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Working With Wikis

When Timothy John Berners-Lee envisioned the World Wide Web, he foresaw a collaborative space where information could be shared freely and updated. In other words, he envisioned a place where anyone could be creative and anyone could contribute. To meet this need, he initially developed a Web browser that not only allowed users to view information, it also allowed them to edit content and save it back to the Web site, provided the user had access rights (Berners-Lee, 2005).

Although earlier versions of the Netscape browser included Web editing and composing tools (Netscape Composer was packaged with Netscape Navigator), neither Netscape nor the other popular Web browsers followed the Web sharing spirit that Berners-Lee had built into his first browser. A few years ago, the idea of editing others' Web content was foreign. Recently, the introduction of wikis and the ubiquitous spread of Wikipedia have changed the way that we view Web content (<http://www.wikipedia.com>). Wiki technology is not new; Ward Cunningham created the first WikiWikiWeb (<http://c2.com/cgi/wiki>) in 1995. However, wikis have only recently gained popularity among those outside the technology field. The name comes from the Hawaiian word, "WikiWiki," which means "quick."

Wikis are collections of Web pages that are linked together, and they can be edited by anyone who has access to them. Collaborators can add new content, edit existing content, add links to known Web sites on the Internet, and create and link to new pages within the wiki. They also can add graphics, video and audio files, calendars, and chat fea-

tures. The wiki is a shared repository of knowledge. Although unilateral and unrestricted editing may seem chaotic, wikis can be protected by passwords and built-in safeguards such as logs of page changes and backup pages. In addition, strict requirements for page deletions exist (Godwin-Jones, 2003). A brief online video describing wikis can be viewed at http://radar.oreilly.com/archives/2007/05/teach_the_wiki.html.

Innovative educators are drawn to wikis because wikis can facilitate and record students' collaborative work. Student interactions are at the heart of a learner-centered constructivist environment, and teaching with the Web has provided unique opportunities to promote those interactions. Although most educators are familiar with the first generation of Web tools (e-mail, chat rooms, and discussion boards), the Web's second generation tools of blogs (Weblogs), podcasts (also called vlogs if they involve video), and wikis promise to move Web interactivity to new levels (Beldarrain, 2006). (For information on blogs and podcasts, see "Podcasts and Blogs: Learning Opportunities on the Information Highway" in *Gifted Child Today*, Vol. 30, No. 3, pp. 14–19.) Wikis are particularly promising among this second group because they function as knowledge storehouses, are considered more permanent, and are expected to be taken more seriously (Godwin-Jones, 2003).

This column describes different educational applications of wikis, introduces some free wiki sites that are available to educators, and briefly discusses the use of wikis in student research.

Why Create a Wiki?

A wiki is simply a Web site that easily can be edited. One advantage of creating a site as a wiki is that it can be edited from anywhere that Internet access is available. Many school firewalls prohibit teachers from editing their school Web sites from home. A second advantage is that students can be given editing access to wiki sites. Schools are often reluctant to allow their students to access school servers. Student access to a wiki site can range from simple viewing rights for a few students to full editing rights for all. A wiki can provide an easy-to-use Web site where students can post and share their work. Therefore, wikis can foster interactions among students and between students and teachers. Third, teachers can share information about classes with parents through a wiki site. Finally, wiki sites are created with an easy-to-use interface that is no more difficult than word processing. Users are not required to master computer code to create an attractive set of interconnected Web pages.

Almost everything that can be created on a Web site can be created with a wiki. The advantage of the wiki is that it enables multiple access for editing and controlled viewing and editing features. The following are some suggestions for using wikis in the classroom:

- Begin the year by having students create an “About me” page that introduces themselves to the class.
- Have students create personal electronic portfolios that document their growth throughout the year (see “Creating a Living Portfolio: Documenting Student Growth With Electronic Portfolios” in *Gifted Child Today*, Vol. 25, No. 3, pp. 60–64).

