All Together Now

The social networking issue... interviews and articles working together in a matrix of shared ideas and content.

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## The OCLC Cooperative

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<th>Countries and territories served</th>
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July 2007

## WorldCat Statistics by Format  
*July 2007*

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The term social networking may be new, but the concepts behind it—sharing content, collaborating with others and creating community—have been around for a long time. What is new is the digital medium, which makes connecting with other people faster, easier and more accessible to a wider population than it’s ever been before. NextSpace asked nine experts for their thoughts about our increasingly online lives.

ADVOCACY
12 Social networking drives teen library usage
In 2006, Denver Public Library created a presence on MySpace to offer teens online activities to stay connected, as well as links to library resources aimed at this age group, such as homework help, 24/7 online reference and materials for checkout. The result? Traffic to the library's online teen site shot up 41 percent. “We asked ourselves, ‘Why not go to where the teens are?’ We can give them a new idea of what a library is and make them feel comfortable here.”

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OCLC is putting social functionality into WorldCat.org to build a social network of the world’s library users.
Great lists throughout history:

The Magna Carta

Passenger manifest for Noah’s Ark

Hungarian composer Franz
(Okay, he’s actually a “Liszt.”)

The list you can create on WorldCat.org

That’s right—the Web site that lets the Internet generation discover the collections of WorldCat libraries now has a new way to participate. With a free account, WorldCat.org users can add items found in search results to online lists they keep private or share with friends and other users.

People can build lists that organize library materials—whether for personal research, academic study, family entertainment or just for fun. It’s another way libraries’ services can make a difference in the new information workspace.

Make your own lists at www.worldcat.org
Making WorldCat more inclusive

In the past year, we have been working hard to make WorldCat more inclusive at the local, group and global levels.

In August 2006 we introduced the WorldCat.org Web site. It offers a search box that people can download and use to search the more than 88 million records and 1.1 billion holdings in WorldCat. For the first time, collections in OCLC member libraries became visible on the Internet to people everywhere.

Since then, we have enhanced WorldCat.org with more content (35 million article-level records from ArticleFirst, ERIC, GPO and MEDLINE) and a citation capability.

Our goal in releasing this new way to access WorldCat was to drive search traffic to the library, and it has done just that. In May 2007, the number of people coming into WorldCat from the Web had increased 193 percent over May of 2006, going from 4.8 million to 13.9 million. During that same period, the number of people clicking through to library services on a library Web site increased 490 percent, from 144,000 to 851,000. These are people who started out on the Web and ended up at or in a library.

In May, we started the WorldCat Local pilot at the University of Washington. WorldCat Local provides libraries with a way to customize WorldCat.org as a solution for local discovery and delivery services. WorldCat Local interoperates with locally maintained services such as circulation, resource sharing and resolution to full text to create a seamless experience for library users.

WorldCat Local was recently launched as a pilot at the Peninsula Library System in California and will soon be piloted at nine libraries in Illinois, and at The Ohio State University. We plan to go into production with WorldCat Local later this year.

This past June, a new social networking tool was added to WorldCat.org—WorldCat Lists. Users can create lists of their favorite items located in the WorldCat database. Lists can then be shared with family, friends or the entire WorldCat community. More than 10,000 lists were created in the first eight weeks. The creativity found in these lists is fascinating: categories ranging from “Organic Chemistry” and “Naval History” to “Good Read-Alouds for Older Adults” and “Afrocentric Voices in Classical Music.”

It can be argued that WorldCat has been one of the most successful examples of social networking by professionals, who have been contributing and sharing information at the institution level since 1971.

Now, the social network built by the library community is going to end-users. WorldCat Lists is OCLC’s first venture into user-created, i.e., non-librarian, content. This issue of NextSpace explores some of the opportunities that are emerging for libraries in social networking.

Providing information to people when and where they need it has been a long-standing goal of libraries and the OCLC cooperative. Going forward, we’re excited about the possibilities presented by social networking technology for more dynamic connections to the rich collections of libraries around the world.
In June 2007, the world’s top three social networking sites—YouTube, MySpace and Facebook—attracted more than 350 million people to their Web sites, according to ComScore. And each time they visited, users stayed connected for at least an hour and a half; at Facebook the average stay per visit was nearly four hours. With these types of usage statistics, it’s easy to see why social networking is in the news.
While the term social networking may be new, the concepts behind it—creating community, sharing content and collaborating with others—are not. In fact, they have been around for a long time, as early as the time of Plato in 400 B.C., when scholars and philosophers studied and analyzed the formation and interaction of groups of people. What is new is the digital medium, which makes connecting with other people faster, easier and more accessible to a wider population than it’s ever been before. The challenge is how to apply social networking in a digital age to enhance and extend the public service mission of libraries, museums and archives.

