Connecting
Learners Using Web 2.0 Tools

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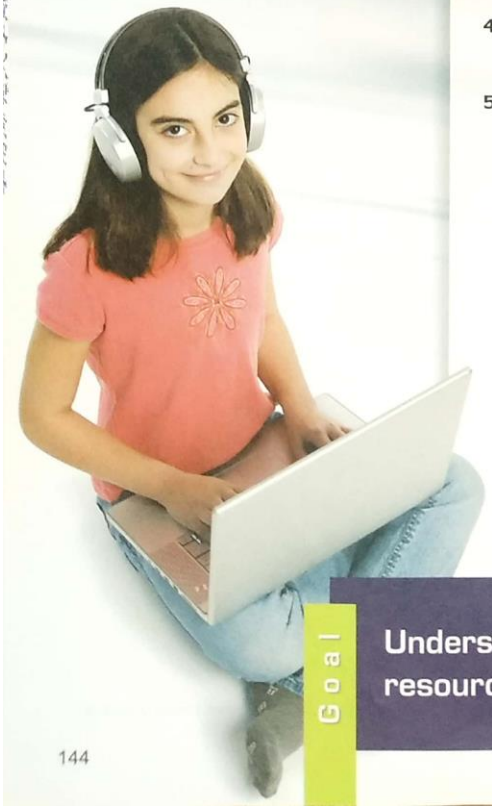
Knowledge Outcomes

This chapter addresses ISTE NETS-S 1, 3, and 4.

1. Define cyberlearning and provide an example of a classroom application.
2. Describe cyberlearning literacy and discuss how it may be used in action.
3. Identify three Web 2.0 resources and demonstrate an example of how they might assist learning.
4. Explain why social networking issues are important for the classroom.
5. Identify four social–ethical issues and why they are important in working with students.



Goal

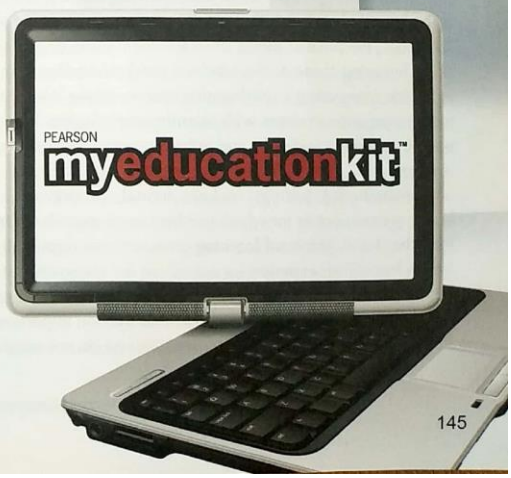
Understand the use of Web 2.0 resources to facilitate learning.

ASSURE Classroom Case Study

Vicki Davis is a high school technology teacher who incorporates Web 2.0 tools into her teaching. This chapter's ASSURE Classroom Case Study describes the planning process she uses to create a lesson. Her primary goals are to engage her students to organize their thoughts, to communicate clearly, and to plan for the implementation of their project.

To view the ***ASSURE Classroom Case Study*** *Video for this chapter, go to the MyEducationKit for your text and click on the ASSURE Video under Chapter 6 to watch how Ms. Davis decides on strategies to lead students through their discussion and sharing of ideas and then chooses technology, media, and materials to achieve 21st century learning environments.*

Throughout the chapter you will find reflection questions to relate the chapter content to the ASSURE Classroom Case Study. At the end of the chapter you will be challenged to develop your own ASSURE lesson that incorporates use of these strategies, technology, media, and materials for a topic and grade level of your choice.



INTRODUCTION

Schools of the 21st century are changing. No longer are they limited to the existing structure or resources of the building. It is possible to reach beyond the school and the scheduled formal setting to create learning situations with global reach to engage the 21st century learner. **Cyberlearning** is the use of Web 2.0 networked computing and communication technologies to support learning. By dynamically integrating the Internet into instruction, cyberlearning is transforming learning opportunities while requiring new perspectives on teaching.

With Web 2.0 resources students can connect to share ideas, engage in inquiry, and search for additional information. Sometimes called **learning communities,** collaboration among students and teachers expands educational possibilities through electronic connectedness. Wagner's (2008) suggestions for improving learning opportunities outline many types of strategies that can effectively integrate web-based tools.

Wagner's ideas that learners need to be engaged in experiences that frame their thinking is supported by the types of collaborative Web 2.0 resources available. Students can now engage in critical thinking and problem solving through collaborating and communicating with others and by using curiosity and imagination to explore new ideas. The **Web 2.0 tools** described in this chapter, online resources available to anyone wishing to use them, target those skills and provide students with many types of learning opportunities beyond simple information access.

CYBERLEARNING LITERACY

The ability to connect with technology tools beyond normal classroom settings depends on **cyberlearning literacy,** which is the knowledge and skills needed for successful use of Web 2.0 tools. Because students enhance their knowledge and skills by using these tools, teachers need to develop strategies for integrating cyberlearning literacy using Web 2.0 tools to provide students with learning opportunities to expand knowledge and skills and to be successful 21st century learners.