- Create wikis for students to collaboratively plan a class project or field trip.
- Have students develop a wiki that covers specific content being studied in class. Fifth graders who are studying the ocean may create a site that reflects what they have learned about the topic.
- Allow older students to edit each others’ writing through a wiki.
- Develop a research project where students collect data and share it with each other through a wiki.
- Allow students to create online wiki reports rather than traditional written reports. Wikis can contain video clips, sounds, and colorful photographs.
- Use a wiki for preassessment. For example, before starting a unit on states, have the students create a wiki that reflects what they already know. The wiki can be expanded later to include new information that the students learned during the unit.
- Have students create wikis to prepare for tests. Chemistry students can create a wiki that reflects what they think is important to know for a test. The process of organizing their notes and presenting the information is a powerful learning strategy.
- Use a calendar wiki to help students develop better self-regulation practices. Students can add their own study and planning schedules to the calendar.
- Develop a class calendar for parents. This is a great way to keep parents informed about what is happening at school.
- Insert a chat plugin on a class wiki and periodically be available for homework help.
- Let students independently create wikis about their special interest areas.

Educators should consider several issues before starting collaborative wiki projects. Some students may be threatened by having other students see their work. Students who are accustomed to working on their own may find it difficult to adjust their learning pace to fit the collaborative group’s needs (Carr, Morrison, Cox, & Deacon, 2007). Gifted students may be frustrated by the slower pace at which some of their classmates work. For these reasons, teachers should carefully consider the skill levels of students when placing them in groups.

Creating a Wiki Site

A number of free wiki sites exist on the Internet. Some, such as Wikispaces (<http://www.wikispaces.com/site/for/teachers>) and PBwiki (<http://pbwiki.com/edu.wiki>), offer free sites for educators without ads. A site such as Wetpaint (<http://www.wetpaint.com>) is free but includes advertisements. Creating the wiki is as simple as filling out an online form. Once the site is created, content can be added to the wiki home page. Some sites include templates (see Figure 1), others do not. All of the sites listed above feature an easy editing tool for creating and linking pages. All of the sites also offer extra features and additional storage space for an additional fee.

When a site is created, the user is asked to set a security level. Three participation levels are usually available: public—everyone can view and edit the pages; protected—everyone can view the pages, but editing is restricted to certain individuals; and private—only select individuals can view and edit the pages. To protect student privacy, educators generally should select the private option. Once a wiki is set, others can be invited to view and