NextSpace asked nine experts to explore and comment on the trends and behaviors of users of the social Web. Following are excerpts from their online conversation. The complete conversation is available at OCLC Web site: www.oclc.org/nextspace.

1. How do you define online social networking? Examples of how it’s working well and not so well?

Nigam

Social networks are online communities that provide a place for people to connect with friends, meet new friends, plan their social lives, discover new music, trends or interests, engage with political candidates, promote charities and express themselves creatively. MySpace is a new communication mechanism for the Internet generation, much like e-mail, instant messaging or mobile devices. It is also one of the fastest growing forms of entertainment on the Internet or elsewhere.

Jones

Relying first on social networked groups to get at a definition, we find that Wikipedia defines social networks as: a social structure made of nodes (which are generally individuals or organizations) that are tied by one or more specific types of relations, such as values, visions, ideas, financial exchange, friends, kinship, dislike, trade, Web links, sexual relations, disease transmission (epidemiology) or airline routes. Online social networks draw their strength by not just hosting one social but a highly porous set of interactions between “natural” social networks. Not just kids at a certain school or from a certain class but a broader mesh of such smaller networks with casual interactions building and supporting stronger interactions.
The following from dictionary.com is not bad: Any Web site designed to allow multiple users to publish content themselves. The information may be on any subject and may be for consumption by (potential) friends, mates, employers, employees, etc. The sites typically allow users to create a “profile” describing themselves and to exchange public or private messages and list other users or groups they are connected to in some way. There may be editorial content or the site may be entirely user-driven. Content may include text, images, video or any other media.

Social networking isn’t new; it is what we do as social beings. The new part, of course, is the technology that brings us in closer conscious proximity, even when at great physical distance. A good social networking application will reduce friction in communication, promote shared context, guide serendipity and surface emergent relationships—this is perhaps genuinely new. Linking aggregates a broad spectrum of activities of others and makes evident my own behaviors in a larger context.

2. What are the impacts, do you think, on industry, education and cultural institutions?

The Internet is an integral part of people’s lives today, and it offers unprecedented opportunities for knowledge and entertainment. – Hemanshu Nigam

Social networking is another type of community. Communities of different types have existed for a long time and as technology and the times change, so do the tools for social networking. For instance before newspapers, computers, etc., social networking was meeting in the village commons. Social networking has always existed but with the 21st century there is a whole new group of technology tools that make it possible for communities to expand from local to global. Some of the tools are virtual worlds like Second Life, blogs, wikis, Ning and many others.

Fred Stutzman, Ph.D. student, School of Information and Library Science, University of North Carolina at Chapel Hill, is researching social software, networks and identity

Edward Castronova, Associate Professor of Telecommunications, Indiana University and founder of The Synthetic Worlds Initiative, a research institute

Nicole Caruth, Interpretive Materials Manager, and Shelley Bernstein, Manager of Information Systems, are building an online community around the Brooklyn Museum by using social networking tools such as Flickr, where pictures are posted and comments gathered about museum exhibitions.
As with the advent of writing, telegraph, TV and radio, we are seeing reconfigurations of power and of structures for social capital exchange. There will be strong reactions, including moral panic, to this change. As the tensions resolve, we may have a new period of enlightenment or a new dark ages. We can count on change, reorder and reconfigurations of institutions and of the powers that they represent.

I believe the major change will be that individuals will expect the ability to communicate at any time, in any state. Institutions must be there for us when we need them—there are no “closed hours” in an online space. This ubiquitous presence will generate a different understanding of our social interaction. We’re going to immerse ourselves in others—that’s the lasting change—and we’re going to do it in many ways. Virtual sociality is/will be quite real, and that will be an interesting lasting impact.

On industry, the impact of online social networks is that they cost much less to sustain than off-line physical networks do. This means that a networked production organization is quite feasible today, and we can expect that in many industries current hierarchical organizations will be replaced by networked organizations. In education, online social networks provide a new model of learning that is away from the classroom. In culture, online social networks mean that there is no role for talent promoters.

The impacts are huge. Every day it seems a new virtual world, or social networking tool is introduced. It is difficult to keep up with everything and to have time to evaluate it for your library. Librarians need to collaborate to explore these tools and share knowledge about what works and does not to help others choose what they want to invest money and time in.

In industry, social networking applications will take their place among other tools for connecting people with job and consulting opportunities and sharing business intelligence about best practices, new technologies and projects. In education, our first sources have always been our social network … only when that fails us are we willing to go to a library or professor. Social networking applications will sit next to our search engines. Meanwhile, posting our reading materials and favorite online sources will direct others to the stuff we like: read by example. Learning by watching what others do (or peeking, really) is a time-honored tradition that will be easier as tools develop. For cultural institutions, these platforms will bring users closer to content, again, by our collective peeking at what others are doing with it.