Instructional settings include formal, or organized, learning experiences for which teachers are responsible. On the other hand, **informal learning** gives students opportunities to learn from experiences outside of the classroom setting. For example, students can **surf,** or explore, websites on the Internet and find information that may be important for their formal classroom study. Because you do not assign this activity, this exploration becomes an informal learning experience. For instance, when students study a region of the country in social studies they can access the Internet to find a website describing the region or email someone living in that area.

Students can connect with other students or experts about topics of interest using Web 2.0 tools.

Bob Daemmrich/PhotoEdit

Even students lacking an Internet connection at home may have access to Internet-connected computers in school media centers and libraries. And the majority of students have access to mobile technology resources through their cell phones (Johnson, Levine, & Smith, 2009). As the cell phone becomes more ubiquitous, even students from families with limited income generally have a cell phone available to them. Students learn how to seek information informally and will challenge themselves to learn about topics that might not be part of their in-class study because they find value in that type of experience.

ASSURE Case Study Reflection

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Review the ASSURE Classroom Case Study and video at the beginning of the chapter. Consider the use of Web 2.0 Tools in helping students to organize their thoughts and communicate their ideas. How does Ms. Davis support learning through the discussion and her guidance in expressing ideas clearly? In what way is she using Web 2.0 tools to facilitate students' learning experiences?

WEB 2.0 TOOLS

Online resources that enhance student learning include audio and video, collaboration websites, mobile broadband tools, and data mashups. These types of Web 2.0 tools are organized to encourage author access and design rather than information presented in a designated framework that has been determined by someone else—for example, a website that only provides information with no opportunity for student input (Solomon & Schrum, 2007). Web 2.0 tools give learners different ways to access information and share their knowledge. As their teacher, you can integrate these resources into your lessons to ensure students are able to communicate and share their knowledge and understanding with others.

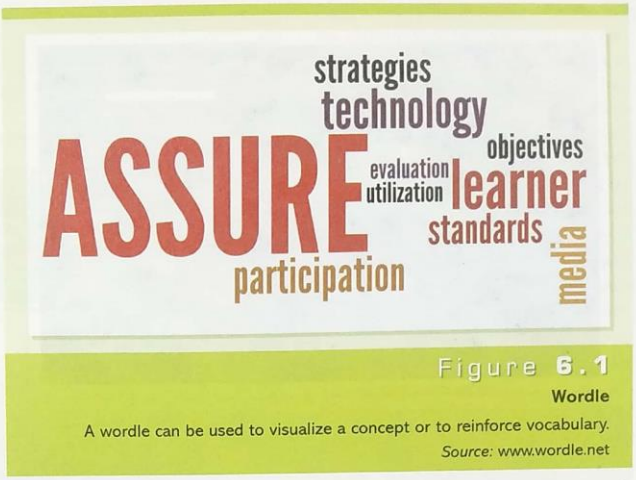


Figure 6.1
Wordle
A wordle can be used to visualize a concept or to reinforce vocabulary.
Source: www.wordle.net

Most of the resources available as Web 2.0 tools are the products of the **open source** concept, meaning that software is unrestricted and free for anyone's use (Pfaffman, 2007). Open source resources are designed to foster collaboration and allow access to tools that make work easier. As a teacher, you need to determine when it is appropriate to use these types of tools in your lessons. There may be times when you determine that using Web 2.0 resources may not facilitate the types of learning experiences you want for your students.

Open source Web 2.0 resources include programs such as word processing, database, and image software that are freely available to educators for use in classrooms. However, because the software is free and thus not purchased and licensed, you have little control over the quality and stability of the software. You could plan to use a particular application, only to find that it is no longer available or is now only usable if you pay a fee.

One new direction for open source tools is called **cloud computing,** in which applications are available through networked computers to distribute greater access to processing power and applications. Cloud-based resources can be free or very low cost and include substantial capabilities for sharing files and information with others across the Web. The software and files are not stored on individual desktop or laptop computers but rather are stored in the cloud, or network of computers supporting the software application you have used.

One of the most familiar types of clouds to use in your classroom is a *wordle,* a visual created out of words. The wordle is a fun activity for students to practice vocabulary or concepts or to produce visuals that help them to see the relationships among words (Figure 6.1). Students can create their own wordles to express their ideas or, as their teacher, you can help them see the relationships among ideas through the visual you prepare in advance or as part of a group brainstorming activity. A fun site for students is Guess-the-Wordle (http://projectsbyjen.com/GTW), which features daily wordle puzzles that become more complex through the week.

ONLINE AUDIO AND VIDEO

Audio has been available as digital content on CDs for many years. More recently, digital audio files can be accessed from the Internet and **downloaded,** or copied to your computer or digital mobile device, such as a cell phone or MP3 player. For example, a **podcast** is an audio file that can be downloaded to a personal listening device such as an iPod or cell phone. Podcasts can also be **streamed,** meaning that the audio file itself stays only on the network server but is available for listening on an audio device. A number of education-oriented sites provide podcasts for teachers and students to use for enhancing learning experiences. Check out sites such as NASA (Figure 6.2), NPR, or Grammar Girls for potential podcast resources you might wish to use in your teaching.

At first, audio downloads were available only in the form of music that could be added to a personal database of audio. Music downloads are still offered as single songs or collections of music through a number of online resources such as iTunes or Amazon. More recently, educators have used downloadable audio materials to enhance student learning opportunities. For instance, you can create

Figure 6.2

Educational Podcasts

There are many educational podcasts that can be used to enhance student learning.

