

Mobile Internet

FOR

DUMMIES®

Michael J. O'Farrell

John R. Levine

Jostein Algroy

James Pearce

Daniel Appelquist



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About the Authors

Michael J. O'Farrell started his mobile Internet career in the early 1990s, by pioneering the development of text messaging, mobile-phone-based applications, and the mobile Web to reach mass market audiences globally. In addition to consulting companies on how to capitalize on the power of the mobile Internet, he is vice chairman of ooober and chair of the dotMobi Advisory Group. Michael wrote this book to help his friends, family, wife, and two children in Toronto better understand his addiction to all things mobile.

John R. Levine wrote his first program in 1967 on an IBM 1130 (a computer somewhat less powerful than your typical modern digital wristwatch, only more difficult to use). Although John used to spend most of his time writing software, now he mostly writes books (including *Internet For Dummies*, published by Wiley Publishing, Inc.) because it's more fun and he can do so at home in the tiny village of Trumansburg, New York, where in his spare time he was the mayor for several years.

Jostein Algroy is senior advisor for the government of Ontario, Canada. He has been active in the mobile space for more than 15 years as an international consumer market strategist and published journalist. Jostein has taught international business, strategy, new product development, and design at Copenhagen Business School. He also works with photography, having achieved awards and recognition for his art, and looks forward to the day when mobile phones are equipped with high-quality, 8-megapixel cameras.

James Pearce is the chief technology officer at dotMobi. He has the mobile Web in his veins, having worked previously at Argogroup and AnywhereYouGo and as the founder of the "old school" mobile blog WAPtastic. Variously a management consultant, a teacher, an orienteer, and an Oxford University physicist by training, James has declared every year since 1997 to be the Year of the Mobile Web. For the sake of his wife and two children, with whom he lives happily in Dublin, we hope he's finally right.

Daniel Appelquist is an American expatriate and a dot-com refugee living in London, England, where he works as a technology strategist for Vodafone, a company he represents in the World Wide Web Consortium (W3C), where he chairs the Mobile Web Best Practices working group. He is an evangelist for mobile Web topics, a published author, a frequent speaker, and a co-founder of Mobile Monday London and the Mobile 2.0 conferences. You can usually catch Dan mobile blogging while hanging out with his wife and two kids.

About the Contributor

Michael Becker is executive vice president of business development at iLoop Mobile. Additionally, he is a board member of the Mobile Marketing Association (MMA) and the dotMobi Advisory Group and is a co-publisher of the award-winning *MMA Journal of Mobile Marketing*. He is also finalizing his doctorate, focusing on the mobile channel. When he comes up for air, Michael enjoys quiet times at home in San Jose with his wife and two kids — with his smartphone on Silent mode.

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As you can tell from our list of featured co-authors, writing a book about the mobile Internet isn't as easy as it might seem. To provide you with the most comprehensive snapshot of all the mobile Internet has to offer (and to make it easy for you to understand and enjoy), we got some additional help along the way. We want to thank Trey Harvin from dotMobi, for saying Yes when we needed it most; Laura Marriott from the Mobile Marketing Association, for sending the "Good to go" text message for the book's glossary contribution; Russell Buckley from AdMob, for his words of mobile advertising wisdom; Kathie Legg for her contributions on mobile in politics; and especially Michael Becker at iLoop Mobile, for the midnight text message saying "How could I help?" Michael helped us out in a big way with his contribution to a couple of chapters — so much so that we thought we should give him an extra bit of credit — because credit is definitely due — as a key contributing (behind the scenes) co-author.

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Visit our Web site at <http://mifd.mobi> — from your computer or mobile phone — for updates and more information about topics in this book.

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Introduction

Welcome to *Mobile Internet For Dummies*. We have a completely new world for you to explore and discover, all available from the palm of your hand. Surfing the mobile Internet has never been easier for anyone — anywhere or at any time — to find anything they want on their mobile phones.

It's really not that easy — or is it?

Unfortunately, most wireless carriers providing services have made it easy for only a few geeks who have a master's degree in Jargonology to understand what the heck the mobile Internet is. As a result, all of us have been left up in the air (no pun intended) and wondering:

- ✓ How does this mobile phone really work outside of making calls?
- ✓ What are mobile Internet services and how do I get them?
- ✓ What kind of mobile phone and service plan do I need in order to get access to the mobile Internet?
- ✓ Is there really an Internet-like browser on my mobile phone?
- ✓ And, our all-time favorite, where are all the made-for-mobile services, Web sites, and applications that work on my mobile phone?

We could list thousands of questions, but our space is limited in this introduction and we should start helping you rather than confusing you more.

Our goal is to make surfing the mobile Internet as easy as getting on your computer and browsing the World Wide Web. If you don't know how to get on board the computer Internet bandwagon, we highly recommend that you pick up a copy of *Internet For Dummies*, written by one of our co-authors, John Levine, and his good friends Carol and Margaret.

About This Book

The mobile Internet world is full of interesting twists and turns; we did our best to provide you with the straight and narrow in the chapters ahead.

Whether you're a new mobile Internet user or a seasoned "road warrior," we created a simple and straightforward guide to help you find what you need to best enjoy your mobile phone and all the excellent services available on the mobile Internet. From finding your mobile phone browser to updating your blog on-the-fly, each chapter and section gives you easy-to-understand instructions and samples to use. Browse through the pages, read the book from beginning to end, or just flip to the sections you want to learn more about — it's all here for you in one spot.

How to Use This Book

We recommend reading Chapters 1, 2, and 3 first. These chapters provide you with the basic, essential insights about the mobile Internet and set you off on the right foot. The mobile Internet is quite different from the Internet, and when you understand the differences, your newly found mobile world will truly be a great place and lots of fun for you to enjoy.

When you're ready to go, Part II helps you with all you need to know about mobile phones (including smartphones and PDAs) and mobile phone browsers, which are needed to get you online to the mobile Internet. And, it helps you make sure that you have the right mobile phone, connections, and airtime plans with your wireless carrier to surf the mobile Internet superhighway in an affordable way.

Parts III, IV, and V show you, and describe, all the stuff you can do, find, create, and build on the mobile Internet, including how to find and use made-for-mobile services, Web sites, applications, e-mail, instant messaging (IM), and blogging — we even show you how to bank on your mobile phone. We also show you how to build your own services and sites for the mobile Web.

As with any new service and technology, you have to mumble your way through a ton of new words, acronyms, and technological terms. We include a glossary at the back of the book for you to reference at any time.

Speaking about any time: To help you keep tuned in and turned on to the latest and greatest available on the mobile Internet, we created a computer-based and made-for-mobile Web site for you to access at any time, and anywhere you want. The mobile Internet is one of today's fastest growing and changing industries. Keeping up with the pace of change isn't easy. Updates and new items will be available on our Web site, at

<http://mifd.mobi>

On our Web site, you can find terms found in the book; get updates on the latest new information, applications, and services for the mobile Internet; and find out about new mobile phone models with the best deals on mobile Internet service plans. We even have some special offers for mobile Internet products and services available for all our readers. Check out the site to keep up with the latest in the mobile Internet world — or, even better, register on our Web site and we'll send, directly to your mobile phone, the updates and promos as they happen.

Who Are You?

In writing this book, we assumed that:

- ✓ You have or want access to the mobile Internet.
- ✓ You want to find the best mobile phone and the cheapest way to get on the mobile Internet.
- ✓ You want to have some fun on your mobile phone — and get some work done with it.
- ✓ You don't want to become a mobile Internet guru — you just want to enjoy the anywhere-anytime services it offers.

How This Book Is Organized

This book has five parts. Each part can be read on its own as a miniature *Mobile Internet For Dummies* book — you can start reading wherever you like, but you should at least skim Parts I and II first to get acquainted with some new mobile Internet terms and ideas and find out how to get more from your mobile phone on the mobile Internet.

The following sections describe each part of the book and the topics it contains.

Part I: Welcome to the Mobile Internet

We provide you with a simple explanation of the mobile Internet world, some industry terms, and the current mobile market landscape to help you better understand the services that are available and the effect that the mobile Internet can have on your lifestyle, whether you're at home, work, school, or play.

Part II: Mobile Internet, Here It Is — Now What?!

You find out what everybody should know about the basic features of mobile phone applications, services, and browsers versus computer applications and Internet browsers. Also, you learn the ins and outs of using a mobile phone browser — independent of the device you have. We show you how to sign up and set up your mobile device for mobile Internet services, tell you what's available by market and wireless carrier, and describe the best ways to save time and money when surfing the mobile Internet.

Part III: Mobile Internet Mania for the Everyday Consumer

Part III outlines the best ways for you to “surf” or consume mobile Internet services. We show you how to find made-for-mobile information, products, and services for personal and business use. This part covers how to use your mobile phone for e-mail, IM, and blogging from anywhere, at any time. Whether you're interested in looking for mobile sites for news, sports, entertainment, travel, shopping, or financial services, this part helps you out.

Part IV: I Want My Own Mobile Internet Space

If you're ready to start creating, building, and developing mobile Internet services and sites, check out this part. From just having fun with your friends over the mobile Internet to making money from your new interest in the mobile world, you find out how to take advantage of the next wave of digital media opportunities (and you can even make a little profit from doing it).

Part V: The Part of Tens

This part carries on the *For Dummies* tradition of highlighting ten items: specifically, the top ten ways to have fun on the mobile Internet; ten major, costly mistakes that you can avoid; and ten frequently asked questions.

Icons Used in This Book

The margins of the book contain the following icons to help you navigate your way:



This excellent shortcut and timesaver can help you have more fun on the mobile Internet.



Technoterminals and jargon ahead! Sometimes the information is truly good stuff, and sometimes it's just for fanatics — always good information to know something about.



Look out! The mobile Internet isn't the Internet — if you don't understand the difference it could cost you more than you could ever expect, and usually for something you didn't want in the first place.



File away this information in your personal memory archives.



This information, application, or service works on any mobile phone on any wireless carrier network. All mobile Internet products and services you use should be made-for-mobile. If they aren't, your user experience may not be what you expected and your airtime costs will be higher than you ever expected.

Where to Go from Here

Do you already have a mobile phone, an airtime package, and a wireless data plan that you're happy with? If so, you can get started right away in Part III. If you don't have a mobile phone or aren't happy with your current airtime packages, jump to Part II. Reading Chapter 5 alone can save you more than the cost of this book.

Whenever you hit a speed bump or problem using the mobile Internet, just look it up in the table of contents or the index. You'll either have the problem solved in a mobile minute or know where you need to go to find some expert help.

The mobile Internet is more complex and complicated than the Internet has ever been. Thousands of mobile phone models all have different capabilities, different wireless carriers have a host of service plans that would confuse even the world's best rocket scientists, and many made-for-mobile products and services are quite difficult to find if you don't know where to look. It's a whole new frontier. If needed, go back and forth between chapters and sections; it's whatever makes you feel more comfortable with exploring the mobile Internet that works best. The mobile Internet is one of the most personal and powerful communications media ever invented — take your time, find out how best to use it for what you need, and enjoy the freedom it offers.

Feedback, Please

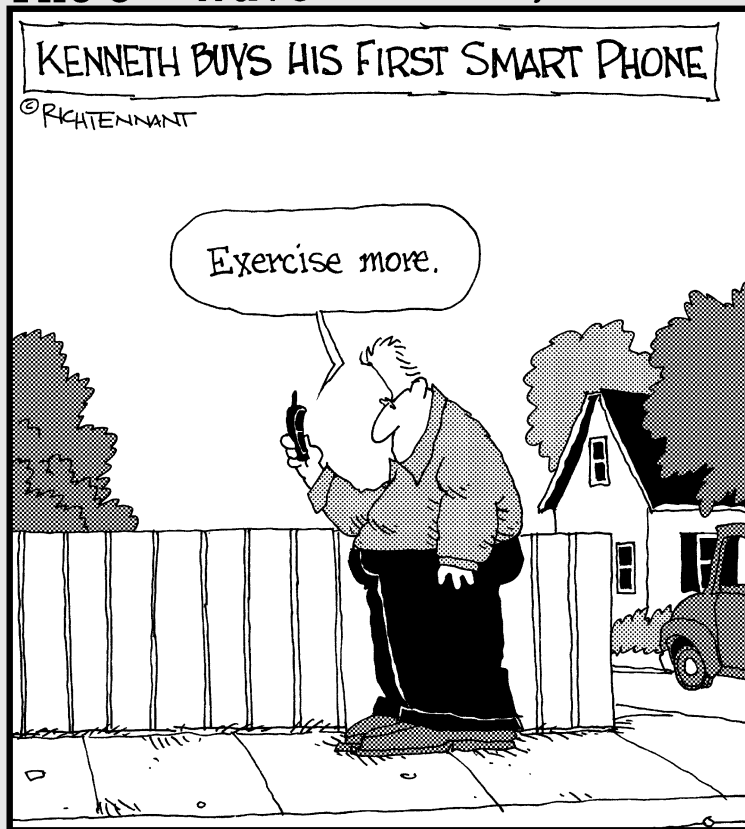
We love to hear from our readers: Send us an e-mail at feedback@mifd.mobi. (An automated reply message comes right back to you; the authors read your message and answer as much as we can.) Or, visit this book's Web site at <http://mifd.mobi>. These electronic addresses put you in direct contact with the authors of this book; to contact the publisher or authors of other *For Dummies* books, visit the publisher's Web site at www.dummies.com.

Part I

Welcome to the Mobile Internet

The 5th Wave

By Rich Tennant



In this part . . .

The Internet is an amazing place, and it's doubly amazing that you can use it from a phone that fits in your pocket. But because it's full of computers, everything's more complicated than it should be. We start with a bird's-eye view of the mobile Internet, and then we give special attention to security problems, privacy issues, and family concerns — particularly the knotty question of what's the best way for kids to work with the Internet.

Chapter 1

What Is the Mobile Internet?

In This Chapter

- ▶ Getting mobile with the Internet
 - ▶ Distinguishing between the mobile Internet and the regular Internet
 - ▶ Finding cool tools for your mobile experience
 - ▶ Seeing and doing things unique to the mobile Internet
 - ▶ Getting a line on mobile Internet safety
-

You probably have heard about the Internet by now, but you might not have heard about the mobile Internet. If you haven't, you're not alone. In fact, you're in good company: Billions of people are in the same situation.

If you're using the *mobile Internet*, you have connected to the Internet by way of a wireless carrier data connection, usually to get made-for-mobile information and applications to display on your mobile phone screen.

This chapter helps clarify what the heck we're talking about, what all the fuss is about, and why you should care about the mobile Internet — at least enough to try out the mobile Internet. We're pretty sure that you'll like it if you give it a try.

If you think that being Internet-savvy might be beneficial, don't necessarily bank on it. The mobile Internet isn't the little brother of the Internet. It's different enough that you need a different mindset, and a different understanding specific to the mobile Internet maze, to navigate it effectively. Later in this chapter we explain that difference.

Oh, and don't forget about buzzwords. *Lots* of new words, phrases, and expressions are used in the mobile Internet world that set it apart from the Internet world. We do our best to acquaint you with them. If this topic is all new to you, take your time; we help you get it right, and at your own pace. Even if you're a know-it-all who breezes through this book, you can still pick up expert tips to make your wireless world much better — we promise.

The mobile Internet is a new frontier — the Wild West of the mobile-phone business. It's time to get this mobile Internet show on the road (pun intended).

Welcome to the Mobile Internet

Over the past 20 years, wireless carriers (AT&T Wireless, Sprint–Nextel, T-Mobile, Verizon Wireless, and others) have offered cellular-telephone voice services. Most people have made calls on a mobile phone by now. About ten years ago, wireless carriers introduced SMS (Short Message Service), or text messaging. People almost everywhere now had their mobile phones and alphanumeric pagers built into one device. Text messaging is now a hugely successful service, with billions of text messages sent monthly. If you haven't voted on *American Idol* with text messaging or sent a quick note to a friend, ask any kids in your vicinity — they can fill you in on the power of text messaging.

For the next trick up their mobile-phone sleeves, manufacturers such as Motorola, LG, Nokia, RIM, Samsung, Sony Ericsson, and many others were quite busy in their little workshops around the world, trying to figure something out: how to make people's lives even easier. After combining a mobile phone with a pager, what could they possibly dream up next? Someone then thought about making Internet-like services work on mobile phones. They realized that mobile phones could become even more like tiny computers: They had screens, keyboards, and tiny little software applications running them — and they were all connected to a network. Ta-da! Like magic, a new cyberspace was created: Now, people all over the world have Internet access to Web sites from mobile phones anytime, anywhere.

More than 200 million people in the United States, and almost 3 billion people worldwide, are now using mobile Internet services on their mobile phones every day — in every way. Services have advanced from only making calls to family and business associates to text-messaging quick notes to friends; voting on *American Idol*; reading sports scores from ESPN; sending jokes (yes, we said it) and bank balances to mobile phones; checking e-mail on BlackBerrys and answering Yahoo! instant messaging chats; and surfing a made-for-mobile World Wide Web for the latest ringtones from Avril Lavigne, pictures of *The Simpsons*, games from Atari, uploads to Flickr, stock quotes from E*Trade, and news from CBS News — all on the mobile Internet. Holy smokes, Batman (yes, you can get *Batman* on your mobile phone now, thanks to Apple iPhone) — the mobile Internet is truly catching up faster than anyone thought possible. Finally, the Internet and the World Wide Web have hit the wireless world.

A history of the mobile Internet

The mobile Internet had its humble beginnings around 1998 and had its growing pains, misses, and hits (way more misses than hits). Its nickname was like a cartoon sound effect — WAP — which was a shorter version of Wireless Application Protocol. The mobile Internet wasn't supposed to be named WAP, so back then they referred to it as *wireless Internet* (no relation to WiFi as we now know it), and wireless Internet Web sites were *WAP sites*.

Early in 2000, the wireless world caught fire with the launch of the Internet on a mobile phone. (We realize that true mobile-phone fanatics are shaking their heads now, but stay tuned — this stuff comes up to the present *really* fast.) Great idea, shaky start. Back then, only a few mobile phone models had built-in Web browsers, wireless carriers' data-connection plans were extremely expensive, and average consumers found it next to impossible to find WAP Web sites that worked on their mobile phones. The whole Internet-on-a-mobile-phone idea was somewhere between a boondoggle and a complete mess. Customers

didn't like it, content companies didn't like it, and wireless carriers didn't like it. It was a good recipe for failure, as we all know now.

But the wireless industry had to start somewhere. (Hey, Rome wasn't built in a day.) Think back to the early days of the Internet — Web 2.0 it wasn't. Most people used CompuServe, AOL, or Prodigy — all on dialup — and endured limited content and network capabilities, browsers with primarily text-based services, no graphics, and a few bits of information posted by even fewer people. Think of the Internet now: Computers have next-generation browsers from Microsoft, Apple, Opera, or Firefox; full-fledged multimedia services from Google, Yahoo!, Facebook, and YouTube; and all-you-can-eat Internet access from Comcast, EarthLink, or Time-Warner Cable. The information highway simply grew much bigger and faster. The mobile Internet has done the same thing over the past eight years: It has become the made-for-mobile information highway: You can get on from nearly anywhere, and it's moving faster than ever.

Understanding What's Different about the Mobile Internet

The mobile Internet is a new creature; it's more than just the Internet gone wireless. First, you must understand that the mobile Internet is a mass-media communications channel — just like newspapers, magazines, billboards, theaters, movies, radio stations, television networks, and Internet Web sites.