3. Specifically, how do you see it affecting libraries and museums? Right now, and in the future?

Online social networking has really broken down boundaries and brought together people from all over the world with similar interests. Social networking is an opportunity for libraries and museums to do the same—bring together their patrons, raise funds and even have their core audience have a say in what exhibits they’d like to see, or what improvements need to be made.

If libraries and museums act on their heritage as places for intellectual improvement and social interaction and cultural cohesion, there is a great future
for them. If they act as warehouses for cultural treasures as interpreted by the dominant culture, their days are numbered. Online, whether social or not, distributes access to the treasures widely and without much friction. The online social networks can, if wisely participated in, increase the value of the institution and to the access of the original.

**Stutzman**

I see it affecting institutions in two ways. First, I see institutions deploying social networking functionality in their Web presence; this will provide customers a richer experience, while driving better analytics and more interesting ways of sorting/filtering content for users. Second, I see tremendous amounts of opportunities for the objects these institutions possess to become “social objects.” A book, or a piece of art—clearly people would like to share their opinions/experiences of these objects.

**Castronova**

Elite cultural institutions no longer have a monopoly on the power to broadcast judgments of quality. There are three roles in online social culture: the creator, the consumer and the critic. The consumers will turn to critics in their hunt for cultural items that interest them. Today, consumers will turn to libraries and museums, since these institutions have reputations of expertise. However, those reputations have largely been self-confirming. Great art is at the Met because great artists wanted their art to be known, and the Met is where you went to get your art known. That was in the past. Today, great art can become known through any of millions of channels. It will spread virally. Notice will accrue to individual works of art as they persuade individual consumers of their merits. Critics will play an important role in this, by assessing the flood of artistic work that will come. Simply by rank ordering and commenting on the items in this flood, the critics will give clues to art lovers where to begin their searches.

**Pope/Bell**

Public library use is up. Bricks and mortar libraries in communities are a place where people still gather to get books, attend programs and take kids to story hour. Academic library use is down. Students do not go to the physical library unless they absolutely have to. Libraries of all types need to be evaluating and trying these tools as more people participate in virtual worlds and other social networking tools. The growth in the use of virtual worlds has been phenomenal—in April 2006, Second Life had 180,000 users—in May 2007 there are over 6 million and use continues to grow rapidly. Libraries need to be where their users are and reinvent some of what they do to meet the information needs people have.

**Caruth/Bernstein**

Web 2.0 and social networking tools give museums and libraries the opportunity to engage their current online audiences and simultaneously build an interactive Web community. The tools helped us align what had been detached efforts in order to create a more dynamic Web site, provide interactive exhibition experiences online and extend and advance the museum’s mission. For some, the online is the sole form of their visitation and for others it is an extension of their physical museum visit. In the process of using these tools, we’ve engaged our young audience demographic with blip.tv, podcasts of museum events, Flickr photos, MySpace promotion and also provided interactive learning tools and relevant forms of interpretation.
We have discovered that community on the Web doesn’t necessarily mean programming on our own site. On the contrary, seeking out our audience in their own Web communities is even more powerful. After all, why should we expect them to come to us?

Libraries and museums are about fixity: managing the cultural stores of a society. Social networks are about fluidity and group behavior. The mixing of the two idioms seems highly desirable, allowing the user to swim in the intellectual currents of his or her peers (actual or would-be), all the while in close proximity to aggregated wisdom fixed in the treasures of societal heritage.

4. How can libraries best work to shape the next wave? Should they?

Access to social networking sites in libraries is just one question within the broader topic of how to monitor Internet use overall. Librarians are in a unique position to educate young people about the role the Internet should play in their lives, teach them what is and isn’t appropriate online behavior, and give them the tools they need to responsibly handle situations, involving a parent or adult when necessary.

First “Yes” to part two of the question. Then, let’s start with online social network systems instead of starting with libraries. SNSs are not so much about building networks as about managing existing social relationships as numerous studies point out. Not a life on the Internet or a life in Second Life so much as, as Wellman puts it, Internet in Everyday Life. SNSs and other technologies are good for libraries, if libraries can use them to increase and strengthen social ties between the institution and to those using and supporting the institution, to provide services seamlessly or at least more conveniently.

I believe we need to develop schemas to enable meta-conversation around objects. This conversation must be social and transportable, so that institutions anywhere can leverage its value. Decentralization and breaking down walled gardens is a very important part of enabling conversation, and we can start by building the technical architecture of such contexts. There’s so much that humans can contribute to make the experience around a curated object richer.