Source: www.nasa.gov/multimedia/podcasting/index.html

broadcasts relating to events or concepts they are studying in class.

Podcasts can also be recorded in video formats. A **vidcast** allows students to see, as well as hear, the information being presented. Although video files are larger than those containing only audio, the visual element may be very important to the message. Vidcasts provide students with demonstrations that can help them with independent work outside of the classroom setting. For example, students might watch a vidcast before class demonstrating how to complete a science lab procedure, how to solve a math problem, or how to create a concept map showing the sequence of a story (see Taking A Look at Technology Integration: Insects). Then they arrive ready to engage in the actual task, making efficient and effective use of their instructional time and able to take advantage of your individual guidance.

Among the Web 2.0 tools that have become a common feature of many online resources are VoiceThread and Animoto for audio and YouTube and TeacherTube for video. These are warehouses of both academic and nonacademic audio and video material. The New Media Consortium refers to much of the video available in such sites as "grassroots video," which means they are produced on the spot with available technologies such as a cell phone to capture a few seconds of video (Johnson,

recordings of class lectures to provide as podcasts that students can access to review material as a study guide. Or the podcast could be a prerecorded lecture for required listening prior to class, so that actual class time is focused on activity-based types of learning experiences rather than listening to lectures. Podcasts can also be used to access past news programs, famous speeches, or other related information resources, so that learners can listen to actual

TAKING A LOOK AT TECHNOLOGY INTEGRATION

Insects

When Ms. Paszotta's kindergartners were starting their study of insects, she wanted to capitalize on the school's philosophy of integrating arts and technology into their learning experiences. And, when talking with Ms. Mullins, a fourth-grade teacher, she learned that the fourth-graders were studying insects as well. The two teachers collaborated on their lessons and decided on the culminating activity in which students worked together to create a vidcast about what they learned.

The kindergarteners selected an insect to study. They worked with a fourth-grade partner to investigate the insect and to prepare a short presentation about what they learned together. The kindergarteners drew masks of their selected insects and their fourth-grade partner worked with them to prepare an introduction about the insect for their video.

Student pairs worked to create short videos about their insects, which they saved as vidcasts. With the aid of the technology teacher, they uploaded their vidcasts to the school's website and shared their resources with other elementary children throughout the district.

Figure 6.3
PodBean Podcast Hosting
It's very easy to create audio podcasts and many Web 2.0 tools can help.
Source: www.podbean.com/start-podcast?sourceid=goog_66. Reprinted by permission.

Levine, & Smith, 2009). For schools where access to such tools as YouTube is not permitted, TeacherTube is a possible alternative. TeacherTube is a resource that contains teacher-developed videos, lesson plans, and a variety of classroom resources for a wide range of content areas across all grade levels.

Students can create their own audio and video digital files with easy-to-use tools (Figure 6.3). For example, to create an audio podcast, students need a computer with recording software, a microphone, and access to the Internet. They can work independently or in collaborative teams to generate their own podcasts based on topics they are studying to share with others in the class or around the world. Students might also work with a teacher to use a digital video camera to create a learning vidcast for younger students. With these simple tools, anyone can be creative and generate learning materials to share.

COLLABORATION WEBSITES

Collaboration websites are resources that provide ways for users to interact with other users for education purposes, most commonly in the form of blogs and wikis. **Blogs,** short for *web logs,* are a set of personal commentaries about a specific topic. You can create your own blog using a site such as Blogger.com or you can participate in a blog developed by a group of teachers who wish to share ideas and resources, such as TeacherLingo (Figure 6.4). **Wikis** are web-based resources that let users engage in collaborative writing and editing. A group of teachers or students can work together on a paper or project, providing immediate feedback for ideas as they are entered in the document. Both of these collaboration tools provide learners with the chance to share information with others.

Blogs. Blogs, which can contain text, visuals, and links to websites, allow learners to share information with each other and with the teacher. Because, in addition to being a personal reflection or commentary about a topic, a blog can also be a dialog with a group of people all interested in the same topic or issue, you can participate with colleagues globally (Figure 6.5). The structure of a blog is arranged so that the most recent posting is first, allowing easy access to the most recent comments. Any reader who wishes, however, can scan easily through the blog postings to see earlier entries.

Figure 6.4
TeacherLingo
Teachers exchange many good ideas.
Source: http://teacherlingo.com. Reprinted by permission.

Figure 6.5
Teachers' Websites
It can be very interesting to read about other teachers' successful use of technology in the classroom.
Source: http://bobsprankle.com/bobsprankle/index.html. Reprinted by permission.

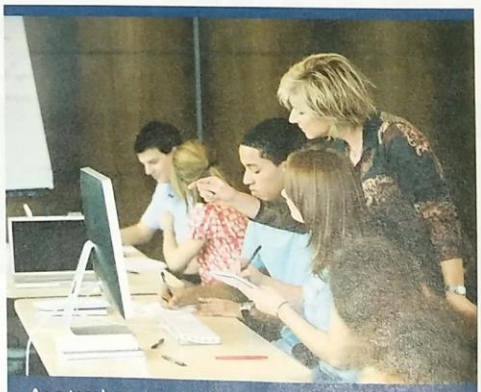
Content experts such as scientists often write blogs, giving students a chance to be informed about a topic with the most up-to-date information. However, although content may be current, it may not necessarily be accurate. Teachers must guide students in their search for credible sources, as many blogs may be highly subjective in nature, written by individuals as a way to express their ideas to an audience. When teaching students writing skills, a blog is a great way to offer them an audience to comment on their ideas or their writing. You may wish to start with a class blog, giving your students a chance to learn how to use good writing skills successfully in the blog environment before you engage them in public blogs.