Second, recognize that the mobile Internet is as different from the Internet as radio is from television. Early TV shows were quite bland and simple: Actors read their scripts in front of the camera because that was the way it had been done on radio — not very exciting. But as time went by, the two different mass-media channels became quite different in the programming (or content) they offered; each developed offerings to suit its particular strengths. The same concept now applies to the Internet and the mobile Internet.

Two factors make the mobile Internet a unique experience, distinct from the Internet of yore: the tools you use to access it and the content and experience that people are looking for after they start using it. The following sections explore each of these topics in turn.

Checking out the tools you need

Most of the cool stuff you can find on the Internet now, whether you view it, download it, or generate it as a user, is well suited to be delivered by available wired technology: high-speed dialup, broadband, and cable networks. But all that cool Internet stuff may not be as well suited to a mobile phone — or as appealing — if it isn't produced in the right format or context. That's because the similarities between the mobile Internet and the wired Internet are (for the most part) skin deep — and the differences are complex. As with all media technologies in the past, evolution takes hold and things change quite quickly — spurred by the need to attract and engage new audiences.

The challenge all along for wireless carriers, mobile phone manufacturers, and Internet-based content companies was how to give customers access to the huge amounts of information and services available on the Internet — on the go. Information, entertainment, and services made for the Internet had the benefit of large monitors, full QWERTY keyboards, computer-based browsers, and high-bandwidth data networks for connectivity.

The mobile Internet, on the other hand, arrives in an entirely different way. Here are the items you need:

- ✔ **A mobile phone (or smartphone or PDA):** First and foremost, you can't jump onto the mobile Internet *without* a mobile phone. These devices — phone, smartphone, or PDA — are the items that make the mobile Internet different. The size requirements for the screen display on Internet Web sites (and the large amounts of information at those sites) are tough to make work on mobile phones with their small screens and tiny keypads. A mobile phone screen is a fraction of a computer monitor's size. And, mobile phone keypads versus computer keyboards — let's not go there (at least not until Chapter 4, which tells you all about phones, smartphones, PDAs, and other devices).
- ✔ **A mobile browser:** To make the Internet work on mobile phones, wireless carriers created and installed made-for-mobile Web site browsers in all mobile phones. We don't get technical about that topic here, but most are based on next-generation WAP 2.0 and xHTML technologies. Although mobile browsers and computer-based browsers have their similarities, you still find that using a mobile browser to navigate the Web is a unique experience. Find out all about it in Chapter 7.

✔ **A data plan:** The mobile Internet has become more popular as carriers have packaged plans for the wireless data airtime that gives consumers mobile Internet access in a cost-effective way. Such plans include AT&T Wireless Media and Verizon Wireless America's Choice Premium. For details about providers and data plans, see Chapter 5.

In essence, wireless carriers and their partners built an end-to-end mobile Internet system from scratch for everyday people to enjoy Internet-like services while on the go.

Surfing made-for-mobile sites

Here's an area where repeating a few mobile-Internet phrases may help you get used to them — in this case, made-for-mobile.

A *made-for-mobile* Internet site is a Web site that's streamlined and designed to work on mobile devices. The sites are most easily identified for consumers by their URLs — essentially, the .com part goes away — for example, BMW.mobi (versus BMW.com) and wachovia.com/mobile versus wachovia.com. (We get into mobile Internet Web site naming details later.)

Internet sites, such as the BMW site shown in Figure 1-1, have too many graphics and too much information for everyone's little mobile phones to access and display in a practical way. Accessing the *pure* Internet on a mobile phone might not be the best use of a person's time and money.

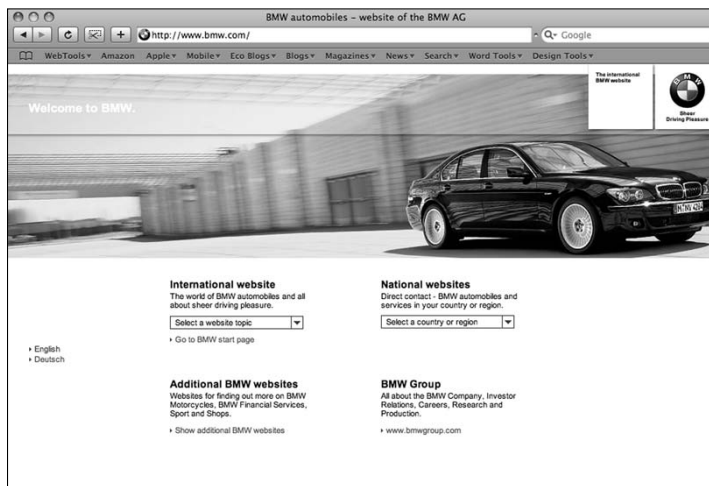


Figure 1-1:
The Internet
site of
BMW.

The real answer is to make an Internet-like experience work on mobile phones — and that means making it very simple. The information that people want on their mobile phones should be easy to access and display, and quite affordable as an option from their wireless carriers of choice. The *made-for-mobile* phrase indicates that a site enables you to

- ✔ **Browse more easily on your mobile device:** Because a mobile device has a small screen, no large keyboard, and no “real” mouse, a made-for-mobile site has pared-down navigation, lets you enter text easily, and is designed to fit on a smaller screen.
- ✔ **Access highly condensed, small bites of content and services on the go:** The sites are specifically designed and developed for your mobile phone, offering (for example) made-for-mobile news, weather, sports, e-mail, instant messaging, ringtones, pictures, and videos. Because you aren’t always home or at the office with full Internet access, made-for-mobile describes the types of services and information you want quickly and easily, anytime, anywhere.



The best use of the mobile Internet is to receive the information, applications, and services that work best on mobile devices when you’re away from your computer. We don’t mean that you need to overload the little gizmos with everything you can see on the Internet. The mobile Internet is the information equivalent of a fast snack on the go. At a bus stop, in a taxi or train, waiting for a plane or a friend, before a business meeting, you can snap up tidbits of useful info like these:

- *Practical information:* Find the nearest restaurant or hotel, receive stock market updates, check out movie listings or flight schedules, look for the best shopping deals, and check local weather.
- *Pastimes:* Download entertainment (ringtones, images, games, videos, and music on demand, for example), find out who won the big game, or update blogs with notes and pictures.

If you get the made-for-mobile versions of all these products and services, before long you’ll be right at home on the mobile Internet.

- ✔ **Find what you need with smaller downloads:** Made-for-mobile content, applications, and services make all this stuff as inexpensive as possible to access through your mobile phone and your wireless carrier’s data services.

Figure 1-2 shows the mobile version of the BMW site shown earlier in Figure 1-1. The mobile version is much easier to navigate on a phone than the Internet site.



Figure 1-2:
The made-
for-mobile
BMW site.

Determining What to Do on the Mobile Internet (Now That You're Hooked)

Think about it. When you're away from your computer, you still have a way to get business information, catch up with friends, find places in an unfamiliar city, or get entertained.

What's most interesting about the mobile Internet is that it's right where you want it to be: handy. You most likely have it with you all the time — in your pocket, purse, rucksack, or whatever — on your mobile phone. And, as long as your carrier's signal covers your device wherever you are, you can use it whenever you're ready.

Wireless carriers offer package deals that make the mobile Internet usable. Mobile phone manufacturers build mobile Internet capabilities into every new phone now sold. Content providers and applications deliver more made-for-mobile services every day. Here are some of the mobile Internet options available to you:

- ✓ **Entertainment sites:** From mobile TV to uploading pictures to updating your blog, it's all available for you to do whenever you want, wherever you want. If you missed the latest episode of your favorite reality TV show, you can catch the highlights before anyone tells you who got voted off. If you're standing at the Statue of Liberty after taking the perfect picture from your mobile phone camera, just load up the picture and post it on your Internet Web site, or blog about it right then and there. If you want to Web-surf, the mobile Internet offers a World Wide Web of opportunities to explore. See Chapter 9 for details.

- ✔ **Information:** Every month, hundreds or thousands of made-for-mobile text messaging services and mobile Web sites are launched by wireless carriers, media companies, and content providers. They're fun to browse whenever you have a few spare minutes. See Chapter 6 to find out about text messaging, Chapter 7 for tips on browsing the mobile Internet, and Chapter 8 for information about how to use mobile search tools.
- ✔ **M-commerce:** It's like e-commerce, only portable. If you want to use your mobile phone like a virtual ATM, you can do it. If you want to buy some flowers while you're stuck on a plane, that's no problem. If you want to check out the latest reviews on your favorite band after the concert — you got it. Chapter 11 helps you shop till you drop; Chapter 12 introduces mobile money management.
- ✔ **E-mail and instant messaging (IM):** Wireless carriers have many ways to help you keep connected to your business and personal e-mail while you're away from your computer. You can check and send e-mail anywhere you are. All e-mail software and services can be connected to your mobile phone, which makes it easier to keep in touch; you can send and receive messages while on the golf course or on the ski slope. (Why sit in an office if you don't have to?) Check out Chapter 10 to find out ways to check your e-mail and send instant messages from your phone.
- ✔ **Mobile software applications and widgets:** Mobile phones now are really tiny computers, with tiny operating systems that you can use to load tiny applications such as games, expense trackers, and maps. If you have a useful desktop widget that keeps you up to date with RSS feeds from the Internet, a made-for-mobile version is likely on its way. Check out your favorite computer application and widget provider's Internet Web site — it definitely has something in the works coming to a mobile phone near you. Chapter 7 showcases a few applications and widgets for you to try on your mobile phone.
- ✔ **User-generated mobile Web sites:** All the made-for-mobile tools, services, and technologies you need in order to stake your own claim on the mobile Internet land rush are at your fingertips. You can buy a made-for-mobile Internet *yournamehere.mobi* domain from your mobile phone on your way home on the bus, create your own mobile Web site when you get home (in about an hour), and then have it launched, ready to share with all your friends, before you leave home the next day. You can also test and work with your current Internet Web site to make it made-for-mobile (and call it *m.yournamehere.com*) within hours. The choices are endless. See Chapter 15 for details.
- ✔ **Mobile Internet for business:** Home business, small business, corporate, or the next big thing — wireless carriers and their partners have everything you need to create, develop, and launch your company, products, services, and promotions to the whole wireless world whenever you're ready. From launching your own ringtone, wallpaper, and

video storefronts to building made-for-mobile software applications and mobile Web sites, the mobile Internet is officially open for business. Chapter 2 introduces ways the mobile Internet can help you at work; Chapters 13 and 16 go into more detail about pitching your business tent on the mobile Internet.

Some Thoughts about Safety and Privacy

As you probably know, you can have many identities on the Internet. You might have an e-mail account associated with your work. But you can have an e-mail account at home — or several e-mail accounts at Web-enabled Internet service providers such as Yahoo!, Google, or MSN. In addition, you can set up your own blog, where you can hide (or enhance) your identity, for whatever reason. On the Internet, everyone can be (or seem to be) whomever they want to be.

With your mobile phone on the mobile Internet, however, what you see is pretty much what you get. It's one way that the wireless world is quite different from the wired world: You are who you are. Wireless carriers must identify you directly and accurately so that they can bill you for any service subscription or airtime package. They have to keep records on your communications and purchase activities — for your protection more than anything else. Additionally, your mobile phone — and phone number — becomes your personal identifier to all product and service companies you engage with through mobile Internet services.

So what *are* the truly unique features of your mobile phone and the mobile Internet that make it different from the Internet world? Here's the short list:

- ✔ **Mobile phones are extremely personal.** A mobile phone is the first truly *personal* communications product ever created. You may have thought that the computer was personal because its name is “personal” computer, but a mobile phone becomes a basic personal possession, like a set of car keys. (That's appropriate when you consider that the phone is the key you use to access the mobile Internet.) Mobile phones are so personal that most people refuse to share theirs with anyone else — not even with their spouses. Some people would rather lose a pet than lose a mobile phone. (Maybe they keep virtual pets on their phones.) Others won't leave home without their mobile phones, even to go to the corner store, just in case. Most people don't leave home without keys, a wallet or purse, *and* a mobile phone. Most would go back home to retrieve a forgotten mobile phone, but might not bother if it were their keys or wallet.

As mentioned in a recent speech by the mobile industry guru Tomi Ahonen (www.tomiahonen.com), six out of ten people worldwide place their mobile phones next to their beds before they go to sleep. And, more than two-thirds of the global mobile consumer population use mobile phones as alarm clocks. Additionally, mobile phones have a *personal* phone number that's yours, *only* yours, and nobody else's. It's not your house's, not your spouse's, and not your dog's (well, maybe you trust your dog enough to let her borrow your phone).

- ✔ **Mobile Internet services and all voice communications reach you through your mobile phone, where you can be accurately identified.** By having a unique number that only you own, along with a mobile phone that you register with the wireless carrier, you can be tracked by whatever you do with your mobile phone. It's therefore relatively easy to capture data about your behavior — whom you called, which detailed text messages you sent, how long you were on the mobile Internet, what you were doing, where and when you were doing it, and whom you connect with. Most of this information is held in trust and confidence between you and your wireless carrier — but it's all there. You're protected by federal regulatory laws (unless, of course, you're doing something criminal). Also, if you buy your mobile phone and mobile Internet services through your employer, your employer has all the same rights it would have with your on-the-job computer and Internet usage.

If your employer pays your mobile phone bill, it owns access to your mobile phone and mobile Internet records — and can look at them if and when required.

- ✔ **The mobile Internet is always on and available for communications with your mobile phone.** You can leave CNN on the TV all day, but you don't take the TV with you when you go out because it's a pain to lug and it doesn't work all that well (unless you have a *really* long extension cord and a satellite receiver on your head). And, you can drag your laptop computer with you when you go out, but it isn't practical to use everywhere. It may work when connected to WiFi hotspots, or if you have a wired connection and power, but who brings one to the dance club on Saturday night? But you can do that with your mobile phone. Mobile phones now have excellent battery life, work well in about 90 percent of urban areas in North America (according to the wireless carriers), and fit right into your pocket.

Mobile phone etiquette is important. It might not always be polite to have your mobile phone turned on wherever you are — people might get angry if your phone starts ringing in the movie theater, in church, or in the classroom when the teacher is trying to explain the theory of relativity. Always turn off your mobile phone or turn it to Silent mode or Vibrate mode (yes, we said *vibrate*) to keep your friends, business associates, and family members liking you better during gatherings or meetings or whenever your spouse has something important to say. (“Oops, sorry, dear — hold that thought while I take this call. . . .” Let's not go there.)



✔ **Mobile phones and wireless carrier mobile Internet services have built-in payment systems — basically, it's a wireless wallet.** You can pay your bills over the Internet, and you can buy books at Amazon.com and pay for them using your Visa card. But on your mobile phone, nearly all your calling and mobile Internet transactions are charged to your wireless carrier bill on the day you create them. This includes all made-for-mobile products and services including text messaging, ringtones, wallpapers, music, games, video, wireless data-network access, long distance, roaming, and whatever else is coming down the pike.

Basically, any product and service that “touches” your mobile phone can get billed through the wireless carrier. Vending machines, movie tickets, fast-food restaurants, taxicabs, and other venues that deal in small cash amounts (places or machines that accept micropayments less than \$20) will soon accept payment by mobile phone — all tracked and charged to your mobile phone bill. New payment options from your wireless wallet or your m-commerce mobile phone are already available. In Helsinki, Finland, more than half the single tickets for public transportation are paid by mobile phones and billed through a wireless carrier. In South Africa, you can have your paycheck sent directly to your mobile phone account that's linked to your bank account.



Okay, mobile phones have a potential downside: If you lose your phone and don't report the loss as soon as possible, you can be liable for all calls, products, and services that are purchased, whether you're the one that bought them or not. The best safeguard is to keep your mobile phone in your personal possession at all times, report any immediate loss or theft of your mobile phone to your wireless carrier and the police, and review and track all your wireless carrier billing statements before you make payments.



We strongly recommend that you read all terms and conditions of your wireless carrier's service contract — as well as the “fine print” published on any mobile Internet service offerings. In the mobile Internet world, the wireless carriers are your best friends and will do everything in their power to keep you protected from false claims or any fraudulent activities. Wireless carriers and the mobile Internet world are highly regulated service industries; they're in business to serve and protect the mobile phone users who *keep* them in business.

Chapter 2

The Mobile Internet at School, at Work, and at Play

In This Chapter

- ▶ The mobile Internet away from the house
 - ▶ School and the mobile Internet
 - ▶ On the job with the mobile Internet
 - ▶ Playtime on the mobile Internet
-

Okay, so you bought a mobile phone. You made a few calls to your friends and family members who also have mobile phones. You got a call from your mom just after you left your house to remind you to bring some soda pop to the party. (Thanks, Mom.) You received your first text message from your boss, telling you that he'll be late for the meeting — again! You also sent your first text message, to your best friend in Los Angeles while you were in Detroit. She received it in less than a minute and sent one right back. Cool!

Did it really matter where you were when all these events happened?

That is, you didn't need to be at home or at the office and tied to your desk, did you? Did it matter where your family, boss, and friends were? Not really.

Now imagine — while you're on the go — that you could go online the same way you go online from your home or school or office to surf the Net and find all the information and services you expect from the Internet and the World Wide Web. You can do it without being at home or school, and while you're far away from the office.

In this chapter, we show you a few ideas and examples of how you, in your daily life, can take advantage of all the things that are happening on the mobile Internet.

Your Internet Away from Home

People are increasingly “connected.” Your house likely has a phone connected to the wall, a TV connected to the wall, and a computer connected to the wall. All those items work well when you’re at home.

When you *aren’t* at home, the mobile Internet gives you access to a wide range of information, applications, and services to help you with your daily lifestyle needs:

- ✔ **Browse the Web.** You can browse Web sites to shop, bank, search for the nearest pharmacy, or read the latest weather forecast. Chapter 7 introduces basic mobile Internet browsing.
- ✔ **Stay in touch.** Send e-mail, chat with friends, or upload new pictures to your family blog. Chapter 10 has the details on e-mailing, chatting, and blogging.
- ✔ **Go shopping.** If you forget your coupons or loyalty-rewards cards at home, just take out your mobile phone and connect to the mobile Internet, and you can retrieve them. Chapter 11 has the scoop on mobile coupons and shopping tools.
- ✔ **Find sports scores.** If you missed the latest results of the football game or your favorite *Big Brother* episode, check it out live from your mobile phone.

The best way to connect to most of these types of services is to visit your wireless carrier’s mobile Internet site or portal; the most requested and common mobile Internet services are all there for you. If the mobile Internet sites offered by your wireless carrier don’t suit your needs, you can go directly to the made-for-mobile Internet site of your favorite online store, bank, blog, or other type of service. Browsing made-for-mobile Internet sites is similar to browsing at home, but mobile Internet sites and services are designed to give you what you need when you need it on your mobile phone. Here’s a quick tour of the various types of content and services offered on some popular made-for-mobile sites:

- ✔ **Keep up with the latest news stories, sports scores, weather reports, and stock prices.** From CNN to ESPN and from The Weather Channel (shown in Figure 2-1) to Yahoo! Finance, all these mainstream Internet services now have made-for-mobile Internet sites and offerings.
- ✔ **See the latest music video of your favorite band and then download the song to your mobile phone.** Check out Verizon Wireless V Cast or the T-Mobile T-Zone service. Chapter 9 helps you find all your entertainment options on the mobile Internet.
- ✔ **Check out banking services.** If you need to check your balance, transfer funds, or find the nearest ATM, a few excellent made-for-mobile Internet sites have you covered: Bank of America, Citibank, Wachovia (shown

in Figure 2-2), and Wells Fargo. Most major regional banks and national banks now have mobile Internet sites and services to help consumers in the same way as their Internet Web sites let them bank from home. In Chapter 12, you discover how to take advantage of basic mobile money-handling.



