Chapter Nine

THE INTERNET AND THE WORLD WIDE WEB

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CHAPTER OVERVIEW

This chapter explores how the Internet is configured and its historical beginnings. The chapter explains key Internet-related services, from ISPs through portals. It includes a discussion of Internet resources that are less often used, as well as an overview of the World Wide Web and the features that make it an indispensable source of information. Discussion of these resources should help broaden a student's understanding of the online resources available to support instruction. The chapter concludes with a discussion of the role of the Internet and the web in the classroom.

CHAPTER OBJECTIVES

After studying this chapter, the student will be able to

- Summarize the history and current structure of the Internet.
- Name and describe frequently used Internet resources.
- Suggest academic applications for key Internet resources.
- Review and discuss the World Wide Web and its feature.

LESSON SUGGESTIONS

CLASSROOM ACTIVITIES SUGGESTIONS
While many students have used a network, an ISP, and the Internet, relatively few have sufficient understanding to help them troubleshoot problems when they try to connect from home or from their classrooms. Activities suggested below help students to explore network and Internet basics pragmatically and with education in mind.

- **ISP Review** – Create a glossary of Internet service providers, detailing services provided, cost (if any), and features useful to teachers.
- **Email History** – Research and prepare a report in visual format to show how email was developed and evolved to its present state.
- **Using Mailing Lists** – Participate in a mailing list by subscribing to a list on a topic of relevance to the teaching area. Ask for lesson plans and good web sites for educators. Prepare a written reflection on the value of the listserv interchanges for you.
- **How-To Guide for Teachers** – Make a booklet for new teachers introducing them to the asynchronous/synchronous technology available at your school, assuming it is a state-of-the-art technologically focused school. The booklet should be well organized and have an attractive format.

**EVALUATION SUGGESTIONS**

In addition to objective testing, evaluation of mastery of the concepts in this chapter may be accomplished by the following:

- **Net PowerPoint** – Assigning the students an Internet topic from the chapter and having them create a PowerPoint presentation explaining it.
- **Internet Graphic** – Having students design a visual showing the features of the Internet of greatest potential benefit to instruction.
- **FTP Site Endorsement** – Writing a letter to a peer recommending an FTP site for downloading freeware and shareware, giving an example of a freeware download that has been made by the writer of the letter.
- **Email Questionnaire** – Designing a questionnaire to be distributed to in-service teachers to evaluate their experience with email as an instructional tool.
- **Newsgroup Reports** – Having each student prepare an anecdotal record of taking part in a newsgroup on a topic of relevance to his or her teaching area.
- **Semantic Mapping Internet Search Engines** – Assigning small groups of students one of the Internet search engines to prepare a semantic map depicting the categories of features offered and listing specific features found under each general feature heading and sharing their semantic maps with the class to be compiled into a booklet, “Search Engines on the Map.”

**MY EDUCATION KIT**

**VIDEO ACTIVITIES**

- Virtual Reality. See text page 252.
- Discovering Online Resources. See text page 255.

**WEB ACTIVITIES**

- Email in the Classroom. See text page 242.
• Online Connections. See text page 244.

RUBRIC

• Web Site Evaluation Rubric. See text page 251

ADDITIONAL RESOURCES

RELEVANT RESEARCH


This study investigates how networking enables social learning which, in turn, has been an initial step for students engaged in research tasks. It is pointed out that in United Kingdom higher education, such social learning occurs in “large rooms furnished with series ranks of computers,” an arrangement not conducive to social learning. The authors suggest a better arrangement to be “a social learning space with 24 computers on four fishbone-shaped tables,” as seen at the University of Wolverhampton. The results of this study affirm that computer access can “encourage collaborative working and positively affect student approaches to learning.” [ABSTRACT FROM AUTHOR]


This paper analyzes a sample of online discussions to evaluate the development of adult learners as reflective practitioners within a networked community. The context for our study is a blended learning course offering post-experience professional training to non-traditional university students. These students are parents and carers of people with autistic spectrum disorder (ASD). We use Lave and Wenger’s “communities of practice” as a theoretical framework for establishing how students develop a learning community based upon mutual engagement, joint enterprise, and shared repertoires. . . . This shared discourse and common notions of what constitutes good practice help create a safe interaction space for students. [ABSTRACT FROM AUTHOR]