Wikis. A wiki is a webpage that permits users to interact with a document that others have written or edited. Wikis allow users to write new information or edit the information that is posted on a collaborative site. Content can change whenever a user interacts with the page. Wikipedia, a collaborative encyclopedia, is a well-known type of wiki (Figure 6.6). The content on Wikipedia can be updated or changed by users to keep it current, unlike a large printed encyclopedia that is updated only every 10 years.

Wikis are a good tool for students working on collaborative writing projects. Students can access a Wiki using any computer and any web browser. Additionally, students do not need to be in the same location, but can work together while one student is at home and the other is in a nearby library. Wiki spaces, such as Google Docs, are often free to educators, making them even more useful for teachers to provide guidance for students as they write collaboratively with others.

Social Networking. Another type of collaboration web-based resource, social networking sites are open to anyone who wishes to create a page about themselves and share that information with others. Familiar social networking sites include Twitter, MySpace, and Facebook. These sites allow the individual to post text, images, video, and favorite webpage links. They also offer ways for users to join others interested in similar topics or issues through community groups. Groups can be open to anyone with similar interests or can be set up as "closed" groups that require an invitation before an individual can join. Because they are shared across the Internet, information on these sites is available to anyone around the world.

Social networking sites are different from wikis because the amount of text is limited to only a few words, encouraging brief communications when exchanging information.



As a teacher, your role is to guide your students as they work interactively in social media settings.
Shutterstock

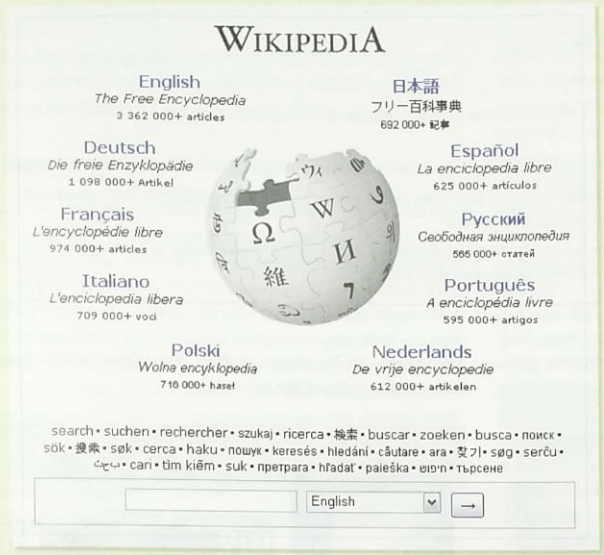


Figure 6.6
Wikipedia
Similar to an encyclopedia, Wikipedia provides a current source about a vast array of topics.
Source: www.wikipedia.org

Figure 6.7
Schools United Networking
As a teacher, you can create your own class social networking site.
Source: www.theschoolsunited.com/community. Reprinted by permission.

For instance, Twitter, an online communication network for sharing current, up-to-the-minute status reports in very brief messages, limits posts, or "tweets," to 140 characters. In response to the concept of quick notes, such as instant messages, tweets, and other social networking resources, users have created a type of shorthand to communicate their ideas without wasting letters. For example, a user would type the letter *u* for the word *you*, the numeral 2 for the word *to*, or BRB for "be right back." You need to help your students know when it is appropriate to use the shortcuts and when they need to practice good writing skills.

Many schools restrict access to social networking sites within the building setting, which may mean that even if you create an educational application, you may not be able to use it with your students in the school. However, the 21st century student has become very comfortable with these kinds of resources, and it is important to consider how they might be useful in educational settings. Many students already have their own MySpace or Facebook pages, using them only for social interactions. You may have your own page as well, although you may wish to consider the type of information and photos you place on your pages as they can potentially be viewed by parents, administrators, and school board members. You may want to create educational uses for these types of resources to capitalize on the popularity of their use. Some education sites are starting to mirror social networking resources but are restricted to classroom use only (Figure 6.7) as a means of better ensuring a safe environment for students.

Data Mashups. Websites that bring together content from a variety of resources, **data mashups** create sites that are new and different from the original sources. For example, online news media sites combine text, video, audio, and real-time information updated about

WHEN to USE Web 2.0 Tools

Use when student learning will be enhanced by . . .

Guidelines	Examples
reading and writing about shared learning experiences	Middle school students post information on a classroom blog site.
practicing English as a second language	High school English learners listen to podcasts to help them with their classroom studies.
sharing information with classmates and others	Elementary students post their digital stories on Bookr to share both their visual and written stories with others.
exchanging information about a carbon-footprint class project	Middle school students post video captured on their cell phones to a classroom blog site and write about what they have seen.

every 15 minutes. This combination of information gives teachers and students very current data to use in reports or as part of classroom activities.

Students can take advantage of mashup sites to learn more about geography or mapping skills. They can use a mashup site that combines mapping and satellite information to identify specific locations in cities around the world. The assignment might be to locate particular types of buildings or specific monuments using a site like Google Maps, in which students can easily pinpoint specific places, get directions, or view the maps to identify the location's proximity to surrounding areas.