Figure 2-1:
The Weather Channel, whenever you need it.

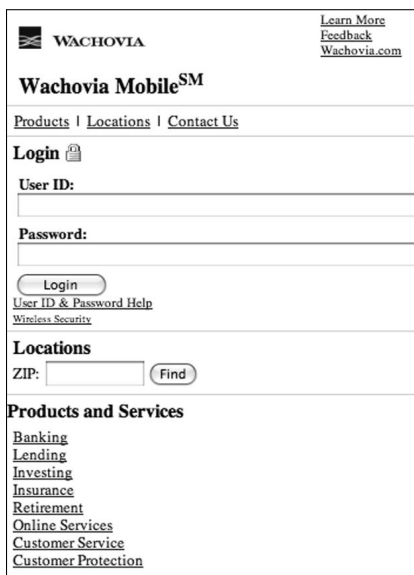


Figure 2-2:
It's banking on-the-go with Wachovia mobile banking.

- ✓ **Make travel plans.** Almost all airlines (see the example shown in Figure 2-3), hotels, and car rental Internet sites have their own made-for-mobile Internet sites and services. You can even find out whether your flight is on time, book your seat, and obtain your boarding pass — all from your mobile phone.
- ✓ **Find fun, new menu ideas.** If you need a good recipe, it's as simple as locating your mobile Web browser, searching for the recipe at a made-for-mobile service on a recipe site (Allrecipes.com is shown in Figure 2-4), sending the ingredient list to your mobile phone, and buying the ingredients at the supermarket. You can probably even have the supermarket send you a made-for-mobile discount coupon. Then you save both time and money.



Figure 2-3:
Book your flight on an airline's mobile site.



Figure 2-4:
Find fun food ideas on your mobile phone at Allrecipes.com.

If you have experienced what the Internet can do for you at home, the mobile Internet will definitely knock your socks off.

You've Heard of E-Learning — Now Try M-Learning

The Internet has changed how schools, teachers, and students are interacting. A whole new wave of interactive education and access to information is changing the way students study at school. They can, for example, search Google for the latest pictures of Mars, visit Yahoo! to find the Pythagorean theorem, or build a wiki for the *Macbeth* project; they can even send their final project papers to their teachers at midnight with all the text spell-checked and tagged with references from the Internet. School has never been so cool. Without having to lug a laptop, camera, and digital recorder, students can now research, record, and report by using mobile Internet connectivity. Kids can therefore be anywhere while they create, develop, and engage with their peers and teachers on all kinds of projects.

Mobile learning, or m-learning is an interesting approach to mobile Internet access as an opportunity for learning rather than for just making personal calls, sending text messages, and engaging in business use. The UK Web site www.m-learning.org has some examples of how mobile phones are used in an educational setting. A couple of examples are described in this list:

- ✓ **Mobile games:** Quiz games can be used to check skills on almost any mobile phone.
- ✓ **MediaBoard:** Kids send text messages or picture messages from their phones to a Web-based MediaBoard to contribute to both personal and collaborative Web sites.

Office on the Run

One word: BlackBerry. Okay, maybe we should say a couple of other words, such as Apple iPhone, Motorola Moto Q, Palm Treo, Samsung BlackJack, and other *smartphones*. These devices make keeping up with your work while on the road or away at a meeting much easier because most of them have QWERTY keyboards, larger displays, and even capabilities to download, view, create, edit, and upload documents while on the go. You can also send and receive e-mail, synchronize calendars, and tap into contact lists.

Businesses can reach out to customers over the mobile Internet, too, through coupons, order forms, and financial-transaction services. More and more people are jumping on the mobile Internet, and you want to be where your customers come looking for you.

In the following sections, you take a closer look at the employee and customer sides of the mobile Internet.

Sneaking away from your desk

Most road warriors and corporate executives are already familiar with all the useful things you can do with the mobile Internet. We list the ways it's improving the working world for the rest of us and, later (in Part III), provide you with more details on how to get hooked up with these services. For now, we count the many ways the mobile Internet can help you with your day-to-day business activities.

Sending and receiving e-mail

POP3 and IMAP access to personal e-mail are easy to set up and are cost-effective ways to get your e-mail on your mobile phone. They let you read, delete, compose, and reply to your e-mail directly from your mobile phone. Most wireless carriers have made-for-mobile personal e-mail services available for most mobile phones and smartphones. Check with your carrier directly for the best service and plan. Alternative solutions are available for Google Gmail (shown in Figure 2-5), Yahoo! Mail, and AOL Mail.

Figure 2-5:
Google
Gmail gives
you access
to your
e-mail when
you're on
the run.



Corporate e-mail access is provided by software solutions integrated with Microsoft Exchange, Lotus Domino, or Novell Groupwise servers at your office. Excellent solutions are available for secure, real-time access to your company e-mail and contact and calendar information. Contact your IT department or wireless carrier to find out which solution works best for your company.

Filling out orders, forms, and reports

Forget about entering and reentering all the information you collect while you're away from the office or not working on your laptop. Simply enter orders and expenses and fill out timesheets, forms, and surveys directly on your mobile phone to transfer the information back to the office over the mobile Internet. All sorts of made-for-mobile forms and solutions have been created for mobile workforces around the world. Contact your IT department or your mobile phone vendor or wireless carrier to find more mobile office solutions than you could ever imagine.

Taking sales tools with you

Customer relationship management (CRM) on the spot — directly with your customers and right when you need it most — is easier to achieve than you might think. Most major CRM software companies provide mobile extensions or services to their corporate software offerings. From ACT! (the highly popular CRM software from Sage) to Salesforce.com, you can either download a simple application to your mobile phone or visit the mobile Internet site. It makes sales management easy. For examples of the Salesforce.com made-for-mobile offerings, check out its Web site for more details and subscription requirements (see Figure 2-6).

Figure 2-6:
Mobile offerings on the Salesforce.com Web site.



Reaching out to customers the mobile way

Offices are “going mobile,” so there’s no reason that your storefront can’t also go mobile. Dreams do come true for retailers on the mobile Internet! Mobile consumers are the most sought after, hard-to-reach target markets ever, so why not catch them while you can? From mobile coupons to mobile commerce, you can now offer all your goods and services directly to any consumer with a mobile phone.

Offering mobile coupons

You can send discount shopping coupons or promotions to your customers just when they need them most — and when they forget to bring along all the coupons you mailed them. Consider creating a made-for-mobile Internet site or *text-messaging short code* (an easy to remember five- or six-digit phone number) for customers to access instant coupons — you can only gain more customers or make more money! Take a look at Cellfire.com (shown in Figure 2-7) and MobileDigit.com for some cool ideas. For more details, Chapter 11 covers coupons and deals.



Figure 2-7:
Sign up to
Cellfire to
start saving.

Handling transactions with mobile commerce

You’ve always been able to take orders with mobile sales and CRM solutions — now you can take the money too. Mobile phones are quickly becoming mobile cash registers. Almost anyone with a mobile phone can now buy goods and services directly from their mobile browsers. Simple

mobile Internet access to credit card processing companies and services is providing secure, real-time processing capabilities for mobile commerce applications. Check out Bango (shown in Figure 2-8) at <http://bango.com> and mPoir, at <http://mporia.com>, or call your financial service provider to find out more about how you can make more money by serving customers directly from the palms of their hands. Chapter 14 also gives you some ideas on how to make money with mobile content.

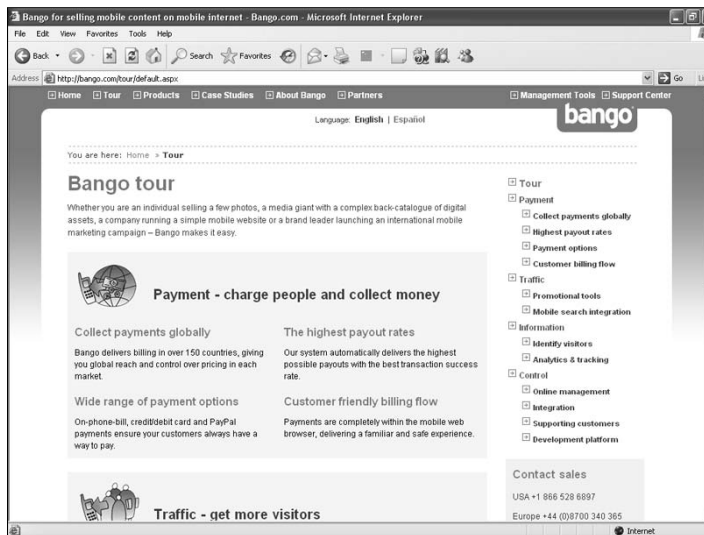


Figure 2-8:
Start making money on the mobile Web with Bango payments.

Playtime on the Mobile Internet

There's a time for work and a time for play. The mobile Internet is one of the most fascinating playgrounds in the world. You can use your phone almost anywhere, and have more fun with your phone than you could with your computer. From grabbing the latest ringtone or hit from Timbaland to Led Zeppelin on the Alltel Access mobile storefront to playing games such as Tetris or Downtown Texas Hold'em from EA Mobile, it's just the tip of the mobile-Internet iceberg.

Mobile phones have become pocket-size multimedia computers. They have screens, keyboards, computer chips, and modems built right in, and they have access to the Internet through all the wireless carriers in the world. Almost every mobile phone model now made can keep you entertained for hours. The following sections describe just a few of the ways you can enjoy the mobile Internet while on the go.

Mobile games aren't just for kids

It's fun to be a kid again whenever you get the chance. And mobile games are one of the best ways to keep the kid in all of us playing away. Gameloft thinks so too: In 2007, it hit a milestone of selling more than 100 million mobile games. Hundreds of mobile game developers exist, with funky names like Glu Mobile (www.glu.com), EA Mobile (www.eamobile.com), and Sony Pictures Mobile (www.sonypicturesmobile.com) — yes, the same Sony that sells TVs, computers, and stereos — pumping out all kinds of games for you. They're easy to get to on your mobile-Internet-enabled phones, and are available from all wireless carriers. You can spend a couple of bucks or pay as much as \$10. And, you can grab them on your mobile phone while you're waiting for the bus.

To give you an idea of what you can play, check out the Verizon Wireless list of Top 10 Mobile Games in 2007:

1. *Tetris*
2. *Are You Smarter Than A 5th Grader?*
3. *Guitar Hero III*
4. *Call of Duty 4: Modern Warfare*
5. *Need for Speed ProStreet 3D*
6. *Diner Dash 2*
7. *Assassin's Creed*
8. *Madden NFL 08*
9. *The Simpsons*
10. *God of War: Betrayal*

For details about how to find, set up, and play mobile games, see Chapter 9.

Rock 'n' roll and hip-hop — literally

With the mobile Internet at hand, you have access to your favorite tunes and music wherever you go. Whether you're going for a walk, jogging, riding a bike, or just catching the next train to Georgia, you're covered. Pick a favorite artist — any artist — she probably has a ringtone, a callback tone, or a full song available for you from your favorite wireless carrier.

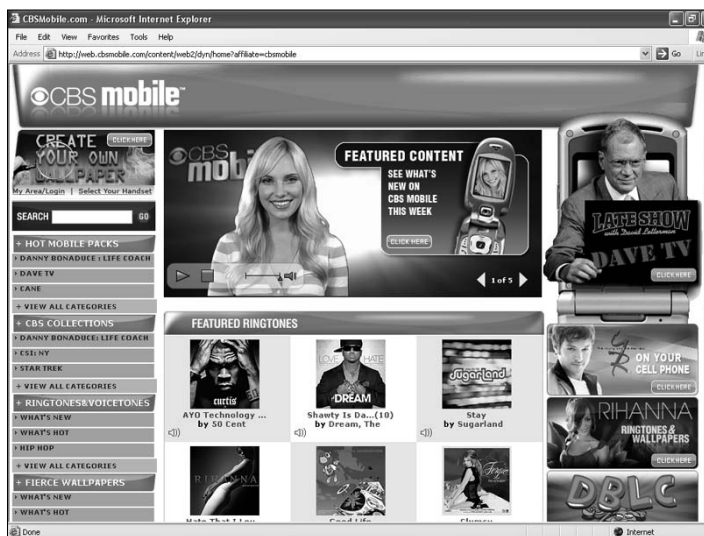
If you're not on the carrier mobile portal, that's no problem — you can subscribe to one of the hundreds of mobile storefronts, such as Jamster.com, ringtones.mobi, and MTV.com, to subscribe to and buy the music you love best. Mobile music tones and songs cost from \$1 for a single tune to about \$10 for a monthly subscription to all-you-can-eat (or listen to) services.

Lights, camera, action!

Suppose that you're having fun with a few games and listening to some cool songs and then you see the most beautiful sunset you've ever seen right before your eyes. If you have a mobile phone with a camera built in, you're in business. Take the shot and send it to your best friend right away. You can send it to her mobile phone or computer or upload it to your Facebook or Flickr site. It's all ready to go with your mobile Internet connection. Chapter 14 provides more details on how to take pictures from your mobile phone and upload them to popular Web 2.0 photo-sharing sites.

If the sunset outside your window has reminded you of the *Young and the Restless* TV episode you just missed, you can get the highlight clip from CBS Mobile and watch it before the moon comes up. All kinds of movie trailers, TV shows, and even made-for-mobile episodes (*mobisodes*) are available to download to your mobile phone. Companies such as MobiTV.com and traditional TV broadcasters — such as ABC, CBS (see the example shown in Figure 2-9), ESPN, and FOX — all have mobile videos produced to work on most mobile phones. Find out about more mobile TV and video offerings in Chapter 9 or check your local wireless carrier listings for more details.

Figure 2-9:
CBS Mobile
mobisodes; you'll never miss another show.



TV episodes for your mobile phone: Mobisodes!

Mobisodes are short, made-for-mobile, TV-like productions in which each episode is specifically produced with a duration of no more than two to three minutes. Traditionally, mobisodes are highly edited short versions of TV shows and are intended to allow fans to view their favorite shows at any time and anywhere on a mobile phone. One of the first mobisodes produced was "Love and Hate" in January 2004, followed by "Sunset Hotel" and "24: Conspiracy," a spinoff of the highly successful TV action drama *24*. All

were launched on the Verizon Wireless network in February 2005. Fox Mobile followed up with "Prison Break: Proof of Innocence" in April 2006, available on a variety of wireless carrier networks. Mobisodes are evolving from a mainstream TV extension to a made-for-mobile miniseries or event and casting a wide net that attracts consumers to their mobile phones regardless of whether they're at home in front of a TV.

When you're off to the movies, the mobile Internet can offer you a hand: Major movie studios are also making clips and trailers filled with your favorite movie stars and sidekicks. Here's one cool feature: You view the movie clip of the latest Brad Pitt film, find on your mobile browser the next time slot that it's playing at your local theatre, and buy the tickets to the movie and have them delivered directly to your phone. It's a concept of the future, you say? You can do it today: Have it charged to your mobile phone bill or credit card at MovieTickets.com or the Fandango mobile service and you're good to go.

Or, just surf the mobile Internet

Many mobile Internet sites are out there for you to see. Every day, thousands of new made-for-mobile Internet sites and services are hitting the waves; stay in tune with your favorite hobbies, stock picks, horoscopes, news, sports, weather, traffic, bank accounts, businesses, and more. Throughout this book we provide you with examples of the sites and services available for you to enjoy.

Chapter 3

Kids and the Mobile Internet

In This Chapter

- ▶ Looking at the ways your kids use their mobile phones
 - ▶ Establishing guidelines for your kids' mobile phone use
 - ▶ Using the mobile Internet in school
 - ▶ Keeping an eye out for cyberbullying
-

Young people are adopting mobile Internet services faster than their parents are, and they're also weaving Internet and mobile Internet offerings (for example, Facebook and YouTube) into their daily lives. Kids today are also finding that the inherent benefits of mobile Internet freedom are worth spending some of their allowance money on, and parents are having to deal with questions about their kids' mobile phone etiquette at school and at home.

In this chapter, we describe for parents and guardians the issues they need to be aware of in giving their kids access to the mobile Internet. We also give suggestions on how to properly manage children's newfound "anywhere, anytime" mobile Internet access. These issues include tips for managing kids' access to services and content as well as their mobile phone use at school. You also find out what cyberbullying is and how to watch for it.

Taking a Look at How Kids Use Mobile Phones

Millions of teens are now buying mobile phones, spending their allowances or their parents' money on text messaging and surfing the mobile Internet for games, chat, and videos.

Furthermore, even preteens (12 years old or younger) have become daily users of mobile phones. As mobile phone use penetrates the younger population and becomes an even more integrated part of teen life, it also has a profound effect on how young kids and teens interact with each other, how they use the phone in a school or workplace environment, and how they play.

According to data from mobile industry market research firm M:Metrics, there are 7½ million users of mobile social networking services in the United States.

A majority of these mobile social-networking users are teens and college students using MySpace and Facebook, the two most popular social networking sites at the time this book was printed. Virtually all popular social networking sites have opened their services for access by people using mobile phones to upload content, retrieve content, and communicate with their peers. Accessing social networking sites from mobile phones is becoming an integrated part of a kid's cyber-lifestyle.



Although social networking services are often dismissed as chats and blogs and games that are a waste of time for teens avoiding their homework, that isn't necessarily the case.

The good news, according to a recent Grunwald Associates survey, is that most of the teens who enter social networking groups to connect with their peers often use the groups to discuss homework.

Setting a Mobile Phone Policy with Your Kids

A recent study in the United Kingdom by Fly Research revealed that four out of five parents are concerned about their kids' mobile phone use and, even worse, about unsolicited connections from unwanted strangers and bullies. Interestingly, the same parents said that they feel their kids are safer and more secure if they have mobile phones for emergency calls and direct parent-child contact — a virtual safety net, of sorts.

The most disturbing aspect of the survey is that close to half of all parents surveyed said that they don't understand much about how kids now use mobile phones and the services that are offered. Even scarier is that almost a quarter of the parents admitted that they don't know who is on their kids' contact lists and whether the phones are being used for calls or for text-messaging connections. Parents should be concerned about these issues and should closely watch their children's mobile phone activity.



We don't tell you in this book whether kids should or shouldn't use mobile phones. A growing number of parents worry about their children's use of mobile phones, so we provide information and tips to parents (and to kids) about how to handle some of the issues involved in teens using mobile phones and accessing mobile Internet services.



Even if your son or daughter pleads and bargains with you to have a mobile phone, unless you feel completely comfortable with that possibility *and* you can afford the extra costs involved, don't feel pressured to buy one. Because a tremendous number of responsibilities are involved — for both you and your children — you should, as Mom always says, look before you leap. Mobile phones require commitment from both of you, and you have to set the proper guidelines, boundaries, and transparency rules between you and your children before entering into any mobile phone service agreement for them.

Handling the money issue

Talking about money with your kids can be difficult. If your kids are using their mobile phones too much, though, and it's costing you a bundle to keep them connected, you can address a few issues upfront so that they don't become problems later:

- ✓ **Limit the amount of money that your kids can spend on phone services every month.** Think of this amount as a mobile phone allowance. If they spend more than the agreed-on amount, the extra money is taken out of their *personal* allowances. The choice is then theirs: Go to the movies or download a mobile game.

