
The Impact of New Technologies on Current Awareness Tools in Academic Libraries

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Guest Columnist

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Cuiying Mu's column is a help to both "accidental technologists" and non-techie librarians in two ways: it clarifies the differences between and strengths of various RSS readers and social bookmarking tools, and it provides guidance on teaching these tools to our users. This column underscores a similarity of users' technology competencies and needs across different types of libraries and around the world: users don't know what technologies are available to make their work easier. While Mu writes about a program at an academic library, the tools also are applicable to workshops and guides that teach users of public and special libraries how to manage their personal research and even their collection of news and entertainment items from the Internet. Integration of these technologies into K-12 information literacy programs would tie in with teaching how to select credible sources and provide students with a head start on managing their research for term papers. RSS and social bookmarking are not familiar to most of our users; librarians have a role in educating not just about information resources but about tools to manage information.—*Editor*

Our users live in a world of too much information, and they are struggling to keep themselves up-to-date with new publications in their research fields. Academic librarians are aware that information overload can lead to frustration and feelings of despair. To prevent our researchers being drowned in the information floods, academic librarians should teach them to manage information effectively by using the technologies available, such as RSS feeds and social bookmarking tools.

New technologies have created opportunities for learners to have richer learning experiences. Academic librarians, as facilitators of the research and information-retrieval process, need to actively apply the new information technologies to information literacy programs and train their users to use the technologies available to remain current with the publications in the student or researcher's subject field. RSS and social bookmarking are two tools that have a place in libraries' information literacy programs.

The purpose of this column is to help you establish or update user education on RSS and social bookmarking. Included is an outline of a current awareness course and users' responses to the course, some technical issues and solutions when working with library databases using RSS feeds alerting service, comparisons of RSS readers and social bookmarking tools, and one librarian's recommended RSS readers and social bookmarking tools for researchers.

THREE REASONS TO PROMOTE RSS AND SOCIAL BOOKMARKING

Save the Time of the User

While these tools have been around for a few years, students and faculty are not always aware of them. Even those who use RSS feeds for reading blogs and news may not know of the usefulness of this tool for their academic lives. Using RSS feed technology to manage information saves users time and energy and increases their access to the knowledge they need by creating a recurring alert of new information from blogs, websites, and article databases. Social bookmarking technology allows users to take advantage of the insights of other users to find information related to the topics they are researching, even in areas that are not obviously connected to the primary topic.¹ Social bookmarking promotes discovery through serendipity as well as through careful use of searching and tags.

Enhance Information Literacy

One of the goals of the academic library is to develop users' information literacy skills. Information Literacy Standard Five of ACRL's "Information Literacy Standards for Science and Engineering/Technology" states that an information literate student should recognize the need to keep current in his or her subject field and have the ability to use a variety of methods and emerging technologies for keeping current in the field.² Information literacy is changing with new information and communication technologies, and new envisionments appear with each new technology.³ Information literacy is now intimately related to information technologies and requires individuals to have the ability to use digital technologies, communication tools, and networks to solve information problems to function in an information society.⁴

Showcase Your Skills as a Librarian

An additional outcome of teaching users about RSS and social bookmarking is an improved view of what the library can offer to researchers. Through teaching and talking with our research students and academics, I found that they have changed their view of librarians: they no longer regard academic librarians as "old fashioned." They believe that modern academic librarians know the most about new information technology and can help them in the process of information management.

New technologies have created opportunities for academic librarians to be innovative educators of their community. Thus academic librarians should grasp the opportunity to show their community that they have the knowledge, the skill, and the ability to help them efficiently manage information.

COURSE OUTLINE FOR THE CURRENT AWARENESS WORKSHOP

I designed and taught this course for the researchers at the

University of Canterbury using my experience with applied Web 2.0 tools, RSS feeds, and social bookmarking as current awareness tools. The fifty-minute session includes the following:

- An introduction to RSS technology using the YouTube video "RSS in Plain English" (www.youtube.com/watch?v=0klgLSxGsU).
- An introduction to different types of RSS readers and a discussion of the problems of using browsers, specifically Internet Explorer 7 (IE7) and Firefox (using the Live Bookmarks feature, as feed readers when working with EZProxy databases.⁵
- An explanation of why Bloglines is a preferred feed reader and a demonstration of how to set up RSS feeds in Bloglines and Outlook 2007. The advantages of Bloglines and Outlook 2007 will be discussed in the following section.
- An introduction to social bookmarking tools and how to use these tools (e.g., Citeulike) to discover new resources on research by setting up RSS feeds from websites.