Libraries need to shape the next wave. They need to be in on the beginning of these technologies to remain viable. Even in Second Life, we are promoting the local library and books and information resources. We have a number of monthly book discussion groups, talks by authors and exhibits based around literature and the printed word. Libraries should collaborate to work on these because no one has the staff to do and keep up with everything. The more collaboration and partnerships libraries have in shaping the wave, the more successful we will be.

Basically, the leaped cultural institutions should not expect to be listened to. They will have to earn an audience every day, by delivering useful and interesting commentary on art and literature to those who do not have the time to search deeply by themselves. The mere placement of a work in a library or museum will not suffice in this regard. There must be placement, as well as commentary.

This is a hard question to answer. As a community, we are seldom competitive with the flexibility and speed of the entrepreneurial milieu of the Web. Further, we’re undercapitalized, risk-
I’d wager that “social networking” will be a defining cultural phenomenon of a generation. However, for that generation, they will look at it like those who went to college in the ’90s look at e-mail—as decidedly unprofound and normal.

–Fred Stutzman

Social networking is a serious, long-term cultural and business phenomenon. Social networks affect everyone because they shape the communities people participate in and how they participate.

–Pope/Bell

Yes. Humans are networking animals. They are built to communicate. They have destroyed the tribe, and now the family, in their zealous pursuit of broader social networks. I do not see this trend stopping anytime soon.

–Castronova

We are in a time not of no tribes but of multiple tribes, not of a single family but of multiple families, not in a time of a single social network but of multiple networks—each of the highly and loosely connected social structures more easy to manage in terms of time shifting, commitment, and in selection. How to make the support of these networks sustainable and flexible is the challenge be it the form of a business, a government or a group of volunteers.

–Caruth/Bernstein

I see it as a core fabric of the net. The net is social—it has always been, since the first e-mail. There’s no turning back from this phenomenon—it has created expectations for mediated social maintenance, and that will continue going forward. I’d wager that “social networking”...
Please describe the **top two most interesting activities that could be included in a library’s social networking/community site.**

- “Set up interest groups such as nature study, gardening, health etc., and help people find and share the best resources that support each activity.”
  72-year-old from the US

- “History of the town (city) and its people.”
  57-year-old from Canada

- “Mini-conférences sur des thèmes pouvant créer des liens entre les citoyens et le livre mais aussi entre les citoyens eux-mêmes.”
  “Mini meetings themes that could create links between the citizens book, but also between the citizens themselves.”
  48-year-old from France

- “Informationseite über allgemeine, das Zusammenleben betreffende Fragen”
  “Information site about general, community-oriented questions.”
  47-year-old from Germany

- 検索したい事柄に関する情報提供の場
  “A place to put out information related to things that you want to search on.”
  33-year-old from Japan

- “I would like to share book reviews. I hate reading a book that I thought would be great and finding it a dull read. Especially from an author that I like.”
  54-year-old from the UK

- 個人の創作した文章などの閲覧
  “Looking at personally created writings and so on.”
  29-year-old from Japan

- “A club to read and discuss new books.”
  72-year-old from the UK

- “Recherche et créativité”
  “Research and creativity.”
  53-year-old from France

- “Maybe a role play of a certain scene in a given book.”
  16-year-old from the US

- “Get book clubs started and organized.”
  67-year-old from Canada

- “Kennenlernen anderer Bibliothekbenutzer mit gleichen Interessen”
  “Meeting other library users with similar interests.”
  24-year-old from Germany

Selected quotes from the forthcoming OCLC membership report, *Sharing, Privacy and Trust in Our Networked World*. Updates and the final report will be available at: [www.oclc.org/reports/privacyandtrust](http://www.oclc.org/reports/privacyandtrust)
Social networking encourages teen library usage at Denver Public

MySpace profile helps push traffic up 41 percent at teen Web site

By BRAD GAUDER

In late 2005 social networking was getting a good deal of media attention—enough that staff at the Denver (Colorado) Public Library decided to look into MySpace.com. Its obvious appeal to teenagers prompted the library to conduct a survey of teenage library users to learn more about their online social networking habits. Not surprisingly, many of the teens responding to the survey reported that MySpace was their favorite online site.

According to Angela Sigg, Content Developer for Denver Public, this was evidence enough that teens would respond favorably to having access to the library through MySpace and vice versa. “Many teens have library anxiety—they don’t feel like it’s a place for them,” she said.

“We asked ourselves, ‘Why not go to where the teens are?’ We can give them a new idea of what a library is and make them feel comfortable here.”

So, in early 2006, Denver Public introduced its presence on MySpace at: www.myspace.com/denver_evolver. The site offers abundant links to online activities that teens use to stay connected, as well as links to library resources aimed at this age group such as homework help, 24/7 online reference and materials for check-out. There’s also a link to this site from the teen page on the Denver Public Web site (http://teens.denverlibrary.org).