It may take some time to get your message across, but after they have to pass up a couple of movies or new thingamajigs, they'll get the point. Just negotiate with rewards that your children value in order to achieve clear agreement.

Here's an example: A friend of ours has a son who manages like a hawk his monthly \$10 for extra mobile phone services. He goes online with his computer to preview ringtones, games, and wallpapers; checks with his friends on the highest-quality and coolest ringtones or just-released mobile games; and makes his monthly decision of either one cool, high-end ringtone for \$8 or a basic ringtone and game for \$10. Needless to say, he is having fun on his mobile phone, and his parents have kept to their word on managing and monitoring the negotiated mobile phone allowance — everyone's happy.

- ✓ **Buy pay-as-you-go or prepaid service for your kids.** This method determines the monthly amount your kids can use on their phones, and any conflict or negotiation is handled upfront, before they use the phone, rather than after they have spent the money.

Check with your wireless carrier to see whether it offers a program that includes prepaid voice services, text messaging, and mobile Internet access all in one package.



Monitoring your kids' mobile phone use

Monitoring the costs of service doesn't take care of monitoring your kids' mobile phone behavior, such as which services or information they access on their mobile phones. Even though the task requires a bit of finessing, it must be done — just as monitoring their Internet access must be done. Here are the differences in mobile phones and mobile Internet services versus Internet services:

- ✔ Mobile screens are smaller.
- ✔ Mobile keyboards are smaller.
- ✔ Mobile devices can be used in any room of the house or in any park or public space to connect to whoever and whatever users want.

Keeping tabs on your kids definitely isn't as easy as looking over their shoulders while they're sitting in front of the family computer in the dining room, is it?

After providing kids with mobile phones and Mobile Internet service access, parents need to do their best to stay aware and maintain control of their kids' mobile Internet lifestyles. You need to keep a close eye on these individuals:

- ✔ **The people your children call and the people they get calls from:** This strategy is one of the simplest ways to keep tuned in to your kids' mobile phone use. Listen in on a few conversations and ask questions about who usually calls them. You can also always look at their mobile phone call logs and their phone bills (usually available on the carrier's Web site). If you don't recognize the names or numbers listed, place a call to find out. Just be conscious of your children's own respect for privacy when doing so — you don't want them to be upset that you're checking in on their call activities.
- ✔ **The people in your children's mobile phone Contacts lists or buddy lists:** Another simple way to check in on your kids is to look at their Contacts list on their mobile phone. Some may have nicknames, so make a list and then spend time with your children to discuss who those contacts are and whether they're friends or people they usually communicate with. Don't be offended by the nicknames your kids may have for their peers and other people — remember kids will always be kids. If you're offended by some of the names listed, talk with your children about changing them to something better or putting real names in their contact lists.
- ✔ **The people your kids receive text messages from and the ones they reply to:** You can always check your children's message logs to view sent or received messages. Out of respect for your children, you should

also let them know that you will do so periodically so that they're aware of your interest in their text messaging use. If you're concerned about the frequency of text messaging or the types of reactions your children make when text messaging, let them know.

- ✓ **The people (and services) your kids are connecting with in mobile Internet cyberspace:** Again, all mobile phone transactions are kept in various logs and reports on your kids' mobile phones. Just like your computer, most mobile phones have history, cookie, and bookmark capabilities for you to view what your kids are doing on their mobile browsers. Some mobile phones have more detailed reports than others. Check the mobile phone user manual for details on what's available on your children's mobile phones. Don't forget that some kids may clear their messages and browsing histories so that they don't leave any unwanted cybertrails of their activities, just like they probably do on their computers. Our best advice for mobile Internet use, as with Internet use on a computer, is to keep an open dialogue with your kids to let them know they should be as careful surfing the mobile Internet as the computer Internet. You may also be interested in restricting your children's access to mature content on the mobile Internet, a topic we discuss in more detail later in this chapter.

Another way to find more detailed information on the time, date, and duration of mobile phone activities is on your children's mobile phone billing statements. Here are some tips:



- ✓ **If you're uncertain about the numbers on the billing statement:** Write them down, ask your children to help identify who they belong to, and, if you feel that you must know right away, call or text the number yourself to identify the person at the other end of the line.
- ✓ **If this monitoring approach upsets your children:** Be aware that they may not necessarily be hiding anything, but may more likely be embarrassed by the possibility of their friends finding out that you're checking up on them. Be sure to explain to your children why you're checking, if you do, and be careful about the calls you make just to say hello, in a friendly manner, on behalf of your children. Or, send a simple text message just to confirm that you know who your children are communicating with.
- ✓ **If you don't like the response or the people your children are communicating with:** Talk to your children first to try to find out what the problem is, and report any suspicious activities to the authorities (and your wireless carrier) if you feel that something isn't quite right about the types of people or communications going on.

Wireless carriers also make details available about mobile phone activities, and you can request a report detailing your children's mobile-phone voice, text messaging, and Web browsing use. You may spend some time obtaining the report, and you may be required to request the information by e-mail or

letter with complete copies of your and your children's identification. This strategy protects not only you but also your children from the release of any other nonauthorized information about either of you.



An excellent way to change your kids' behavior is to set a good example for them. Monitor your own use of the mobile phone, and share the results with your kids. This way, you treat them as equals. You can also offer a deal with your kids: If they will adhere to the guidelines that you have agreed on, you will too.

Choosing phones and services just for kids

To help out parents, some services are geared toward monitoring younger kids' use of the mobile phone and its services. For example, in the United States, the following programs are helpful for younger kids and "tweens" (not young children but not quite teenagers):

- ✓ **Kajeet** (www.kajeet.com): This pay-as-you-go mobile phone service is powered by the Sprint PCS network.
- ✓ **Firefly** (www.fireflymobile.com): This service is available on the AT&T mobile network.

Parents can buy Kajeet or Firefly mobile phones in many of the larger retail stores, and can sign up for their services online. With both mobile phones offered, kids and parents can customize settings and selected services that meet their family's unique needs. You can make decisions about these issues:

- ✓ **People:** Choose the people your kids can call and the ones they can receive calls from.
- ✓ **Services:** Choose the types of mobile Internet services that your kids can and cannot use.
- ✓ **Contracts and fees:** You have no need to sign a contract or pay the activation or termination fees that come with other contracts.

You should have your credit card on file with either service to make sure that you children's mobile service has the proper amount of funds available for services that they or you may want to access in case of any emergency requirements.

Although each of these products and services has its benefits, each also charges a premium for the mobile phones and services that are offered. Compare these products and services with those offered directly by your preferred wireless carrier.

The following major wireless carrier programs assist parents with their children's mobile phone use:

- ✓ **AT&T Mobility:** AT&T offers both Smart Limits and Media Net parental controls. For more information, visit www.wireless.att.com/learn/articles-resources/parental-controls.
- ✓ **Sprint PCS:** Sprint has parental control information at www1.sprintpcs.com/explore/ueContent.jsp?scTopic=parentalControl.
- ✓ **Verizon Wireless:** Verizon has many parental control services and programs at https://wbillpay.verizonwireless.com/vzw/nos/parental-control_learn_more.jsp (see Figure 3-1).

Contact your wireless carrier directly to find out more about its specific offerings for children and teenagers.

Content Filtering

Verizon Wireless respects your right to choose content for your family.

Filtered Content Includes:

- VCAST Music
- VCAST Video
- Mobile Web 2.0
- Messaging Short Codes
- All Wireless PC Card Content

You'll find great products for your mobile phones with our award winning Get It Now, V CAST and Mobile Web 2.0 services. We know that you ultimately decide what content is suitable for your children. Verizon Wireless is committed to helping you make this decision and choose content you think is appropriate.

That's why we're providing you with Content Filtering, a tool included with your service at no additional charge to manage your children's access to content on their mobile phones. You can take charge to filter mobile content that you feel is appropriate for your children. We have classified the content into 4 different levels: Children 7 Plus, Teens 13 Plus, Young Adults 17 Plus and Filter Off. Each segment defines the type of content at each level.

Once rating filters have been activated on your account, phone users will only be able to access the content for their assigned level and below. The table of standards is listed along with the recommended age minimum for each.

Verizon Wireless Content Ratings

7+ CHILDREN 7 PLUS AGES 7+	This material contains little or no violence, no strong language, little or no sexual dialogue and situations and no themes of a mature nature. This content is considered suitable for children age 7 and above and parents can comfortably allow this content to be accessed by children 7 and above unattended.
13+ TEENS 13 PLUS AGES 13+	This material may contain mild coarse language, moderate violence, some sexuality or suggestive dialogue or themes that may not be appropriate for younger children. This content would be considered suitable for children 13 and above by most parents.
18+ ADULTS 18 PLUS AGES 18+	Parents are cautioned against allowing children under 13 to access or view this content unattended.

FAQs

[How do I keep unwanted content from being delivered to phones on my account?](#)

[What is Content Filtering?](#)

[What are the Content Filtering settings?](#)

[View all FAQs](#)

Settings

You can set Content Filtering for all of your family's lines in the My Profile section of My Account.

[Change Settings](#)

Figure 3-1: The Verizon parental controls offered to their subscribers.

Restricting access to mature content

Giving your children access to mobile Internet services is similar to giving them access to the Internet: It provides access to mature content that may not be best suited for them to see, or provides access to people they shouldn't communicate with.



Begin exploring this topic at www.fcc.gov/cgb/consumerfacts/protectingchildren.html. This U.S. Federal Communications Commission (FCC) Web page talks about protecting children from adult content on wireless devices.

Print the information on this page and review it with all your family members, and do it now rather than later. Check out <http://www.fcc.gov/cgb/consumerfacts/protectingchildren.html>.

In addition to the points we discuss earlier in this chapter about monitoring your children's mobile phone use, the FCC report offers tips on discussing mobile phones and services available with your wireless carrier so that you can become informed about what your children will have access to and how you can address mature content concerns.

Another site that can help you is WiredSafety (www.wiredsafety.org), an online safety, education, and help group, with help for parents to keep online pornography away from their kids.

Getting Cool with School and the Mobile Internet

Sometimes mobile phones belong in schools, and sometimes they don't. We agree that having kids relentlessly browsing the mobile Internet, sending text messages, or watching videos on their mobile phones isn't a good idea. And it can be quite disruptive to the class.

On the other hand, think of the computers' beneficial impact on education. We think that the mobile Internet offers similar opportunities in a different package.

The following sections explore the pros and cons so that you can be aware of the issues as you send your kids off to school, help them with homework, or even talk to their teachers.

Keeping an eye on negative factors

Here's an interesting note about kids surfing the Net from their mobile phones: Teachers generally aren't fond of allowing this activity in the classroom. Some schools don't even let mobile phones into the building or on the grounds unless they're turned off — no Silent mode and no Vibrate mode. Teachers have good reasons for taking this stance: They want to

- ✓ **Prevent cheating:** You might think that passing around a paper note or looking over someone's shoulder during a test was a tricky maneuver. Imagine sending a text message, to be passed from mobile phone to mobile phone, with all the multiple-choice questions answered. *Not in my classroom, you don't!* Or, wouldn't it have been handy to be able to go to the made-for-mobile Yahoo! Web site to look up the Pythagorean theorem?
- ✓ **Minimize disruptions:** The issue isn't just about receiving or accessing information at the wrong time and place. It's about etiquette — mobile phone etiquette. Teachers have enough to deal with in their classrooms without having to hear the latest annoying ringtone indicating a message from a friend wanting to see whether class is over yet. You can see why mobile phones aren't well accepted in the classroom. Receiving calls and text messages and surfing made-for-mobile Internet sites can all wait until recess or lunch or until school is over for the day and it's time to play.
- ✓ **Respect kids' privacy needs:** Speaking of play, school personnel are also quite conscious about the capabilities of the latest mobile phones and their connectivity to the mobile Internet. Taking pictures and videos of the school yard from a mobile phone to upload to Facebook or Flickr may seem like a cool thing to do, but who's giving the student permission to share the images? Who knows who's looking at the images? School boards and parents alike are concerned about the privacy issues on behalf of all students.

Considering the positive factors of the virtual classroom

Schools are increasingly recognizing the advantages that mobile phones have for family connectivity and security for students. Mobile phone technology has advanced to the point that students can now use a mobile phone to take pictures and record sound and video.

Here are some useful ideas that your kids can try anywhere and anytime — with permission:

- ✔ **Search for information by using a browser.** Use a mobile phone on a Niagara Falls field trip, for example, to find out more information about how some waterfalls produce hydroelectricity.
- ✔ **Share photos.** Take pictures with a mobile phone to upload to lab partners back at school with images of the trees and leaves they're collecting "virtually" in the forest across town.
- ✔ **Document your activities.** Attend a school trip event with their mobile phone and record input from everyone in the group on a mobile blog.

Evaluating school policies that affect students

School policies are now being created for the use of mobile phones while protecting students and maintaining a solid educational environment. For an example of how one school deals with mobile phone use at and around school, check out the mobile phone acceptable-use policy at Ivanhoe Grammar School in Victoria, Australia: www.igs.vic.edu.au/discover/policies/mobile_phones.htm.

If you're a parent who has kids in school and they have mobile phones, find out the school's policy for mobile phone use. If no mobile phone policies exist, work with the school's administration to get them established. Here are some questions to ask:

- ✔ Under which circumstances can mobile phones be used on school property?
- ✔ Who decides when and where students can use their mobile phones on school property?
- ✔ In which circumstances can a mobile phone be switched on during classroom lessons?
- ✔ In case of emergency, how can students be contacted? Should parents call directly, for example, or should emergency calls be directed to the school office?
- ✔ When can students make a phone call to their parents in case of emergency?
- ✔ What are the guidelines for confiscating a mobile phone?
- ✔ Should students label their mobile phones with their name so that they can be returned if lost, or should the phones be registered before being brought on school property?

Bluetooth bullying

No, Bluetooth bullying isn't about being physically beaten up, as the Vikings were sometimes known for. (Bluetooth is named after King Harald Blåtand — Bluetooth — the King of Denmark and Norway in the late tenth century.)

Bluetooth bullying refers to cyberbullying that uses the Bluetooth technology built in to almost every mobile phone now sold. People sometimes distribute videos, using the Bluetooth technology, of fighting or other interesting events that happen in school with threats or

warnings sent to other phones. These images can then be uploaded to Flickr, Facebook, or another photo blog or social networking site with the purpose of harassing someone. A simple way to stop Bluetooth bullying is to turn off that feature on your kid's mobile phone or simply buy a phone with no Bluetooth built in.

Different phone models use different techniques to turn off Bluetooth. Just look for the stylized B icon or the name *Bluetooth* on the phone screen or Features menu to switch it off.

- ✔ What is the school's responsibility for the mobile phone while it's on school property?
- ✔ What are the sanctions if a student uses a mobile phone during an exam or assessment?
- ✔ Which sanctions are in place if a student is caught cyberbullying by using a mobile phone on school property?
- ✔ Who is responsible if a student is in any way harmed or harassed or is in any other way offended from the use of a mobile phone by other students on school property?

Watching Out for Cyberbullying

The Internet gave us places where tweens gossip or even bully others: Facebook and MySpace are full of unwanted images and videos of kids teasing or threatening to expose each other's secrets. The mobile Internet is the same — and it will increase gossip and cyberbullying faster than ever. Rumors spread faster than on the Internet because mobile Internet access is instant and always with you — wherever you are. Mobile Internet access and always-on services, such as text messaging and the capability to capture and upload malicious pictures and videos to the Internet, have given cyberbullying a new form. And, as mentioned earlier in this chapter, parents will have even more difficulty finding out how their kids are using their mobile phones and then controlling that use.

A study in the United Kingdom, released by the children's charity NCH (formerly National Children's Home), found that 14 percent of 11- to 19-year-olds had been threatened or harassed by text messages.



To find out more on how to be more proactive in protecting your children from mobile cyberbullying, visit the useful Web site www.stoptextbully.com. (It's sponsored by NCH.) It covers the key mobile-bullying topics of voice calls, text messaging, e-mail, pictures and videos, chat, Web, and identity. Visit the site to help create awareness about the problem, provide more education on mobile cyberbullying problems, and find a list of additional resources.



Cyberbullying is different from traditional physical bullying and is harder to detect because it doesn't result in physical bruises, ripped clothing, or stolen mobile phones. However, any parent with school-age children can look for a key set of signs to talk about with their kids — and with the kids' teachers and coaches and the parents of their friends. Be on the lookout for kids who

- ✓ Display symptoms of depression
- ✓ Express or exhibit anxiety
- ✓ Act or speak out of fear or anger
- ✓ Refuse to attend school or sports clubs or social activities
- ✓ Let grades slip or display diminishing levels of accomplishment or decreasing social behavior
- ✓ Avoid friends or relatives
- ✓ Hesitate to use their computers or to answer their mobile phones

Of course, any of these psychological signs could be a symptom of other issues, but you would be wise to discuss any of these signs openly and non-judgmentally with your kids. Most importantly, tell your kids — and show them — that you love them. Doing so builds up confidence, self-esteem, and trust, which will prevent most bullying from happening to your kids.



If you feel that a child is being cyberbullied in any way, detail the situation as best as you can, contact the proper authorities at your police department and at your child's school, and contact the wireless carrier to further assist you with the problem.

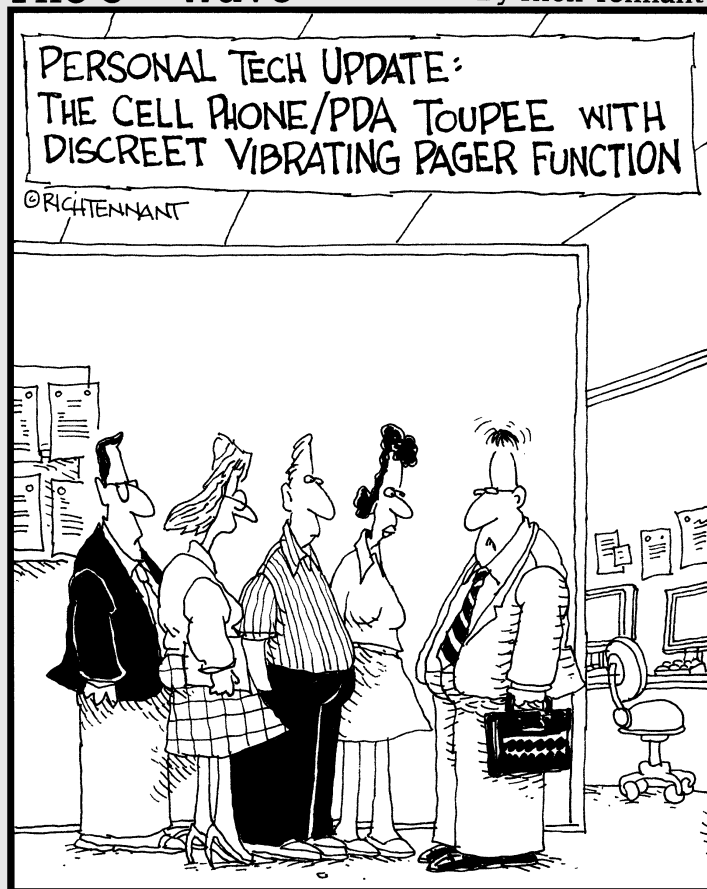
Perhaps the best way to detect whether your kids are cyberbullied is to search for your kids' names online. This way, you might find out what is being said about them. You can also actively find out which social network or instant messaging system they use and then join those networks. This strategy has a double edge, however, because it can lead to cyberbullying when your kids' friends find out that you're "spying" on them.

Part II

Mobile Internet, Here It Is — Now What?!