RSS READERS

An RSS feed is an efficient way to track what is new at selected websites and receive new content, but to read your RSS feeds you need a feed reader, which pulls together new information from all your feeds in one handy place.⁶

There are three different types of feed readers:

- Web-based readers such as Bloglines, Google Reader, My Yahoo!, Pluck, Feedshark, and TagCloud.
- E-mail readers, e.g., Microsoft Outlook. Desktop-based readers such as Feed Demon (only works for Windows) and NetNewsWire.
- Browser readers, such as IE7 and Firefox.⁷

Each type of reader has its own way of subscribing and displaying RSS feeds. Using desktop and browser built-in readers will only allow users to read their feeds on one computer, while using web-based readers will let users read their feeds on any computer with an Internet connection. There are a number of articles on best or top RSS feed readers.⁸ Which reader to choose depends on how and where the user wants to access the feeds and if the reader is appealing to a particular user. However, Bloglines and Google Reader are best liked by most users.

RECOMMENDED RSS FEED READERS

Bloglines

Bloglines is a web-based feed reader.⁹ I love Bloglines, no matter how old or new the version. It is my feed reader of choice when teaching my research students and academics how to set up feeds from databases, websites, and blogs.

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Bloglines was owned by Ask.com and sold to MerchantCircle last year. Consequently, Bloglines now has a new interface. Though I prefer the old version of Bloglines over the new one, the new version of Bloglines is still a great feed reader because it includes features that the old Bloglines did not have. The advantages of Bloglines are that it contains the following features and functions:

- Free web-based software, no installation is required.
- The ability to access feeds from any computer or mobile device.
- Easy adding of new feeds by searching, browsing, or copying and pasting the URL into Bloglines.
- Organization of feeds by different subject folders and the ability to view feeds how you like, such as slideshow, headlines, and quick details (summary of each item).
- The list view feature enables viewing more of the feeds in one screen and to skim quickly for the desired information.
- Options feature allows different views of the feeds to accommodate user preference, such as the widget view for large widgets per feed.
- Different layout views allow users to move the feeds to top, bottom, left, right, or up and down the page.
- Users can easily add essential widgets, such as Hotmail, Gmail, Web Search, Delicious, Weather, Facebook, Myspace, Twitter, etc. That means you don't need to switch to different platforms or systems to check e-mail or bookmark.
- With the integration of Facebook and Twitter into the new Bloglines, users can now share information with friends more easily.

Google Reader

Google Reader is one of the most popular RSS feed readers.¹⁰ It is loved by many blog users for the following features:¹¹

- Google Reader is an alternative to Bloglines and works similarly.
- Google Reader works well on both Mac and Windows systems as well as other devices such as the iPad and Android phones and tablets.¹²
- Google Reader enables its users to view updates from their subscribed websites, journals, and blogs. Additionally, it allows users to organize feeds in different folders (so users can stay focused) and delete feeds and folders that are not useful.
- Users can share the feeds with others by e-mail, by note sharing, or commenting (if a user "likes" or not).
- A Google Reader account can be accessed from a Gmail account.
- A specialized search feature for websites and blogs that have RSS subscriptions.
- Users can create their own tags and share this content with others by clicking on the share button at end of

the post. This sharing can be embedded into a personal webpage as well.

Microsoft Outlook 2007 Feed Reader

One of the features that I like best about Outlook 2007 is its ability to manage RSS feeds. The advantages of using Outlook Feed Reader are the following:

- Users don't need to switch to different applications to read the latest feeds—everything can be read in their e-mail inboxes. Anyone who is using Outlook to manage their e-mail will find it beneficial to also use it as their feeds reader.
- It is very easy to add, delete, and read the feeds. The Microsoft Office website has tips on how to add feeds to Outlook.¹³ Unfortunately, Outlook does not have the RSS function for Mac users.
- Share RSS feed articles without having to cut and paste, and users can forward the articles to others without leaving the e-mail inbox.
- Quickly manage content by marking the feeds as read or unread, delete, download, share, flag for follow-up, add a reminder, categorize and forward to others. These are similar to the functions for e-mail in Outlook, and they allow integration with categories that a user may have created for organizing e-mail and calendar appointments.
- Easily export feeds to Outlook from Bloglines or Google Reader to read in the Outlook e-mail inbox.