MOBILE BROADBAND

Although not a new technology, mobile phones today offer expanded tools and applications. Cell phones can now take photos and short video, access the Internet for email and web surfing, and provide calendars and other personal management tools.

Cell phones have been dubbed the great equalizer (Paine, 2009). Today, the majority of school-age children have cell phones and learn their applications with little trouble. Although phones for younger children, often purchased for child safety reasons, may only be able to call a parent's cell phone, many older students have phones with greater access to online resources.

As educators, we need to begin thinking of ways to apply these extended cell phone capabilities as learning tools. Examples include field-based learning experiences where students can take photos of events or phenomena, such as demonstrating the carbon footprints they find within their community. Students can then upload the images to a classroom website and write a blog entry about their observations. Experts on the topic of carbon footprinting can provide additional information or guide approaches to the topic. The classroom can be moved outside the school building and beyond the limits of the school day.

ASSURE Case Study Reflection

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Review the ASSURE Classroom Case Study and video at the beginning of the chapter. Identify the types of Web 2.0 Tools that Vicki Davis has incorporated into her lesson. How have the students used these tools to support their learning?

Students can use their cell phones to capture images of the community and upload them with comments to a school server as part of their learning experience.
Chris O'Meara/AP

SOCIAL–ETHICAL ISSUES

Whenever working with students on the Internet, you need to consider two important social–ethical issues: security and student interactions.

SECURITY

Students need to understand they are not to give out personal information such as their last names, cell or home phone numbers, addresses, or other information. On occasion there have been incidents where students have been contacted or even harmed by unscrupulous individuals. Your role as teacher is to encourage students to give their school's address for correspondence if they need to provide such information. Also, as an educator, you must have parental permission to let children post their photos and written work, such as essays, poems, and artistic creations, on the Web. You can learn more about online security issues through the Center for Education and Research in Information Assurance and Security (CERIAS) (www.cerias.purdue.edu).

STUDENT INTERACTIONS

When students are working in cybersettings, they need to engage in positive and appropriate interactions with others. As their teacher, you will need to guide your students in using appropriate behavior with others. It is important for you to help your students understand how to use clear and situation-specific language in their communications. For example, if the students are exchanging text messages, they will find abbreviations or word shortcuts to be effective, while in an email to an adult or an organization, they will want to use complete sentences.

One issue that has become serious and will need the teacher's monitoring and intervention is that of cyberbullying. Cyberbullying can be annoying or even dangerous if not handled properly. The Cyberbullying Research Center (www.cyberbullying.us) offers information and research about the problem and suggestions for dealing with the issue at hand. Also, they provide examples of actual incidents and contact information for seeking assistance. The blog provides a means for professionals to discuss the examples provided and other cyberbullying issues.

As their teacher, it is important that you give guidance to students when they are using websites.
Christopher Barth/AP

ASSURE Case Study Reflection

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Review the ASSURE Classroom Case Study and video at the beginning of the chapter. View how Vicki Davis ensures that her students use technology appropriately. How has she guided students to remember to exhibit appropriate online behavior?

USING WEB 2.0 TOOLS IN THE CLASSROOM

ADVANTAGES

- *Portable.* Information can be accessed and used anywhere on personal devices such as iPods and cell phones.
- *Easy to produce.* The new types of technologies simplify the process of preparing materials such as podcasts or online videos.
- *Authentic audience.* When developing literacy and communication skills, interactive tools such as blogs and wikis offer opportunities to reach readers beyond the classroom who can provide valuable feedback.
- *Connectedness.* Communication among students is facilitated, encouraging collaboration.
- *Social awareness.* Students become more sensitive to others through social networking sites where they have access to information about each other.

- *Free.* Many Web 2.0 tools are available for educational uses at no charge.

LIMITATIONS

- *Require sophisticated hardware.* Some interactive Web 2.0 Tools require hardware capabilities not available on less expensive models.
- *Quality of messages.* Because they are easy to produce and free, many types of Web 2.0 postings are of poor quality and not well prepared.
- *Credibility.* Just because it appears on the Web does not make it an authentic or authoritative source. Web 2.0 tools make it very easy to post information that may be inaccurate.
- *Safety issues.* Because of the open nature of the resources, it is essential that users understand the need for caution and concern when sharing personal information.

INTEGRATION

In the classroom there are a number of ways that Web 2.0 tools can support learning. Your role is to find the best means of optimizing the learning opportunities of your students using these types of resources (See Selection Rubric: Web 2.0 Tools).

Lisa Zawilinski (2009) describes how one teacher organized a blog for her fifth-grade students to support their reading activities. After giving her students prompts about books they were reading, encouraging them to reflect on the stories and in turn demonstrate their reading comprehension, students began to ask if they could post some of their original work, such as poems or reactions to books they were independently reading. The teacher recognized an opportunity for expanding students' use of the blog format, allowing her to guide them in their exploration of literature.

Data mashups are another way to support students' learning. For example, if you are working on estimation in math, you can have your students estimate the walking distance between home and school. Once they have guessed the distance, they can link to Gmaps Pedometer to get the actual measured distance (Branzburg, 2009). For a geography or science class, you can link to a site that provides information about the location and scale of any earthquake worldwide for the past seven days (http://earthquakes.tafoni.net). You can guide students to compare that data with geology information they have on global fault lines and plate tectonics.