The 5th Wave

By Rich Tennant



"Will you excuse me? I'd better take this."

In this part . . .

After you're ready to get started, where do you start? Probably the hardest part of using the mobile Internet is getting connected. We help you figure out which kind of handset and service are right for you.

Chapter 4

The Internet in Your Pocket: Choosing a Phone and Mobile Browser

In This Chapter

- ▶ Figuring out what you can do with your mobile browser
 - ▶ Classifying mobile phone models and mobile Web browsing methods
 - ▶ Accessing and using your mobile browser
 - ▶ Connecting to the Internet from your mobile phone
-

Even if you already read the first three chapters in this book to find out about your mobile phone, wireless-enabled personal digital assistant (PDA), or mobile Internet terminal — and all that they can do — these devices can do much more than what you may have previously thought. With them in hand, you can access the mobile Internet whenever and wherever you may be. In this chapter, we explain what a mobile browser is and highlight what you can do with it. We show you how to locate the browser on your phone, how to connect to the mobile Web, and how to use your mobile browser's basic features.

Knowing What to Expect from Mobile Browsing

For lots of people, the most common way to access the Web is (just like on a computer) by using an Internet browser. A mobile browser (also commonly referred to as a minibrowser, microbrowser, or mobile Web browser) is an application capable of displaying and rendering Web sites on your mobile phone.

Before you venture out to the Web, and perhaps even before you buy your mobile phone to connect to the Internet, it's helpful to understand what you can expect. This section explores how mobile browsing compares to computer

browsing, and also how your service plan and phone can affect what you can see and do on the mobile Internet.

Comparing mobile and computer Internet browsers

The mobile browser is similar to your computer browser in that it can be used for a wide range of activities such as search, information access, and entertainment, including downloading applications and content to your phone. In fact, according to the leading mobile industry research firm M:Metrics, people most commonly use their mobile browsers for these activities:

- ✔ **Search:** Find and look for information; such as an address, directions, traffic information, news stories, movie listings, restaurants, recipes, and more. Find information about a company or product by going on the mobile Web to Google or Yahoo! directly from your phone.
- ✔ **Community or finding dates:** The mobile phone is a personal device, and more and more people are using it to stay in touch and interact with their social networks when away from the computer. Access your Facebook or MySpace services from your mobile browser.
- ✔ **Accessing financial accounts:** With banking and stock trading online, you can now access your accounts, balances, transfer funds, trade stocks and more by using your mobile phone. You can even locate the nearest ATM to get cash, for example.
- ✔ **Browsing news and information:** Read the latest headlines or current events articles, and keep up on entertainment news and your favorite humor columns and comics. Track information about your finances, travel plans, personal health, horoscope, sports, and weather forecasts. CNN, BusinessWeek and Fox News keep you updated on the move from their mobile Web sites.
- ✔ **Shopping:** From made-for-mobile shopping sites, product and service comparison shopping services, and even virtual shopping malls, the mobile Web brings it all to you where ever you are. Mainstream Internet shopping sites, such as eBay, Amazon, and more are going mobile.
- ✔ **Messaging:** Send personalized business e-mail, swap instant messages, send text messages and multimedia messages, and maintain your social networking site from anywhere you are in wireless carrier coverage. Windows Live Mail, Gmail, and related services accessed from your mobile browser are quite similar to your Web mail.
- ✔ **Downloading digital content:** Check out top-rated made-for-mobile graphics, ringtones, games, music, and video files on the fly. All available from your wireless carrier's mobile Web site from entertainment providers, such as Universal Music, MTV, EA, CBS, or from a third-party content provider unaffiliated with the carrier.



The language of Internet browsers: Why don't all Web sites show up on your phone?

People have become accustomed to rich, interactive Internet experiences on their computers, an experience that often cannot be had with a mobile Web browser. The reason for this (and it is deceptively simple): The underlying technology of the Internet browsers on your computer and on your phone differs significantly. Because of this difference, less than 1 percent of Web sites that now exist can be viewed properly, if at all, on a mobile phone (unless the user has an iPhone, BlackBerry, or a full Internet-like browser on their smartphone or PDA).

Most Internet Web sites aren't composed in languages that a mobile Web browser can understand.

The language of the computer browser

Web sites designed to be viewed by computers are developed in a number of different programming languages, such as HTML (Hypertext Markup Language), Flash, XML, Ajax, or PHP. Your computer Internet browser is designed so that it can read and understand the instructions written in these languages and a vast number of other ones. Moreover, your computer Internet browser can easily learn new languages. If it doesn't understand a language in a Web site, the developer of the site can instruct the computer Internet browser to download an engine or a translator

that helps the computer Internet browser understand how to follow the instructions of the new language; for example, your computer Internet browser may be instructed to download a Flash player or video player so that you can play Flash games or see videos.

The language of the mobile browser

Similar to your computer Internet browser, mobile browsers have their own language. One of the first languages developed for mobile browsers was Wireless Application Protocol (WAP), a derivative of HTML. WAP 1.0, released in the late 1990s, was designed to address all limitations of the mobile phone and bandwidth constrained mobile networks. A new and improved version of WAP, WAP 2.0, offers a richer mobile Web experience. In addition to WAP, other mobile browser languages have been developed, such as XHTML (or XML Hypertext Markup Language), CHTML (compact Hypertext Markup Language), and KHTML (Konqueror Hypertext Markup Language). Each of these different mobile browser languages has been developed to improve your experience when viewing the Web on your mobile phone, but they're all mobile-device and wireless carrier dependent and therefore don't work on all phones or networks.

Although the mobile phone browser is similar to your Internet browser in concept, in practice it has some stark differences. For the time being, don't expect to find the same rich, interactive experiences on your mobile phone browser as you do on your Internet browser, because of their differences in these areas:

- ✔ **Language:** Your mobile phone browser doesn't always speak the same languages as your Internet browser, so you can't view nearly as many Web sites on a mobile phone. (See the nearby sidebar, "The language of Internet browsers" for details.)

- ✓ **Power capability:** Your mobile phone isn't as powerful as your computer in terms of processing capabilities and memory.
- ✓ **Screen size:** Your mobile phone's screen is much smaller than your computer screen.
- ✓ **Input devices:** The keyboard and input methods tend to be quite different.
- ✓ **Network bandwidth:** The data speed varies greatly across different wireless carrier networks.



Because of these differences, not all Internet-based Web sites can be viewed on your mobile phone, and you'll have a different Internet experience on your mobile phone than the one you have on your computer.



The best way to check how a Web site (either Internet or made-for-mobile) will look on a mobile phone is by using the excellent, free service that the dotMobi company offers at <http://ready.mobi>. Simply enter any Internet or mobile Web site *URL* (an address like the one for this book's Web site, `mifd.mobi`, or for a better example to see Internet and mobile Web site differences try `www.bmw.com` and then `bmw.mobi`), and you'll receive a full report on how the Web site will work on a mobile phone browser. The site also gives you a full report on the estimated costs associated with surfing the site from your mobile phone.

Determining which services your carrier can deliver

Accessing the Internet with your mobile browser is easy. Before you jump onto the mobile Internet super information highway, however, you need to know some basic information:

- ✓ **Which service your carrier offers:** The service you choose affects how you browse as well as how much you pay for the service. All wireless carriers pay special attention to the configurations of the mobile phones they offer and the experience you have on their wireless data networks. You may see a *huge* difference between the mobile Web experiences between operators and mobile phones, including the types of sites you can access, the quality of the sites when you access them, and the types of content that can be downloaded.
- ✓ **Which type of wireless carrier contract you have:** Access to the mobile Web is a *data service*, in wireless carrier parlance. To use the data services from a wireless carrier, almost all of them require that you have a postpaid (rather than a prepaid or pay-as-you-go) contract. A postpaid contract is a contract where you pay at the end of each month for all the

services you've used, while a prepaid contract is one in which you pay in advance for the use of services (much like the difference between a credit card and a debit card). Check with your wireless carrier to see which type of plan you have. In the meantime, here are a couple of guidelines to better understand the types of available contracts:

- *If you have to “buy minutes” or use a prepaid card to “top up” your phone:* You're on a prepaid plan.
- *If your minutes are deducted from a “bucket” of minutes that you're paying for on a credit card monthly:* You're on a postpaid plan.

See Chapter 5 for more information about wireless carrier data-plan contracts.

✓ **Which wireless data plan you have:** The wireless data plan you have significantly affects your mobile browsing experience, not just because of cost but also because of speed. You can find three basic plans:

- *Basic metered plan:* Services are billed for as you use them on the network. It's usually the most expensive way to go mobile.
- *Fixed plan or data bucket:* A pre-determined amount of wireless data you expect to consume in a month and purchasing it at a bulk discounted rate versus the pay-as-you-go metered way.
- *Unlimited plan or all-you-can-eat:* Similar to your home Internet access DSL or cable plan, where you pay one price per month for as much network access as you want.

If you're planning to surf the mobile Web frequently, seriously consider signing up for an unlimited data plan; otherwise, you will end up spending a lot of money when you really don't need to. Also check with your wireless carrier for bundled offerings that combine other mobile Internet services, such as text messaging, e-mail, and more with your mobile Web access. See Chapter 5 for an overview of different types of wireless data plans.

Finding out which class your phone or device is in

The mobile browser experience varies dramatically across the different classes of phones. The type of mobile phone you have has the biggest effect on your mobile Web browsing experience. Your experience is affected by both the evolutionary generation of the type of browser you have and the class of phone you have.

Aftermarket mobile browsers

Adding aftermarket browsers is a very common way to improve the performance of your mobile Web browsing experience; an aftermarket browser may be of better quality than the one that came with the phone originally and it might support additional functionality that you want, and/or simply be easier to use. A very similar Internet browser comparison would be the availabilities of Internet Explorer, Firefox, Opera, Safari, and more for your computer. Each one offers its own features and benefits to improve and customize your Web browsing experience.

For many smartphones, wireless dedicated devices, and both the BlackBerry and iPhone,

you can download an *aftermarket* mobile browser — one that didn't come with the phone when you bought it. Here are some popular browsers:

- ✔ **Opera Mobile and Opera Mini, from Opera Software:** www.opera.com/products/mobile or www.operamini.com
- ✔ **Minimo, from Mozilla:** www.mozilla.org/projects/minimo
- ✔ **ThunderHawk, from Bitstream, Inc.:** www.bitstream.com/wireless

These five common classes of phones are now on the market:

- ✔ **Traditional:** The most common phone model now on the market; comprises about 85 percent of all mobile phones. This type runs a real-time operating system (RTOS), which is a closed operating system. Two common RTOSs exist:
 - *Nucleus*: A homegrown operating system created by the mobile phone's manufacturer
 - *BREW*: From Qualcomm; used predominantly by Verizon Wireless in the United States

A *closed* operating system limits the types of modification you can make to your phone. For example, you probably can use only the mobile browser that came with your phone. You can't download and install aftermarket mobile browsers, a topic that's explained in more detail in a sidebar later in this chapter called "Aftermarket mobile browsers."

- ✔ **BlackBerry:** The BlackBerry is a class of phone that is offered by Research In Motion (RIM). It is best known for its mobile e-mail capabilities. However, the BlackBerry is excellent for accessing the mobile Web. It has an *open* operating system, and you can easily load new applications and browsers. You are not limited to using only those applications that came with the device.
- ✔ **Wireless PDA or smartphone:** The smartphone is a mobile phone class that uses an *open* operating system, similar in concept to a computer. The most popular smartphone operating systems are Symbian, Microsoft Windows Mobile, and Palm. Expected to join this list are a number of

Linux-based operating systems in development as well as the Google Android operating system, now expected in the second half of 2008. You can easily load new applications and browsers on smartphones. You aren't limited to using only those applications that came with the device.

- ✔ **Apple iPhone:** A phone model in a class all by itself. Although it's true that the overall market penetration rate of the iPhone is low compared to the billions of mobile phones in the market, it's equally true that the iPhone has had a significant impact on the future of mobile Web browsing by allowing you to surf and view almost any type of Web site — Internet and mobile — on its screen. The iPhone operating system was initially closed, however, Apple has begun to open it up, and increasingly you're able to install new applications on it.
- ✔ **Dedicated wireless-enabled terminal:** Another device that can be used for accessing the mobile Web by using a browser. All other device classes are primarily phones with the purposes of enabling voice calls, while the dedicated wireless enabled terminal class are designed for purposes other than voice calls. Examples of wireless-enabled terminals include the Sony PSP for gaming, the Apple iTouch, and Nokia 700 designed solely for Internet browsing. Often, with these devices, you're restricted to using the applications that came with it.

Launching and Controlling Your Mobile Browser

To connect to the mobile Web by using the radio network of one of the wireless carriers, you simply launch your mobile browser. If you're accessing the Web for the first time by way of your mobile browser, most wireless carriers present you with billing-option plans directly over the phone. After you select a data-plan billing option by completing a form on your mobile browser, you're connected to the Web. Or, you can call your wireless carrier or visit one of its local stores and sign up for a data plan in person.

Traditional phones offer limited, but still quite usable, mobile Web browsing capabilities. Almost all traditional phones use some version of a WAP browser. You typically have three ways to launch your mobile browser:

- ✔ A physical button on your mobile phone (see Figure 4-1).
- ✔ A preprogrammed soft key (see Figure 4-1).
- ✔ The application's navigation menu. You launch the application menu typically with a soft key named Menu, and you typically find the mobile browser either on the main menu or in the Applications or Services folder.



Figure 4-1:
Getting onto
the mobile
Web.

To navigate the mobile Web on a traditional phone, use the up- and down- and left- and right-arrow keys to browse the link options. Some browser windows showing different link styles are shown in Figure 4-2.



Traditional phones tend to be *closed* systems, so you're limited to only the mobile browser that came with your phone; that is, unless your carrier supports downloading an aftermarket application and lets it access the Internet.

On a BlackBerry

Launching and navigating the mobile browser on a BlackBerry is straightforward:

- 1. In the applications window of the mobile phone, use the selection wheel or track ball and select the globe icon.**
- 2. After the mobile browser has launched, use the selection wheel or track ball to select links or access the mobile browser options, as shown in Figure 4-3.**

Figure 4-2:
Even though these link styles are different, they all lead to the mobile Web.



Click to launch browser

Selection wheel



Figure 4-3:
The BlackBerry selection wheel in action.

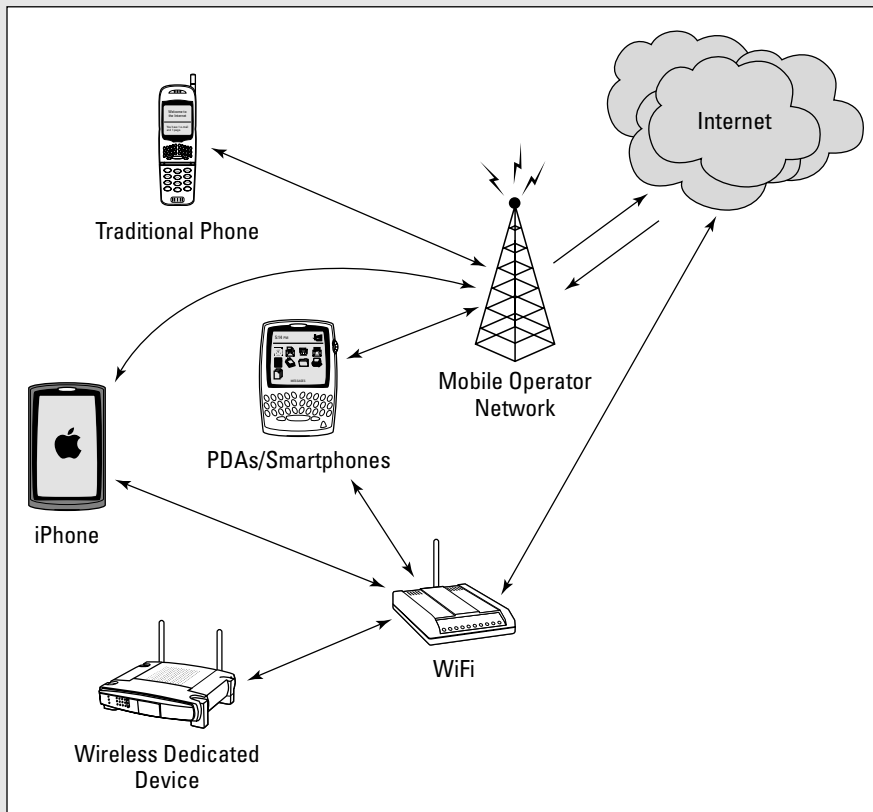
Reaching the Internet with WiFi

Only a handful of new smartphones, wireless dedicated devices, some BlackBerry versions, and the iPhone can connect to the Internet by using the WiFi channel. Take a look at your device's user manual for instructions on how to enable the WiFi radio, if it has one.

One of the key benefits of connecting to the Internet by WiFi from your WiFi-enabled phone is money. The money you save by your expen-

sive, limited wireless data plan in lieu of free unlimited WiFi access, for example. And, sometimes wireless data coverage is not available at all, but WiFi is — like in a basement or on a train.

The following figure shows you how the different wireless networks can help you connect to the Internet to browse the Web.



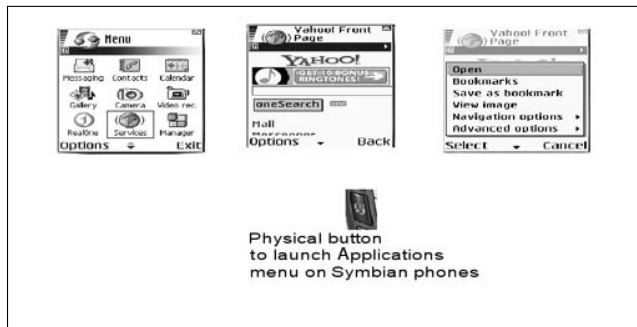
The BlackBerry, unlike traditional phones, uses an open operating system, so you can also download many aftermarket applications and browsers. You're not limited to using the ones supplied with the phone. Typically, three browsers are loaded on your BlackBerry: the BlackBerry browser (basically, your bookmarks manager), a standard Internet-like browser, and a WAP browser provided by the wireless carrier.

On a Symbian OS smartphone

Symbian is the most widely used smartphone mobile operating system in the world. To launch your mobile browser on a Symbian-based phone, follow these steps:

1. Select either the globe icon from the applications short strip (along the top of the screen) or the Applications menu button on the phone.
2. Scroll to the Services globe, shown in Figure 4-4 (in Symbian-speak, it's the mobile browser), and then click it.
3. After the page opens, use the Options soft key to open the Features menu and then press the up- and down- and left- and right-arrow keys on your mobile phone to scroll through the site.

Figure 4-4:
The launch
of a Web
browser on
the Symbian
operating
system.



On a Microsoft Windows Mobiles smartphone

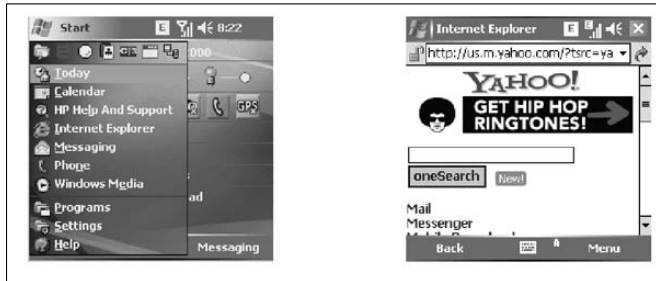
Launching the mobile Web from a smartphone running Microsoft Windows Mobile is easy. Your phone typically uses one of these two methods:

- ✓ **Internet Explorer icon:** Find the icon along the applications shortcut strip at the top of the screen.

