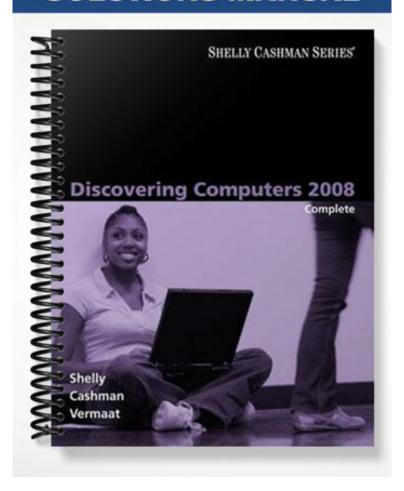
SOLUTIONS MANUAL



Discovering Computers 2008

Chapter Two: The Internet and World Wide Web

A Guide to this Instructor's Manual:

We have designed this Instructor's Manual to supplement and enhance your teaching experience through classroom activities and a cohesive chapter summary.

This document is organized chronologically, using the same heading in that you see in the textbook. Under each heading you will find (in order): Lecture Notes that summarize the section, Figures and Boxes found in the section, if any, Teacher Tips, Classroom Activities, and Lab Activities. Pay special attention to teaching tips, and activities geared towards quizzing your students, enhancing their critical thinking skills, and encouraging experimentation within the software.

In addition to this Instructor's Manual, our Instructor's Resources CD also contains PowerPoint Presentations, Test Banks, and other supplements to aid in your teaching experience.

For your students:

Our latest online feature, CourseCasts, is a library of weekly podcasts designed to keep your students up to date with the latest in technology news. Direct your students to http://coursecasts.course.com, where they can download the most recent CourseCast onto their mp3 player. Ken Baldauf, host of CourseCasts, is a faculty member of the Florida State University Computer Science Department where he is responsible for teaching technology classes to thousands of FSU students each year. Ken is an expert in the latest technology and sorts through and aggregates the most pertinent news and information for CourseCasts so your students can spend their time enjoying technology, rather than trying to figure it out. Open or close your lecture with a discussion based on the latest CourseCast.

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Chapter Objectives

Students will have mastered the material in Chapter Two when they can:

- Discuss the history of the Internet
- Explain how to access and connect to the Internet

- Analyze an IP address
- Identify the components of a Web address
- Explain the purpose of a Web browser
- Search for information on the Web
- Describe the types of Web sites
- Recognize how Web pages use graphics, animation, audio, video, virtual reality, and plug-ins
- Identify the steps required for Web publishing
- Describe the types of e-commerce
- Explain how e-mail, FTP, newsgroups and message boards, mailing lists, chat rooms, instant messaging, and Internet telephony work
- Identify the rules of netiquette

68: The Internet

LECTURE NOTES

- Recall the definition of network (a collection of computers and devices connected together via communications devices and transmission media)
- Explain what the Internet is
- List uses of the Internet
- Use Figures 2-1a through 2-1g to illustrate services available on the Internet

FIGURES: 2-1a, 2-1b, 2-1c, 2-1d, 2-1e, 2-1f, 2-1g

CLASSROOM ACTIVITIES

- 1. Class Discussion: Every student is aware of, and most students probably are very comfortable with, the Internet. Throughout this chapter, encourage students to share their Internet-related experiences.
- 2. Class Discussion: A Microsoft vice president maintains that, "In the long run, it's hard to exaggerate the importance of the Internet." Yet, has the Internet's importance been exaggerated? In an article for *Newsweek* magazine, Robert Samuelson suggests that technologies are historically important when they change lifestyles or beliefs. Technologies such as Gutenberg's printing press, the automobile, and antibiotics reshaped the human condition by leading to mass literacy, altering where people live, and lengthening life spans. Although still relatively young, Samuelson argues that, to date, the Internet's impact has been less significant. The importance of the Internet, and its rank among other innovative technologies, could be an absorbing discussion topic.
- 3. Assign a Project: A number of Internet-related books are available in the library or in a local bookstore. These books cover a variety of topics, from creating a good and bad Web page (*Web Pages that Suck* by Vincent Flanders and Michael Willis) to the evolution of an online community (*Cyberville* by Stacy Horn) to the Internet's potential impact on our quest for knowledge (*Silicon Snake Oil: Second Thoughts on the Information Highway* by Clifford Stoll). As an extra-credit project, have students visit a library or bookstore and obtain a book on an Internet-related subject. Ask them to prepare a report on the book, summarizing the book's content, detailing the author's message, and presenting their own opinions. Was the book worth reading? Why or why not?

