



Jessica Merz

Career Advice

## Social Networking Grows Up

Have you ever minimized your Facebook browser window when your supervisor walked past your desk, afraid you might appear unprofessional? Social-networking guilt may soon be a thing of the past as a new breed of social networking sites for scientists

clamor to be the next great timesaver in the lab--for you and your supervisor. These science-specific, Web-based networks combine handy library and document-sharing tools with a social twist. Such sites permit scientists to "help out each other with protocols, discuss topics, prepare for scientific meetings, maybe even show off your research a little bit," says social network user Erika Gyengesi, a neuroscience postdoc at Yale University.

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*Social networking sites for scientists offer "a way of making you feel like you're part of a community and [the opportunity] to link to other people who have similar interests." —Elizabeth Wilkinson, University of Manchester*

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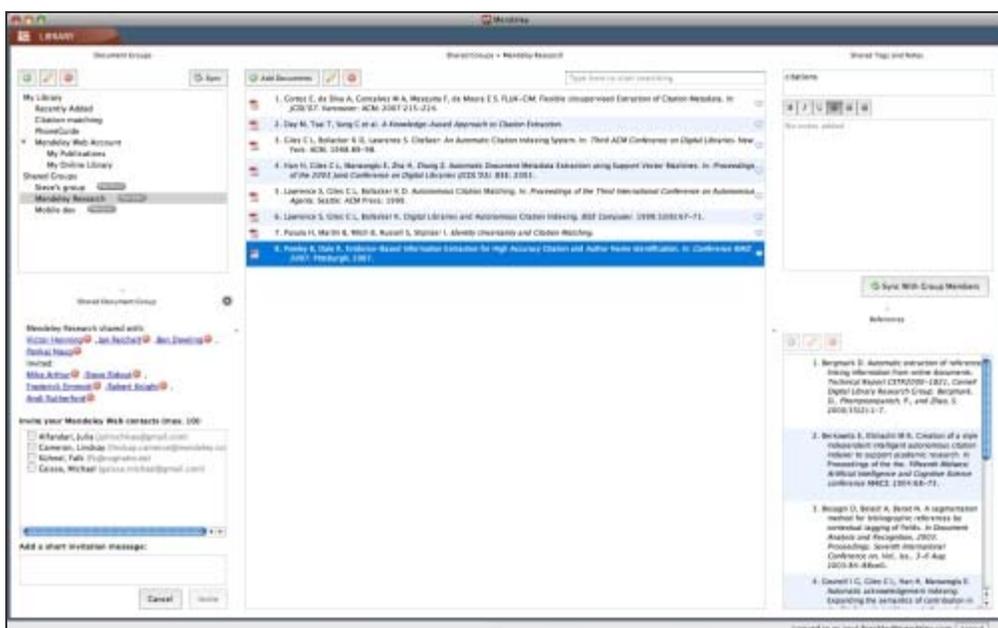
The diversity of the sites--and the fact that no site is dominant yet--make it difficult for scientists to know how to get the most out of the limited time they can afford to spend on online experimentation. "Honestly, it's tricky. Scientists may have to try several to find out which one best suits their needs," says Victor Henning, co-founder of **Mendeley**, a product intended to help researchers manage their personal library of research papers and follow research trends.

## Networks of data and data on networks

Some sites stick closely to established technologies such as reference management or document sharing. Others promote their ability to create links between members. Although some researchers hesitate to share ongoing research with anyone but close colleagues, "social Web sites can be useful for focused cases where you want to get feedback on your work, if you are prepared to discuss your work online," says Michael Barton, a Ph.D. student at the University of Manchester in the United Kingdom and a user of several research-oriented social networks.

Web sites such as **labmeeting** and **MyNetResearch** offer facilities for pre-existing real-world networks such as laboratories or research groups to share protocols, comment on drafts of articles, and run full-text searches of a personal library of uploaded articles. Others such as **Connotea** store reference information online, allowing access while scientists travel, and include commentary features such as social bookmarking, which allows a scientist's contacts to read his or her comments in a dedicated feed.

Sites such as **ResearchGate** now boast search engines that trawl multiple paper depositories such as PubMed and deliver the latest articles in a researcher's field, using language from the researcher's publications to fine-tune the search.