- ✔ **Windows Start flag:** It's in the upper-left corner of your smartphone's screen, as shown in Figure 4-5. Click the Internet Explorer icon on the applications list.

Microsoft Windows Mobile is an open operating system, so you can download aftermarket applications and browsers if you want to use something different from Internet Explorer on your mobile phone.

Figure 4-5:
Windows
Mobile Web
browser.



On a Palm smartphone, such as a Treo

Accessing the mobile Web from a Palm-enabled phone is simple:

1. Select the **Web** button from the applications list.
2. On the address bar, along the top of the page, enter the URL of the site you want to visit, as shown in Figure 4-6.

Figure 4-6:
The Palm
OS Web
browser on
a Treo.



On an Apple iPhone

The Apple iPhone, available only from AT&T in the U.S. for the time being, provides a rich, interactive, mobile browsing experience that's different from what you find on any other phone model. The iPhone uses a *full* Internet-like browser: It shows you complete Web sites, as shown in Figure 4-7. The iPhone comes with a built-in Apple Safari browser; to launch it and browse the mobile Web, simply click the Safari button.

On a dedicated wireless terminal

The dedicated wireless terminal mobile browser acts exactly like the browser on a smartphone or an iPhone. In fact, more often than not, these devices use the same browsers as smartphones or iPhones — the only difference is wireless terminals were designed for applications and Internet access with very limited to no voice calling capabilities.



Figure 4-7:
The Apple
iPhone Web
browser.

Safari button

Navigating with Common Browser Features

After you're on the Web, you're ready to navigate it. Depending on the class of your phone model, you might access these navigation features in different ways. These features are generally available across all phones and browsers, however. You can access each feature described here from your mobile browser's Options menu or Tools menu (the features may be renamed slightly across different models):

- ✔ **Open:** Opens or launches a bookmarked URL or subfolder.
- ✔ **Refresh/Reload:** Updates the page.
- ✔ **Back:** Returns you to the previous page you were viewing.
- ✔ **Bookmark:** Acts as your Favorites repository. You can save the URL of the mobile Web page, just as you can on your computer Internet browser, to access the site quickly the next time you launch your mobile browser.
- ✔ **Go To/Address:** Lets you manually enter a URL for a mobile Web site. You enter the URL and then select OK or Enter. It's the equivalent of the address bar on your computer Internet browser.
- ✔ **Select a link:** All mobile browsers let you click links on a page. Some, such as the traditional mobile phone, require that you scroll up and down with the phone's arrow keys; others, such as most PDAs or the iPhone, let you use a stylus or your finger to click a link.
- ✔ **Scroll up or down:** Every mobile browser has a mechanism for scrolling up and down on a page, using the phone's arrow keys, a stylus, or your finger. Some phones may even have a small joystick to not only scroll up and down but also pan left and right or zoom in and out on a mobile Web page. Joysticks are usually found only on the higher-end traditional phones, smartphones, PDAs, and on the iPhone.
- ✔ **Exit:** All mobile browsers have an Exit feature. If your phone is not subscribed to an unlimited data plan, be sure to use the Exit feature when leaving a site. If you don't, and you abandon the browser to use another phone feature (to call someone or use the calculator, for example), you may still incur data charges.
- ✔ **Advanced features:** You may also find advanced features on your mobile browser, such as the ability to delete browsing history, cookies (such as ones for form file in data and saved passwords), cached sites and pages (use this feature especially if a Web page isn't rendering properly or your phone memory is getting full). You'll also find a Settings feature, used for configuring access details and establishing a connection with your wireless carrier's Internet access gateways.

Chapter 5

Getting On the Mobile Internet: Wireless Carriers and Service Plans

In This Chapter

- ▶ Sorting out the myriad wireless carriers and their offerings
 - ▶ Making sense of the wireless carrier plans, billing models, and service options
 - ▶ Choosing the wireless data service plan that meets your needs
-

You're ready to start browsing the mobile Web, and maybe even use other wireless data applications, such as text messaging or an e-mail service. However, the thought of doing so puts fear in your heart because you have no idea how much these services will cost or how to figure it out.

Reading this chapter will help quell your fears.

In this chapter, we discuss the different types of wireless carrier networks in the United States, share basic details about different plans and options, and arm you with the important questions you should ask your wireless carrier before signing up for a plan and its various service options.



To find out more about the programs and services offered by the wireless carriers, visit them directly either online or at the retailer nearest you. You can also check out our Web site where we have links and directories to all the wireless carriers in the world.

Comparing Wireless Carriers

Wireless carriers (mobile network operators) are the organizations that provide mobile phones and value-added services. The carriers provide you with the ability to make and receive phone calls, send and receive text messages,

access the mobile Web, take and share pictures, find driving directions, and do so much more — all from your mobile phone. Not all wireless carriers are alike; they come in all shapes and sizes. This list describes the three types of wireless carriers:

- ✔ **National:** Offer retail and commercial services throughout the country. The United States alone has more than 50 wireless carriers; worldwide, there are hundreds. The largest national carriers are AT&T, Sprint, T-Mobile, and Verizon Wireless. These carriers serve a little over 90 percent of the mobile subscribers in the United States and have the most advanced high-speed networks, handsets, and services offerings. If you travel to other cities or regions often, national carriers are your best route for going mobile. Also, if your business associates and friends are all over the country, national carriers offer very good in-network service plans to connect with people on other networks with reduced rates.
- ✔ **Regional:** Operate their services within a limited locale and region — for example, Alltel, Cincinnati Bell, Leap Wireless, and U.S. Cellular. These carriers offer limited coverage by region and usually have very good networks, handsets, and value-added services in order to compete with the national carriers. If your travel is limited to your tri-state area or city, then regional carriers offer great service plans to keep the national carriers away from their local customer base.
- ✔ **Third-party, or mobile virtual network operators (MVNOs):** Lease their mobile networks (cell towers, radio spectrum, and infrastructure, for example) from one or more wireless carriers. Virgin Mobile, for example (which leases its network access from Sprint) offers unique branded services to target youth demographic and customer segments. Helio, another MVNO provider in the United States, delivers high-speed, made-for-mobile network service based on similar services offered in Korea by its parent company, SK Telecom. Most MVNOs use national carrier networks, so their networks and services are as good as the national carriers. MVNOs usually cater to niche markets — like the youth market or culturally distinct markets, for example — with unique highly targeted offerings.

Being able to distinguish between the different types of wireless carriers is important because their features — network quality, phone models, service and support, and cost — vary greatly across carrier networks and regions. For example, some wireless carriers support data services, and others do not. If you want access to all the great mobile Internet products and services available — and because you're reading this book, we assume that you are — be sure to sign with a carrier that offers the suite of services to best meet your needs.

Canadian wireless carriers

Canada has 3½ national wireless carriers: Fido, Bell Mobility, Rogers Wireless, and TELUS. (The half occurs because Rogers owns Fido, but it's still marketed separately.) Regional carriers, such as Alliant, MTS Mobility, and SaskTel Mobility, cover provincial and territorial regions, and MVNOs, including Virgin Mobile Canada, President's Choice Mobile, and Vidéotron, cover the same areas as the national and

regional carriers whose networks they resell. The mobile phones, services, and support that Canadian carriers offer are quite similar to the ones offered by U.S. wireless carriers. For more information about wireless carriers in Canada, go to www.cwta.ca, the Canadian Wireless Telecommunications Association (CWTA) Web site.

Some factors to consider when selecting a mobile carrier are the types of phones they offer, the applications, services, and content they offer, their plans and costs, the quality of the coverage, the quality of their customer services and existing customer satisfaction ratings, to name just a few. You may find, for example, that an MVNO or regional carrier provides services that fit your needs, so be sure to look at these when choosing a carrier.



To find out about the other wireless carriers in the United States, check out the carrier links on the CTIA—Wireless Association Web site: www.ctia.org/membership/ctia_members.

To find out about the wireless carriers in the rest of the world, visit the GSM Association Web site: www.gsmworld.com. Click the GSM Roaming link to find coverage maps and a geographically organized list of more than 600 wireless carriers globally.



If you ever need to move your business to a different wireless carrier, feel free to keep your phone number. Local number portability (see the nearby sidebar) lets you take your number with you to any mobile carrier you choose.

Ensuring that that you get what you want

When you're choosing a wireless carrier and a type of phone to buy, keep these questions in mind:

- ✓ Will you call people? If so, who?
- ✓ Which mobile Internet products and services do you want — text messaging, browsing, games, pictures, music, e-mail, and instant messaging (from either personal or corporate accounts)?
- ✓ Will you access the mobile Web or use other applications and services offered by your wireless carrier or third-party companies?

Local number portability

The Federal Communications Commission (FCC) now requires that all wireless carriers offer *local number portability (LNP) support*—if you remain in the same geographical area, you can switch your mobile phone wireless carrier and keep your existing phone number. If you're moving from California to New York, for example, you can usually keep the phone number if you keep the same carrier, although you can't transfer your California number to a different New York account.

Remember: Do not terminate your service with your existing carrier before you sign up with your new wireless carrier, because you can only transfer a number that's active. Let the new carrier help you transfer your old number to its service.

To find out more about local number portability, visit the FCC Web site at www.fcc.gov/cgb/consumerfacts/numbport.html.

The answer to these questions determines the type of phone you should buy and the plan and services you should sign up for. It is always good to get a rough idea of what you are looking for when subscribing to a wireless carrier before you walk in to their retail outlet or shop online. You save time and money by getting the right mobile phone and service programs tailored to your needs. Doing a little upfront research helps you avoid making a compulsive buy.

Covering the fine print

When choosing your wireless carrier and the contract for services, *do your homework before signing up*. You should know exactly what your contract says about these issues:

- ✔ **Adding and dropping service options during the life of your contract:** Adding and dropping services shouldn't cost you extra. If your wireless carrier charges you a fee, choose a different carrier.
- ✔ **Try-before-you-buy promotions:** It never hurts to ask for one, two, or even three months of free access to try a wireless carrier's mobile Internet service offerings or bundles. Most are flexible and can give you a couple of months to try a new service.
 - *If no promotions are available:* Make sure that no penalties apply if you want to try the service for a few months and then decide to stop it.
 - *If promotions are available:* Make sure that you know exactly what is included and what happens after the promotion expires.



If you're buying a new phone along with service, you can often negotiate a discount on your phone. Try to get a few months of free service or access to one more services and features that may be offered.



If you're replacing an existing phone, recycle it! It's not only good for the environment; you can get some cash back for it or a tax deduction. There are a variety of phone recycling businesses. Collective Good at www.collectivegood.com is a good example.

Choosing the Right Plan

When you visit wireless carrier retail stores or their Web sites or peruse their brochures, you invariably run across this term: The Plan.

The Plan is a common term for the contract that describes which services you're signing up for, specifies how much it costs to use them, and spells out the terms and conditions you must abide by. The two types of plans are described in the following sections.

Prepaid

In a *prepaid plan*, you pay upfront to use your mobile phone. Increasingly, the prepaid plan is often associated with mobile phones bought from vending machines, drugstores, and similar outlets, but you can buy and use a mobile phone with a prepaid plan almost anywhere, including from most wireless carriers' retail stores.

The idea is simple: Buy a phone and apply some credit to the account, and then, as you use the phone, the cost for its use is deducted from your credit. After you use up your credit, you can't use the phone until you "top up" (add credit to) your account. You can pay for more credit over the Internet or at a wireless carrier's kiosk or retail store — very similar to a prepaid calling card.



If you want more from your phone than just voice services — making and receiving phone calls — don't choose a prepaid plan. You may find one that lets you send and receive text messages, but prepaid plans rarely let you access the mobile Web or use any other data services (picture messaging or Internet-enabled applications, for example).

Postpaid

A postpaid plan (also known as a *contract*) is an agreement between you and your wireless carrier that stipulates all rules and regulations regarding your use of the phone and the wireless carrier's services — and, most importantly, your monthly payment.

Most wireless carriers require you to sign a multiyear contract (two years is standard). Within this contract, you select the services you want on your plan and commit to paying the wireless carrier a specific amount of money each month. In return, the carrier lets you use your mobile phone and the services you selected and agreed to pay for, such as voice, text messaging, mobile Web, games, navigation, e-mail, and more. Any use over the amount specified in the plan is added to your bill at the end of the month, just like your account with an old-fashioned wired phone. If you're interested in getting access to mobile Internet products and services, this is the type of plan you want.

Choosing a Billing Model

Wireless carriers offer all kinds of billing models, which consist of bundled services and options. This list shows just some of the types of plans you commonly see:

- ✓ Voice minute only
- ✓ Text messaging
- ✓ Family
- ✓ Unlimited
- ✓ Premium
- ✓ Data only
- ✓ Specific applications and services
- ✓ PDA and smartphone
- ✓ Blackberry
- ✓ Pay-as-you-go

Wireless carriers commonly *bundle*, or package, their services based on the type of mobile phone you have. See Chapter 4 if you're still choosing a phone model.

Sifting through all the plans can be quite confusing!



Don't forget to ask about current promotions or even try to negotiate your own deal.

A *billing model* refers to how the wireless carrier accounts for your use of its services and how it charges you for that use. In this section, we describe the four billing models — pay as you go, metered services, metered package, and unlimited — that most carriers typically offer.



Each wireless carrier may have a different name for its version of a particular billing model. Even if different wireless carriers use the same name for a plan or service option, it doesn't mean that their plans or service options are the same. Read the fine print on the plan you sign up for. Not all plans are equal, even if they're referred to by the same name. An unlimited plan from one carrier may not include the same services as an unlimited plan offered by another carrier. *And the plan might not even be unlimited.*

Pay-as-you-go

In the *pay-as-you-go* billing model, you're charged incrementally as you use a service, similar to ordering *a la carte* in a restaurant. The service charge shows up on your monthly statement.

For instance, in this billing model, you're charged for each individual text message you send or receive, for each picture message you send or receive, for each kilobyte (or megabyte) of data you download and receive to your phone, and for every piece of mobile content you purchase.



Depending on the specific mobile service you're using, the pay-as-you-go model can get extremely expensive. If you plan to use your phone for text messaging or extensive Internet surfing, we don't recommend this billing model.

Metered services

In the *metered services* billing model, you subscribe to individual services separately and commit to a minimum monthly payment. For example, you may subscribe to a text-messaging option, a picture-messaging option, a full-suite mobile Internet option, or some other configuration and then commit to paying an additional \$3, \$5, \$10, or more per month (whether or not you even use the service).

For each service option you select, you receive an allotted amount of use before you're charged under the pay-as-you-go model. For example, you may choose the option to use 500 text messages per month and then get charged at the pay-as-you-go rate for any additional text messages you send in the month.

Metered package

In the *metered package* plan, billing model services are grouped in a package. For a single price, you receive a package, or bundle, of services.

For example, your package may include an allotment of voice minutes and voice services; an allotment of text messages, pictures messages, and mobile Internet data use; then, when you reach the allotment threshold for each service in the package, you're charged at the pay-as-you-go rate.

Unlimited

The *unlimited* billing model refers to just what you might expect: For a single fee, you can use as much of a particular service or package of services as you want. You can make and receive as many calls as you want, send and receive as many text messages as you want, access the mobile Internet products and services as much as you want, and more.



Check the fine print to make sure that you're truly getting *unlimited* use. Some wireless carriers may refer to a plan as unlimited when it may not be. Rather than unlimited, the threshold on a service is simply set "very high."

Moreover, as in the metered package billing model, check exactly which services are included in the unlimited billing model. Some wireless carriers offer unlimited voice calls but charge you for data services; whereas others have unlimited programs that include voice, text messaging, picture messaging, and mobile Internet, but not other services.

Adding Options to Your Billing Model

After you have your plan and a billing model in place, you may want to add or remove some optional add-ons.

Voice options

When selecting your voice options, first decide how many minutes you plan to use in any given month — and then choose a billing model that fits.

For example, in a metered services billing model, you can choose a plan that includes 500, 750, 1,000, 1,500, or even more minutes of talk time in a given month. Figure out how many minutes you plan to use, and then choose a plan that's slightly above your expected use, to ensure that you don't exceed your plan minutes.

Also consider adding services such as voice mail, call waiting, free nights and weekends, or anytime minutes. Most wireless carriers include one or more of these features or options in your plan, but check with your wireless carrier about the availability and cost, if any, of these and other voice-service features.



Be careful choosing voice options and monitor how many minutes you use in a given month. If you exceed your allocated contract minutes in any given month, you can face some hefty overage fees. Be sure to ask your wireless carrier what its overage charges are. Also ask whether it supports *rollover minutes*, which transfer unused minutes from one month to the next month or future months. Finally, see whether you face additional charges for long-distance or international calls.

Wireless data services options

You can choose among, and access from your mobile phone, *many* different wireless data services and options. This list describes some of the more common mobile Internet options:

- ✓ **Text messaging:** Text messaging service, commonly referred to as SMS (Short Message Service), lets you send and receive alphanumeric messages on your phone. Pay-as-you go text messaging can be quite expensive. For example, in the United States, a single text message sent or received when not under a metered services or unlimited plan can cost between 15 cents and 25 cents per message — or more. If you plan to use text messaging, make sure to select a metered text messaging service option or bundled billing model.



The break-even threshold between the typical unlimited and the pay-as-you go billing models for text messaging can be as low as 28 messages per month. That number is next to nothing if you have a teenager sending 400 to 600 messages per month.

- ✓ **Picture messaging:** Picture messaging (often referred to as MMS or Multimedia Messaging Service) is used for exchanging pictures, videos, and related content by using your phone. As with text messaging, pay-as-you go picture messaging can be expensive. For example, in the United States, a single picture message sent or received when not under a service or bundled billing model can cost between 25 cents and 50 cents message, or more. So, if you're going to use picture messaging, make sure to select a picture messaging service or a metered package in the text messaging billing model.
- ✓ **E-mail:** E-mail is becoming an increasingly popular data service and is used for both personal and company e-mail. Wireless carriers tend to sell the e-mail option in a metered bundle or unlimited billing model, especially for the BlackBerry, smartphones, and PDA phones.

- ✔ **Mobile Web:** The mobile Web option lets you access the Internet by using a mobile browser on your phone and usually supports your use of mobile Web applications, such as instant messaging, maps, e-mail, and related applications. In the United States, accessing the mobile Web under a pay-as-you go billing model costs between 99 cents and \$1.99 per megabyte. To put this cost in perspective, viewing a single mobile Web page can cost 12 cents a page; downloading a ringtone can cost 50 cents or more on top of the price of the ringtone; and downloading a full-length music track or large video file can cost as much as \$2 or more. So, if you want to surf the mobile Web and download content to your mobile phone with any regularity, buy a metered package, or truly unlimited service plan.
- ✔ **On-device data-enabled applications:** This generic term refers to the use of applications that are downloaded to your mobile phone, such as maps and navigation applications (for example, Google Maps or Verizon Wireless Navigator), or other applications that leverage wireless data connectivity to exchange application specific data to and from your phone. As for the cost of a model for on-device data-enabled applications, we highly recommend that you buy at least a metered package or an unlimited plan for the best cost savings.

Part III

Mobile Internet Mania for the Everyday Consumer

The 5th Wave

By Rich Tennant



“What I’m doing should clear your sinuses,
take away your headache, and charge
your mobile phone.”

In this part . . .