TECHNOLOGY for Diverse Learners

Web 2.0 Tools in the Classroom

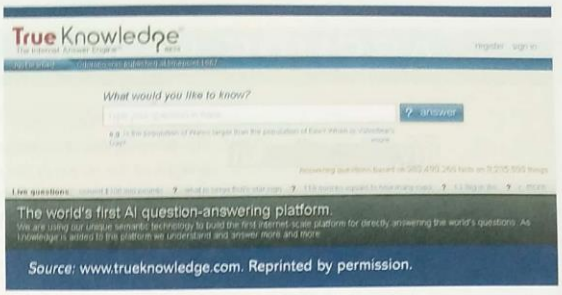
Students may have difficulty expressing themselves in class due to limited language skills from a learning disability or because their first language is not English. They frequently tend to be quiet or not participate in class or group discussions. And gifted learners may want more challenges for their own learning. There are many resources for helping all students access information to increase their learning.

Audio podcasts allow students to hear the teacher's instruction after class so that they can review the information, follow directions that might have been presented, or prepare for a test about the material covered in class. Video podcasts provide visual information, along with the audio, to help students follow along using multiple modes of learning. These tools may help learners who benefit from seeing visual depictions of concepts or strategies to be applied. It is also helpful for students who may need to review a process more than once to gain the full benefit of the demonstration.

When writing is a challenge for students, a wiki can be a way to let them improve their skills in sharing information with classmates or other audiences. The wiki allows everyone to offer and exchange ideas. It also allows others to provide ideas about how to express those ideas in writing, thus influencing writing skills.

Challenging students with a wide range of skills and abilities is often difficult. By using collaborative social networking tools, such as the MIT New Literacies Project, gifted students can share their work with other students around the world. These types of exchanges provide students with opportunities to express themselves and to learn from others.

Social networking is a way for students to connect with others engaged in social studies inquiry. As part of a unit related to study about your state, you might have your students collect information using online resources. You can have them post their bookmarks of sites visited to Delicious (http://delicious.com) to share links with others in the class. Access to student folders with their bookmarks can be limited to members of the class. Or if you know another teacher whose students are also studying the state, you could arrange for them to exchange links to extend their study. The exchange offers students opportunities to gather additional information and learn more about the content while seeing examples of how to find additional resources. And to expand the idea of working collaboratively, you can create a wiki in which students collaborate on a report that can be shared with other students, parents, or the school board.



Source: www.trueknowledge.com. Reprinted by permission.

YOUR SMART WEB BROWSER

Semantic-Aware Applications

Using a current search engine like Google, you type in a key word and may get a large number of hits. Semantic-aware applications actually work with your computer to help it "understand" what you want to know and guide the search for an answer that addresses the question you've posed. Rather than searching on a group of key words, the computer makes connections based on working with your input to focus on what you wish to know. In this totally new way to engage in Internet searches, your computer recognizes the meaning of the word or question you've provided, even using images instead of words for some of the information pulled from various sites, and will gather the information you seek quickly. It makes browsing through multiple pages a thing of the past.

Semantic technology is making it much easier to pose questions and locate answers, saving you valuable time. Your computer understands more about you and tries to make the work of searching easier, helping you be more efficient and successful in a wide range of Internet activities such as searching and sharing your knowledge with others. Your computer could also learn to connect dates, places, and people and use that information to keep your calendar, places of interest, and contacts list up-to-date without your having to do it yourself. Semantic-aware applications are making it easier to find and connect information, making learning and discovering new information much easier for everyone who has access to the Internet.

SUMMARY

Cyberlearning opportunities continue to expand. More resources are available to students and teachers to enhance and extend classroom activities through Web 2.0 tools. Teachers are no longer limited to the materials they have in their classrooms or in the school media center but rather can access resources from around the world. Teachers can provide students with experiences that help them use the Internet as a source of information, a tool of collaboration, and a place to test their creativity. Students can reach out to other students and experts for exchanges of ideas. Cyberlearning has opened classrooms to a wealth of information around the world through the Internet!

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To check your comprehension of the content covered in Chapter 6, go to the **MyEducationKit** for your book and complete the Study Plan for Chapter 6. Here you will be able to take a chapter quiz, receive feedback on your answers, and then access resources that will enhance your understanding of the chapter content.

ASSURE Lesson Plan

PEARSON myeducationkit™ The following ASSURE Lesson Plan provides a detailed description and analysis of the lesson in the ASSURE Classroom Case Study and video at the beginning of the chapter. To review the video again, go to the MyEducationKit for your text and click on the ASSURE Video under Chapter 6. The video explores how Ms. Davis collaborates with her ninth-grade students to create lessons for seventh-graders in a virtual world.

Analyze Learners

General Characteristics. The students in Vicki Davis's high school class are primarily rural students with a variety of interests in technology. They are fairly equally distributed with regard to gender and range in age from 13 to 15 years old. Student reading ability is at or above grade level although there are several students with diagnosed learning disabilities in the class. Student behavior problems are minimal.