The Internet also has been the source of controversy. Some of the concerns raised by individuals and the news media are:

1) Censorship: Should certain material be restricted to select groups, or banned entirely from the Internet?

- 2) Copyright protection: Should originators of work on the Internet have the same protection as creators in other media?
- 3) Authentication: Should regulations ensure that the purported author of material on the Internet is, indeed, the author?
- 4) Security: How can private information and sensitive communications be kept from eavesdroppers?
- 5) Overload: How can current resources handle a burgeoning number of users and increasingly complex Web pages?

These topics could be the subjects of panel discussions, class debates, individual reports, or presentations while studying this chapter.

69: History of the Internet

LECTURE NOTES

- Describe ARPA and ARPANET, and mention the goals thereof
- Note the traffic handled on NSFnet
- Describe the World Wide Web Consortium

BOXES

- 1. Web Link 2-1: *W3C.* Encourage students to visit the Web site mentioned for more information.
- 2. Looking Ahead 2-1: *Internet Speeds into the Future.* Discuss the use of the not-for-profit project called Internet2 and its applications. Encourage students to visit the Web site mentioned for more information.

CLASSROOM ACTIVITIES

- 1. Quick Quiz:
 - 1) What is Internet traffic? (Answer: The communications activity on the Internet)

70: How the Internet works

LECTURE NOTES

- Discuss the way in which data travels over the Internet
- Describe dial-up access, and contrast this with broadband options like DSL, cable modem, and other options like fixed wireless, Wi-Fi, and satellite access
- Define access provider, ISP (Internet service provider), online service provider (OSP), wireless Internet service provider (WISP)
- Explain what the Internet backbone is
- Discuss IP addresses and use Figure 2-4 to parse an address
- Define domain name, top-level domain (TLD), ICANN, and domain name system (DNS)

FIGURES: 2-2, 2-3, 2-4, 2-5

BOXES

1. Web Link 2-2: *Wireless Internet Service Providers.* Encourage students to visit the Web site mentioned for more information.

- 2. FAQ 2-1: *Is bandwidth important?* Define bandwidth, emphasize how critical this factor is to an Internet connection, and encourage students to visit the Web site mentioned for more information.
- 3. FAQ 2-2: *Is free Internet access becoming more popular?* Discuss the popularity of free Internet access, mention the role of advertising on these ISPs, and encourage students to visit the Web site mentioned for more information.
- 4. FAQ 2-3: *How do I find the right access provider?* Refer students to online resources like The List for information about ISPs, and encourage students to visit the Web site mentioned for more information.
- 5. FAQ 2-4: *How does a person or company get a domain name?* Explain the role a registrar plays in obtaining domain names and setting prices and policies, and encourage students to visit the Web site mentioned for more information.
- 6. Quiz Yourself 2-1: In addition to answering the questions in the text, as a quick review, have students visit the Discovering Computer 2008 Quiz Yourself Web page ($\frac{\text{scsite.com/dc2008/ch2/quiz}}{\text{click Objectives 1}}$) and then click Objectives 1 3.

CLASSROOM ACTIVITIES

- 1. Class Discussion: Ask students about access providers with which they are familiar. Consider contacting a regional ISP about sending a representative to explain how the ISP works and detail the services it offers. Encourage students to describe access providers they have used. Ask students familiar with an ISP or online service provider to describe the advantages, and disadvantages, of each. Like any company in the limelight, America Online has had its supporters and detractors over the years. Encourage students familiar with AOL to tell what they like, and dislike, about the service. Ask students who use other online service providers, such as Comcast or AT&T Worldnet, to describe their feelings about these services. From student responses, compose a list of the most important features of an online service provider. Which service, or services, most closely reflects these features? Why?
- 2. Assign a Project: When people decide to connect to the Internet using an online service provider, they have to choose the online service provider that is best for them. The choice usually is based on individual needs, interests, and budgets. To find out more, have students visit the Web page or call the toll-free number for at least two popular Internet or online service providers (such as America Online, Comcast, EarthLink, or another national or regional service). What features or benefits does the service offer? How much does the service cost? If possible, students should talk to people they know who use each service and discover what the people like and do not like about the online service provider. Based on everything they learn, which online service provider seems best for them? Why?

