

## Twitter: What's All the Chirping About?

A great deal of media attention has been focused of late on the social networking service Twitter. This April, Oprah Winfrey's first Twitter post created a media sensation. And in May, the White House began posting short messages, or "tweets," on Twitter.

But Twitter is not just for celebrities and politicians. Nor is it restricted to those who use it for "lifecasting," or literally answering the fundamental Twitter question, "What are you doing?" While many people use Twitter to share news on what they ate for lunch, others, including some scientists, are using Twitter for "mindcasting," or sharing information and ideas—a distinction first drawn by New York University journalism professor Jay Rosen.

Twitter is a microblogging site, restricting posts to 140 characters or fewer. This limit allows real-time posts to be made using SMS (short message service) technology, which is the basis for text messaging on cell phones and other mobile devices. Tweets can also be posted online at [twitter.com](http://twitter.com).

The best way to learn what's behind the buzz about Twitter is to visit the Web site and create a user name and password. "It's almost impossible to describe [Twitter]," says Bora Zivkovic, a science blogger who monitors online discussions for open-access publisher Public Library of Science (PLoS). His advice to scientists and others is to go to the site, "explore it, spend a few weeks there—don't abandon it after two days—and see how it can work for you." After you've signed up, you can create your profile, which includes a 160-character bio.

A good place to find scientists, science journalists, and others tweeting about science is at [www.sciencebase.com](http://www.sciencebase.com), science writer David Bradley's Web site. Look in Bradley's 2009 blog archives for "400 Scientific Twitter Friends" and "100s

More Science Tweeps." Check out the short bios of people on those lists and choose a few to follow, or subscribe to. Read what people are posting, and start contributing to the stream of information. Some personal tweets are OK, but people who use Twitter for professional purposes tend to tweet mainly about a few areas of interest.

One scientist who is exploring Twitter's potential utility for his work is evolutionary biologist Jonathan Eisen, of the University of California, Davis. Eisen, who is also the academic editor in chief of *PLoS Biology* and an avid cyclist, first joined Twitter in February so he could follow Lance Armstrong in the Tour of California. After a while, Eisen began using Twitter to communicate and share information with other scientists.

"To do science, you have to know what's going on in science," Eisen says. "I found Twitter...most useful for becoming informed of what other people are doing in science." By sharing comments, links, information, and notes about new scientific developments with trusted sources, Eisen says, he is better able to keep up with the vast amount of information in his fields of interest. Twitter and other social networks such as FriendFeed, he says, enable "real-time highlighting and ranking and tracking of what's going on in the world of science." Twitter is also useful for networking and finding collaborators.

Whom you choose to follow on Twitter is key to the quality of information you receive. When news of the H1N1 swine flu outbreak surfaced in late April, many people on Twitter spread panic and misinformation about the virus. While media reports highlighted these negative aspects, scientists and science journalists were sharing links to more accurate and useful information. The Centers for Disease Control used Twitter

to share regular updates about the outbreak, including links to guidance on controlling the virus's spread.

Twitter posts always begin with @username, which allows others to find your profile. If people view your Twitter profile and see that your posts are adding value, they will follow you back, and your network will grow. Others may start following you after someone resends, or "retweets," your posts, which is done by copying and pasting a tweet and putting "RT" and the source's user name in front. Many useful Twitter tips are online; for example, see "Twitter 101: Tips and Tricks" at <http://tinyurl.com/d2acmr>.

Zivkovic notes that field biologists can use Twitter to transmit information from mobile devices, which can be especially useful in remote locations where a computer or landline phone is not available. Twitter also has potential for use in citizen science projects. Indeed, the executive director of the USA National Phenology Network (NPN) has said that he hopes that in the future people will be able to submit their findings to NPN through Twitter. And last year, North Carolina Sea Grant conducted a pilot project in which recreational fishermen used Twitter to report data on fish catches, which could be used in fisheries management.

Although many scientists still seem wary of Twitter, others have embraced it as a tool that's helpful in their work. "Of course," Zivkovic says, "Twitter is just one part of the ecosystem" that includes blogs, e-mail, journals, other social media sites, and face-to-face meetings. Be warned, however: once you try Twitter, it may prove habit-forming.

---

*Elia Ben-Ari (ebenari@nasw.org), a freelance science writer and editor based in Arlington, Virginia, is on Twitter at <http://Twitter.com/smallpkg>.*

doi: 10.1525/bio.2009.59.7.19