Students as Digital Citizens on Web 2.0

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Within minutes of his 10th birthday party, Brendan views the party photos, selects his favorite ten shots, and uploads them to Flickr, a website that hosts free images and videos for an online community.[1] Brendan selects the private access, which is viewable only by family and friends, and tags each photo with a separate keyword. Then he sends e-mail messages to his friends, announcing that the photos are posted and ready to view.

Through this one activity, Brendan entered the world of the Internet, but along with the wonderful power of communication that the Internet offers, there are parallel responsibilities.[2] Students can "advocate and practice safe, legal, and responsible use of information and technology."[3] School is one place where they can learn to make safe and responsible choices.

Internet tools associated with Web 2.0 such as wikis, blogs, and video podcasts are increasingly available in elementary classrooms. ("Web 2.0" is a vaguely defined, folk-tech term that means, roughly, the Internet and all software and devices, constantly improving, that strive to exploit it in creative and useful ways.)[4] Today, elementary students can communicate with other young people on the other side of the globe in a matter of seconds. How can teachers prepare themselves, and their students, to make good use of these new powerful tools of communication?

eMINTS (Enhancing Missouri's Instructional Networked Teaching Strategies) is a national center at the University of Missouri to promote quality teaching with technology.[5] The eMINTS "pedagogical approach allows students to be more self-directed and takes advantage of their prior knowledge and skills in the use of new technologies."[6] As eMINTS teachers, we (M.N. and B.J) explore how new technologies can be integrated into the curriculum and classroom environments. To prepare students for participating fully in the world of the Internet, we designed learning experiences to address some of the concerns of "digital citizenship," which is defined as one's roles and responsibilities as a user of the Internet.[7]

Freedom and Responsibility

In this article, we provide some examples of Internet sites and activities that a teacher can use to incorporate the skills, knowledge, and responsibilities of digital citizenship into an elementary classroom setting. On the Internet, students can be both critical consumers and creators of information.[8] At any website, as they engage in conversation on the Internet, students need to learn the skills of civility that they should practice in any public forum, whether a classroom discussion or a video posted on the Internet. Students must be cognizant that they are helping to explore ideas and furthering the growth of useful information that is available to all. It is important for teachers to hold students accountable and that student contributions to the Internet reflect positions they are proud to share with anyone.[9]

As students make decisions in various circumstances, they will need guidance in making safe and responsible choices. For example, at websites that are operated by educational con-

cerns (such as a school or publishing company), students are unlikely to encounter material that parents might find offensive or unsafe, but teachers should still closely monitor any student's conversation or input to the site. At a website with a more general audience, such as Flickr or YouTube, teachers should closely monitor students' general use of the site, such as what students are searching for and viewing, as well as what they are contributing.[10]

Students can produce digital products to teach others about being responsible digital citizens. For example, they can establish a Students Working to Advance Technology (SWAT) team to educate others in their school about digital citizenship[11]. At Global Project Digital Citizen, students use blog postings to learn about Internet safety and the ethical use of technology.[12]

Communicating with Peers

Through the Internet, students can communicate with and solicit feedback from people around the world. For example, The Way We Are is an e-pals project in which students learn about other people and cultures, then produce a PowerPoint show about what they learned.[13]

VoiceThread is an online media album where students can share information as text, as an audio file, or as a video file.[14] The user controls access to the posted material. By searching VoiceThread, students can view and respond to the post of others. A few interesting audio VoiceThreads are "What Do You Value?," "The Importance of Digital Citizenship," "Fourth Grade Summer Destinations," and "Washington DC Experiences." Each of these VoiceThreads can be used while teaching students about other cultures and places in the world.

Blogs and Social Networks

Langwitches (A Magic of Learning through Technology webpage) lists "best examples of applications in Web 2.0" for the elementary classroom.[15] The "Blogging Lesson Plan: Online Safety" includes text, video, suggested activities, and teachers' responses to lesson plans on the topics of online identity, online bullying, and responsible behavior guidelines. An example of an elementary social studies blog is "Teddy Bears Around the World," where students share customs and traditions of their countries through the travels of teddy bears.

Increasingly, schools are finding educational purposes for social networking sites such as Imbee and Club Penguin, which are geared toward young audiences.[16] At these sites, students can learn responsible skills such as: don't give your address, last name, password, physical description, current location, or other identifying information. Educators are using these tools to teach students about digital citizenship within a controlled environment so they know how to conduct themselves in the uncontrolled real world.

Ways to "Publish"

Opportunities abound for students' creativity on the Internet. Students make decisions, solve problems, or analyze information as they contribute to online communities. Students can post their contribution to the TeacherTube website with nothing more complicated than a phone (and their Internet-connected computer).[17] Posting a short video on TeacherTube is easy. Indeed, the child-friendly software at that site allows students to create their own website in minutes.
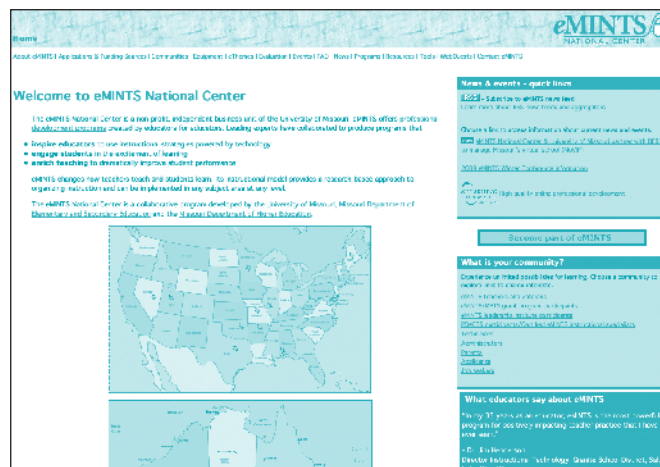
Once they have finished a media project, students can learn to protect their intellectual property and to respect the property rights of others. Creative Commons provides students with a means to control how their work is used:[18] limiting its commercial uses by others, determining to what extent it can be modified, and deciding on how the work is to be attributed.