3. Quick Quiz:

- 1) What does a DNS server do? (Answer: Translates the domain name to its associated IP address so data can be routed to the correct computer)
- 2) Which of the following is not one of the original generic TLDs? a) org b) net c) biz d) edu (Answer: c)
- 3) AT&T Worldnet Service is an example of a national ISP. True or false? (Answer: True)

4. Critical Thinking: Selling domain names has become a cottage industry. Individuals register domain names they think will be in demand — such as the names of budding public figures or companies — and then attempt to sell the domain name to the figure or company. But, the practice can turn ugly. One entrepreneur purchased a domain name that appeared related to a recent presidential candidate (the name consisted of the candidate's initials and last name) for the standard \$70. After trying, and failing, to sell the name to the candidate's campaign for \$350,000, the rejected-seller turned the Web page into a parody of the candidate, complete with distorted "facts" and fake pictures that some felt bordered on slander. Should domain names be regulated? Why? Should selling domain names be illegal? Why? How else can people deal with buying and selling domain names?

75: The World Wide Web

LECTURE NOTES

- Describe the World Wide Web (WWW) or Web
- Define the following related terms: Web page, Web site, Web server
- Explain what a (Web) browser is, and what a home page is, and use Figure 2-6 to illustrate how a browser displays a home page
- Define the term downloading
- Explain what a URL or Web address is
- Define what a link (hyperlink) is, and what is meant by the term surfing the Web
- Discuss searching on the Web, explaining the terms subject directory, search engine, search text, and spider
- List the 12 basic types of Web pages
- Define portal and online community
- Define blog, wiki, and online social network (or social networking Web site)
- Explain what a media sharing Web site is
- Describe what a content aggregator is, and how it works with RSS 2.0
- Use Figure 2-15 to present guidelines for evaluating the value of a Web site
- Define multimedia and graphic, and introduce the formats JPEG, GIF, and PNG
- Discuss the use of animation, audio, video, and virtual reality on Web sites
- Define plug-in
- Discuss Web publishing and use Figure 2-24 to outline the five steps to Web publishing

FIGURES: 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14a, 2-14b, 2-14c, 2-14d, 2-14e, 2-14f, 2-14g, 2-14h, 2-14i, 2-14j, 2-14k, 2-14l, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20, 2-21, 2-22, 2-23, 2-24

BOXES

- 1. Web Link 2-3: *MySpace*. Encourage students to visit the Web site mentioned for more information.
- 2. Web Link 2-4: *YouTube*. Encourage students to visit the Web site mentioned for more information.
- 3. Ethics & Issues 2-1: *Should You Trust a Wiki for Academic Research?* Ask students to debate the validity of wikis for academic research, and brainstorm policies that might engender more public confidence about wikis.
- 4. Ethics & Issues 2-2: Who Should Control the Content of Your CDs, DVDs, and Media Files? Ask students to debate the balance between the rights of media companies and the rights of consumers.

- 5. FAQ 2-5: Which Web browser currently has the highest market share? Use the pie chart to discuss the use of Internet Explorer and its competitor browsers, and encourage students to visit the Web site mentioned for more information.
- 6. FAQ 2-6: *How do Google and Yahoo! make money?* Discuss the use of advertising revenue by these companies to keep their offerings free, and encourage students to visit the Web site mentioned for more information.
- 7. FAQ 2-7: *What is a file?* Define a file and discuss its attributes, and encourage students to visit the Web site mentioned for more information.
- 8. Looking Ahead 2-2: *Facing Up to Search Technology*. Introduce facial-recognition technology, and discuss the experts' predictions for the use of other search engines. Encourage students to visit the Web site mentioned for more information.
- 9. Quiz Yourself 2-2: In addition to answering the questions in the text, as a quick review, have students visit the Discovering Computer 2008 Quiz Yourself Web page (scsite.com/dc2008/ch2/quiz) and then click Objectives 4 9.

TEACHER TIPS

One of the biggest misconceptions about computing technology today, and certainly about the Internet, is that the terms "Web" and "Internet" are not interchangeable. Emphasize to students that the Web is a service on the Internet, just like e-mail, instant messaging, and the like. The ubiquity of the Web contributes to this misconception, but it is an important myth to deconstruct in the service of explaining what the Web actually is (and is not).

