

# your guide to the i-series

## THE I-SERIES: COMPUTING CONCEPTS . . . THE FUN STARTS HERE!

INVITING . . .



### Interactive Companion Lab Support

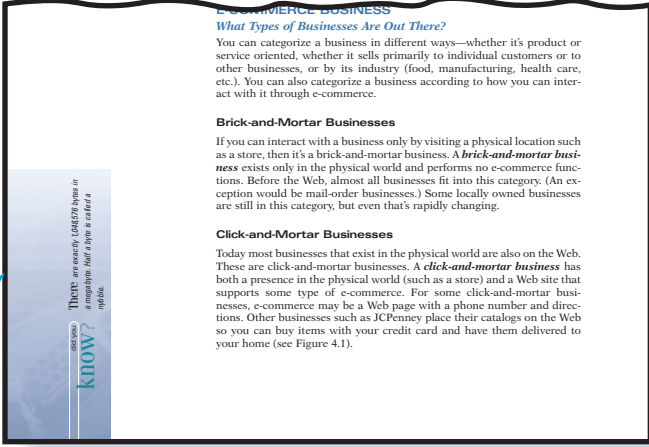
Featured on the chapter opener, this handy list lets you know which multimedia labs are most appropriate for use with the chapter. Twenty labs are included on the free CD packaged with your text.

### Did You Know?

These interesting and fun facts grab your attention right from the start.

**Did You Know? Sidebars**

Integrated in the margin throughout the text, this feature continues the chapter-opening theme of intriguing facts for your reading enjoyment.



# your guide to the i-series

INSIGHTFUL . . .

Four special-interest boxed features sure to engage you are woven throughout the text—bringing concepts to life!

**i-series insights**  
*Ethics, Security & Privacy*

**Software That Kills**

Software is available today that can actually help you make decisions, especially in the business world. For example, some software can help you determine how much inventory to carry, how to price rooms in a hotel based on seasonal travel, how your customer demographics seem to be changing, and which investment strategies will yield the highest returns. There's even software to help diagnose medical diseases and prescribe treatments.

Software, however, is only as good as the people who develop it. If software has a problem and doesn't produce the correct results, we say that it contains a "bug." Some bugs may not be that bad



(calculating the wrong pay for example), because their errors can be corrected. However, a bug in a medical program can do permanent damage.

Some years ago in the medical industry, software was developed to help determine how to treat cancer patients. It made a mistake and delivered 130 to 250 times the amount of radiation that patients needed. Four of those patients, unfortunately, died.

Software can help people automate tasks. But those tasks must be described in great detail by an expert. Then, the expert must validate that the software works perfectly. We may have some degree of tolerance for variation in personal productivity software but certainly not for software in the medical field that determines radiation levels.

**I-Series Insights**

Designed to focus on Ethics, Security, and Privacy issues, I-Series Insights provide lively, provocative discussions of these important topics.

**i-buy**


*The Ups and Downs of "Always-On" Internet Connections*

If your Internet access is via DSL, cable modem, or satellite modem, you probably have an always-on connection, meaning that as long as your computer is on you're connected to the Internet. The up side is that you have instant access to the Internet, and the down side is that you're open to attacks by hackers.

But you can protect yourself. Your first line of defense is passwords. You can protect your files, folders, and disk drives with passwords. The longer the password the harder it is to break. Since it's not always easy to remember long passwords, you can use a phrase that means something to you and cannot be easily associated with you—perhaps something like "TryIt!MoreTime." But be advised that password-cracking software looks for specific phrases and letter combinations, so make the phrase as obscure as you can. If you know words in a language other than English, use a phrase from that language or intersperse the English phrase with non-English words. Throw in some capitalization, digits, and punctuation for good measure. See Chapter 7 for more pointers on passwords.

A good method of protection is a firewall, which is software and/or hardware that protects you from intruders. A software firewall will inform you if someone is trying to gain access to your computer. You can set the program to allow one-time or any-time access to particular people or computers. Some firewall software is available for free.

If you have a home network, you could use a cable/DSL router as a firewall. A router makes your network more or less invisible to outsiders and can also allow several computers to share one high-speed Internet connection.



**I-Buy**

These boxes cover pragmatic topics related to buying and upgrading your own PC. Selected examples include: lease vs. purchase, warranties, and quality of life.

**practically speaking**

*The Best Applications of Virtual Reality*

Imagine a world in which the color blue feels like sandpaper, a world in which the only furniture you can sit on must be green, or a world in which a pin dropping on the floor sounds like the cracking of thunder. That's the real world for a person with autism. Autism is a disease that interferes with the development of the part of the brain that processes sensory perceptions. Some autistic people do indeed feel things (sandpaper grinding across the skin) when they see colors.