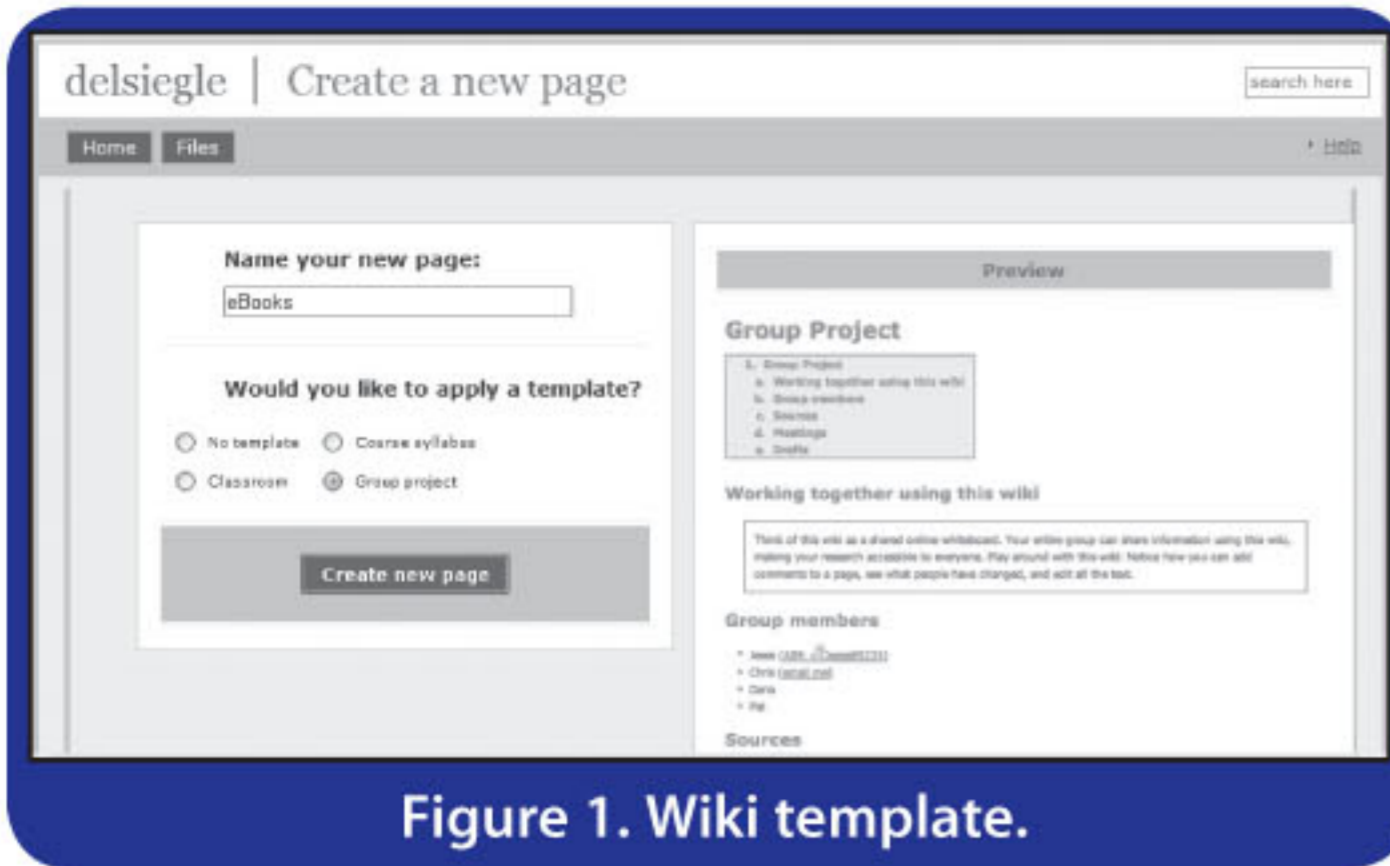


Figure 1. Wiki template.