Clearinghouses

Many websites act as clearinghouses or connecting devices to join like-minded classrooms. For example, Global Schoolhouse lists various collaborative projects from across the globe.[19] This clearinghouse enables teachers to participate in existing projects or to initiate their own. For example, a project called Planetfesto asks students to create a 6-inch photo panel with a pledge expressing a concern for the planet.[20] The organizers hope that the collection of panels will create "a ribbon on the Internet" that reaches around the earth. An upcoming project, International Cyber Fair 2009, is hosted by the World Future Society. At this website, students think about ways to plan for the future.[21]

Another clearinghouse, the International Education and Resource Network (iEARN), claims to be "the world's largest non-profit global network that enables teachers and youth to use the Internet and other technologies to collaborate on projects that enhance learning and make a difference in the world."[22] One of the websites listed there, Action! Animating Voices for Change, shows how elementary school studies

students can become a global partner with the National Children's Museum on topics such as civic engagement and global neighborhood.[23]

Conclusions

Students can learn about making decisions through Internet activities. In each of the sample projects, students learn to identify a need, problem or issue, and determine a course of action to contribute to a positive solution or outcome.

Social studies skills such as problem solving, issues analysis, decision-making, and validation of online information are enhanced through these digital social networks while also expanding the students' contextual framework of history, geography, and culture. Along the way, students learn about how others perceive the issue and alternate routes to a resolution. The diverse interactions of the online community help students work through problems and make decisions for the common good.

The classroom can become an environment for the teacher and student to learn digital citizenship together and exhibit life-long learning skills as digital citizens. On any typical day, a good digital citizen will make numerous informed decisions about technology. Our students have an opportunity to modify behavior with each new exposure to technologies.

Teachers need to stay informed on new resources such as the profile for technology-literate students of the National Educational Technology Standards. A goal in the digital citizenship standards for 3–5 grades is to "Debate the effect of existing and emerging technologies on individuals, society, and the global community."[24]

Being a responsible and respectful digital citizen is a challenge. Our students need leadership and guidance from their teachers in this new world of the Internet.

Notes

1. www.Flickr.com.
2. Linda Bennett, "Golden Rule for Internet Use," in P. J. VanFossen and M. J. Berson, eds., *The Electronic Republic? The Impact of Technology on Education for Citizenship*. (NJ: Purdue University Press, 2008).
3. International Society for Technology in Education, "National Education Technology Standards for Students," (Washington, DC: ISTE, 2007), www.iste.org/Content/NavigationMenu/NETS/ForStudents/NETS_for_Students.htm.
4. See the discussion about the term "Web 2.0" at www.socialcomputingmagazine.com/viewcolumn.cfm?colid=300.
   Wiki: A collaborative website where individuals can alter or modify the content.
   Blog: Typically, an individual's online journal or log, which can be text or video.
   Video podcast: A video clip that the viewer can access on demand.
5. Enhancing Missouri's Instructional Networked Teaching Strategies (eMINTS) www.emints.org.
6. A. Borthwick, R. Hansen, L. Gray, and I. Ziemann, "Exploring Essential Conditions: A Commentary on Bull et al.," *Contemporary Issues in Technology and Teacher Education*, 8 no. 3 (2008). www.citejournal.org/vol8/iss3/editorial/article2.cfm.
7. Linda Bennett, "Guidelines for Effective Use of Technology in Early Childhood Civics," *Learning and Leading with Technology* 33, no.7 (2006): 27-30.
8. Howard Rheingold, *Smart Mobs: The Next Social Revolution* (New York: Basic Books, 2003).
9. Bennett, 2006.
10. Stay Safe, Children's British Broadcast Corporation, www.bbc.co.uk/cbbc/help/safe-surfing/index.shtml.
11. "Students Working to Advance Technology" (Lucy Miller, North Carolina, 2001), www.swatweb.net.
12. Global Project Digital Citizenship, globaleducation.ning.com/xn/detail/717180:Topic:16287.
13. The Way We Are www.epals.com/projects/info.aspx?DivID=TheWayWeAre_elements.
14. "What Do You Value?", "The Importance of Digital Citizenship," "Fourth Grade Summer Destinations," and "Washington DC Experiences" VoiceThreadsvoicethread.com/
15. "Langwitches, The Magic of Learning through Technology", langwitches.org/; "Blogging Lesson Plan - Online Safety" langwitches.org/blog/2008/12/25/blogging-lesson-plan-online-safety; "Teddy Bears Around the World, sjeds.com/blog/teddybear.
16. "Imbee," imbee.com and Club Penguin, www.clubpenguin.com
17. YouTube, Ustream, and Lulu are popular sites that stream live videos for a general audience.
18. Creative Commons, creativecommons.org.
19. Global Schoolhouse, www.globalschoolnet.org.
20. Planetfesto, www.planetfesto.org.
21. Cyber Fair 2009 - World Future Society, www.globalschoolnet.org/gsncf/index.cfm.
22. iEARN.org.
23. Action! Animating Voices for Change, media.iearn.org/node/710.
24. International Society for Technology in Education, "Profile for Technology-literate Students: Grades 3-5" (Washington, DC: ISTE, 2007), www.iste.org/inhouse/nets/cnets/students/pdf/ Student%20Profiles-Draft.pdf.

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