Denver Public started promoting its MySpace presence in spring 2006 and advertised it on the library’s main site (http://denverlibrary.org). Sigg reports that the MySpace page has had over 14,000 page hits to date, and traffic to the library’s online teen site increased 41 percent in the year following launch of the MySpace page. And, she notes, it feels like more teens are using the library.

In addition to the library’s MySpace presence, the library’s teen site offers an array of options for users that help them connect to resources and to other teens. When users cursor over the main page links, they see brief descriptions written specifically for a teen audience. For example, the description of the Homework Help page says, “The closest you can get to cheating, without the guilt.”
Since the launch of the MySpace page, Denver Public has developed a number of activities aimed at keeping the library a teen-friendly place. One was a YouTube video contest that was held late in 2006 when many teens were on school breaks. The contest theme was “How I have fun at the library,” and it ran for six weeks. A middle-school student won the contest—and an MP3 player—with his reenactment of a scene from a *Harry Potter* movie.

The library also offers a bookmark contest for its summer reading program that has attracted some 350 entries over the past two summers. Entrants are asked to create artwork that supports the summer reading program theme. Eight winners were chosen for the 2007 contest, and their winning designs have been posted to the library’s Flickr page: www.flickr.com/photos/dplteens.

Teens (and younger library users, too) are also invited to write online reviews for books, movies and CDs in the library’s collection. All qualified entries received during summer 2007 are entered into a drawing for an iPod Shuffle. Interest is high—Sigg reported that more than 1,800 reviews had been received as of August 1.

According to Sigg, it’s easy and inexpensive to invest in social networking capabilities to keep teens coming to the library. “MySpace is free and easy to use, and you can set up your own Web page without having to know how to code pages for the Web.”

Sigg is also hopeful that social networking will continue to grow in libraries. At Denver Public, it “keeps getting bigger and bigger.” Why? “Teens really want to express themselves. They can interact with friends and others their own age even if they don’t live close to each other.”

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**Each link on the Denver Public Library’s teen site provides a rich array of resources for further exploration, including many social networking tools:**

- **Homework help:** links to the Denver Public catalog and the AskColorado 24/7 reference service, encyclopedias, tutoring resources, online “Cliffs Notes,” and downloadable eBooks and eAudiobooks
- **Ask a librarian:** ways to contact library reference staff for assistance
- **Look it up:** links to online resources including WorldCat, OCLC NetLibrary eBooks, the Denver Public catalog, search engines and third-party databases
- **Find a book:** links to book reviews, book lists and book resources like discussion groups, and online magazines, as well as a place to write book reviews and request specific titles for the library’s collection
- **Get involved:** links to blogs and chat sites, plus outlets for young writers and visual media artists, as well as links to information on volunteer opportunities and activism for teens
- **Entertainment/media:** abundant resources on many types of teen entertainment, plus links to blogs, chat sites and “fun links” to a variety of third-party teen entertainment activities
- **Life:** links to a variety of resources for helping teens learn about ‘real-life’ concerns like health and sexuality, spirituality, relationships, money, world events with a teen perspective and study skills.
What are the most popular items in library collections? Does your library own them?

The “OCLC Top 1000” list presents the top works most widely held by libraries. First published in the fall of 2004, the list was most recently updated in 2005. The list reflects true classics and canonical works of western culture. The list also shows the extent to which libraries strive to meet the needs of their readers, by offering books in high demand in any given year. The list contains classic works such as the Bible, utilitarian works such as the U.S. Census and also popular works such as Tom Brokaw’s Greatest Generation.

Beginning with a list of all items held in WorldCat by libraries around the globe, the list brings together different printings and editions and translations for each item. Titles are then ranked in descending order by the number of each work held by libraries.

In April 2007, OCLC added del.icio.us tags for each of the items described by the list. del.icio.us is a social bookmarking Web site (now owned by Yahoo!) that allows users to store and share Internet bookmarks. Users categorize links with descriptive keywords called “tags.” The del.icio.us bookmarks created for the OCLC Top 1000 all link back into WorldCat.org and, thus, to the libraries that hold them. The tags for the list include tag categories such as genre (e.g., “autobiography,” “banned,” “children,” etc.), language and time-period.

In the same way the WorldCat syndication program enables library materials to be indexed by major search engines, such as Google and Yahoo!, adding del.icio.us tags for the OCLC Top 1000 list makes it easier for users to discover library resources through other Web systems. All part of getting more library data out “into the flow.”