Explain to students that they may encounter three different kinds of links on Web pages. The three types of links are:

- 1) Target links move from one location to another in the same document.
- 2) Relative links move from one document to another on the same Internet computer.
- 3) Absolute links move to another document on a different Internet computer.

Recommend to students that, when choosing a search engine, or when looking for obscure information, they turn first to the larger search engines (Yahoo!, Google, metasearch tools like Dogpile, and so on) because they are easiest to use and cast the largest net in the search for information. Mention that Google has become so large and so dominant in this space as to become a verb ("to google," meaning to look up something in a search engine).

Caution students that one difficulty faced by search tool users is an "embarrassment of riches." Often, simple queries yield an overwhelming number of results. This is attributed to several factors:

- 1) The limitations of search engines. A query about mustangs on the American plains might produce results involving Southern Methodist University's football team *and* the Ford car.
- 2) The nature of queries. While a traditional researcher, such as a librarian, uses queries averaging 14 words, the typical Internet query is just over one word.

3) The creators of Web pages. Developers of commercial Web pages sometimes distort results by repeating frequently requested keywords in the background, where spiders see them but people do not.

Another fact about the Web that warrants cautioning students is the way in which the Web democratizes information ownership. Anyone can access, and publish, a Web page. The Web makes it easy to obtain information, but requires more effort on the part of consumers to evaluate the quality of that information. Emphasize that it should not be assumed that all information on the Web is correct and accurate. The Web is not an encyclopedia. Both experts and non-experts create Web pages, with a range of quality and depth. Some of the information on the Web is inaccurate, biased, out-of-date, shallow, or inappropriate for academic use. Use Figure 2-15 to present guidelines for evaluating the value of a Web site or Web page. Other factors to be considered include the sponsor or owner of the Web site, the purpose of the site, the presentation of the site, and evident biases or inaccuracies.

CLASSROOM ACTIVITIES

- 1. Group Activity: Compile a class list of Web addresses with which students are familiar and the associated companies or organizations.
- 2. Class Discussion: Like the Internet, no single person or organization manages or controls the Web. Disagreements over how to apply local laws to the Web have yet to be resolved. For example, two French human rights groups sued Yahoo! (one of this chapter's Companies on the Cutting Edge on page 103) for selling historical Nazi items on the company's U.S.-based Web site. (Yahoo! has no physical presence in France.) The groups argued that showing the items violated a French law prohibiting the display of racist material. This is an example of companies that do business online being subject to lawsuits in foreign courts for selling products or posting materials that are legal in their own countries, but offend people or violate laws in other countries. Although jurisdictional disputes sometimes occur in the physical world, they usually can be resolved with established rules supported by years of international treaties. The international, unregulated character of the Web introduces new questions about applying cross-border laws. So far, most court cases concerning Web site content have been brought in the United States, France, and Canada, countries considered fairly liberal and even-handed. What will happen when countries with harsher laws — such as those governed by dictators or strict religious sects with severe restrictions on what can be sold, displayed, or said in public — try to enforce them? What can be done about Web content that is legal in one country but illegal, or offensive, in another? Should Web content be regulated by international treaties, or would a disclaimer on the site (e.g., "This Web site intended for U.S. citizens only.") be sufficient? Why?
- 3. Class Discussion: Encourage students to describe searches they have conducted and search engines they have used (both successfully and unsuccessfully) to find information on the Web. Based on their experiences, have them suggest tips to use, and pitfalls to avoid, in order to conduct a successful search.
- 4. Class Discussion: Drug sales, gambling, terrorism resources, fraudulent deals, and child pornography all are present on the Web. Some people call Web sites catering to these activities the Underground Web. The Web makes illegal activities more accessible than ever no more meeting in dark alleys, just sit down at your computer. Web watchers claim the Underground Web is growing at an alarming rate. According to researchers, illegal online sales approach \$36.5 billion a year, just a little less than legitimate online sales (about \$39.3 billion). One expert goes farther and claims that, if actual figures

were collected, more than 70 percent of all e-commerce would be based on unacceptable or illegal activity. Consider:

- 1) Prescription drugs (and sometimes illegal drugs) are available at hundreds of Web sites, often with no prescription necessary.
- 2) Illegal online gambling is the eighth-largest business on the Internet.
- 3) Law-enforcement officials claim the September 11 terrorists used the Internet to plan their attack
- 4) 70 percent of fraud complaints received by the government occur on the Web.
- 5) Complaints about child pornography on the Web have increased 600 percent since 1998. Some experts estimate that every 44 seconds a sleazy or criminal act is committed on the Web. Should the Web be monitored for illegal and/or unsavory activities? If so, how? Should a single agency be created, or should different law enforcement agencies be assigned to different criminal activities on the Underground Web?
- 5. Class Discussion: The *San Jose Mercury News* argues that, "Yahoo! is closest in spirit to the work of Linnaeus, the 18th century botanist whose classification system organized the natural world." In recalling its company history, Yahoo! claims it "began as an idea, grew into a hobby, and lately has turned into a full-time passion." Yahoo! is a prominent player on the Internet game board, reporting millions of page views per day. Ask students who have used Yahoo!, or any other popular portal, to describe their experience.
- 6. Class Discussion: If the school has a Web site, encourage students to visit the site and discuss their opinions. What information does the site offer? How accurately does it reflect college life? Will the site attract potential freshman?
- 7. Class Discussion: List sponsors of business/marketing Web sites and encourage students to visit the sites supported by these, or other, businesses.
- 8. Class Discussion: Ask students to describe educational Web sites they have visited. As a related topic, ask students to describe entertainment Web sites they have visited. Why did they visit the site? Have they used an entertainment Web site to cast a vote about a topic on a television show? How did they feel when the results of the vote were revealed?
- 9. Assign a Project: Encourage students to visit and describe an advocacy (or a personal, etc.) Web site.
- 10. Assign a Project: While more people use the Internet every day, perhaps the fastest growing audience segment is children from 10 to 14 years old. A recent survey found almost 10 million children use the Internet to participate in chat rooms, send e-mail, surf the Web, or even publish newsletters, and that number is expected to triple in the next few years. Another study found that almost 30 percent of teenagers felt they could live without a television, but only a little more than 20 percent could survive without a computer. Have students obtain permission to visit a local junior high school and talk to students about their use of the Internet. How frequently do they use the Internet? Why? Do parents put any restrictions on Internet use? If so, what? How do they feel about these restrictions? How important to them is using the Internet? Why?

11. Quick Quiz:

- 1) When using a search engine, how can you reduce the number of hits returned? (Answer: Use more specific search text and use operators)
- 2) A Web site is a collection of related Web pages and associated items, such as documents and pictures, stored on a Web server. True or false? (Answer: True)
- 3) What is downloading? (Answer: The process of a computer receiving information)
- 4) What is a URL? (Answer: A unique address for a Web page)
- 5) Which of the following is not a widely used search tool? a) Yahoo! b) Google c) Dogpile d) Podcast.net (Answer: d)
- 12. Critical Thinking: A father sat down at a computer with his young child, typed what he thought was the Web address for a site of national interest, and was surprised to encounter explicitly pornographic material. "[I] should have paid closer attention to the [URL] suffix," he later admitted. Stealth URLs addresses similar to those of other Web pages are an Internet annoyance. To attract visitors and potential subscribers, some Web pages adopt the domain names of popular Web sites, with minor changes in spelling or top-level domain. Critics claim stealth URLs mislead consumers and weaken the value of the original name. Defendants counter that restrictions on URLs would violate rights to free speech. Should URLs be regulated? Why or why not?
- 13. Critical Thinking: Have students suggest advantages and disadvantages of learning in a nonlinear manner. Are any subjects particularly suited to nonlinear, or linear, learning? Why? How do links facilitate nonlinear learning?
- 14. Critical Thinking: A great deal of audio file swapping occurs in colleges and businesses because college and business network connections are often faster than home Internet connections. Studies estimate that as many as one in five computers at work contains file-swapping software. Some colleges and businesses have banned music Web sites. They maintain that downloading and sharing music creates a tremendous amount of traffic and clogs networks. They also fear legal liability as the music industry grows more aggressive in pursuing copyright violations in the era of the Digital Millennium Copyright Act. As a result, about 35 out of 250 companies surveyed in a recent poll have disciplined or reprimanded employees for downloading music, and some schools are using filtering software to deny access to music Web sites. Several student groups have formed to protest this response. Should students and/or employees be allowed to download music files? Why or why not?
- 15. Critical Thinking: Encourage students to suggest other ways in which VR could be applied. To reinforce understanding of multimedia, choose a topic for a Web page, such as your school or your class, and ask students how multimedia could enhance the page. What multimedia elements would they use? How?