Entry Competencies. The students are, in general, able to do the following:

- Demonstrate competency in keyboarding, document editing, and general computer skills.
- Prepare written materials such as narratives for the lessons they are going to teach to the seventh-grade students and wiki and blog entries for the class.
- Use Web 2.0 software to participate in blogs and wikis and to develop and interact in virtual world settings (primarily using OpenSim) with their own avatars.

Learning Styles. Ms. Davis's students learn best when engaged in activities that are relevant and include lively discussions of meaningful topics. Her students vary in comfort level when speaking with the seventh-graders, but are very comfortable in the virtual world created for their class to help the younger students learn about "digital citizenship" and Internet safety. Ms. Davis guides her students through their use of technology, building on their prior experiences and skills. When working in groups, her style of coaching facilitates their teamwork abilities.

State Standards and Objectives

Curriculum Standards. The following Georgia Common Core Standards for Technology and Career Education are addressed in this lesson: (2) Communicate thoughts, ideas, information, and messages using technology: Students collaborate using blogs, wikis, and preparation of instruction for younger students; (5) Organize ideas and communicate in a concise and courteous manner: Students convey their ideas within group discussions and in presentations; and (8) Modify a plan of action to achieve outcomes: Students arrange their presentations to ensure that

the seventh-graders are able to learn the important elements of digital citizenship and Internet safety.

Technology Standards. National Educational Technology Standards for Students 1—Creativity and Innovation: Students use Web 2.0 tools to demonstrate creative thinking, construct knowledge, and develop innovative products and processes; 4—Critical Thinking, Problem Solving, and Decision Making: Students use technology to plan and conduct research, manage projects, solve problems, and make decisions; and 5—Digital Citizenship Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

Learning Objectives

1. Develop virtual worlds that engage students in scenarios in which they apply digital citizenship and safety guidelines.
2. Select appropriate technology tools to accomplish team objectives,
3. Participate in authentic research and use appropriate attribution for ideas.
4. Communicate strategies for using Web 2.0 tools to solve problems.
5. Write avatar scripts that demonstrate knowledge of digital citizenship and safety.

Select Strategies, Technology, Media, and Materials

Select Strategies. Vicki Davis selects teacher- and student-centered strategies to plan the lesson for seventh-graders. The teacher-centered strategies involve engaging the students in discussion through questions and feedback that lead to additional ideas. The student-centered strategies consist of students initiating design ideas for the lessons they plan to develop for the seventh-graders and utilizing Web 2.0 tools to share information and create interesting learning experiences.

Select Technology and Media. This lesson involves students' work with computers and Web 2.0 software to post their ideas to a wiki and blog. They also use software to develop a virtual world environment that will serve the younger students' learning needs. Ms. Davis applies the following guidelines to assess the appropriateness of her technology and media selections:

- *Alignment with standards, outcomes, and objectives.* The Web 2.0 tools provide the necessary support for Vicki Davis's students to meet the learning objectives.
- *Accurate and current information.* Students use both text-based and Internet resources to conduct their research on digital citizenship and safety.
- *Age-appropriate language.* Ms. Davis's students consider how to instruct the seventh-graders about virtual worlds and digital citizenship and safety in language that will help them understand the concepts in the lessons they design.
- *Interest level and engagement.* The ninth-grade students are excited about sharing their knowledge of digital citizenship and safety with the seventh-graders through their virtual world environment. They are very engaged with developing their lessons to help the

younger students gain skills in navigating virtual worlds and learning about digital citizenship and safety.

- *Technical quality*. The technical quality of the Web 2.0 tools allow the students to engage in a variety of online interactions and to facilitate their communications beyond the school day and setting.
- *Ease of use*. The Web 2.0 tools are fairly easy for high school students to understand, especially as they are using them regularly in their learning.
- *Bias free*. Web 2.0 software is bias free.
- *User guide and directions*. The online help features of some Web 2.0 tools are moderately easy for students to use. Students most frequently ask each other or use the help option within the software for assistance with technical difficulties.

Select Materials. Vicki Davis provides her students with a number of types of Web 2.0 tools to use for their interactions, research, and design ideas.

Utilize Technology, Media, and Materials

Preview the Technology, Media, and Materials. Vicki Davis previews the Web 2.0 software to ensure that it has the features needed for her students to be successful. She previews selected technology resources to ensure students can use them in the school setting as well as making certain the tools will meet their needs.

Prepare the Technology, Media, and Materials. Ms. Davis prepares starter questions for the group discussion following the presentation they completed for the seventh-graders.

Prepare the Environment. Vicki Davis tests the lab computers and ensures that the software needed is accessible from each computer. She also tests the capability of the technology to connect the lab classroom to the nearby school media center.

Prepare the Learners. Students in Ms. Davis' class have been involved in group discussions previously and learner preparation therefore primarily focuses on the topics to be covered during the live lesson and follow-up discussion.

Provide the Learning Experience. The learning experience occurs in three formats: live presentation to a group of seventh-grade students, interactions within the discussion following the presentation, and their online discussions on the blog and wiki for this project.

Require Learner Participation

Student Practice Activities. The students in Vicki Davis's class use computers, the virtual world they created, and Web 2.0 software to prepare for and participate in the presentation to the seventh-grade students. Her students use information from their observations and discussion to generate ideas to improve their next presentation and to develop a series of lessons about

virtual worlds and digital citizenship and safety. During the discussion, students practice and test their knowledge and skills by asking and answering student-created questions. They post their ideas to the class blog for further exploration and discussion beyond the class period. Furthermore, they work collaboratively on the class wiki in the planning and design of their instruction for seventh-graders on digital citizenship and Internet safety.