To include a tag cloud, similar to the illustration below, of the OCLC Top 1000 on your library’s blog or Web site, paste the following code into your hypertext (all one line, no breaks; Javascript support required):

```
<script type="text/javascript" src="http://del.icio.us/feeds/js/tags/oclc2005top1000?icon;size=12-33;color=66ccff-333399;title=OCLC%20Top%201000;name;show add"></script>
```

Andrew Houghton, a software engineer with OCLC Programs and Research, converted list data already available in an Excel spreadsheet into a form that could be uploaded programmatically to del.icio.us. A Visual Basic for Applications macro took the Excel data and pushed it out to del.icio.us using that site’s API (Application Programming Interface).

According to Houghton, the process was fairly simple. “I read the del.icio.us help page, looked over their API—which is fairly uncomplicated—and did the programming in Visual Basic to turn our categories into tags and upload the bookmarks.”
love them or hate them, tag clouds are everywhere. OCLC Research has been exploring ways to create and use these popular visualizations in the OCLC environment. One outcome of this work is a new interactive tool that allows users to generate tag clouds on demand.

The Web-based tool, Tag Cloud, provides a quick and easy method for building clouds from a collection of terms. With the Tag Cloud tool, almost any text can be used to create a cloud—books, papers, presentations, Web pages, blogs, social tags, search terms—as long as the text can be typed or pasted into an input box or harvested from a public URL.

A tag cloud allows you to see common terms in a text by grouping like terms together and emphasizing frequent terms. The cloud shown here, based on an excerpt from *Alice’s Adventures in Wonderland*, is a good example. It is easy to see that ‘cat’ and ‘said’ are frequent words. One staff member noted of the excerpt, “the cat does a lot of talking.” The resulting cloud highlights this point, underscoring one additional benefit of tag clouds—they often reveal broad themes and patterns that might otherwise go unnoticed.

When the ‘Cloud-it’ button is clicked, the software generates the cloud by removing punctuation, calculating term frequencies and selecting font sizes to display. The terms are presented alphabetically in paragraph-style, with more frequent terms in larger fonts. The tool provides options for controlling the font colors and the number of terms to display. There are also options for grouping similar terms and for ignoring common words. Once created, the cloud can be printed or saved.

A set of experimental cloud services was also developed for clouds that cannot be easily created with the interactive tool. The cloud services are used for clouds that involve large amounts of WorldCat data, and for clouds that require interaction with other systems, like search interfaces. Some examples are: FictionFinder, WorldCat Identities, DeweyBrowser and WorldCat languages.

The clouds built for FictionFinder and WorldCat Identities are interactive, which means that clicking on a term in the cloud leads to resources associated with the term.

For the DeweyBrowser, clouds are generated dynamically from searches conducted against the database. The clouds contain current searches and searches over time and are interactive as well. These clouds allow users to see readily what is being searched and how the DeweyBrowser is being used.

The WorldCat languages cloud is the largest cloud produced so far. It presents 470 languages and dialects found in WorldCat and their associated frequencies.

As WorldCat grows, OCLC researchers will continue to look for new ways to analyze and share WorldCat data and to share those methods with the community.

Project team: J. D. Shipengrover, Diane Vizine-Goetz, Harry Wagner

Related links:
- Tag Cloud Tool: [http://tagcloud.oclc.org](http://tagcloud.oclc.org)
- DeweyBrowser: [http://deweyresearch.oclc.org/ddcbrowser/wcat](http://deweyresearch.oclc.org/ddcbrowser/wcat) (click on the cloud near the upper left corner)
- FictionFinder: [http://fictionfinder.oclc.org](http://fictionfinder.oclc.org)
- WorldCat Identities: [http://orlabs.oclc.org/Identities/](http://orlabs.oclc.org/Identities/)
A WorldCat community

Using WorldCat.org to build a social network of the world’s library users

BY TOM STOREY

Some of the signs?

- Social networking behemoth MySpace.com attracted more than 114 million global visitors age 15 and older in June 2007, a 72-percent increase versus a year ago according to comScore, a leader in measuring the digital world.
- The number of average daily visitors to Facebook was 15 million, up 300 percent from a year earlier, and users averaged 3½ hours per visit.
- Google’s October 2006 acquisition for $1.65 billion of video juggernaut YouTube, which had 189 million visitors in June 2007. Each day, YouTube users view more than 100 million video clips and create some 65,000 new videos.

WorldCat.org users can add content, such as factual notes, tables of contents, ratings and critiques, under the Details and Reviews tabs for any item.

Social networking is more than a fad as hundreds of millions of people around the world visit social networking sites each month. It is an activity that is being woven into the very fabric of the global Internet.

OCLC wants to establish a social network of the world’s library users with WorldCat.org. Jasmine de Gaia, Global Product Manager, Social Networking Initiatives, notes that in the online user landscape, there has been a change in expectations, especially the level of involvement.