LAB ACTIVITIES

- 1. Ask students to use computers in the lab to use two or three of the search engines listed in Figure 2-10 to search for the same query. Have students document the results of their searches and compare them across the search engines that they use.
- 2. In the lab, have students use a search engine to identify a sample site in each of the categories listed in Figure 2-14.

3. In the lab, have students use a search engine to find a virtual reality Web site and, if they are authorized to download the necessary plug-ins onto the lab computers, to enter the VR world and experiment with this technology.

91: E-commerce

LECTURE NOTES

- Define e-commerce
- Review the three different types of e-commerce: business-to-consumer (B2C), consumer-to-consumer (C2C), and business-to-business (B2B)
- Explain the function of an electronic storefront and a shopping cart
- Discuss online auction

FIGURE: 2-25

BOXES

- 1. Web Link 2-5: *PayPal*. Encourage students to visit the Web site mentioned for more information.
- 2. FAQ 2-8: *Is it safe to shop online?* Caution students about online shopping in terms of trustworthiness, and encourage students to visit the Web site mentioned for more information.
- 3. Looking Ahead 2-3: *Grocery Shopping with a Buddy.* Discuss the use of a portable computer attached to a shopping cart, and encourage students to visit the Web site mentioned for more information.

CLASSROOM ACTIVITIES

- 1. Class Discussion: Ask students what, if any, are disadvantages of doing business on the Web. What products would they be most likely to purchase on the Web? What products would they be least likely to purchase? Why?
- 2. Assign a Project: The Internet has had a tremendous impact on business. For some businesses, that impact has not been positive. For example, recent surveys suggest that as a growing number of people are making their own travel plans online, travel agents are seeing a significant reduction in their customer base. What does the future hold for travel agents and other businesses that are "competing" with the Internet? Have students interview a travel agent or an individual in another business that might be impacted negatively by the Internet. What affect has the Internet had on the business? How might the Internet change the way business is done? What services does the business offer that cannot be found on the Internet? What can be done to minimize, or even take advantage of, the Internet's impact?

3. Quick Quiz:

- 1) Which of the following consists of the sale of goods and services to the general public? a) B2C b) C2C c) C2B d) B2B (Answer: a)
- 2) E-commerce transactions are conducted primarily using desktop computers. True or false? (Answer: False)

92: Other Internet services

LECTURE NOTES

- List additional services available on the Internet
- Define e-mail (electronic mail), explain what an e-mail address is, and how an e-mail program works
- Discuss what a user name is, and the function of an e-mail address book
- Describe what FTP (File Transfer Protocol) is, and define the term uploading
- Explain what a newsgroup is, and the related terms: newsreader, articles, post, thread, and threaded discussion
- Explain what a message board is
- Discuss what a mailing list is, and what it means to subscribe to and unsubscribe from a mailing list
- Define chat and chat room, and explain what it means to communicate in real time
- Describe what instant messaging (IM) and Internet telephony (or Voice over IP) are

FIGURES: 2-26, 2-27, 2-28, 2-29a, 2-29b, 2-30, 2-31, 2-32, 2-33, 2-34

BOXES

- 1. Web Link 2-6: *E-Mail.* Encourage students to visit the Web site mentioned for more information.
- 2. Web Link 2-7: FTP. Encourage students to visit the Web site mentioned for more information.
- 3. Web Link 2-8: *Newsgroups and Message Boards.* Encourage students to visit the Web site mentioned for more information.
- 4. Web Link 2-9: *Mailing Lists.* Encourage students to visit the Web site mentioned for more information.
- 5. Web Link 2-10: *Chat Rooms.* Encourage students to visit the Web site mentioned for more information.
- 6. Web Link 2-11: *Internet Telephony*. Encourage students to visit the Web site mentioned for more information.
- 7. Ethics & Issues 2-3: *E-Mail: Irritant or Liberator?* Ask students to offer their suggestions about how to deal with e-mail, and survey them about the impact of e-mail on productivity in general.
- 8. FAQ 2-9: *Can my computer get a virus through e-mail?* Explain that e-mail attachments are one way that virus authors attempt to spread a virus, and encourage students to visit the Web site mentioned for more information.
- 9. FAQ 2-10: *How popular is Internet telephony?* Discuss the popularity of VoIP services like Vonage, and encourage students to visit the Web site mentioned for more information.

