



# Science 2.0

January 2010, Using Web Tools to Support Learning

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## Introducing Science 2.0!

The internet of the mid-to-late 1990s was defined by static web pages created by people with specialized technical skills. Today, that barrier has been all but eliminated with the emergence of easy-to-use online tools for creating and sharing content. “Web 2.0,” or the read/write web, has dramatically altered the way we communicate and share information. This column will explore how science teachers can use these tools to support student learning and promote professional growth. This month, we will start with the epitome of Web 2.0—social networking.



## Social Networking

Do you use Facebook or Twitter? About 95% of our recently polled preservice teachers do, and these sites have become part of the lives of millions of high school students. A growing number of people over 30 are also using social networks to “get connected” with friends and colleagues. Although the majority of users emphasize the “social” part of social networking, more and more educators are using it to connect with each other to share resources, ideas, and support. Jasper Howell (@jasperhowell on Twitter), a science teacher in Libby, Montana, finds that social networking is a great way to collaborate. “I live and teach 90 miles from any other chemistry teachers,” Howell says. “I use Facebook and Twitter to find teachers to collaborate with.”

You do not need a lot of technical “know-how” to start your virtual professional network. To register with sites such as Facebook and Twitter, just visit their web page and sign up for a free account. The challenge is often finding other science teachers. On Facebook, you can start by typing “National Science Teachers Association” (NSTA) into the search box in the upper right-hand corner of the page. Click on the magnifying glass, and you will find links for NSTA’s Facebook group and fan page. You can also find other science teachers, resources, and discussion boards here.

On Twitter, you have to directly connect with (or “follow”) individual science teachers. Start by searching for the educators listed in this column (but leave the “@” off of the username) and click on “follow” to start interacting. You can build your network by Twitter surfing—check out who we are following and then follow those who share your interests.

Some organizations have created their own private, or “white label,” social networks that are only available to members. NSTA’s private network, NSTA Communities, features a unique interface to search for and connect with other science teachers. Only NSTA members, presenters, and conference attendees can access this site.

Classroom 2.0 and LearnCentral are other social networks for educators that you may want to explore. One word of caution as you begin: Even with private (members-only) communities, always assume that what you post is public. If you do not want students, their parents, or administrators to read it, do not post it!

Social networking allows you to participate in an ongoing education discussion. Dale Basler (@basler) and Brian Bartel (@bbartel), hosts of NSTA’s “Lab Out Loud” podcast and science teachers in Appleton, Wisconsin, are both active users of Twitter. Basler says, “I use Twitter to exchange links and ideas. I ask other teachers questions.” Bartel adds, “Twitter is a great medium to connect me with real science across the world. I follow a few scientists and science entities, such as the Centers for Disease Control [and Prevention (CDC)], *New York Times* Science, and NASA. Twitter keeps me informed. When Texas was voting on controversial science standards [last year], Twitter provided me with up-to-date and often real-time information.”

The amount of information available through social networks can be overwhelming, but it can also enrich your professional life. Glen Westbroek (@gardenglen), president of the Utah Science Teachers Association, says, “I often feel I am drinking from a fire hose when I get information from Twitter friends, but I often get ideas from

my network that cause me to take detours in my thinking process.” He has used Twitter to plan collaborative projects, share lab activities, discuss pedagogy related to specific science concepts, and share insights from professional development opportunities.

Social networking in the digital age has evolved far beyond its moon-landing era roots of simple computer communication. It now encompasses wireless up-to-the-second reports, an exponentially expanding supply of resources and information, and limitless ways to collaborate and share. By networking socially, we can move beyond the simple consumption of information and become contributors to the online body of knowledge. We never have to create in isolation from our peers, and we can be part of a community—regardless of location or subject area. So whether surfing, e-mailing, posting, blogging, or tweet-

ing, science teaching will never be the same. And in our minds, that is a good thing.

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#### On the web

- ◆ Facebook: [www.facebook.com](http://www.facebook.com)
- ◆ Twitter: <http://twitter.com>
- ◆ NSTA Communities: [www.nsta.org/communities](http://www.nsta.org/communities)
- ◆ Classroom 2.0: [www.classroom20.com](http://www.classroom20.com)
- ◆ LearnCentral: [www.learncentral.org](http://www.learncentral.org)





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