“Users want a better experience with more value,” she says. “They want to be involved with creating and organizing new content. A shift to user-generated content is clearly evident in the information space. The library community has an opportunity to build services into its systems that encourage users to contribute their expertise to the cooperative.”

“Enriching WorldCat with user-contributed content enriches library catalogs. The ability for online users to contribute content will make them more dedicated stakeholders to the library and their library experience more meaningful.”

Among the new, interactive social networking tools that have been added to WorldCat.org:

- **Personal profiles.** These free, “My WorldCat” accounts allow users to establish online profiles to provide greater detail about themselves. Users create identities by listing name, location, interests, occupation, photos, e-mail address, library affiliation and links to other accounts, such as personal Web pages, RSS feeds or instant messaging addresses. Providing this personal information is optional, and users can control the public availability of their e-mail addresses or their entire profiles via privacy settings. All a user needs is an e-mail address to create a WorldCat account.

- **Create and share lists.** Users can add items cataloged in WorldCat to personalized lists. Users can build as many lists as they like on any subject—recommended mystery novels, favorite children’s books, best jazz CDs, top professional reading. They can group items owned by their library and other WorldCat libraries, and share their lists with friends, colleagues and millions of site users. Or they can keep their lists private.
Users want a better experience, they want to be involved and they want more value. Social functions in WorldCat are a step forward in that direction.

**Ratings and reviews.** WorldCat.org users can add content, such as factual notes, tables of contents, ratings and critiques, under the Details and Reviews tabs for any item. Detail notes remain freely editable by all users, while reviews can be revised only by their original authors. Users can return at any time, log in and create or revise content. Guidelines are provided.

**Citation management.** Item records in WorldCat.org include a “Cite this Item” link that provides bibliographic citations in five common styles: APA, Chicago, Harvard, MLA and Turabian. Displayed in a separate pop-up window, the citations follow the reference standard for each style. Users may copy and paste the needed format into a bibliography. Users may also generate citations for an entire list of items in one of the five formats or export the list as desired.

Those tools that will be added in the future:

**Social tagging.** This is a type of collaborative categorization using informally assigned, user-defined keywords. Folksonomy tags are assigned by users “on the fly” and are extremely popular as a grassroots way to organize the digital world of Web pages, blogs, video clips, photo sharing sites—where millions of items are generated on an hourly basis. The intent of tagging is to make a body of electronic information increasingly easy to search, discover and navigate. WorldCat.org users will be able to virtually label records and lists of books, eBooks, audiobooks, DVDs, CDs, online articles, music scores—anything found in WorldCat. There will be no limit to the number of tags users can assign to an item. And users will be able to view other users’ tags to see which tag words get the best responses from the WorldCat community, and do their own tagging accordingly.

**Recommender service.** Users will have the ability to receive and contribute recommendations through a variety of data sources, including metadata, activity tracking, lists, ratings/reviews, circulation data and expert opinions.

**RSS feeds/notifications.** Feeds are commonly understood as the aggregation of update notices for Web sites and services and are commonly grouped under the acronym RSS, though other technologies and standards may be used to effect the same user experience. WorldCat.org will offer RSS feeds that continuously push or pull defined sets of information out of WorldCat.

Users want a better experience, they want to be involved and they want more value. Social functions in WorldCat are a step forward in that direction.

WorldCat.org users will be able to virtually label records and lists of books, eBooks, audiobooks, DVDs, CDs, online articles, music scores—anything found in WorldCat. There will be no limit to the number of tags users can assign to an item.
In practice, most registries also have a fourth attribute: they are designed to enable the transfer of information between multiple parties. In many cases the information transfers are one-way: one party enters the data, and authorized third parties may query the registry to retrieve data. In other cases, the third parties may have privileges to update information in the registry.

Libraries, museums and archives have long traditions of building and maintaining registry-like tools including: the accessions list (a record of titles/items added to a collection with a number assigned by the collecting agency), the shelflist (an up-to-date card catalog of library holdings, typically arranged by call number and chiefly consulted by library staff) and a registry of donors (a list of persons and organizations donating items, money and/or other gifts).

While these hardcopy forms of recordkeeping have largely been supplanted by electronic successors (and many of these hardcopy registries have been given a place of honor in the respective agencies’ archives), the need to build, maintain and interact with recordkeeping systems and registries has not diminished. Indeed, in a world of networked, electronic information, this class of tools is not needed less, but far more.

In OCLC Programs and Research, we’ve been exploring various aspects of registries as a secondary, enabling technology for a number of projects... but we have also explored registry services as a central theme, particularly through a now-archived project called WikiD: www.oclc.org/research/projects/wikid/.