Okay, you're connected to the mobile Internet. Now what? We explain what the mobile Web is and how to get around, and we give you helpful tips for how to find the stuff you're looking for among the millions of clamoring pages. We show you how to listen to lots of online music and watch online videos. Then we go into shopping and banking so that you can confidently spend and save your money online.

Chapter 6

Trading Text and Picture Messages

In This Chapter

- ▶ Typing text on your mobile keyboard
 - ▶ Checking out the text messaging menu
 - ▶ Sending text messages
 - ▶ Seeking Internet sites offering text message news and information alerts
 - ▶ Sending and receiving picture messages
-

Now available on all mobile phones, text messaging — technically, it's Short Message Service (SMS) — represents the mobile Internet at its most basic level: simple, plain alphanumeric text on your mobile phone's screen, usually limited to 160 characters including spaces, per message.

Text messaging is useful for sending short, quick messages to friends, family members, and business associates. You can also use it, for example, to receive simple information alerts, vote on TV shows, or request that information (such as sports scores, weather, and news) be sent to your phone. It works around the world for anyone to send a text message to anyone else who has a mobile phone on any wireless carrier network.

Picture messaging, also known as Multimedia Messaging Service (MMS), which we explain near the end of this chapter, is only a bit more advanced than text messaging: You can take a picture with your mobile phone's camera, if it has one, and send the photo to another person who has a mobile phone that can accept picture messaging services. Picture messaging isn't available on all mobile phones and networks (check with your wireless carrier for more details) and usually requires the recipient of the picture to be on the same wireless carrier network. You can also send and receive pictures from standard Internet services.

This chapter is your introduction to both text and picture messaging. Find out the basics and look at ways to take these services a step further, by sending messages from your computer to someone's phone or exploring news services that are updated by way of SMS.



Service fees for text and picture messaging vary by wireless carrier as well as for the messages sent to people on other wireless carriers. Typically, you can pay a flat rate for text messaging. If you don't subscribe to the flat rate, the charges for messages are based on each message you send and receive, ranging from 5 to 25 cents per message. Check your wireless carrier's rate plan for more details.

Typing on the Keypad

Before you can take advantage of all the excellent mobile Internet services available on your mobile phone, you need to understand the basic concept of using a mobile phone keypad and how to write words, numbers, and punctuation. This understanding is especially important if you don't have a QWERTY keypad on your mobile phone, like the one on your computer keyboard. If you have a smartphone or PDA, typing is as simple as typing on your computer, except that the keyboard is a little smaller.

If you don't have a computer-like keyboard on your mobile phone, you use the alphanumeric keypad, such as the one shown in Figure 6-1, to enter letters, numbers, and punctuation marks (or any other characters and symbols when "writing" on a mobile phone).



Figure 6-1:
You type
text
messages
on an
alpha-
numeric
keypad.

If your phone doesn't have a full QWERTY keyboard, check out Table 6-1, which explains how you typically type text on your phone's dialing keypad.

Table 6-1		
Typing on an Alphanumeric Keypad		
<i>Task</i>	<i>What You Press</i>	<i>Notes</i>
Find and enter letters.	Press a number key (from 1 to 9) repeatedly until you see the character you want.	More characters are available for a number key than are printed on the key. They're displayed after you press the key.
Insert the number that corresponds with a key.	Press and hold that number's key.	
Switch between letter and number modes.	Press and hold the # key.	
Enter the next letter on the same key.	After the cursor appears (or after pressing the right directional key to end the timeout period), press the letter key.	
Erase a character.	Press the C (clear) key.	Press and hold to clear more than one character.
Enter common punctuation marks, such as !,? and :.	Press the 1 key repeatedly to reach the punctuation mark you want.	
Display a list of special characters.	Press the * key.	Use the directional keys on your mobile phone to move down the list and select a character.
Insert a space.	Press the 0 (zero) key. On Motorola phones, press the * key instead.	To move the cursor to the next line, press the 0 (zero) key three times.
Switch between character modes (UPPERCASE and lowercase).	Press the # key.	

A short history of text messaging

One of the first wireless text-messaging services sent messages from paging companies to alphanumeric pagers. Motorola, a dominant player in the paging industry, developed technology that consumers, dispatchers, and computers could use to send text messages over its paging networks. But you could send only 80 characters or so at a time, and a message was sent from the paging network only once — regardless of whether the pager was turned on or in coverage range. You could send text messages to pagers in all kinds of ways: Call a dispatcher with your message so that he could type it into a paging-specific keyboard connected by dialup to the paging network; buy a software package made specifically for alphanumeric paging; or (after the Internet became commonly accessible) visit a Web site to send a page. Companies then began giving pagers Internet e-mail addresses to receive e-mail messages and notifications.

Next came two-way paging. Services were available on a number of wireless data networks in North America, from paging networks to wireless-packet data networks. The North American birth of two-way text messaging hit the market in the late 1990s. Few people now remember that one of the first products for wireless e-mail from Research In Motion (way before it created the BlackBerry) was the RIM Inter@ctive Pager,

which worked on the ARDIS and Mobitex wireless-data-only networks.

Meanwhile, over in Europe, a Finnish civil servant named Matti Makkonen invented Short Message Service (SMS) capabilities between mobile phones and wireless carrier networks using Short Message Service Center, or SMSC. The main purpose of this technology and service, developed in the early 1980s, was to automatically send customer-care alerts and service notifications directly to consumers' mobile phones without the wireless carriers having to call them all individually. Then, about a decade later (in 1992), Makkonen's initial research led to one of the first consumer uses of text messaging on a mobile phone. A telecommunications industry engineer in the UK named Neil Papworth sent one of the first person-to-person mobile phone messages to one of his associates at Vodafone, to wish him "Merry Christmas." From that special greeting, today's mobile phone text-messaging industry was born.

The text messaging industry took off in Europe in the late 1990s, and early in this century in North America, when wireless carriers agreed to allow messages to go from one network to another. Just as voice calls cross networks and countries in milliseconds, text messaging services now do the same.



Mobile phones now have options for *predictive text*, which attempts to help you by guessing which word you're trying to type as you type it. The availability of this feature varies by mobile device, vendor, and model. The most common predictive text systems on mobile phones are T9 from Nuance (www.t9.com), eZiText from Zi Corporation (www.zicorp.com/ezitext.htm), and iTap from Motorola. Also, you can disable the predictive text feature if you prefer to "multi-tap" or manually enter the words you want by tapping each key to get the character you want. Look at your mobile device's manual or check with your wireless carrier to see whether your phone has this feature and to find out how to turn it on or off.

Starting Out with the Messaging Menu

To start text messaging, almost every phone model has a messaging area where you can access your carrier's text messaging services. The following steps work for almost any mobile phone model:

1. **Press the Menu key on your mobile device and select Messaging.**
2. **In the Messaging area, create, send, receive, view, edit, or organize a text message, a picture message, an e-mail message, or another messaging service.**

Specifically, you can see the New Message function and a list of folders. Here are some folders that might be available on your mobile phone:

- *Inbox*: Contains text messages you received
- *Messaging*: Organizes your messages, if you want
- *Drafts*: Keeps draft copies of messages that have not been sent
- *Sent*: Keeps 10 to 20 of the most recent messages you sent from your mobile phone
- *Outbox*: Temporarily stores messages waiting to be sent

You find out more about picture messaging later in this chapter, and e-mail messaging is covered in Chapter 10.



To best manage and access your mobile phone's text messaging services, check the manual that came with your phone. If you can't find the manual, simply go to the Web site of your wireless carrier or mobile phone manufacturer to see whether it's available.

Sending Text Messages

Text messaging is one of the simplest, most commonly used mobile Internet services in the world. Billions (yes, billions) of text messages are now being sent daily between friends, family members, and business associates. The cool thing about text messaging is that it takes only three to ten seconds to send your message, after you press the Send key on your mobile phone (or computer), to your friend's mobile phone over any wireless carrier network, almost anywhere in the world.

Some people would rather text message each other than talk via mobile phone, and most of the time it's a lot cheaper than talking on a mobile phone. Text messaging eliminates long distance bills and billing per second — just get your message across in fewer than 160 characters and you're on your way.

You can send person-to-person text messages in three ways:

- ✓ From a mobile phone
- ✓ From a Web browser with an Internet connection
- ✓ From an e-mail program to a mobile phone

Each method has its own way of working and provides unique benefits for users. The following sections explain how each one works.



To make use of text messaging services, you can:

- ✓ Send messages to the mobile numbers of people you know.
- ✓ Subscribe to a specific service, such as news headlines, sports scores, or weather forecasts from your wireless carrier's Web site.
- ✓ Send keywords to a text messaging short code to receive the result you want (and, in some cases, pay for). Text messaging should work from all mobile phones, whether or not they have Internet features.

Texting from your mobile phone

Sending text messages from a mobile phone is the most common way that people trade messages. Follow these steps:

- 1. Select the envelope icon on your mobile phone's main screen, or select Text Messaging or SMS from the menu.**
- 2. Select New Message.**

A list of message options opens.
- 3. Select Text Message to send a text message.**
- 4. Press the Select key to choose a recipient or group from your Contacts list, or enter the recipient's mobile phone number or e-mail address.**

Press the * key to add a semicolon (;), which separates recipient names. You can also copy and paste the number or address from the clipboard.
- 5. Press the down directional key to move to the message field.**
- 6. Write a message using the mobile phone keypad.**

See the section "Typing on the Keypad," earlier in this chapter, for tips.
- 7. To send the message, choose Options⇒Send or press the Send key.**

A message appears on-screen confirming that the message was sent.



Your mobile phone can send messages that are longer than 160 characters — they're just sent as a series of two or more messages. Before sending any text messages, long or short, check on the price, because wireless carriers tend to charge for all outbound messages. Most carriers have monthly bundles of 100 or more messages that are much cheaper than paying per message.



Text messaging is quite cool, and it's almost as good as the U.S. Postal Service. If your friend has turned off her mobile phone or it's out of the coverage area when you send your text message, the message you sent stays available in the wireless carrier's network for a day or two. The carrier continues trying to send the message until the mobile phone is turned back on or returns to wireless network coverage.

Texting from the Web

Sending text messages from a wireless carrier's Web site is also an option to get your message out to a mobile phone user. When you don't have a mobile phone or you're on your computer already and just want to get a quick note out, the Web site is the way to go. Here's how to do it from the Web:

- 1. Go to your friend's wireless carrier's Web site from your home, school, or office computer.**

To use most Web-to-mobile text messaging services, you need to know which wireless carrier your friend uses.

- 2. Look for the Messaging (or Text Messaging or Send a Text) page on the wireless carrier's Web site.**

An example from T-Mobile is shown in Figure 6-2.

- 3. Enter the person's mobile phone number, enter your 160 alphanumeric character message, enter your name and contact details as requested, and then click Send.**

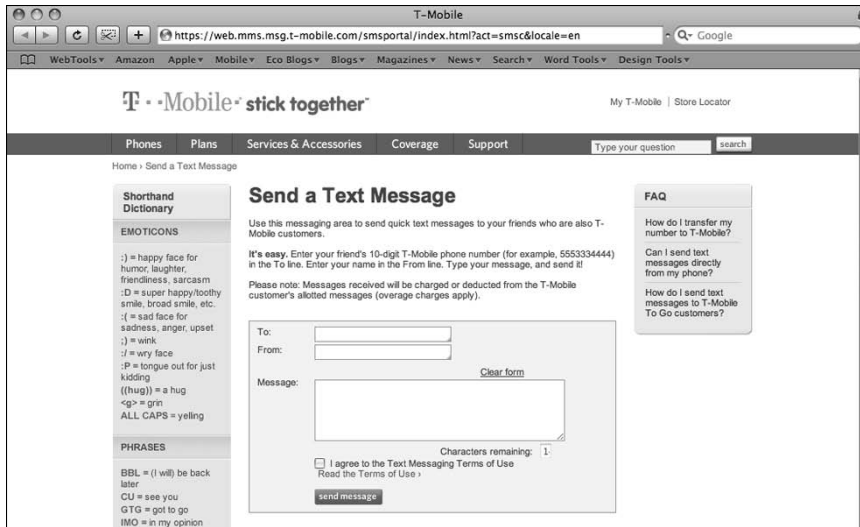
You need to know the exact mobile phone number of the person you want to send your text message to. (You usually need all ten phone number digits; for example, 212-555-1234.)

If you did everything correctly, you see a confirmation screen showing that your text message was sent to the mobile phone number you entered. It usually takes less than 30 seconds, on a good day, to reach your friend's mobile phone.



Service fees for the text messages you send through the Web may be charged to the recipient based on their wireless carrier subscription plan. Check with your friends and associates to find out whether they have to pay for messages before sending them messages.

Figure 6-2:
The Send a Text Message page on the T-Mobile Web site.



Texting in an e-mail

Text messaging by e-mail is extremely simple. If you know how to send e-mail from your computer or smartphone, you can send a text message. Sending text messages by e-mail lets you keep your friends' addresses in your mail program's address book and allows you to keep a copy of the message you sent right on your computer.

1. **Open your e-mail program on your computer or smartphone.**
2. **Enter the recipient's ten-digit phone number and that person's wireless carrier text-messaging e-mail domain address; for example:**

21255512324@wirelesscarrier.net



Don't send long e-mail messages and attachments. Almost all mobile phones can handle only 160 characters of text at a time, and no attachments are sent. If your mail program automatically adds a signature, delete the signature because it probably uses 160 characters all by itself.

3. **Send your e-mail message as you would send any e-mail.**

The message is directed to your friend's mobile phone rather than to his e-mail inbox.

To make this service work, you need to know which wireless carriers your family members, friends, and associates are on as well as the wireless carriers' e-mail-to-text-messaging addresses. This list shows you some examples of e-mail addresses at the major wireless carriers:

- ✓ **AT&T/Cingular:** 2125551234@txt.att.net
- ✓ **Sprint:** 2125551234@messaging.sprintpcs.com
- ✓ **T-Mobile:** 2125551234@tmomail.net
- ✓ **Verizon:** 2125551234@vtext.com

(Change the ten-digit part — 2125551234 — to your friend’s mobile phone number or try your own number first to make sure that you know which kind of message is being sent.)

To find out the text messaging address for any wireless carrier that isn’t listed, just give them a call, ask your friend, or check the Web site.



Some wireless carrier services, such as AT&T, also let you send text messages to e-mail addresses. You enter an e-mail address rather than the phone number of the target recipient in the Text Messaging address field. Check with your wireless carrier to make sure that this option is available on your mobile phone before trying it, and find out whether you pay any additional costs to use this service.

Text Messaging Meets the Internet

You probably have been using text messaging already because it’s now one of the most often used mobile Internet services in the world. Text messaging as a mobile Internet service uses elements of Internet content to get more from your mobile phone than most people think possible. And, it’s a useful stepping stone to the next generation of services being created for your mobile Internet lifestyle.

Text messaging lets you not only send short notes to your friends but also receive information alerts or request bits of information from a company or organization, sports club, TV show, magazine, billboard, or real estate sign. Text messaging services are starting to do more than just send messages between friends. Brands, publishers, broadcasters, radio stations, and Internet content sites are opening their doors for people to interact with them by using text messaging services to find information, vote, “clip” virtual coupons, discover products, and more.

Regardless of whether you have used your mobile phone to vote for the next *American Idol* or to subscribe to news, weather, and sports content from your wireless carrier, thousands of text messaging services are available now in the mobile Internet world. Almost any type of digital text content is available to be sent to your mobile phone. The following sections introduce short codes, which are codes you type in order to use these services or get information on your phone.

Understanding short codes

A text messaging, or SMS, *short code* is a four- to six-digit number that lets you use your mobile phone's text messaging capabilities to send requests for on-demand digital information or services and receive specific information services on your phone. A short code (it's shorter than a telephone number — thus the name) is used just as you would use a friend's mobile telephone number to send a text message; rather than go to a live person, however, the message goes to a computer network with software on it to send your message to companies providing digital information, products, and services.

Additionally, the text message content you send by short code from your mobile phone is commonly called a *keyword* — a phrase that means something to the computers at the end of the short code you're sending it to. A keyword sent to a short code acts as your personal request for information, allowing the service you want (your horoscope, for example) to be sent to your mobile phone. To receive today's Leo horoscope, for example, you send the text message **Leo** to the short-code number provided by your favorite newspaper or wireless carrier.



Your wireless carrier could add extra text messaging charges if you use short codes (both sending and receiving) and keywords to request information, products, and services. If short codes and keyword-based, on-demand services are offered by your wireless carrier, the charges usually range from 25 cents to 50 cents — and even as much as \$5 for each keyword offering; sometimes, however, you incur no extra charges. When extra fees are billed above your normal text messaging charges by wireless carriers, they're called *premium rate* short-code services.

Check with your wireless carrier's customer service people or look for a Messaging or Text Messaging Services link on its Web site for any additional service fee costs. If the text messaging short-code service is offered by someone other than your wireless carrier, make sure that you understand all potential charges and premium-rate, short-code rules for that service request before you send any text message keywords to any short codes published by any third parties.



The United States and Canada have two governing short-code organizations administrating and monitoring all text messaging short-code programs available. These nonprofit industry bodies work with the wireless carriers along with the media, brands, and marketers using short-code programs. The U.S. organization is the CTIA—The Wireless Association, managed under its Common Short Code Administration (CSCA) services at www.usshortcodes.com. It's managed in Canada by the Canadian Wireless Telecommunications Association (CWTA) at www.txt.ca. We highly recommend that you visit both Web sites to find out more about short-code rules, regulations, and services before using any text messaging short-code services.

Sending news, alerts, and other types of information to your phone

Now that you know (or even if you don't know) how to send and receive personal text messages, find out which other mobile Internet services are available to your wireless device of choice. Thousands of text messaging services are available for your mobile phone. You can have news updates, sports scores, stocks quotes, weather alerts, and even birthday reminders sent directly to your phone whenever you need or want them.

You can use one of two methods to have Internet content sent directly to your phone by way of text messaging:

- ✓ **From your wireless carrier of choice:** AT&T, Alltel, Sprint, T-Mobile, Verizon Wireless, and all the other wireless carriers in North America offer information services for your mobile phone. Virtually all wireless carriers offer a suite of text messaging information alerts and on-demand services. Basic categories include news, weather, stocks, horoscopes, traffic, entertainment, jokes, trivia, reminders, lottery results, and much, much more. (You can even have *pickup lines* sent to your mobile phone.)

Figure 6-3 shows an example of the mobile Internet text-messaging services available on Alltel Wireless, from its Access service offerings.

- ✓ **From news and information providers:** Some examples are the *Dallas Morning News*, Google, WeatherBug, and Major League Baseball.

Figure 6-4 shows an example of mobile Internet text-messaging services available from the *Dallas Morning News*.

The screenshot shows the Alltel Text Alerts website. The page is titled "Alltel Text Alerts using Access Services from Alltel" and has a URL of "http://content.alltel.com/access/alerts/index.html". The navigation bar includes "WebTools", "Amazon", "Apple", "Mobile", "Eco Blogs", "Blogs", "Magazines", "News", "Search", "Word Tools", and "Design Tools". The main content area is divided into several sections:

- MY ALERTS**: A section with a "Log In" link.
- SET AN ALERT**: A section with a "Send A Text Message" button and a "MAS CARE" logo.
- UPDATE YOUR PASSWORD**: A section with a "Log In" link.
- 3 Ways to Buy Now**: A section with links for "Shop Online", "Find a store", and "Call 1-866-alltel?".
- My Alerts Log In**: A section with a "Sign in now to manage your text alerts." link and a "If you aren't registered yet, register now." link.
- Stay in the know with Fan Alerts!**: A section with a "SIGN UP NOW" link and a "Get racing news right on your phone! Sign up now!" link.
- More Text Alerts**: A section with a "Stay up to date daily or whenever an event occurs with the latest weather, news, sports, stocks and more delivered right to your phone." link.
- Weather**: A section with a "SEE A SAMPLE" link and a "Local Weather" link.
- News**: A section with a "SEE A SAMPLE" link and "AP News Updates" and "AP News Categories" links.
- Sports**: A section with a "SEE A SAMPLE" link and "Game Scores" and "US News" links.