TEACHER TIPS

It may be useful to introduce some definitions that are closely linked with FTP software. Many files on anonymous FTP sites are public domain software, freeware, or shareware. Public domain software is not

copyrighted and therefore can be distributed at no cost. Freeware also is available at no cost but, because it is copyrighted, it cannot be resold. Shareware can be downloaded and tried for free, but a license fee must be paid if the software is kept. Shareware users who pay the license fee might receive a manual, notification of new releases or tips, and access to technical support. The quality of freeware, public domain software, and shareware varies greatly.

CLASSROOM ACTIVITIES

- 1. Class Discussion: In an effort to reduce the amount of time spent on e-mail, some writers have suggested rules, such as check e-mail only twice a day, print messages only if they are going to be filed, and store messages immediately or delete them. Ask students why e-mail is such a popular form of communication. Can (and should) anything be done to curb the flow of e-mail? What other rules can students invent to reduce the time spent on e-mail?
- 2. Class Discussion: Ask students to suggest advantages, and possible disadvantages, a moderated newsgroup might have compared to a newsgroup without a moderator.
- 3. Class Discussion: Ask students to brainstorm why an individual might subscribe to a mailing list.
- 4. Class Discussion: Ask students which of the Internet services described in this chapter they have used. How? What services would they like to try? Why?
- 5. Assign a Project: A study of Pittsburgh families discovered a disturbing trend the more time subjects spent online, the more depressed and lonely they tended to be. The report concluded that one hour a week of Internet use led to an average increase of 1 percent on the depression scale and 0.04 percent on the loneliness scale. Researchers think time spent on the Internet might be deducted from contact with real, living people. Study participants reported a decline in interaction with family members and a reduction in numbers of friends. No matter how heartfelt, e-mail, chat rooms, and newsgroups have an ephemeral quality compared to real human relationships. How does Internet communication affect mental health? Why? In terms of mental health, what is the best way to use the Internet?

6. Quick Quiz:

- 1) How is a chat room different from a newsgroup? (Answer: In a chat room, users converse in real time, meaning that the people with whom you are conversing are online at the same time. A newsgroup is an online area in which users have written discussions about a particular subject.)
- 2) In an e-mail address, what symbol separates the user name from the domain name? (Answer: @)
- 3) What is anonymous FTP? (Answer: A file transfer resource whereby anyone can transfer some, if not all, available files)
- 4) A message board is a group of e-mail names and addresses given a single name. True or false? (Answer: False)
- 5) Which of the following is not an example of popular IM software? a) Netscape Chat b) AOL Instant Messenger c) Google Talk d) Windows Live Messenger (Answer: a)

LAB ACTIVITIES

1. If possible, to help students better appreciate these Internet services, bring them into the lab to experiment with IM, e-mail, FTP, etc.

100: Netiquette

LECTURE NOTES

- Define netiquette and use Figure 2-35 to review the common rules
- Introduce the terms flames, flame wars, spam, spoiler, FAQ, and emoticons

FIGURE: 2-35

CLASSROOM ACTIVITIES

- 1. Ethics & Issues 2-4: *Should Companies Be Able to Track Your Online Habits?* Ask students to consider circumstances, if any exist, under which organizations should be able to track your Web surfing habits, as well as the benefits and dangers of online tracking.
- 2. Quiz Yourself 2-3: In addition to answering the questions in the text, as a quick review, have students visit the Discovering Computer 2008 Quiz Yourself Web page ($\frac{\text{scsite.com/dc2008/ch2/quiz}}{\text{click Objectives 10}}$) and then click Objectives 10 12.
- 3. Career Corner: *Web Developer*. Review the responsibilities and opportunities in the work of a Web developer. Encourage students to visit the Web site mentioned for more information.