Feedback. Vicki Davis provides continuous feedback as students participate in their discussion and guides them in their decisions on the best ways to interact with the seventh-grade students. She encourages them to provide feedback to each other through their online discussions.

Evaluate and Revise

Assessment of Learner Achievement. Ms. Davis reviews the discussion notes posted to the wiki. She examines the materials that are prepared for the school blog and looks at the materials her students have developed for their next seventh-grade lesson. She also reviews recordings of the video that the students have located to see whether it is appropriate for the seventh-graders. Ms. Davis uses rubrics to assess both student ability to apply technology for creativity and their communication skills by evaluating student comments and their posted notes and comments. She also uses a rubric to assess the accuracy of the digital citizenship and student safety information included in the virtual world scripts prepared by the ninth-graders.

Evaluation of Strategies, Technology, and Media. Ms. Davis evaluates the effectiveness of the lesson strategies, talking about the process with the students in her class. Evaluation of the technology and media involves examining the functionality of the Web 2.0 software and the virtual world environment created by her students.

Revision. The evaluation results revealed that student interactions could benefit from assigning students to work in design pairs to increase interactions and information exchange. Furthermore, teacher notes and edits of student work on the wiki provided improved documentation of the lesson. Another revision that emerged from the evaluation results was to limit teacher-directed questions to encourage more student-to-student discussion.

CONTINUING MY PROFESSIONAL DEVELOPMENT

Demonstrating Professional Knowledge

1. Define cyberlearning and provide an example of a classroom application.
2. Describe cyberlearning literacy and discuss how it may be used in the classroom.
3. Identify three Web 2.0 resources and demonstrate an example of how they might assist learning.
4. Explain why social networking issues are important for the classroom.
5. Identify four social–ethical issues and why they are important in working with students.

Demonstrating Professional Skills

1. Prepare a 10-minute presentation on how you might use one of the Web 2.0 tools in your teaching. (ISTE NETS-T 5.A)
2. Locate resources online that provide guidance for ensuring student safety when working with Web 2.0 tools. (ISTE NETS-T 4.C)
3. Locate and critique a lesson plan that describes an actual use of Web 2.0 tools. (ISTE NETS-T 5.C)

Building My Professional Portfolio

- *Creating My Lesson.* Using the ASSURE model, design a lesson for one of the case studies presented in the list in the Lesson Scenario Chart appendix or use a scenario of your own design. Incorporate into your lesson a Web 2.0 tool that will facilitate student learning. Carefully describe the audience, the objectives, and all the other elements of the ASSURE model. Be certain to match your intended outcomes to state or national curriculum and technology standards for your content area.
- *Enhancing My Lesson.* Using the lesson you created in the previous activity, consider how to meet the needs of students with varying abilities. What adaptations are needed to keep advanced learners actively engaged while helping students who struggle with reading? What changes are needed to ensure students transfer the knowledge and skills to other learning situations? You might look for additional Web 2.0 resources to enhance the lesson. How can you integrate additional use of technology and media into the lesson?
- *Reflecting on My Lesson.* Reflect on the process you have used in the design of your lesson and your efforts at enhancing that lesson to meet student needs within your class. How did information from this chapter about Web 2.0 tools influence your lesson design decisions? In what ways did the technology and media you selected for your lesson enhance the learning opportunities for your students?

SUGGESTED RESOURCES

Print

Kidd, T., & Chen, I. (2009). *Wired for learning: An educator's guide to Web 2.0.* Charlotte, NC: Information Age.

Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century.* Boston: MIT.

Lanclos, P. (2008). *Weaving Web 2.0 tools into the classroom.* Eugene, OR: Visions Technology in Education.

Richardson, W. (2009). *Blogs, wikis, podcasts, and other powerful web tools for classrooms* (2nd ed.). Thousand Oaks, CA: Corwin.

Vossen, G., & Hagemann, S. (2007). *Unleashing Web 2.0: From concepts to creativity.* Burlington, MA: Morgan Kaufmann Publishers.

Web Links

To easily access these web links from your browser, go to MyEducationKit for your text, then go to Chapter 6 and click on the web links.

Educause Learning Initiative

www.educause.edu/eli

The Educause Learning Initiative provides information about new directions in technology and how it might be used to facilitate learning. Each spring the organization publishes the Horizon Report, which provides insights into short-, middle-, and long-range technology trends.

eSchool News

www.eschoolnews.com

This site offers a convenient way to keep up-to-date electronically with what is going on with technology in schools.

International Society for Technology in Education

www.iste.org

ISTE is an association focused on improving education through the use of technology in learning, teaching, and administration. ISTE members include teachers, administrators, computer coordinators, information resource managers, and educational technology specialists.

Project New Media Literacies

http://newmedialiteracies.org

The MIT New Media Literacies project explores ways to help young people understand the social skills and cultural competencies they need to become participants in a global world.

Web 2.0: Cool Tools for Schools

http://cooltoolsforschools.wikispaces.com

This site offers many types of Web 2.0 tools that teachers have used in their classrooms. Organized by category, such as presentation tools, and by content areas like math and reading, a number of resources are suggested for classroom use.