It is good to use different types of feed readers because each reader has its advantages and disadvantages. For instance, I use Outlook 2007 to read my work-related feeds and Bloglines to read other feeds, such as those related to travel, entertainment, and other personal interests. I don't like having too many feeds in my Outlook because it is very distracting to my work. In addition, Outlook is not good at handling a great number of feeds because users can't group them into subject folders. Bloglines and Google Reader are particularly good at grouping feeds into subject folders.

WORKING AROUND TECHNICAL PROBLEMS WITH RSS AND LIBRARY DATABASES

Our library subscribes to many bibliographic databases that make RSS feeds available. Because access to these databases is by subscription only, we provide a means of easy authentication using software called EZproxy.¹⁴ This software, used by libraries all over the world, authenticates the user and then acts as an intermediary through the interaction with the database. The database receives all requests from the EZproxy IP address, which it recognizes as a valid user.

When EZproxy takes over the interaction, it adds its domain name to the URL of the resource it is interacting with, and this domain name also is added to subsequent links. This

means that the link returned to the user to create the RSS feed includes the EZproxy domain name. This expanded URL will be what is put into the Bloglines record.

When the user tries to create the record for the new RSS feeds in Bloglines, Bloglines says it can't find a valid RSS feed. This is because of the EZproxy part of the URL. To subscribe to RSS feeds created in library databases, users must remove the EZproxy part of the URL. For example, when a user searches a topic in ScienceDirect, the database will create a feed URL, which looks like the following:

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http://rss.sciencedirect.com.ezproxy.canterbury.ac.nz/
getMessage?registrationId=ACECADECBIEDICFDCCE
KAHEJADFGAFJHFUGKDCGGCM
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To subscribe to the feed, the user needs to remove the .ezproxy.canterbury.ac.nz part of the URL and then paste the remainder into the Feed URL box in Bloglines. Even though the ezproxy.canterbury.ac.nz part of the URL has been removed from the feeds URL, the user can still access the full-text article from a database, if there is one, by clicking on the article title in Bloglines when the user is logged on to a campus computer or is already authenticated through Ezproxy, or when using a virtual private network (VPN).

As of the writing of this column, IE7 and Firefox browser feed readers don't work well when EZproxy contacts databases. Users don't have options to remove EZproxy from the URL. This means that feeds don't get updated after they are set up. This may affect the user's choice of RSS reader and should be explained during the workshop or in online guides to using RSS feeds with your library's databases.

SOCIAL BOOKMARKING TOOLS

There are a number of published articles on social bookmarking tools.¹⁵ In May 2011, eBizMBA reported that the top fifteen social bookmarking sites are Twitter, Digg, Reddit, StumbleUpon, Delicious, Tweetmeme, Mixx, Fark, Slashdot, Friendfeed, Clipmarks, Newsvine, Diigo, and Hacker News.¹⁶

Librarian Carla S. Redden notes, "Social bookmarking, also called social tagging, might have the most potential as a Web 2.0 tool that can be utilized in academic libraries to benefit their users and enhance their services."¹⁷ There are many social bookmarking tools, and they all cater to different types of user groups. For instance, Delicious and Diigo focus on collecting websites; tools such as Digg, Reddit, and Blinklist focus on collecting news; and others like Flickr focus on pictures. Citeulike and Connotea are for bibliographical references. Twitter is not really a social bookmarking tool but merits mention here. It is a social networking site where users share information by microblogging. An understanding of the different features and strengths of a few social bookmarking websites will help you to choose which are best suited to your users and will allow you to limit the number that you teach in a workshop. Passing along your knowledge of a few of these

tools will enable users to make informed choices about which social bookmarking tools to use. In the following section I recommend and detail four social bookmarking websites.

RECOMMENDED SOCIAL BOOKMARKING TOOLS

Connotea

Connotea is free online reference management for clinicians and scientists created by Nature Publishing Group.¹⁸ Using Connotea, users can bookmark, tag, and import references directly to their Connotea Library by uploading a file from their local computer and exporting records to their Reference Manager software (e.g., EndNote, BibTex). Additionally, users can search the collection of tagged articles in the site and create RSS feeds alerts. Connotea makes it easy to copy, organize, and share references. To learn more about this tool, I recommend the case study written by Lund et al.¹⁹

Citeulike

Citeulike is my favorite social marking tool. I have been teaching my research students and academics how to use this tool so they can keep up-to-date with literature published in their research fields. It is particularly appealing to me because it provides the following functionality:

- It easily stores references a user finds online.
- It enables discovery of new resources.
- It sends to the user automated article recommendations.
- Users can share references with their friends and colleagues.
- It lets users find out who's reading what they are reading.
- It stores and searches PDFs.
- It provides RSS alert services.
- It enables direct exporting of references to bibliographic software such as EndNote and BibTex.²⁰