For autistic people, the world is a mishmash of objects that make no sense to them when they have to deal with them all at once. For example, if you place two differently colored chairs in front of an autistic person and tell him or her that they are both chairs, that person may become confused and disoriented.

A simple world is the best world for individuals suffering from autism. So, many researchers are using virtual reality to teach autistic people to deal with everyday life.

In a virtual reality simulation, researchers can eliminate all forms of background noise, colors, and objects, except those that they want the autistic person to focus on. As the autistic person becomes comfortable with a simple virtual reality simulation, new objects or colors can be introduced without the usual adverse side effects. This allows the autistic person to move from dealing with a simple environment to an environment that includes many objects and colors.



**Practically Speaking**

These boxes discuss a range of interesting, real-life technology issues. Selected examples include: Internet addiction, speed of speech recognition, and wirelessly wired.

**I-Witness**

Conveniently located before the end-of-chapter material, I-Witness boxes provide the do's and don'ts of Web site creation and design. Critical thinking is encouraged as you analyze good and bad sites.

**i witness**  
*An Up-Close Look at Web Sites*

**The Blinking Binge**

As you've already seen, there are many ways to make your Web site sizzle and its important messages catch the eye. Some of those ways are using different type fonts and styles, using colos, and formatting text with bullet points.

Another common method people use to make text eye-catching is to make it blink. Blinking is the simplest form of motion you can put into your Web site. And it's easy to do. You can make single words, sentences, images, or even your whole Web site blink.


Be careful though. Too much blinking can become annoying and it might drive your visitors away. To help you understand how best to use blinking, we've provided three Web sites for you to review. They are

[www.mba.com/i-series/I-Witness/7-A.html](http://www.mba.com/i-series/I-Witness/7-A.html)  
[www.mba.com/i-series/I-Witness/7-B.html](http://www.mba.com/i-series/I-Witness/7-B.html)  
[www.mba.com/i-series/I-Witness/7-C.html](http://www.mba.com/i-series/I-Witness/7-C.html)

One of those Web sites makes good use of blinking while another uses too much blinking. Which is the good one and which is the bad one? What would you do to the bad one to better utilize blinking?

Finally, one of the Web sites uses no blinking at all but could benefit from it. How would you incorporate blinking into that Web site to make certain text stand out? You can connect to the site for this text and download these Web sites to your computer. You can then make the changes yourself.

**HTML Reference:**  
 The blink tag:  
 <BLINK>The Blinking Binge</BLINK>—will cause the text "The Blinking Binge" to blink on your Web site.



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**making the grade** SECTION B://

- \_\_\_\_\_ is an operating system function that allows you to work with more than one piece of software at a time.
- Microsoft's home computer user operating system is Windows 2000 Me or \_\_\_\_\_.
- \_\_\_\_\_ is software that provides additional functionality to your operating system.
- \_\_\_\_\_ is utility software that scans for and often eliminates \_\_\_\_\_ in your RAM and on your storage devices.

**C://FILE AND FILE MANAGEMENT CONCEPTS**

You use your computer to massage, manipulate, and work with information. It's as simple as that. Even if you're playing a game or surfing the Web, you're massaging, manipulating, and working with information all the time. And, of course, if you're using personal productivity software to write a term paper or create a graph, you're using that software to work

## Making the Grade

These checkpoints, made up of short-answer questions, end each major chapter section, making sure you understand the concepts before reading on. Answers appear in an end-of-book Appendix.

## INTERACTIVE . . .

End-of-chapter material is organized to follow a 3-level system of instruction. This rich assortment of exercises and projects ensures mastery of the material.

chapter three **review of terminology** LEVEL ONE

**CROSSWORD PUZZLE**

**Across**

- For taking still photos
- Software when your computer crashes
- For capturing photos and art that exist on paper
- Better than word processing software
- Software for personal and business needs
- Bundled software
- Software for communicating
- Software that works with cells
- Group of related files
- Software for working with images and the like
- Software that runs your computer
- Banking on the Web

**Down**

- Information
- Operating system for Apples
- Software that maintains your checking account
- Part of system software
- Gives you the right to use software
- Not as good as desktop publishing software
- Listing of files
- Unique letter for each storage device
- Helps you maintain an address book
- New release of software
- Part of system software

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## Level One: Review of Terminology

Features a crossword puzzle that makes learning fun!

chapter one **review of concepts** LEVEL TWO

**QUESTIONS AND EXERCISES**

- Fill in the boxes below to complete the categories of the components of your computer.

```

    graph TD
      A[YOUR COMPUTER] --> B[ ]
      A --> C[SOFTWARE]
      B --> D[ ]
      B --> E[ ]
      D --> F[COMPUTER'S BRAIN]
      E --> G[ ]
      F --> H[ ]
      F --> I[ ]
      G --> J[ ]
      G --> K[ ]
  
```

- Consider the following terms in a related group. For each, place beside it its equivalent computer by size (we've provided one to get you started).