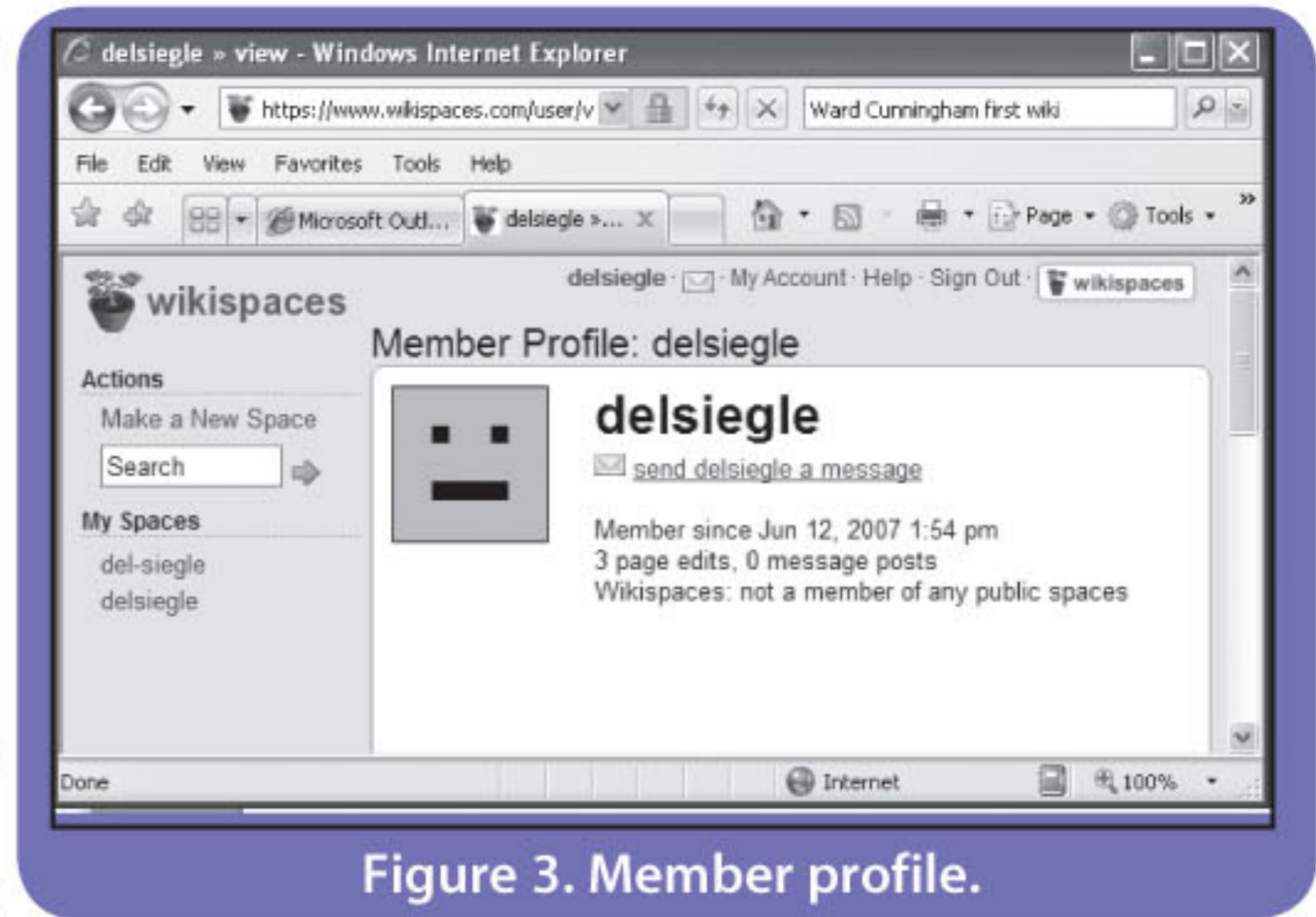


Figure 3. Member profile.