Courtesy, Mendeley

Scientists can use Mendeley Desktop to organize journal articles and share them with colleagues. [Click here for full-size display.](#)

The founders of Mendeley have their sights set on creating usage-based metrics for research articles that "could be described as 'Nielsen ratings for science,'" Henning says. Henning compares their desktop software, Mendeley Desktop, to iTunes and their Web-based network, Mendeley Web, to Last.fm, services that allow users to manage digital music files on their computers and share usage information over the Internet, respectively. The Mendeley Web site can track how often articles are read via the desktop software and in the future may track the time spent reading articles or perhaps quality ratings offered by readers. Knowing that information, says Henning, could help researchers sift through the increasing number of articles in their field.

The desktop article manager is independent of the Web site, but as more users adopt it, the service could begin to share metrics on what co-authors, colleagues, and respected peers in a user's network are reading. "We don't aim to be a 'Facebook for researchers,'" Henning says. "We want to help researchers manage and share research papers on their desktop, connect research data, and let networks form around the data."

## The network effect

To really capitalize on their promise, social networks must reach a critical number of users, and if sites don't reach that critical number quickly, time-strapped users may move on. People will seek out the sites that offer the easiest access to a large number of other scientists, say early adopters. "The more people are active participants, the more discussions can arise," says Robby Engelmann, an immunology Ph.D. student at the University of Rostock in Germany and a ResearchGate user. He adds, "And the more discussion is possible, the more I would use it."

Indeed, specificity is appealing. Universities, including the University of Manchester and the University of Leicester, both in the United Kingdom, have launched for their research communities social networking sites ( **ResearchConnect** and **SmallWorlds**, respectively) that are intended to pull together graduate students and postdocs from disparate units. Professional societies such as the American Chemical Society have also launched social networking **utilities** for members. "I think there are niches for smaller sites, especially for research subject-restricted sites," Engelmann says. "For general sites, I think scientists will focus on the biggest."



Dimitri Finker

Erika Gyengesi

## Share and share alike?

For any online resource, it is worth thinking carefully about what you are prepared to discuss online, because social network interactions are spontaneous--but in contrast to most real-world interactions, online exchanges are recorded, if not entirely public.

"There is no inhibition because of the timidity or the famous people," says Guillaume Murat, a graduate Ph.D. student in biochemistry at the University of Fribourg in Switzerland and ResearchGate user. "The relation is more open than in direct contact," he says. At the same time, "the rules of etiquette [online] are pretty much the same as in real life," Gyengesi warns, but those rules may be more easily forgotten when online.



Researchers must also consider the implications of sharing research in progress. "You have to be careful about your research to not give away things that are proprietary or that might prevent you from being able to publish research," says Elizabeth Wilkinson, head of postgraduate career development at the University of Manchester and an active **blogger** on career topics. Thus far, Wilkinson says, her university has no formal policy on how researchers should handle online discussions of potentially valuable intellectual property, "but the university is concerned and has a **statement** on the Web site."

## A marriage of convenience

The convenience of the information available on social networks may outweigh the risks, especially for young scientists accustomed to immediate online search results. "It's easier to check on someone's publication list [on ResearchGate] than on PubMed," Gyengesi says. Murat adds that with ResearchGate he can follow news about his friends' and colleagues' most recent papers, results, and meetings all in one place.

And "most members of such social networks keep their profile continuously updated" unlike laboratory Web sites, which often fall behind, notes Christian Bartels, a developer at ResearchGate. On a science-specific social networking site "it is not necessary to comb through hundreds of Web pages. You can search for scientists

with common interest and directly contact them," says Engemann.

Users and developers agree that it is early days for science-specific social networks and that there are still kinks and inconveniences to work out. Some people talk about developing sites that can share or centralize profile information, saving users time. But at present, most sites cannot communicate with each other, and users must scout out the sites, see what their peers are using, and commit to a manageable number of social-networking tools.

Although the research tools are handy, the real appeal of science-specific social networking sites comes mostly from the social dimension: Scientists want to feel connected to their peers. Wilkinson points out that the sites offer "a way of making you feel like you're part of a community and [the opportunity] to link to other people who have similar interests."

Images, top to bottom. **Jessica Merz**. Courtesy, Mendeley. **Dimitri Finker**. Courtesy, Elizabeth Wilkinson.

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10.1126/science.caredit.a0800156