

The Internet, E-mail, and the Environment

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The “information superhighway” runs right through our homes and schools—or, if not yet, it will in the near future. And it has the potential to revolutionize the manner in which we seek, gather, store, and use information. Still in the developing stages of this information revolution, the Internet’s World Wide Web already boasts 110,000 sites that can be accessed from homes, classrooms, and offices. In April 1994 there were only 1000 Web sites. Some 10 million people worldwide have access to the Web, and that figure should swell to 52 million by the turn of the century (1). At all levels of education, students and teachers can ride this superhighway to reach new and exciting destinations. One simple, yet effective, way to introduce the Internet to students is through an assignment using e-mail.

In “The American Landscape” at College of the Ozarks, we employ a variety of learning activities to engage students personally with environmental history and to make them active shapers of their own learning. Asking students to compose “a letter of substance” has become a regular part of the course. The assignment is simple and straightforward: “Select a person whom you believe has some influence or potential impact to deal with the increasing threat to the environment. Write a letter to this person that expresses your views about a specific question or problem. The letter should be one of substance—i.e. one that reflects a grasp of facts and that shows vigorous thought.” After writing their letters, students send them out.

The assignment to write a letter of substance receives high marks from students in both casual conversations and end-of-semester evaluations. “This was a good idea,” one student wrote, “a good way to keep the connective link ‘from us to them’ open and fresh.” Another added, “My letter might not help any, but I feel like I took a stand.” Another student wrote more confidently:

“The best idea! It got everyone in the class to get off their rears and actually do something.” Several noted that this assignment provided a continuing challenge, including one who promised that “I will make it a practice to write a few similar letters each year.”

In our next version of “The American Landscape” we plan to use the Internet and e-mail, in place of traditional research sources and “snail mail” (i.e. regular mail), for this letter of substance. We can connect students to the information superhighway, while still meeting our original goals of getting them into environmental studies in a personal way and giving them an increasingly active role in the classroom. This is an approach that can be adopted easily at any grade level, from elementary to secondary to college. And if time or computers are short, what we have used as an individual assignment could be done by pairs of students, in small groups, or even as an entire class.

The first step in this assignment—as it has been all along—is to identify a problem or question to explore in research. Rather than turning students directly toward the library, we should introduce them to the Internet, the World Wide Web, and different “Web browsers” such as *Netscape*, “search engines” such as *Lycos* and *Webcrawler*, or an index such as *Yahoo!* that includes its own search engine. The terms might sound new, but in fact they are really updated versions of the card catalogue and finding aids, except that the sources and volume of information have been multiplied many times.

Novices and experts alike might be astounded at the wealth of information available on the Internet. Recently I did several key word searches on the Web, using *Webcrawler* as the search engine. The word “environment” yielded 12,241 Web sites to explore, and “Earth Day” gave me 6617 hits. Getting more specific, I entered “EPA” (for Environmental Protection Agency) and received 861 hits; “toxic waste” brought 201;

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“ozone layer” 109; “Endangered Species Act” 76; “spotted owl” 19; and “salmon” 432 (including some for recipes and others for fishing reports—the Web is full of information). These sorts of topics and many others can be followed through a variety of Web sites, giving students more information for their letters of substance than they could ever expect to use in one document. They will get a keen sense of the rich mix of materials they can explore on the Internet—for this assignment, for other activities in “The American Landscape,” and for work in other classes.

Another valuable set of resources—and information on e-mail addresses that can be used for sending letters—can be found on Web sites developed by the White House and Congress. The president and cabinet departments can be reached easily via the Internet. For the president, enter the URL (Universal Resource Locator) address <http://www.whitehouse.gov>, and watch the screen come alive with a graphic of the White House and a “clickable map” that can lead you to other locations in the executive branch. For a “map” of cabinet sites, the URL address http://www.whitehouse.gov/white_house/cabinet/html/cabinet_links.html opens a page with links to the fourteen cabinet departments. Or direct access to the Department of the Interior comes with <http://www.usgs.gov:80/doi>, and for the Department of Energy with <http://www.doe.gov>. At these cabinet sites, you will find several pointers such as: for Interior—“Index to Topics—What We Do” that will lead to “Education and Outreach,” “Land, Parks, and Public Works,” and “Natural Hazards,” among other topics; and for energy “About the Department of Energy” and “Department of Energy News and Hot Topics.” Something on these pages should pique the curiosity of any student interested in environmental issues (2).