Citeulike is particularly useful in managing and discovering scholarly references because it enables users to tag references from websites and databases and then share the references with other users. What's more, users are able to search the site, create an RSS feed on a topic, then click the orange RSS icon at the top of the results page to subscribe to the feeds. For example, when searching a topic such as "3D reconstruction" in Citeulike, you will not only find users and groups interested in 3D reconstruction, but also a list of articles discussing 3D reconstruction. By clicking on RIS, you export references to your EndNote library. If you are interested in how knowledge can be shared in Citeulike, please read Lee and Brusilovsky's paper on the topic.²¹

Delicious and Diigo

Delicious is said to be the world's largest social bookmarking

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site.²² In “How to use Delicious: The King of Social Bookmarking,” Hines introduces eight innovative uses for Delicious.²³ But since the new version of Digg came into being, some users have been switching from Delicious to Digg. Digg is now deemed the open social bookmarking service to rival Delicious because Digg has all the same features as Delicious in terms of organizing, tagging, and sharing sites plus additional features that make networking and organizing even better: highlighting, sticky notes, annotated links, sharing links, searching, snapshots, and a “personal learning network.”²⁴ Additionally, users can easily import and export bookmarks between Digg and Delicious.²⁵

Diigo V5.0 is now available in the marketplace. With version 5.0, Diigo moves one step further toward its vision of providing the best cloud-based information management service; one that enables users to collect, highlight, access, and share a variety of information on a variety of devices.²⁶ Diigo provides high-quality tools to recover, highlight, organize, and find information mainly for research tasks and for sharing with other users, facilitated by the ability to add notes to the marked webs (electronic sticky notes).²⁷ To learn how to use Diigo, I suggest the paper by Estellés and del Moral.²⁸

In brief, social bookmarking tools such as Connontea, Citeulike, Delicious, and Diigo are useful tools for researchers to discover new research trends because they give researchers a lot of exposure to up-to-date research publications or news on the Internet. The American Association of School Librarians recognizes Diigo as one of the “Best Websites for Teaching and Learning,” a list honoring “tools and resources of exceptional value to inquiry-based teaching and learning.”²⁹

RESPONSE TO RSS AND SOCIAL BOOKMARKING COURSE AT UNIVERSITY OF CANTERBURY

The current awareness tutorials started in October 2007. During the last four years, they have been repeated regularly. Thirty-five sessions have been offered and more than 200 students, faculty, and staff have attended the training. An e-mail survey was sent to all who attended the training, but only 38 replied to the survey. Feedback on the workshop was generally positive. Here are some representative responses:

“The tutorial is good and I recommend that my students and staff do this particular course.”

“I use RSS feeds for a range of sites I monitor pertinent to my subject areas and interests. This is a very effective way to maximise my time and use the Web 2.0 tools for me. I use Delicious to mark sites for my students that could be useful to them.”

“I use social bookmarking tools to find new resources in my subject areas, but fairly random. There is a tsunami

out there—I need to reduce it to a trickle of good stuff.”

“I have set up some RSS feeds using Bloglines to keep me up to date with news items such as education news, TEU news etc. I found the session very useful.”

“I like using the new technology tool RSS feeds to keep track of articles published from different journals in my subject. It is great as it is very time-saving.”

“The social bookmarking tool is great as I can see what others are reading in my interested topics. Besides, I can set up RSS feeds from Citeulike to keep track of newly added items on the topics.”

My intention of introducing social bookmarking tools to our researchers was to raise their current awareness in their research fields. Based on these users’ responses, it is clear that users are using these tools for more than a mechanism for current awareness. These tools are being used for teaching, research collaboration, resource sharing, and to a degree, for marketing personal profiles or publications. These applications need to be explored in future research on the utility of social bookmarking tools in an academic environment.

CONCLUSION

New technologies pose considerable challenges to academic librarians, but they also introduce new opportunities. Librarians need to consider what to teach to their users in the current information-rich environment. The technological components of information literacy skills will change regularly as librarians and students envision new ways to exploit these emerging technologies. Academic librarians will need to continue to adapt to new technologies and integrate them into instruction, recognizing that technology concepts and skills are critical to educating information-literate students and researchers at all levels, a role that has always been the purview of the librarian.³⁰ An RSS and social bookmarking workshop for current awareness is just one good example of how a library can adapt to changes in the technological and user environments by providing useful training that supports the research needs of our users.

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