CLASSROOM ACTIVITIES

- 1. Class Discussion: Ask students which netiquette rules they feel are most important. Which rules are least important? Why? What rules, if any, would they add?
- 2. Assign a Project: Not surprisingly, new tools or means of communication, such as e-mail, usually are introduced before people agree upon courteous ways to use them. Eventually, standards are established, either based on general agreement or through the recommendations of experts. In her book, *Guide for the Turn-of-the-Millennium*, syndicated columnist Judith Martin (Miss Manners) offered guidelines for the use of the Internet and other technological innovations. For example, Martin believes that e-mail is unsuitable for momentous messages (e.g., "You're fired") and too casual for formal salutations (e.g., "Dear Sir"). Web sites like albion.com/netiquette/ also offer advice on Internet manners. Have students interview a number of people about their opinions on the proper, and improper, use of e-mail, cellular telephones, or other modern methods of communication. What, if any, opinions are widely held? Why? Do any factors (such as age, gender, education, economic level, and so on) seem to affect people's opinions? How?

3. Quick Quiz:

- 1) What are flames? (Answer: Abusive or insulting messages)
- 2) To what is the use of all capital letters in e-mail (or newsgroups or chat rooms) equivalent? (Answer: SHOUTING!)
- 3) Which of the following is the term for unsolicited e-mail messages? a) trash mail b) debris c) spam d) digital waste (Answer: c)

End of Chapter Material

• **Chapter Review** provides a general survey of the material in the chapter. Students can use these pages to reinforce their achievement of the chapter objectives.

- **Key Terms** allows students to use these terms from the text to prepare for tests and quizzes. Students should know each Primary Term (shown in bold-black characters in the chapter) and be familiar with each Secondary Term (shown in italic characters in the chapter). Primary Terms include terms commonly used in the computer industry and in advertisements, or terms that identify a major category. Secondary Terms include terms primarily used by IT professionals and other technical people, terms that identify subcategories, or terms that are discussed in more depth in a later chapter.
 - In the Test Bank that accompanies this Instructor's Manual, the answers to questions pertaining to Primary Terms are labeled (P), and the answers to questions pertaining to Secondary Terms are labeled (S). If you are using the ExamView test generator, you can use the Primary or Secondary difficulty designations to choose questions that involve only Primary Terms, only Secondary Terms, or both Primary and Secondary Terms.
- Checkpoint exercises review key terms and concepts presented in the chapter. Have students
 complete the Label the Figure, True/False, Multiple Choice, Matching, Short Answer, and Beyond
 the Book exercises.
- **Learn It Online** exercises ask students to visit the Online Companion that offers additional information, resources, and activities related to the topics presented in the chapter.
- The **Learn How To** exercises apply to students' every day life what they learn in each chapter. These hands-on activities solidify the concepts presented in the chapter with practical application.
- In the **Web Research** exercises, students use various Web resources to find out more features related to this chapter. Encourage students to use their browsers and the link in each exercise or a search engine to complete selected exercises.
- Thought-provoking Case Studies in each chapter exercise students' minds and challenge them to
 construct creative solutions. The Case Study exercises are constructed to discuss in class, assign for
 student research, or in a team environment.

Glossary of Key Terms

- access provider (71)
- address book (94)
- animation (86)
- audio (86)
- blog (82)
- browser (75)
- cable modem (70)
- chat (98)
- chat room (98)
- dial-up access (70)
- DNS server (74)
- domain name (73)
- downloading (76)
- DSL (70)
- e-commerce (91)
- electronic storefront (92)
- e-mail (92)
- e-mail address (94)
- e-mail program (93)
- emoticons (100)
- FTP (96)
- graphic (85)
- home page (76)
- instant messaging (IM) (98)
- Internet (68)
- Internet telephony (99)
- IP address (73)
- ISP (Internet service provider) (72)
- link (77)
- mailing list (97)
- media sharing Web site (84)
- message board (97)
- MP3 (86)
- multimedia (85)
- netiquette (100)
- newsgroup (96)
- online auction (92)
- online community (82)
- online service provider (OSP) (72)
- online social network (84)
- player (86)
- plug-in (89)
- portal (82)
- real time (98)

- RSS 2.0 (84)
- search engine (78)
- search text (80)
- shopping cart (92)
- social networking Web site (84)
- streaming (86)
- subject directory (78)
- subscribe (97)
- surfing the Web (77)
- traffic (70)
- unsubscribe (97)
- uploading (96)
- URL (76)
- user name (94)
- video (88)
- virtual reality (VR) (88)
- Web (75)
- Web 2.0 (75)
- Web address (76)
- Web browser (75)
- Web page (75)
- Web publishing (90)
- Web server (75)
- Web site (75)
- wiki (82)
- wireless Internet service provider (72)
- World Wide Web (75)

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