

“I use social media to get scientific inspiration,”
—Kaan Akşit



moving in that direction.” This means that networking sites are virtual venues where students and postdocs can connect to leaders in their field.

People of all ages, experience levels, and career paths are embracing online tools, says **Karyn Traphagen** (@kTraphagen), cofounder and executive director of ScienceOnline, a nonprofit organization for science outreach, networking, and community building. She sees advanced networkers, novices, media mavens, students, postdocs, and professors at national and local ScienceOnline meetings and says that social media sites can create genuine, interactive, and far-reaching communities. Social media is a great equalizer.

Most social networking sites are global, so they are excellent tools for making and maintaining international connections. For early career scientists trying to make a splash with their work, no platform has a greater reach than the big three networking sites: LinkedIn, Facebook, and Twitter. Compare a talk at a conference attended by a thousand people to the potential online audience: LinkedIn has nearly 260 million members and Facebook and Twitter have hundreds of millions of users a month.

FACEBOOK AND TWITTER FOR SCIENTISTS? REALLY?

Social network services emerge, evolve, and go extinct like influenza viruses. But right now, researchers use Facebook for personal contacts. Early career scientists, who move often, might use Facebook to maintain friendships with former lab members. Facebook can reveal fun, nonprofessional insights about a colleague—maybe a potential collaborator is an especially good fit because of a common love of fly fishing, knitting, or manga. Universities, corporations, and even research groups have public Facebook pages that can be useful for news about former and potential employers. However, Facebook is static compared to the real-time interaction of Twitter.

“The number one area for the ScienceOnline community is Twitter,” says Traphagen. Twitter use is growing in academia, across disciplines, for scholarly and nonscholarly use. And if you think Twitter is just for celebrity gossip, you might be surprised at the range of professional applications.

“I use social media to get scientific inspiration,” says Akşit. His thesis project is improving motion capture, for example for films, so he follows the electronics industry on Twitter to hear about new products and developments. Other scientists follow research groups to avoid overlapping projects or to find collaboration opportunities. Twitter is supplementing or replacing automated search and alert services, for example for relevant literature. “I often hear about important papers on Twitter as soon as they are released or even before,” says **Jonathan Jacobs** (@bioinform),

principal scientist in biosurveillance at MRI Global, a nonprofit contract research organization. “Especially in the bioinformatics community, tweeting communicates not just news but actual science.”

“The easiest way to see the power of Twitter,” says Traphagen, “is to follow a conference hashtag” (For example, search for #AAASmtg for news about the annual American Association for the Advancement of Science conference.) If you are attending a meeting, Twitter and other networking tools can connect you, before arrival, to people who share your research interests. If you can’t attend, Twitter can tell you what talks and posters caught people’s attention and where to find shared resources such as websites or slides. Jacobs says he gets almost as much information from following a conference via Twitter as actually attending. If you’re presenting, Groth advises having a Twitter account and putting your handle on slides and posters. That helps people tweet about your presentation, which increases your impact, maybe even attracting the attention of potential collaborators or group and department leaders.

Somewhat unexpectedly, Twitter is recommended for shy people. “The Internet lets you follow a conversation without physically stepping into a group of people,” says Traphagen. “You can sit back and listen and get involved when you’re ready by inserting a comment and seeing how people respond.” New Twitter users are often intimidated by the billions of tweets, but Traphagen says that if you want specific information, use a hashtag search (e.g., #sharks). If you are still overwhelmed, says Traphagen, think of Twitter as a river: “Every now and then, go put your feet in and see what is flowing by right now.”

BUT WAIT, THERE’S MORE?

If Facebook and Twitter are for conversations and LinkedIn presents your credentials, what are the benefits of up-and-coming and specialty sites? The ScienceOnline community increasingly uses Google+ for broadcasting and archiving conversations with researchers, says Traphagen. Another resource for following talks and conferences is Storify, where attendees or hosts collect presentation materials, comments, and notes. Groth recommends posting presentations on Slideshare, if your institution allows. This extends the reach of a seminar far beyond people who can attend. Sites like Slideshare also track views, downloads, and recommendations that document the impact of your research.

Groth used ImpactStory, a science-sharing site, for a midterm review of a European Union project. Publications from the work hadn’t had time to build a substantial citation record, says Groth, so he used metrics from ImpactStory to demonstrate the influence of the work in progress. Still, publications are not going away, either as a permanent research record or a measure for hiring, promotion, and tenure, he says.

Since the scientific world orbits around peer-reviewed articles, science-sharing sites such as Mendeley and ResearchGate revolve around publications. By allowing researchers to share and comment on papers and ask and answer questions, these sites add networking functions to a typical publication list. Publication-oriented sites make requests for electronic reprints easy for postdocs at institutions without extensive journal subscriptions. Specialized sites such as GitHub for computer scientists or BioMedExperts for life scientists serve the needs of specific scientific communities. But don’t be overwhelmed. “The Internet is a big place,” says Jacobs. “How you use it depends on what you have time for and what kind of itch you’re trying to scratch.” Jacobs and other experienced online networkers say a little exploring will uncover networks with a community and functions that enhance your work.