• Cruise ship	_____	• Airplane seat	_____
• 50-passenger bus	_____	• Minivan	_____
• Roller blades	_____	• Motorcycle	Desktop _____

- For each of the following answers, create the question:

ANSWER	QUESTION
A. The CPU and internal memory (RAM).	_____
B. A computer for supporting the needs of several people simultaneously in small to medium-size businesses.	_____
C. Software that deals with technology-specific tasks.	_____
D. 5.	_____
E. For storing information.	_____
F. It's once for buttons and twice for icons.	_____
G. A virtual meeting place on the Web for communicating with people.	_____
H. They make me who I am.	_____

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## Level Two: Review of Concepts

Takes you to the next level with various exercise opportunities, including fill-in, answer/question, and more.

# your guide to the i-series

chapter three

**hands-on projects**

LEVEL THREE

e-commerce

c. Does the site give you both a map and driving instructions or a combination of the two?

As you travel, would you prefer to have directions from a Web site or use a "fold-up" map? Can the information on a Web site be as reliable as a fold-up map? Or, in reverse, can a fold-up map that was probably printed some time ago be as up-to-date as the information on a Web site?

Below, we've provided four sites that offer online banking. Connect to a couple of them, and let's do some fact-finding concerning online banking.

- www.sfnb.com
- www.netbank.com
- www.delawarefirstbank.com
- www.future-banker.com

First of all, which of these sites are for banks that exist only on the Web? That is, which sites

LEVEL THREE

**hands-on projects**

chapter three

on the web

1. Downloading Free Images, Photos, and Art

In the previous section with e-commerce projects, you visited some Web sites that offer free-ware and shareware. And there's a lot more free stuff on the Web. For example, there are thousands of sites that provide free images, photos, and art. All you do is download them and use them as you wish. You can even change the way they look if you wish. Start at your favorite

of choice. Report back to your class the exact set of steps it takes to change a screen saver on your computer.

3. Categorizing Personal Productivity Software

In the computer software ad on page 3.3, we listed some of the more popular personal productivity software packages. What we didn't tell you was in which category of personal productivity

chapter three

**hands-on projects**

LEVEL THREE

ethics, security & privacy

1. Software Piracy

The problem of software piracy grows larger everyday. Software piracy occurs when someone illegally obtains and uses a copy of software. For example, you could create a copy of a game CD-ROM and give it to a friend. That's software piracy. Likewise, someone could post a copy of software on the Web for everyone to copy and use. If that software isn't public domain software

d. If you answered no to the previous question, suggest what the United States should do about the problem. Should the government:

- Clamp down very hard on the nations that pirate software?
- Offer aid in the form of money or software to countries too poor to buy it legally?

LEVEL THREE

**hands-on projects**

chapter three

group activities

1. Game and Entertainment Software

Many people would also include "games and entertainment" as a category in personal productivity software. This particular set of software makes billions of dollars each year in revenue. You can probably find more public domain, shareware, and free-ware games and entertainment software on the Web than you can for any other category of personal productivity software. Should "games and entertainment" be a category within personal productivity software? Suppose we asked you to join our author team on the next

4. Adding Sound to a PowerPoint Presentation

As you create a slide presentation, most presentation software such as Microsoft PowerPoint allows you to quickly and easily add sound to a particular slide. As you're creating a slide, all you have to do in PowerPoint to add sound is click on the **Insert** menu option. From there, click on **Movies and Sound** and then **Sound from Gallery**. PowerPoint will then offer you a list of already-prepared sounds you can include in a slide. Start by choosing one of your presentation

**Level Three: Hands-on Projects**

Helps you put principles into practice with an array of project categories, including e-Commerce, On the Web, Ethics, Security & Privacy, and Group Activities.

**Looking Back/Looking Ahead**

This unique end-of-chapter feature involves you in summarizing key chapter concepts, while preparing you for what lies ahead.

**Looking Back/Looking Ahead**

**The Life and Times of a Dot-Com Entrepreneur**

Joann is quickly moving toward realizing her dream. After closely surveying the Web for competitors, Joann embarked on the process of identifying her desired Internet Service Provider (ISP) and her basic hardware and software needs for being on the Web. Now, she's ready to determine the software she needs to bring her business to life and run it on a daily basis.

First and foremost, Joann knows she'll need \_\_\_\_\_ software to create her Web site. She also realizes that she wants \_\_\_\_\_ on her Web site so visitors can enjoy text, images, sound, animation, and some video clips. To create her art and manipulate photos, Joann has decided she needs to invest in \_\_\_\_\_ software.