For the House of Representatives, which opened its Web site in January 1995, enter <http://www.house.gov>. The “home page” of the House provides a long list of “WWW Services,” such as “Who’s Who and How Do I Contact Them,” including the e-mail addresses for House members. Following the link to committees can lead to the House Committee on Resources and subcommittees that deal with the environment, including National Parks, Forests, and Lands; Fisheries, Wildlife, and Oceans; Energy and Mineral Resources; and Water and Power

Resources.

One of the options on the home page for the House that probably would appeal to students still looking for a topic to research would be “Jurisdiction & Rules.” This site provides a detailed description of the major areas of responsibility for each subcommittee of the Committee on Resources. Under “National Parks, Forests, and Lands,” for example, you find thirteen different “jurisdictions.” These include a wide range of topics, from national parks, rivers, and trail systems to national battlefields and cemeteries to prehistoric ruins to land grants and alien ownership to water rights. For a student more interested in “Fisheries, Wildlife, and Oceans,” the jurisdictions run from fisheries and wildlife management to coastal barriers to oceanography to marine sanctuaries.

The United States Senate opened its Web site (<http://www.senate.gov>) in late October 1995. As with the House’s home page, the Senate’s Web server offers a list of options, including “Senators with Constituent E-Mail Addresses” (61 senators currently list addresses), “Senate Standing Committees,” and “Select, Special, Other, and Joint Committees.” Using a link to standing committees, you can go to two committees with continuing interest in the environment: the Committee on Environment and Public Works, and the Committee on Energy and Natural Resources. Clicking on either of these committee options can send you to nine subcommittees that investigate different issues related to the environment. As with the home page for the House, the Web server for the Senate provides a lengthy statement on committee and subcommittee jurisdictions that can provide a multitude of research options which can be followed into different Web sites.

Preliminary research on one of the legislative home pages might suggest a need to see the full text of some piece of legislation, or some reading in the *Congressional Record*, or information on the status of pending legislation, you can call up the web site known as “Thomas” (named for Thomas Jefferson) that is maintained by the Library of Congress (at <http://thomas.loc.gov/#thomas>). One of the interesting options on Thomas is the link to “Hot Legislation,” where you can search out information by topic, by popular or short title, or by number and type. A recent search of this site revealed references to such di-

verse environmental topics as: “environmental protection”—a sort of catch-all category; hazardous substances; marine resources; public lands; solid wastes; water pollution; and water resources (3).

These different government-connected Web sites—for the White House, the cabinet departments, the House of Representatives, and the Senate—should provide students with the information they need to compose their letters and locate e-mail addresses for the individuals or groups they wish to contact. If they want or need more information, they can conduct Web-wide searches by using one of the search engines. When we depended upon the resources of school and college libraries, students might cut short their research with an excuse such as “I just couldn’t find enough information.” With access to the Internet and World Wide Web, that sort of excuse will not work.

After students have researched their topics and written their letters, their messages can be sent by e-mail to be received virtually instantaneously. The possibility of a quick response is good with e-mail, certainly better than with snail mail. Students should see quickly that their messages hit their targets. Just as important, they can feel involved with their own education and empowered in a way they might not have known before. They might begin to believe, too, that they can make a difference for their world. □

Endnotes

1. *USA Today*, 30 October 1995. The figures on Web sites were provided by *Yahoo!*, an on-line service guide and index. For the number of Internet users, estimates came from Forrester Research.
2. For teachers and students in Canadian schools, Natural Resources Canada, the major natural resource department of the federal government, maintains a home page at <http://www.nrcan.gc.ca/>, with English and French versions available.
3. Thomas also provides another pathway to home pages for the executive branch, including the White House, and for the House of Representatives and the Senate. A Web user can simply click on the executive or legislative branch links on Thomas rather than call up the home pages by entering URL addresses.