By Daniel Light

Do Web 2.0 Right

So you want to use Web 2.0 tools in your classroom, but you don't know where to start? Find out what works and what doesn't from some teachers who have tried it all.

You've heard it over and over again: Web 2.0 tools, such as wikis and blogs, are a great way to get students engaged and motivated to practice their writing skills. If you're new to the whole Web 2.0 world, though, you may wonder where to start. Fortunately, an army of educators has already tried them all to determine what works when it comes to using these tools in the classroom and what doesn't, and researchers have begun publishing the results so the rest of us can learn from their experiences.

I'm one of those researchers. A colleague, Deborah Polin, and I traveled around the United States to get a first-hand look at how teachers are developing successful Web 2.0 activities for their classrooms. With funding from Intel, we interviewed 39 educators in 22 schools throughout the country about how they employed these tools in their classrooms in innovative ways and what helped improve student learning. We also spoke with and observed many students in these schools. (You can read the paper we presented at ISTE 2010 on the Center for Children and Technology website at http://cct.edc.org/report.asp?id=271.)

We found that the teachers who have had the best luck with Web 2.0 are using the tools to create ongoing conversations among students and "always on" learning communities. We also learned that, as with any technology, careful instructional planning is of paramount importance.

Specifically, we identified three elements that have clearly shaped how these teachers used Web 2.0 to create sustained, meaningful communication among their students:

- Instituting daily practice
- Carefully considering the audience
- Teaching and enforcing appropriate behavior

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Daily Practice

Most of the Web 2.0 activities that became the underpinnings of the successful learning communities we studied were not "special projects" that the teachers assigned to their students every once in a while. They made using these tools a daily practice in their classrooms.

That is not to say that the students used the tools the same way adults use them in a social or business context. Our observations suggest that these tools function very differently in the classroom than in the "real world." For instance, blogs in the public sphere are often places for experts or celebrities to share their opinions or activities. They privilege the individual's voice and aren't really about having a dialogue with Justin Bieber, for example. Wikis are typically multi-authored documents, such as Wikipedia, that focus on the final product while leaving the authors in anonymity. In contrast, we found educators using both these tools to support the process of discussing and sharing ideas among students.

Although wikis had their place in these teachers' classrooms, those we interviewed saw blogs as a generally more effective conversation tool for inspiring interest and communication. The types of blogs they used fell into two categories, individual and classroom.

Individual student blogs. Most teachers reported that it was difficult to create meaningful educational activities as part of daily practice when students authored their own blogs. In the absence of any big project or special activity, students were often unmotivated by the individual blog tasks for various reasons.

Some students were self-conscious about making their school work publicly available for everyone to read. For example, one teacher described a failed blog activity that asked students to blog about a time when they had been bullied or had bullied someone. But less problematic topics were sensitive for students as well, depending on the audience they expected to be reading their posts (more on audience later).

Students also felt reluctant to blog if they thought they had nothing meaningful to say about the topic or suspected no one would want to read about it. One French teacher, while exploring how to use Web 2.0 tools, asked students to post the French names of three favorite foods to their blogs and then comment on their peers' selections. This, of course, was not a sensitive topic, but none of the students found it very interesting. They described it as "no worse than any other homework," and the teacher was unhappy with the activity.

The most successful individual blog tasks we learned about involved using the blog principally as a private means of communication between the teacher and each student. One teacher of children with emotional and behavioral challenges uses private blogs as a space for students to reflect freely on their classroom experience and learning. She requires students to post regular reflections on their blogs, where they can express their feelings about the class. They can access their own blogs anytime from anywhere over the Web, but their peers could not read or comment on their posts. These blogs served as the students'

private journals, and the teacher felt they were an effective way for her to understand what individual students were thinking and feeling about the work of the class.