Four fifth-grade classrooms embarked on a modified ubiquitous computing initiative in the fall of 2003. Two 15-computer wireless laptop carts were shared among four classrooms in an effort to integrate technology across the curriculum and affect change in student learning and teacher pedagogy. This initiative—in contrast to other one-to-one programs and stationary labs—offers public schools alternatives to budget constraints and instructional space overhead. Results indicate positive teacher technology competence and confidence, as well as instructional strategies that were student-centered and made meaningful uses of technology. [ABSTRACT FROM AUTHOR]

This study proceeds from success on state achievement tests at the school level to a consideration of what technologies successful schools use and how and why they use them. The challenging and cohesive learning environment at the case study schools is attributed primarily to affective factors; most frequently to an atmosphere of caring and high academic expectations. However, physical characteristics of the schools support the challenging and cohesive learning environment in general and the use of technology resources particularly within that environment. [ABSTRACT FROM LEARNING POINT ASSOCIATES]

SUPPLEMENTAL READINGS


Visit the web sites of three school districts in your state, and review their acceptable use policies. In a one- to two-page word-processed essay, compare the policies and describe how each policy would affect you and your students if you taught in that district. What precautions would you need to take to ensure that your students abided by the terms of the policies?

- Search the web, using a meta search engine such as Google (www.google.com) or Inference Find (www.inferencefind.com).
- Enter the terms acceptable use policy to get a sizable list of links to school systems.
Keeping in touch with the latest developments in education and, particularly, educational technology can be a challenging task. Participating in educational conferences and mailing lists (listservs) is one way to "keep in touch." Think of these services as a giant room of teachers talking with one another about all the things that teachers talk about.

Join one of the many conferences or listservs for educators you find on the Net. Follow the discussions for two weeks. In a one- to two-page word-processed paper, identify the specific group you observed online. Summarize the type and usefulness of information received. How could you benefit from long-term participation in such an online group?

- Remember that all the communication is electronic, so you must have an email address to register.
- What happens at home when you don't check the U.S. mail regularly? The mail piles up! Check your email mailbox frequently.
- You might want to participate as well as observe. You can respond or post a comment as well as read them. Be sure to identify yourself as a future teacher. Your future colleagues will most likely be helpful and supportive of you.
Chapter 9
Puzzler

www.CrosswordWeaver.com
CHAPTER 9 PUZZLER CLUES

ACROSS

4  formatting language that is used to determine how the information presented on web pages will look
5  electronic messages sent from one computer to another across the many networks attached to the Internet
6  type of chat software that allows two users to spontaneously open a private two-person chat room
8  communications methods that do not occur in real-time
10  network or online service that sets aside a virtual space in which two or more users can meet in real time by typing their messages
12  site that offers one or an assortment of services
15  electronic list that can be sent electronically to everyone who subscribes
16  asynchronous Internet tool that allows users to communicate in a forum or bulletin board format
17  graphics format that is used for photos, color images, clip art, line art, and gray-scale images
18  utility software that decompresses files that have been compressed (or zipped)
19  special phone line that provides speeds up to 25 times faster than those possible with a standard phone line

DOWN

1  program that may be downloaded from the Internet, usually free, to expand a browser's capabilities
2  electronic public discussion or conference on an agreed-on topic
3  type of modem that provides high-speed connections for digital access via cable lines that are also used for cable television
6  company that provides a way to temporarily connect to the Internet usually for a fee
7  allows the user to type in keywords to locate online material that contains those words or topics
9  technology that compresses and plays back audio or video as it arrives in a continuous stream
11  agreed-on transmission protocol that is used on the Internet
13  application protocol that is used to facilitate the transferring of files between computers on the Internet
14  a web site welcome page
CHAPTER 9 PUZZLER SOLUTION

Email

Web instant messaging

SSL secure

GEPQ

Syncronous

Room to chat

Portal

Update a chat

Home page

Mail list

Discussion

JPEG

Decompression

Digital subscriber line

HTML