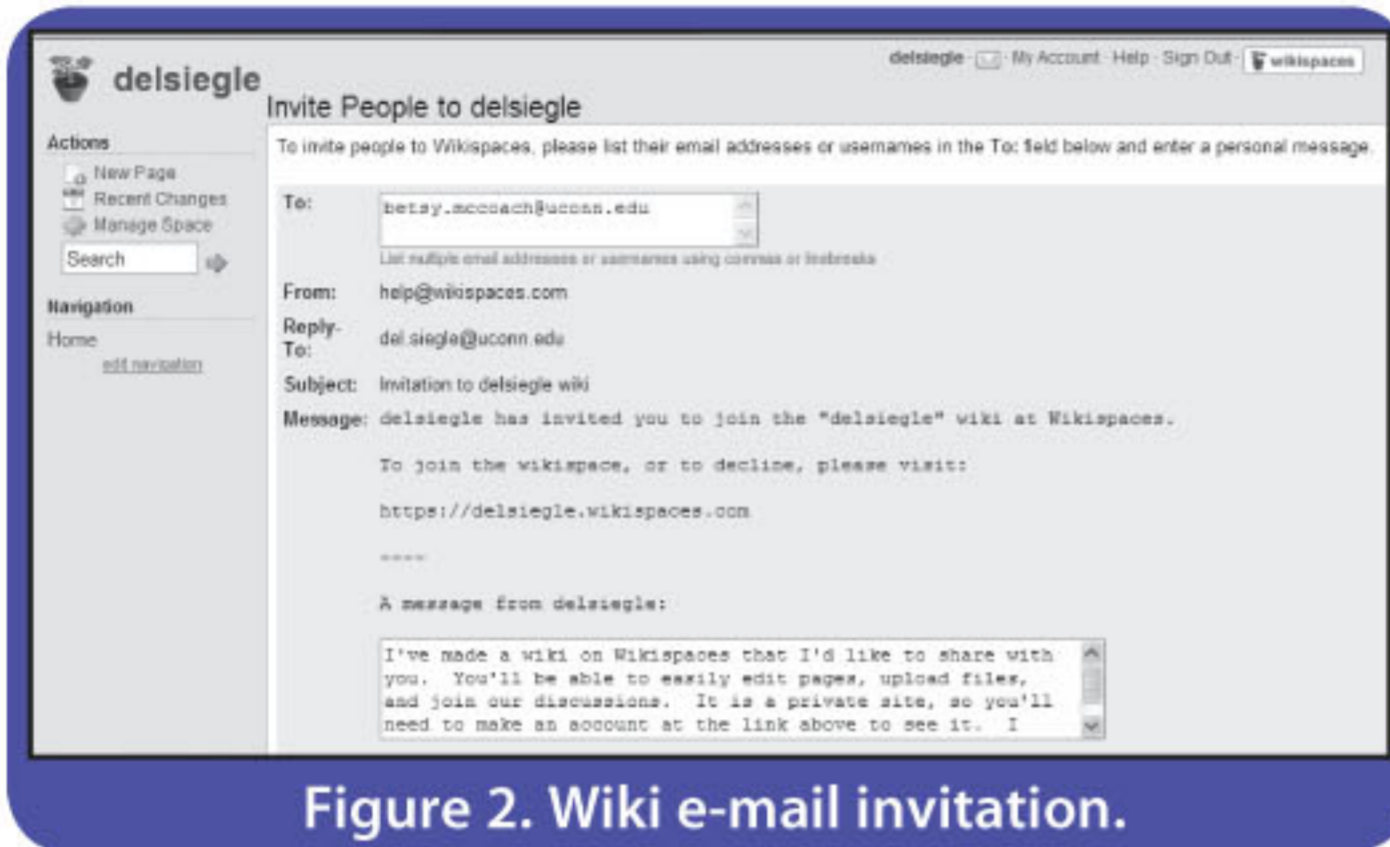


Figure 2. Wiki e-mail invitation.