WikiD focused on developing and deploying a distributed registry environment. To this purpose WikiD used several standard technologies (primarily: wikis, OAI-PMH, SRU and OpenURL) in novel combinations, and

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**“Registry”**

is a word that has multiple meanings and may be used as a label for many, often very different things—for example:

- **A wedding gift registry**: a list of desired gifts a to-be-married couple supplies to a retail store for consultation by their wedding guests that helps later gift buyers avoid duplicating already-purchased gifts.

- **The Domain Name Server (DNS) Registry**: the authoritative, master database of all domain names registered in each Top Level Domain—this database is the ultimate authority on IP (Internet Protocol) addresses for all domains on the Internet.

Common among most things that we refer to as “registries” are three attributes:

1) The registry is a list/database/collection that captures specified information,

2) The registry carries the imprimatur of “authority” (actual or presumed) and,

3) The registry supports specific uses, the default use being consultation.
The need to build, maintain and interact with recordkeeping systems and registries has not diminished. Indeed, in a world of networked, electronic information, this class of tools is not needed less, but far more.

—Eric Childress

The result was the development of an experimental repository management system that was easy to deploy, full-featured, customizable and extensible. This system could be implemented by a single agency for its own resources, or be deployed as middleware by any agency to deliver new functionality to existing repositories hosted by other agencies, all with no action by the hosting agency.

The experience and knowledge gained with Wikid led to new insights and new thinking about registry and Web services design that has influenced the design of production systems, namely the WorldCat Registry, and has now coalesced into a formal design approach we call the Registry Framework Architecture (RFA).

Briefly, RFA is built on the premise of reusable application components that can be created based on generic conceptual models and minimal assumptions. Its implementation philosophy calls for:

- using and remixing existing standards such as OpenURL (request model), SRU (search) to deliver standards-based services like OAI-PMH (harvest), and RSS (syndication);
- simplifying development and maintenance by using common models (e.g., the OpenURL model) and an enterprise-wide, common identifier syntax; and
- implementing services and systems using open standards and open-source technologies whenever possible.

What results is a very efficient and flexible software development environment that allows OCLC to better leverage its own software and services, and more efficiently and swiftly share and update registry information within OCLC and with third parties. RFA enables us to more easily build new services and add features to existing services by building upon existing application components.

The initial implementation of this approach has been the WorldCat Registry, and we have plans to reimplement several existing services to comply with RFA. Going forward, new services will also begin adopting this approach.

OCLC registries now available or in development:

- **DLF/OCLC Registry of Digital Masters**: a joint effort of the Digital Library Federation and OCLC, it is a shared, central registry of digitized and to-be-digitized materials, designed to support preservation and mass digitization planning. 
  www.oclc.org/digitalpreservation/why/digitalregistry/.

- **OCLC OpenURL Resolver Registry**: a service for individuals and information partners to maintain OpenURL resolver information in a single location and use this information across services in the information industry. 

- **Registry of Copyright Evidence**: a work in progress, this registry will use data mined from WorldCat and received from other sources to provide a tool to assist libraries and other agencies in determining a work’s copyright status: 

- **WorldCat Registry**: a Web-based directory of libraries, archives and museums that contains details about the physical and electronic location of institutions, the relationships between them and the services they provide. 
  www.worldcat.org/registry/institutions/.
BY THE NUMBERS  Statistics to think about

114,000,000
Global visitors to MySpace.com in June 2007

221.6
Average minutes spent per visit at Facebook.com site in June 2007
< http://www.comscore.com >

16,622
Lists created at WorldCat.org since June 2007
< www.worldcat.org >

100,000,000
Video clips that users view each day at YouTube
< http://www.reuters.com/article/technologyNews/idUSN0118299420061102?sp=true >

250
Education institutions with a virtual campus in Second Life
< www.thes.co.uk/search/story.aspx?story_id=2037150 >
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EVENTS  Going on the road

OCLC will be exhibiting at the following events:

LITA National Forum  
**October 4–7, 2007**  
Denver, Colorado, USA

Illinois Library Association  
**October 9–12, 2007**  
Springfield, Illinois, USA

NetSpeed 2007  
**October 17–19, 2007**  
Calgary, Alberta, Canada

American Association of School Librarians  
**October 25–28, 2007**  
Reno, Nevada, USA

California Library Association  
**October 26–28, 2007**  
Long Beach, California, USA

Virginia Library Association  
**November 1–2, 2007**  
Hot Springs, Virginia, USA

Colóquio Internacional de Biblioteconomia  
**November 26–28, 2007**  
Guadalajara, Jalisco, México

American Anthropological Association  
**November 28–December 2, 2007**  
Washington, D.C., USA

Online Information  
**December 4–6, 2007**  
London, England, United Kingdom

Check the OCLC Web site for a complete list of upcoming conferences and events.  