments (Rainie, 2008).

In addition to Google's many Web 2.0 features, students are photo-sharing at sites like [BubbleShare](#), [Flickr](#) and [Picasa](#), sharing PowerPoint slides at [Slideshare.net](#) and video at [YouTube](#) and [Teachertube](#) (Schwarzwalder, 2007). Videos (and brief AV clips) sent out on the Web spread like wildfire using email, instant messaging and microblogging. Several other video sharing sites such as [Google Video](#) and [OurMedia](#) are useful. Also try [Animoto](#) and you will discover how easy it is to create and share engaging videos simply by uploading your photos together with some music. Check out the [buzz](#) for educators.

Because listening to music and news programs using iPods and other mobile technologies has become so popular among digital learners, [iTunes](#) is an obvious tool for teacher librarians but so are podcasting sites [EdTechTalk](#), [Lit2Go](#) and [Karen's Mashups](#). (EdTechTalk's [show #65](#) features Doug Johnson and Joyce Valenza who discuss school libraries, and the future of school library media centres.) Education Podcast Network is a terrific podcasting site for browsing educational programs by subjects and grade levels.

Two-way interactivity is now offered on many sites for those who learn visually and aurally. Without the two-way exchange seen on most websites these days, students complain that their conversations are stunted; thus, interactivity is expected (Rainie, 2008). For example, [Jing](#) (a video tool) and [WordTalk](#) (text-audio tool) allow you to share video and audio content using a mix of images, text, speech-add ins and voice-overs. Specialized video services like [HomeMovie](#) and [JumpCut](#) offer online editing tools in addition to providing storage capacity for videos. The remixing and addition of video and audio clips transform intellectual works and gives them new life and energy. Are these post-textual clips important for their entertainment

value or have they become teaching and learning resources in their own right? Probably a bit of both.

An excellent space to share ideas with visual learners is [Youtube.com](http://Youtube.com). Using the simple search tools there, students and teacher librarians can locate library orientations and other educational materials. For examples of humour, videos like the Colbert Report Interview with Jimmy Wales (creator of Wikipedia) and Darren Heroux's [The Frozen Menace](#) (a mockumentary on the dangers of ice-cream consumption) become student favourites (Heroux, 2006). Using their many comment features, student learners express surprise at how quickly and efficiently they are able to reach other students on video sites. A remix of Youtube called [Time Tube by Dipity](#) offers a unique search opportunity displaying videos chronologically. This will intrigue adolescent searchers looking for video content.

Clearly, part of Web 2.0's excitement is the ability to network with people around the world quickly using the latest multimedia. [VoiceThread](#) is "an online media album" of images, documents, and videos and allows students to respond with comments via microphone, telephone, audio or video (with a webcam). Learners can share comments and initiate conversations with other students anywhere in the world. (An example of VoiceThread is a 2008 Science Fair Project entitled [Light and Temperature](#)).

## Other Collaboration-enabling Tools

A number of other collaborative tools are being used by students for their on- and off-line lives. For their research projects for example, [Noodletools](#) helps K-12 students create note cards, bibliographies and a place to store their research. [2Learn.ca](#) uses a similar approach with its online netlog sheets, concept maps and notepaper sheets. At [mySchoollog](#) students organize their school life online, create schedules, organise projects and much more. Another all-in-one tool is [Notely](#) where students can take and store notes, create calendars, manage contacts and upload various forms of media.

If wikis cannot be used for student projects, teacher librarians can use web-based writing tools like [GoogleDocs](#) and [Zoho](#). Free software tools such as [GoogleDocs](#) and [Zoho](#) introduce students to the notion of collaborative authoring and illustrate how ideas evolve through iterative editing. Further they can be accessed over the Web by individual members of a project team, regardless of the individual locations and schedules of the participants. Like Wikipedia, these tools store all versions of a document's development from start to finish, and highlight individual contributions. Put simply, educators can promote these group authoring technologies for students to create their own learning objects and share their research (Valenza, 2007). By using Web tools with tracking features, K-12 students also build the skills they need for studies at the post-secondary level where citations are managed using bibliographic software tools such as RefWorks or Endnote.

Managing information in the digital era means engaging in experimentation: shaping, creating and integrating textual, visual, spatial and aural elements for the purposes of meaning-making. As Baidon, Campano, and Damico (2008) suggest, the building blocks of information fluency involve new literacies that are social, dynamic and fluid. Large-scale sharing and knowledge-creation reflect changes in how we communicate, connect with others and access

information. The workers of tomorrow will "manage their own productivity and seek and structure collaborations from around the world" (November, 2007).

## Conclusion

Despite some intrusiveness of information technologies in K-12 classrooms, teacher librarians are exploring new software tools and evaluating the social processes that comprise School Library 2.0. Many educators understand that much of the excitement of Web 2.0 resides in experimenting with cool software in novel ways. In the past, where simple word processing sufficed for the school newspaper or yearbook, students can try out open-source software like [Moodle](#), [Joomla](#) or [Drupal](#), which add exciting, challenging elements to group projects. In using social software and open source tools, students can work and learn together, develop their information skills and exchange ideas about school assignments and projects. The future of School Library 2.0 will see social software applied to digital learning spaces in pedagogically-innovative ways. This will bring rich media together in an experimental but collaborative platform, and promises to include simulated, virtual environments where students can work with peers and interact globally. As iGen students begin to explore virtual gaming and simulated worlds, they will want to take a more direct role in shaping their learning environments. In this emerging cognitive landscape, students (and teacher librarians) will only be limited by their imaginations.

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## Author Notes

**Dean Giustini** is the UBC biomedical branch librarian at Vancouver General Hospital. He is currently a master of education degree student, and uses Web 2.0 technologies and digital spaces to further learning and librarianship. He blogs at UBC Google scholar blog, and maintains a wiki at UBC Health Library wiki.

**Jo-Anne Naslund** currently works as an Education Librarian in the Education Library at the University of British Columbia. She has worked as a teacher and teacher librarian in schools in Alberta, British Columbia and Melbourne, Australia. Her research interests focus on information literacy, teacher education, and school libraries together with Canadian children's literature and adolescent reading interests. She has taught library courses in teacher librarianship at the Universities of Melbourne, Alberta and British Columbia. Her educational background is a BA, BEd, MEd and MLIS.