

The Web: The Revolution Is Here; Let's Join Today

In a recent workshop, faculty were exploring ways to help students display a greater willingness to take risks in their learning. This led my thoughts to our own modeling of risk. What risks are we willing to take as faculty? As administrators? Here's a starting point. I suggest that beginning today we should risk a serious personal and university commitment to "The Web." This networking software has direct application to our research, to our teaching, and to our service.

The Web began as a software program for a group of physicists in Switzerland a couple of years ago. They were trying to integrate the thousands of interrelated articles on physics that existed worldwide. They found a way to access many of these articles using the concept of hypertext: they designed a program where they could click on a particular word in an article on the computer screen and a linked or related article could be pulled from yet another computer somewhere else in the world. A year and a half ago, a group of graduate students at the University of Illinois-Urbana announced that they had added another layer of features to the World Wide Web. By simply pointing and clicking on any blue, underlined word, users could now call up images, photos, digital video clips, radio clips, audio files, or any other Internet data. NPR radio dialog, scientific visualization movie clips, and NASA photos of Mars or Jupiter represent more specific examples of available information and services. On December 14, 1995, encrypted transmission enabled users to purchase services and products. Television's demise was now underway. When this multimedia software was placed in the public domain, its adoption exploded. Now, in addition to the sources being supplied by academia, commercial users and an ever growing circle of public and private participants are adding to the Web daily.

Research

The Web now forms an entirely new information system that combines direct global commerce with Television and Telephone, Radio, and Publishing. Instead of TV, we can have TRP. The results are revolutionary. Compare the Web with the traditional library. How much does a library grow per year? Five percent? The Internet and its Web are growing between ten and twenty percent a month. Early in any research process, the Web lets you search thousands of library card catalogs, government agencies, and electronic full-text databases simply by clicking a button. But the Web delivers more than just a citation or abstract. It can deliver full text, that is the document or even the the image, the sound, or video clip. Since The Web also connects you with people and their problems, it serves as a generator of research problems. It gives the Web navigator the potential for immediate use (read it now or print it) or the luxury of saving materials to a disk for later use. Later in the research process the Web provides an easy and quick way to display your articles for feedback from your research partners. Further, as with the

original group of physicists, you can learn to link the documents that you use in your work. Finally, the Web acts to disseminate your research results, allowing others to add your work to their links in their Web. But fast and low-cost information access and management are but the tip of the iceberg.

Teaching

The Web and its Web browser software tools make it an ideal choice for lecture and the presentation of ideas. It saves time by allowing you to link to files that already exist on the network instead of re-creating files from scratch. It also allows you to link to a wide variety of multimedia formats. Without going to the xerox machine, the Web helps my students connect with lecture outline notes, online textbooks, distant libraries, supplemental materials, online field trips into cyberspace, and even with guest speakers in real time typing conversation if a projection panel system is employed in the classroom. Other features of the Web will allow us to pretest student groups, survey interests, and conduct weekly course evaluations. But if there is any activity for which the Web and the Internet is made to order, it is to handle problems, their generation and their solution. The Web is numerous individuals gathering at a bewildering variety of electronic watering holes (LISTSERVs, MUDs, MOOs, MUSH, IRCs, netnews, etc.) to discuss, imagine, invent, and problem solve. Businesses may call it intelligence gathering, a scanning for new competition and new ideas. Government agencies may call it a thinktank. Schools may see it as collaborative or cooperative learning. In our classes we call these activities student assignments and often expect students to complete them independently. We can use the Web as a source of class problems and as an electronic library and information system for our students to employ in finding answers for our course problems.

Service

Whether we see a place for commerce in academia or not, today it is as easy and as cheap to shop in Seattle or Paris through marketing on the Web as it is for your neighbor to turn the ignition key in his or her car. On the other hand, it is just as easy for our local businesses to go national and global. Equip even our smallest local paper or radio station or clothing store with a Web server, and it can scale up to national and international markets. Part of WCU's mission is to provide support for the communities of Western North Carolina. The Web can be an equalizer for our small local businesses as well as for our rural schools. More importantly, building regional electronic conferences can be a source of ideas for coursework that link us closer to the needs of our community.

What should You Do Now?

Become Web aware. Make a personal field trip to the Media Center or to the Killian Lab, room 268, and ask a lab assistant to help you get started in exploring the Web. While online, visit the Whitehouse. Search for information on your favorite topic at Carnegie Mellon. Play a sound or video clip or two. Have your peers or the Computer Center install Netscape or one of the other Web browsers on your office Mac or Windows workstation and let them show you how to get started. As you gain experience, follow the links to my Web home page (<http://152.30.11.86>) and take the link to my LEAP thinking model that uses Web and local resources to address different stages of the problem solving process. Help the rest of the mountains become Web aware. Invite neighbors to your office for a peek through Netscape.

What Should the University do now?

Provide more networked seats. There are only 12 public access workstations on our campus, all in the Killian Lab. Do more to encourage and help students obtain their own workstations. Network classrooms and provide projection equipment for whole class activities to make this incredible new system visible. Reward risk and innovation with new technologies in the tenure and promotion process. Develop a team to assist the creation of local call access to our Western mountain communities. We must learn and lead.

Bob Houghton, Elementary Ed and Reading

Comments or Questions?

If you would like to make comments about this essay or ask questions of Bob please send your questions or comments by the 8th of the month to Terry Nienhuis (FCTE; phone: 7196; WP Mail/Vax: Nienhuis). Please indicate whether you are willing to be quoted or prefer to remain anonymous.