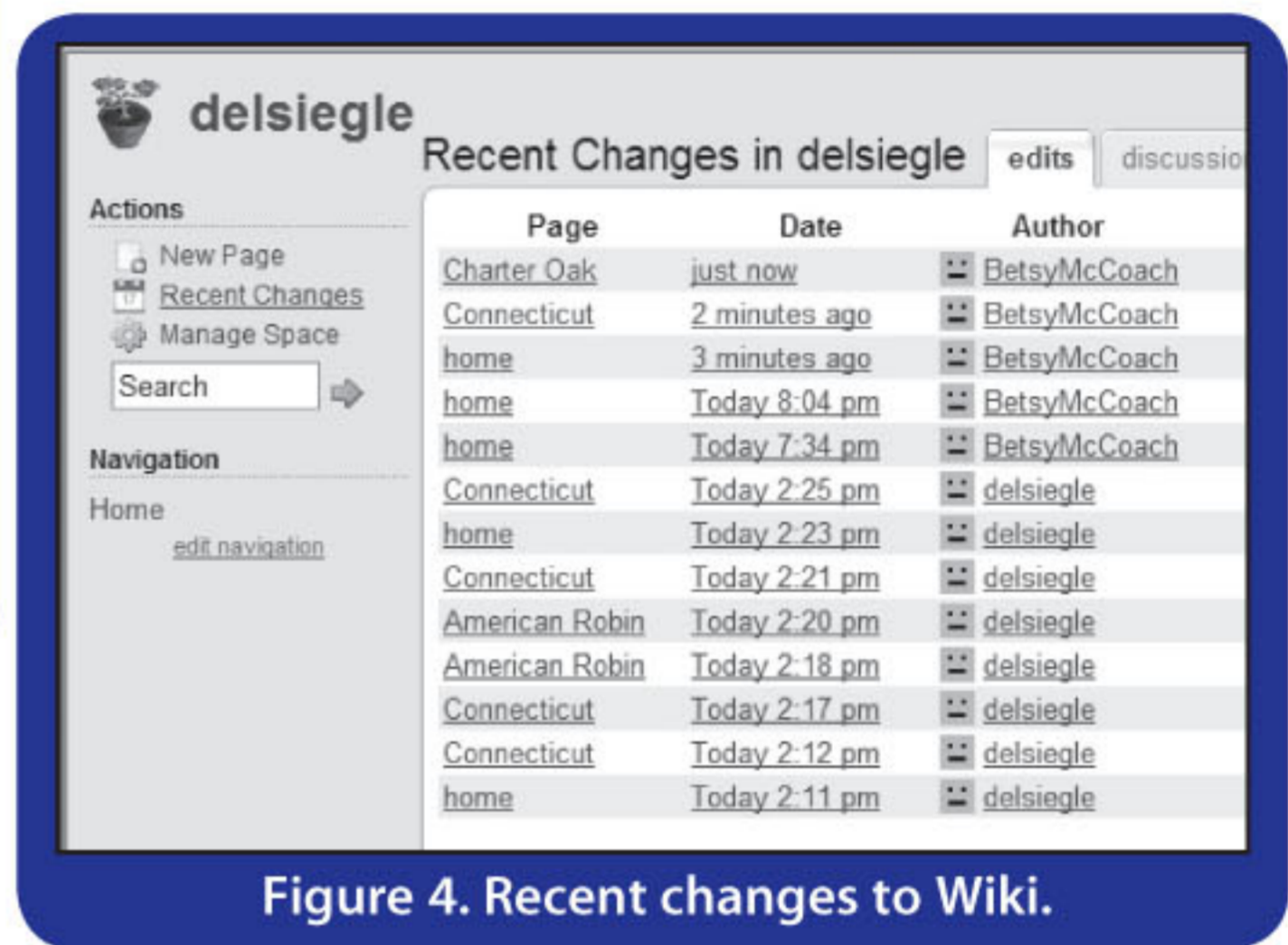


Figure 4. Recent changes to Wiki.

edit the pages. Most wikis feature an option to send e-mail invitations (see Figure 2).

Wiki software tracks when members visit the wiki and what actions they take (see Figure 3). This is useful for teachers who are concerned about student accountability. One impressive feature of wikis is that every version of the page is saved, and a record is kept of who made what changes (see Figure 4). This is particularly helpful for teachers as they monitor student interaction patterns within a class wiki. Deviant behavior can be tracked through the archival record, and the wiki can be returned to its pre-malicious state.

Graphic and audio files, as well as PowerPoint presentations and word processing files, can be uploaded to wikis that were created on Wikispaces (see Figure 5). Wikis not only contain many of the features found within a traditional Web site, they also can contain special features. The PBwiki site (PB stands for peanut butter) offers an impressive array of free widget plugins that can be inserted into wikis. Educators may wish to include an interactive calendar where the teacher can share deadlines and test dates. To do this from a PBwiki-created wiki, click on *Edit page*, select *Insert plugin*, click on *Productivity*, and select the *Calendar* option (see Figure 6).

Using Wikis for Research

One of the more problematic issues facing educators is student use of the most popular wiki on the Internet, Wikipedia (<http://www.wikipedia.com>), and their blind acceptance of information collected on the Internet. A Google search of most topics will include a Wikipedia link within the first few choices. Many students end their search with Wikipedia and fail to consult other sources. Most students stubbornly avoid trips to a library and confine their research to online sources (Jesdanun, 2004). Students often do not understand that the information presented in Wikipedia is a collaborative information assembly, and those who are aware may believe that resources such as Wikipedia “can collectively portray events more accurately than any single gatekeeper” (Jesdanun, 2004, p. 2). Although we might expect gifted students to be more sophisticated consumers of information, several years ago May Seagoe noted that the gifted characteristics of keen power of observation, naïve receptivity, sense of the sig-

nificant, and willingness to examine the unusual may result in possible gullibility (Martinson, 1974). Therefore, gifted students, like other students, need to be taught to critically analyze information and sources. Gifted students need to learn to triangulate data by consulting multiple sources, as well as to evaluate the validity of sources.

An unanswered question remains: Can community-created material compete with material authored by experts? Meredith Farkas noted that

The crowd isn't always right but neither is the expert. And sometimes the crowd does know more, as you can easily see when it comes to sharing knowledge in reference wikis and conference wikis. There is a lot of great knowledge being shared on the Web.

And there is a lot of garbage. A lot of untruths. We need to teach people how to discern the difference, not to pretend that one form of knowledge sharing is definitively right and one is definitively wrong. ("Michael Gorman vs. Web 2.0," 2007, p. B4)