A Spanish teacher we spoke to asks her students to blog about an imaginary visit to a different country. It's not important for the other students to read each other's work, as her primary goal is to get her students to write in Spanish. The motivating part for the students is surfing the Web for pictures, news stories, advertisements, YouTube videos, or songs about what teenagers do in Costa Rica, Argentina, or Spain, which they then embed into their blogs. The teacher also spices up the activity by asking students to explore current public debates in the news during their virtual "visits." For example, the Costa Rica blogging activity taught students about local divorce laws that the parliament was debating that week, and they learned a lot of Spanish legal terminology in the process.

Classroom blogs. Shared class blogs, where students commented in response to a prompt from the teacher and saw each others' comments, were much more common in the classrooms we visited. The teacher's goal is usually to generate a discussion among students via the comments about what they are learning. We found examples of blog tasks that had at least one of four pedagogical objectives:

- Eliciting prior knowledge
- Generating interest
- Supporting student debates
- Providing students with feedback from their peers

A number of teachers used blog tasks to explore prior knowledge or generate interest. One teacher creates a blog task for homework prior to each new unit. To start her Civil War unit, she required students to respond to the prompt "What do you know about the Civil War?" Students started off posting just one fact but quickly began using the space to discuss, challenge, and explore their own and others' knowledge and assumptions, even going to their parents or online resources for more information—and that was before the unit even started. Not only did this ignite advance interest and engagement in the topic, it also allowed the teacher to get a sense of students' previous knowledge of the topic before she began the in-class lesson.

A warm-up activity also can generate interest without directly asking about the topic. A language arts teacher we visited uses a blog task to generate interest before teaching the science fiction novel *Flowers for Algernon*. She begins by posting the blog prompt "What is intelligence, and does it matter?" After conducting a spirited online debate about street smarts, book learning, and human dignity, her students read the novel, which is about a man whose very low IQ is artificially tripled before he finds his newfound intelligence quickly slipping away as the effects wear off. This activity helps her students understand how literature can help us examine deeply human issues.

In addition to these warm-ups, we also heard about many blog debates that were used as key learning activities. A group of seventh grade language arts students recounted a vibrant debate they had on their class blog about whether the Iditarod Trail Sled Dog Race constituted animal cruelty. Complete with photos of happy sled dogs, tired sled dogs, and mushers whipping their dog teams, the activity generated hundreds of posts as students argued their positions.

When asked to compare a blog debate to a face-to-face debate, students report that the blog allows them to participate even if they are too shy to speak in class. A blog also allows them to give more thoughtful and critical feedback, because they can take time to look up information or carefully craft a statement to be critical but not mean-spirited.

In an example of students giving feedback to each other, a middle school art teacher uses a class blog to enable her students to critique each other's work. She spends a lot of time early in the year helping her students learn to give and receive criticism about their artwork as a whole class. After a few weeks of face-to-face critiques for training, she moves online. Each week, a student posts a digital image of a recent work with a self-critique. During the course of the week, the other students post their feedback. She wants her students to learn to be self-critical without giving up and to be able to give support and helpful advice to others.

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Audience Matters

The teachers we interviewed were very careful about creating the appropriate community for the activities they were planning and thoughtful about how they asked students to participate in the community. The primary reason for this is that students are very sensitive to the relationship between who they are communicating with and what they are talking about. Teachers address this issue in two ways: by directing them to different audiences (through the restriction of access to some online activities) and by carefully selecting assignments that are appropriate for each audience.

In a traditional classroom, students talk face to face primarily to their classmates, and everyone knows that the teacher sets the subject and tone of their communication. But with networked activities, the boundaries can begin to blur. Students' work may reach very different audiences who can talk back to them. This is a relatively new phenomenon. With Web 1.0 activities, such as student-created webpages, it was harder for random viewers to talk back to students, and teachers could more easily filter negative comments because they had to be sent through a webmaster. Web 2.0, in contrast, is essentially about user-generated content, and the nature of the tools promotes direct communication back and forth between users.

Although the educators we spoke to worry mostly about other adults viewing and commenting on student work, the students themselves are primarily concerned about other young people. Teachers often described how their students self-censor or limit their participation if they feel the audience for their work might be "hostile." This is particularly important for middle and high school students, partly because of their age, but also because the elementary school students we saw tend to use these tools to communicate only with their parents.