Behind her Web site, Joann wants a variety of software to help her be more productive. So, she's buying \_\_\_\_\_ software to manipulate her sales information and create high-quality graphs. She also wants a complete electronic checkbook, including \_\_\_\_\_ banking. For this, she's purchasing \_\_\_\_\_ software.

Joann also realizes that she wants to advertise not only on the Web but also by mailing out brochures and flyers. For this task, she's chosen \_\_\_\_\_ software.

Joann appreciates organization. So, she's keeping her related \_\_\_\_\_ in separate \_\_\_\_\_. Using her \_\_\_\_\_ utility software, Joann will be able to keep her files well organized.

Finally, Joann must have a good operating system that will allow her to stay connected to a network. For this, she's chosen Microsoft's \_\_\_\_\_. Although \_\_\_\_\_ seems as though it will be a good operating system for Web-oriented computers, she's chosen not to use it because it's so new. Likewise, \_\_\_\_\_ is for Apple computers—Joann has chosen an IBM compatible.

Now that she has her specific software needs met, Joann is looking toward building her Web site with multimedia and identifying how she wants to perform her electronic commerce activities. After that, she wants to precisely define her hardware needs, including a CPU, RAM, scanner, and digital camera, just to name a few. She'll find all her answers in Chapters 4, 5, and 6.

3.35

# your guide to the i-series

## INSPIRING!

**How Do You Make Your Web Site Sizzle?**

**ENHANCED WEB DEVELOPMENT**



You know how much the Web is now a part of our lives. You can use the Web to find information, buy goods and services, download software, and play games with friends.

Every day people put more Web sites online. You're probably one of them. We designed some Web pages together in Chapter 4. And you learned about Web design in the I-Witness boxes throughout the book.

With all the Web sites out there, how can you make yours stand out from the rest? You can redesign your Web site to make it easier for users to navigate. Or you can add some multimedia to make your Web site more interactive. Maybe you want to create electronic shopping carts to allow customers to buy things at your own e-commerce business. In this *Life-Long Learning Module*, we'll show you how you can accomplish all this and more.

We'll keep you informed of new Web technologies to make your Web site sizzle. Think of your Web site as your electronic business card. The better the information you can put on it and the easier it is to read, the more people you'll attract and retain. Come join us at [www.mhhe.com/i-series](http://www.mhhe.com/i-series) as we explore making Web sites sizzle.

module  
a://

EOB 1.2

**DEVELOPMENT TOOLS**

Your choice of a Web development tool is an important one if you want to make your site sizzle. You have many options to choose from. In this section we'll explore many of them including HTML and WYSIWYG editors (Notepad, BBEdit, Dreamweaver, and FrontPage), image and photo editors (Photoshop, Fireworks, and Illustrator are a few), and Web site management tools such as link checkers and site mapping software. We'll also show you how to get by on \$0.00 a day with freeware and open source solutions.

**WEB SCRIPTING AND PROGRAMMING**

Web scripting and programming are all about defining the structure and layout of your Web site and creating interactivity. A well-designed Web site is easy to use, encouraging your readers to visit again and again. Interactivity is also key in retaining readers. Come with us and explore HTML, XHTML, XML, DHTML, JavaScript, VBScript, CGI, Java, and many other scripting and programming tools.

**DESIGN GUIDES**

Anyone can build a Web site, but doing it *effectively* is another story. It's rather like creating an advertising flyer. You can easily create such a flyer and include all the necessary information. What's key is doing it in such a way that people will want to buy your products or services. In Web site design, important considerations include image sizes and placements, use of color, and streamlining Web sites. We'll discuss these issues and much more at [www.mhhe.com/i-series](http://www.mhhe.com/i-series).

**MULTIMEDIA**

The technology world is now multimedia. Almost all presentations of information include some combination of text, art, video, sound, and animation. Your Web site can definitely benefit from the use of multimedia elements. These may include animated GIFs, audio, streaming media, and perhaps even virtual reality. In this section we'll explore these as well as some multimedia development tools such as Flash and Shockwave.

**BEHIND THE SCENES**

As you increase your use of multimedia and other interactive elements, you need to begin to understand what goes on behind the scenes. That is, if you understand the technical infrastructure, you can more readily take advantage of multimedia and interactivity in creating your Web site. Important "behind the scenes" topics include Web servers (and server farms), Web databases, Web security, and Web site architectures.

EOB 1.3

### Life-Long Learning Modules

The learning never ends! That's why the authors created these unique and engaging modules. With a brief introduction in the text, the authors then take you to the text Web site for further exploration of these timely topics. Modules include enhanced web development, careers, new technologies, and more. See for yourself—visit [www.mhhe.com/i-series](http://www.mhhe.com/i-series).