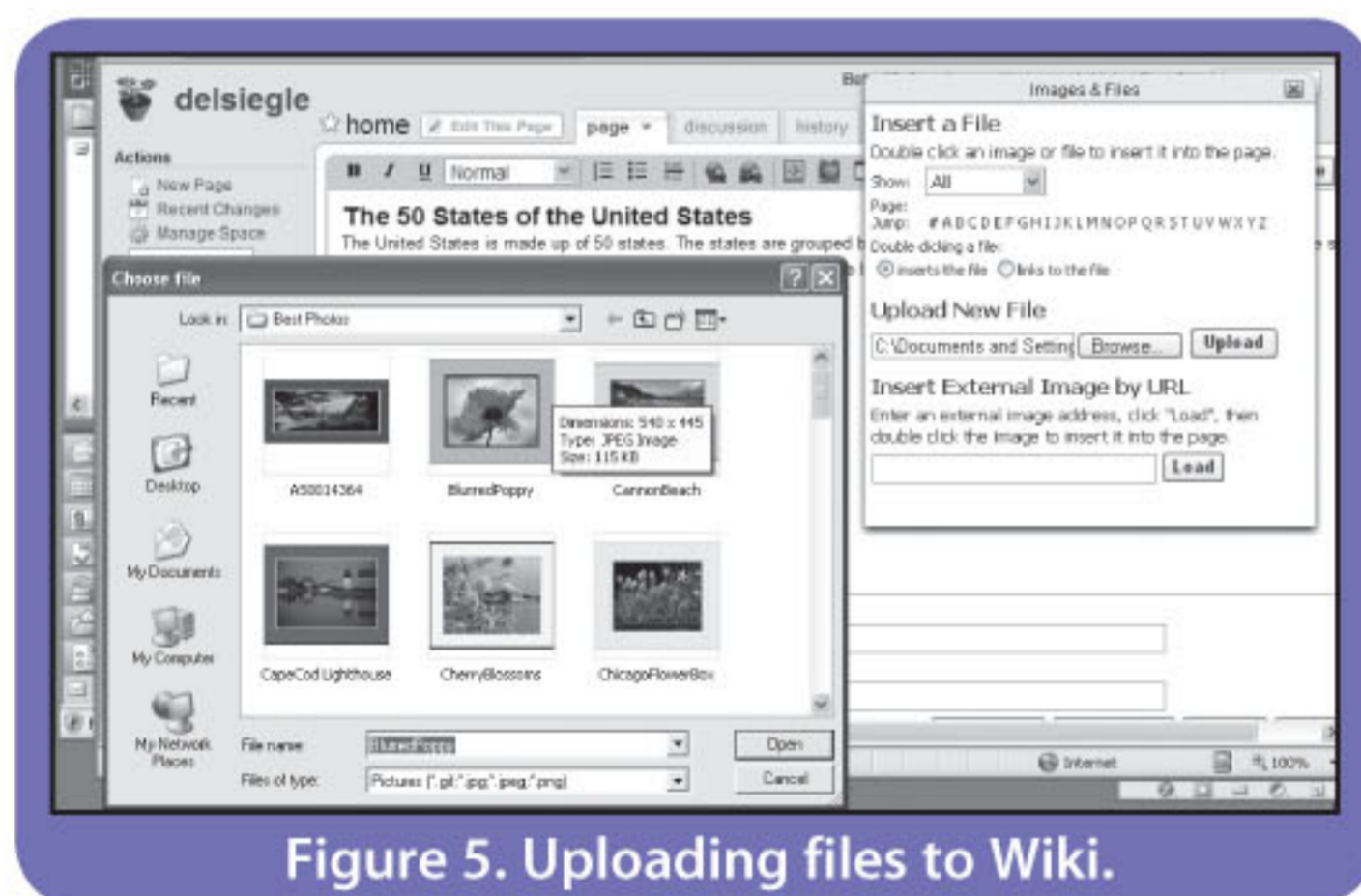


Figure 5. Uploading files to Wiki.