Most of the schools and educators we visited limited access to certain tools or sites, thereby dividing the audience into subgroups: just the class, the school and parents, or the broader Internet. During a focus-group discussion, middle school students confirmed that there are distinctions between what they talk about on MySpace versus what they talk about on their class Moodle. In many cases, the students seemed to prefer communicating in their class environment to posting to the open Web. One student commented that in MySpace, "you just talk about music you like," but in the class Moodle environment ,"you can talk

about what you want to be." Another student in this class said his MySpace page was always getting hacked and defaced, so he did not want to put anything too personal up there.

A creative writing teacher highlighted the tensions around specific learning activities and the audience in a Web 2.0 environment. Initially, she planned to have students post weekly assignments to their individual blogs, but she quickly realized that asking students to post to a public blog—even if the "public" was limited to their classmates—undermined all her efforts to get her students to trust her as a reader of their creative, and often private, work as they developed their own voices as writers. Making students go public demotivated those who were sensitive to peer pressure, because they knew "everyone" could read and judge their work. Instead, the teacher made the weekly assignments private but created a wiki to publicly publish "selected" works that the students approved, and each piece appeared as part of a larger collection of student work.

A subtler aspect of the relationship between content and audience is that all community members need an engaging reason to read the work of others and share ideas. If the task is wrong in this regard, the students—aware that there is no reason to read their work—have no motivation to write in the first place. This is why individual blog tasks can be unsuccessful.

One example we saw was a science project in which groups of students each posted a wiki page on a different skin disease. Beyond the homework requirement, the students had no reason to read wikis about skin disease. For them, the only exciting part of the activity was finding the grossest images of each condition. The teacher felt the students had not been motivated, their work was not very deep, and there was little student discussion.

In contrast, the blog debates described earlier were successful because students felt they had something to say to each other. In a wiki example, an AP World History teacher asks her students to work in teams to build a wiki covering key themes and topics to help them study for the AP exam. She assigns each student a different topic and has other students review each entry to ensure accuracy and completeness. Because this site will help them prepare for the AP exam, the students are motivated to participate.

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Appropriate Behavior

This leads us to the third, and certainly most important, factor we learned about: The social practices around Web 2.0 are paramount to making these tools part of a rich learning community, and educators must consciously control access to that community. The teachers we interviewed were all working hard to create both an offline and an online community that was supportive and would encourage students to share ideas, take intellectual risks, and give and receive critical yet respectful feedback. Without this type of social community, few of the activities we saw would have been successful.

These teachers embed activities that support ongoing communication within a virtual learning environment

that they create. They generally limit access to students in the class or a set of classes that are working together and open up only certain activities or products to the outside world. These teachers build strong in-class communities and intentionally and carefully carry that achievement over into the online environments.

Students in these classes extend their in-class modes of behavior to the online learning environments. They do not mistake these spaces as places for social and personal interactions, but rather see them as belonging to the classroom and so limit their use of them to learning activities.

In one classroom we observed, the teacher and students used the virtual classroom constantly. The class website linked the students to all the online resources they would need: A class blog in the center of the screen was a forum of ongoing communication, and students could collaborate through the site and hand in their work there. Students knew to go to this space to keep up with the latest information about assignments as well as to communicate with their teacher and connect with one another about class work.

It is important to remember that "always on" in a Web 2.0 environment does not mean you have to be connected to the classroom every minute. Instead, your students can be engaged with their peers and in learning off and on throughout the day. And, because it is all saved online, you can check in on the conversation whenever you need to—during your planning time, before school starts, or whenever you have a spare moment.

Even though each of the three elements for Web 2.0 success—daily practice, focus on audience, and appropriate behavior—supports the others and is fundamental to taking advantage of these tools, the social practices that shape the always-on community are perhaps the place to start, as the community itself creates the bridge between the online world and the students in your classroom. Web 2.0 tools should be a means to engage students in their work, not an end in themselves. But there's no doubt that these tools are worth the trouble of learning how to use them, because when done right, they can add a whole new dimension to learning.

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