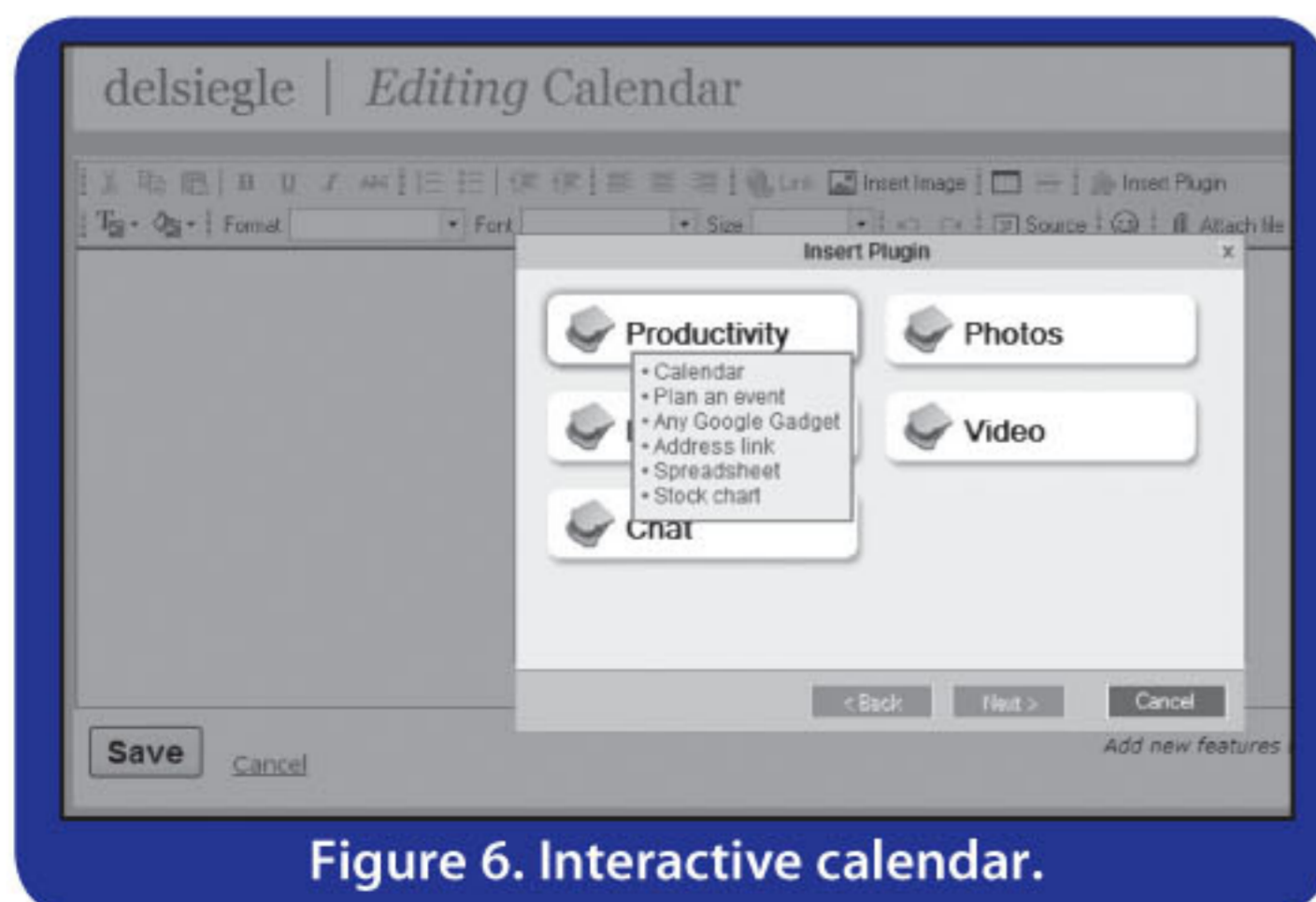


Figure 6. Interactive calendar.

Conversely, Michael Gorman ("Michael Gorman vs. Web 2.0," 2007) argued that Wikipedia and the Internet are saturating our culture with a "tide of credulity and misinformation" that is rapidly eroding traditional "respect for authenticity and expertise in all scholarly, research, and educational endeavors" and ushering in "a world in which everyone is an expert in a world devoid of expertise" (p. B4).

One obvious fault with a wiki is that the information being presented may only represent the view of the last person to modify it (McHenry, 2004). However, because there are so many people reading articles, biases and out-of-date and incorrect information are usually quickly corrected. Few would doubt that "all of us know more than any one of us." Whether all of us can jointly produce documents of equal or higher validity than those produced with traditional publishing practices is a social experiment in which our students are embedded. Educators can help their gifted students understand this debate and use it as discussion fodder as they help students develop and use wikis. **GCT**

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