Figure 6-3:
Sign up for
Alltel alerts.

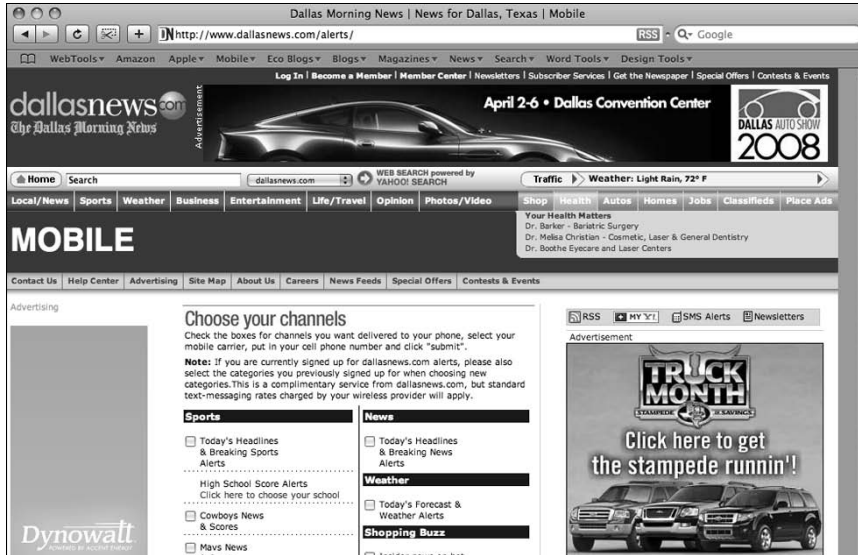


Figure 6-4:
Get your news and services from all over the place.

Almost any traditional news and information publisher now has mobile Internet offerings available in text messaging format. Many don't charge any extra for these services; some charge a premium (anywhere from a dime to a couple of bucks); some base their fees on whether you're a member of their subscription services; and some are *on demand*, delivered directly to your mobile phone whenever you want.

Some short-code services charge extra fees for the information they send to your mobile phone using short codes. According to the CTIA, the CWTA, and the Mobile Marketing Association (www.mmaglobal.com), any charges for text messaging services must be highly visible to you in an obvious disclaimer of some sort, such as "Standard text messaging rates apply." Check out our short-code primer in the preceding section and read the fine print before heading out into any uncharted text messaging waters.

Exchanging Picture Messages

Picture messaging's technical name is *Multimedia Message Service*, or *MMS*. This enhancement over text messaging (SMS) lets you create, develop, and send digital animations, images, sounds, and videos from your mobile phone to other mobile phones or computers.

Not all mobile phones and wireless carriers offer picture messaging, though it's a fun way to use your mobile phone's camera to share your creativity with your friends from anywhere you are to anywhere they are. As fun and enjoyable as picture messaging is, each recipient must have a picture-messaging mobile phone for it to work and usually needs to be on the same wireless carrier as you are. If in doubt, find out whether your friends and family have picture messaging-enabled phones and services before sending any shots to them.

Here are some ideas for what you can do with picture messaging services:

- ✔ Take full-color digital pictures with your mobile phone and store them on your phone or computer.
- ✔ Send and receive full-color digital pictures from your mobile phone and become a *mobile* newsroom reporter for your local TV station or Internet blog.
- ✔ Send and receive digital voice and sound recordings from your mobile phone.
- ✔ Create new digital pictures, images, and sound effects right on your mobile phone — great for new ringtones and other mobile phone fun.

Sending picture messages from a mobile phone is very similar to sending text messages. Here's how to do it:

- 1. Select the envelope icon on your mobile phone's main screen or select Picture Messaging or MMS from the menu.**
- 2. Select New Message.**

A list of message options opens.
- 3. Select MMS to send a picture message.**
- 4. Press the Select key to choose a recipient or group from your Contacts list, or enter the recipient's mobile phone number or e-mail address.**

Press the * key to add a semicolon (;), which separates recipient names. You can also copy and paste the number or address from the Clipboard.
- 5. Press the downward directional key to move to the message field.**
- 6. Write a message using the mobile phone keypad.**

See the section "Typing on the Keypad," earlier in this chapter, for details.
- 7. (Optional) Press the Menu key and select Add Picture to find the picture you want to send from your mobile phone's memory.**

8. (Optional) Scroll through the pictures and images in your mobile phone's memory files, highlight the picture you want to send, and select it to add it to the message.
9. To send the message, choose Options⇨Send or press the Send key.

A message appears on-screen confirming that the message was sent.



You must subscribe to picture messaging at your wireless carrier, and additional network service fees can apply to every use of the service. Not all wireless carriers and mobile phones have picture messaging capabilities. Also, most built-in mobile phone cameras have poor-quality image resolution (less than two or three megapixels). These phone cameras are suitable for taking quick shots, but are no replacement for a good digital camera if picture quality is a concern.

Chapter 7

Browsing the Web from the Palm of Your Hand

In This Chapter

- ▶ Avoiding the high cost of mobile browsing
 - ▶ Browsing on-portal from your wireless carrier's mobile Internet site
 - ▶ Browsing off-portal on the Web
-

The mobile Internet is a new frontier with an abundance of made-for-mobile Internet sites from all over the world being published daily. As on the Internet, the amount of available information and services is more than one company or wireless carrier (or book) can catalog and provide over one simple Web browser portal.

Wireless carriers understand that in order for you to take full advantage of all that the mobile Internet has to offer, you're best served with a basic *on-portal*, or *on-deck* (received from your provider by using your mobile phone), suite of sites and services while providing you with open access to the millions of *off-portal*, or *off-deck* (outside your provider's suite of services), mobile Internet sites published by individuals and companies worldwide.

In this chapter, you find out the benefits of both on-portal and off-portal sites and services and how you can use them to find news, travel information, fun things to do, and more. You also find out some basic information about personalizing your browser so that you can quickly find sites that you use often. Before you start surfing, though, you should know that you can rack up fees quickly from surfing the mobile Internet if you're aren't sure how you're charged for a service, so we start with some basics to help you avoid surprises on your next bill.

Controlling Your Mobile Browsing Expenses

Before you start browsing on your mobile phone, you must realize that getting on the mobile Internet for almost any made-for-mobile service isn't like getting on your computer Internet in any way, shape, or form — especially when it comes to service costs.

One big problem in serving up the mobile Internet experience to your phone is the potential cost associated with the freedom it provides. Many people are unaware of these costs now — until they get their first (and sometimes last) wireless carrier bill. Only after they start checking out all the fantastic mobile Internet products and services available to them do they realize that the system resembles pay-per-view more than all-you-can-eat, for almost anything on the mobile Internet. We don't want this to happen to you.



Wireless data transfer for mobile Web browsing services is charged by the amount of data sent and received, not for time spent on the network, as is true with voice calls.

The mobile Internet can now cost you an arm *and* a leg if you don't pay attention. This isn't the all-you-can-eat dialup plan or the broadband Internet that you use on your computer. However, if you have the right wireless carrier flat-rate data plan in place, it can come quite close.



If you're going to go mobile browsing with a computer Internet appetite, sign up for the best flat-rate wireless data plan or package you can get before you go any further. Understand the fine print limitations or restrictions. (This tip alone can save you the price of this book.) Turn to Chapter 5 to find out what kind of plans most carriers offer. Chapter 5 also offers tip on how to change carriers if you need to — you can now even keep your phone number thanks to local number portability, so don't hesitate to change carriers if you find a better deal elsewhere.

Browsing On-Portal: Your Carrier's Made-for-Mobile Offerings

All wireless carriers have robust made-for-mobile portals with a rich array of products and services available for you to enjoy. The sites you can browse from those portals are considered *on-portal*.



One of the safest, least expensive ways to surf from your mobile phone is to take advantage of what has already been done for you by your wireless carrier.

AT&T Mobility (formerly Cingular), Alltel Wireless, Sprint, T-Mobile, Verizon Wireless, and almost all wireless carriers have created mobile Web browsing services that are available to their subscribers, with some of the basic Internet-like services at no additional charge — other than your basic wireless carrier data-connection plan. If you want enhanced mobile Internet products and services, you usually have to either download your purchase or subscribe for incremental fees directly from your phone.

The following sections explore some basic information about surfing on-portal that applies to almost any carrier's portal. Before you start surfing, though, check with your wireless carrier to see which types of mobile browsing services are included and which ones cost extra.

Finding out what's on-portal

One main advantage of using your wireless carrier's on-portal service isn't only that you can surf but also that you have access to almost all the services we describe throughout this book. From your mobile phone's on-portal Internet access, you can

- ✔ Find information about news, weather, sports, finance, travel, and entertainment. (See the appropriate sections later in this chapter.)
- ✔ Buy ringtones, wallpapers, videos, music, and games.
- ✔ Access mobile e-mail, instant messaging (see Chapter 10) and blogging services. (See Chapter 14.)
- ✔ Check out the made-for-mobile services from your favorite brand-name Internet and media publishers, such as Facebook, MySpace, Yahoo!, ESPN, Disney, and others. (See Chapter 14.)
- ✔ Watch and listen to mobile TV, music, and radio. (See Chapter 14.)
- ✔ Search to find information, locations, and directions. (See Chapter 8.)
- ✔ Surf to other mobile Internet sites not offered by your wireless carrier. (See the section "Browsing Off-Portal: The Web at Large," later in this chapter.)
- ✔ Access wireless-carrier customer service to check your account status and upgrade services.

To become better acquainted with your wireless carrier's on-portal offerings, go to its Web site the old-fashioned way, by using your computer browser, to review what the site has in store for you. Table 7-1 lists the URLs (Web addresses) of the most common wireless carrier's mobile Internet sites so that you can find information to get started.

Table 7-1 Wireless Carrier On-Portal Site Information	
Carrier	URL
Alltel Access Web	www.alltel.com/access/mobile_web.html
AT&T Media Net	www.att.com/mymedianet
Sprint Power Vision Web	www1.sprintpcs.com/explore/ueContent.jsp?scTopic=web
T-Mobile Web and Applications	www.t-mobile.com/services/tones/overview.asp
Verizon Wireless Mobile Web	http://products.vzw.com/index.aspx?id=news_web



If your wireless carrier isn't listed here, don't worry: There are more than 50 of them in the United States alone. To find out more about your specific wireless carrier's offerings if they aren't listed in that chapter, go to the carrier's Web site, using your computer, and look for a link labeled Internet, mobile Internet, Web, Mobile Web, Wireless Web, or Browsing. If you cannot find it on the Web site, go to your local retailer or call the customer service line to have information mailed (or e-mailed) to you. Always check to see what your carrier has in store for you, by visiting its Internet site before you launch your mobile browser, so that you don't waste your precious time and money.

Knowing what your phone can do

The mobile browsing products and services made available by your wireless carrier are highly dependent on the type of mobile phone, smartphone, or PDA you're using on its network. Mobile browsing has matured to the point that the network knows which type of mobile device you're using to surf, and presents only products and services tested to work on your phone. Here are a couple of examples:

- ✓ **You're using Sprint PCS and just bought a brand-new mobile phone.** You probably have access to the Sprint Power Vision network of services — mobile Web browsing, mobile video with Sprint TV, audio FanScan in-car audio from NASCAR drivers, Sirius Radio audio streaming, and much more.

✔ **You bought your mobile phone before VoiceStream became T-Mobile.** Your T-Zone mobile Web offerings may be limited to services available for older mobile phone browsers with basic news, information, ringtones, wallpapers, and customer care services.



If a made-for-mobile product or service cannot function well or work on your device, the wireless carrier will not display it in your browser or provide you with access to it so that you don't have a poor user experience (or waste your time and money).

In addition to your phone model, the type of mobile Internet services package you're subscribed to and which type of network service (2G, 2.5G, or 3G) is available in your coverage area influence the services you see on-portal.

Making the portal your own



When looking at your wireless carrier's mobile browsing services, keep an eye out for its personalization capabilities, if they're offered. Mobile browsing personalization saves you from spending a lot of time navigating all that your wireless carrier has to offer.

Your wireless carrier has useful ways for you to manage which content you want to see and access on your mobile phone. We recommend that you ask which mobile Web personalization services it has, in order to improve your browsing experience. As we mention earlier in this chapter, mobile browsing doesn't work the same way as Internet browsing, so you don't want *everything* available on your mobile phone. You just want access to the products and services that make your mobile Internet experience rewarding and entertaining — and for the lowest possible price.

For example, the AT&T MyMedia personalization service is feature-rich. You can create a home page of your favorite content to track news, local weather forecasts, sports scores, or whatever you use most often. You can also set parental controls for individual phones, if you're setting up a phone for a child. (See Chapter 3 for more about setting up the mobile Internet for your kids.)

Browsing your portal

Suppose that you have a fairly new mobile phone, you have the appropriate wireless data plan to suit your personal needs, and you're in an area with 3G wireless data coverage. Take a look at what your wireless carrier has to offer.

- 1. To get on-portal, open the mobile browser on your phone.**

This step opens your wireless carrier's mobile Web site and service offerings.

The browser is normally available on the main menu of your mobile phone or by clicking a Web-like icon on its display. Opening the mobile browser opens your wireless carrier's on-portal home page, outlining all mobile Internet services available to you. You don't have to enter a URL (Web address) to get to the on-portal portal. It really is that easy!

Figure 7-1 shows you the Sprint PCS Power Vision network home page.



Figure 7-1:
The Sprint
Power
Vision
network.

- 2. After you reach your wireless carrier's home page, you can link to any service you want.**

Because hundreds of wireless carriers are in the United States, review your carrier's home page on your own. Check to see what's included or compare what you see on your handset to what's posted and available on the computer Web site or in the retail brochure.

- 3. After you see what's available on-portal for your wireless carrier, make sure that you understand which services are included with your mobile Internet service subscription and which ones cost extra.**

See the earlier section "Browsing On-Portal: Your Carrier's Made-for-Mobile Offerings," for tips on keeping your browsing bill under control. For a more detailed overview of what's available to entertain you from the wireless carriers, Chapter 9 has examples of mobile Internet services. Most of the value-added services from your wireless carrier's on-portal offering require an additional subscription or a pay-per-use fee on top of your mobile Internet access fees. Check with your wireless carrier to clarify what these additional costs are and how they'll be added to your bill.

Browsing Off-Portal: The Web at Large

When you go off-portal to browse the Web from your mobile phone, the browsing experience is different from browsing the Web on your computer or from the on-portal offerings that your service provider has tested for you. In this section, you find out which special issues you need to consider and how to identify sites that work so that you don't waste your time or money.

Testing sites for mobile readiness

Before jumping into the off-portal mobile browsing waters with both feet, we encourage you to check whether a site you want to visit on your mobile phone is mobile ready. Follow these steps:

- 1. On your computer, go to the free Ready.mobi site at <http://ready.mobi>.**

In this test, you find out how well the computer Internet *BusinessWeek* Web site (www.businessweek.com) is made for mobile Web browsing. Then you find out how much it would cost to download just one page of the Web site to a mobile phone (assuming that you're paying by the kilobyte because you don't have a flat-rate, all-you-can-eat mobile Internet plan in place).

- 2. After the page opens, enter the URL of one of your favorite Web sites and click Go.**

For this test, enter **www.businessweek.com** in the Ready.mobi Page Check box and click the Go button (see Figure 7-2).

- 3. Check the site's rating from 1 to 5 (bad to good).**

The rate is based on the Web site's made-for-mobile readiness and MobileOK test guidelines published by the World Wide Web Consortium (W3C) at www.w3.org/TR/mobileOK-basic10-tests.

The BusinessWeek.com site scored 1 out of 5, as shown in Figure 7-3 — not a good sign if you're using your mobile browser. Just the BusinessWeek.com made-for-computer Internet home page measures 330 kilobytes. You would have spent more than \$2.50 to download a Web page that may or may not have worked on your mobile phone. Uh-oh.

That's not good news for any BusinessWeek.com reader surfing the mobile Internet: You get a bad mobile browsing experience at an extremely high price for a page that wasn't even designed for mobile Web browsing.

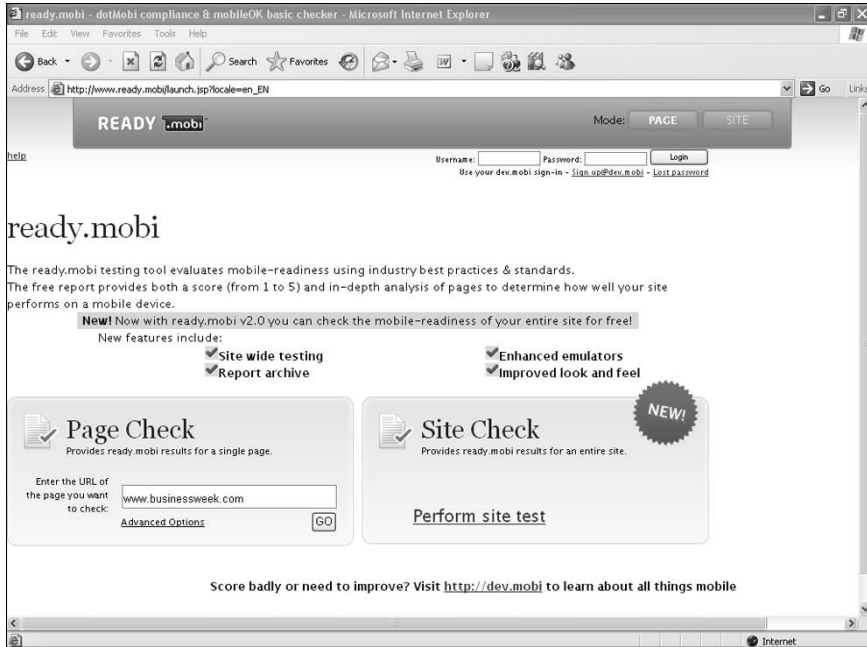


Figure 7-2:
The Ready.mobi page check.



Figure 7-3:
Ready.mobi page results.



When you go online to the Ready.mobi testing site, you see whether your chosen Web site works well on a mobile phone — and you can share a full report with the company that publishes the site, in case you want it to fix the site to work on your mobile phone.

For comparison's sake, check out the BusinessWeek.com made-for-mobile Internet site: <http://businessweek.mobi>. Again, go to the Ready.mobi test site at <http://ready.mobi> from your computer.

Bingo! The BusinessWeek.com mobile site has a Ready.mobi score of 4 out of 5 (see Figure 7-4). That score is excellent, considering that the site, which measures 10 kilobytes, works on more than 4,000 types of mobile phones and costs less than a dime to download on even the most expensive wireless carrier data plan.



When you're surfing off-portal from your mobile browser, make sure that the Web site you're surfing to or linking to is specifically a made-for-mobile Internet site. If you're in doubt, check out the site at Ready.mobi before loading it on your mobile phone. Or, just don't try the site if it doesn't indicate that it will work on the mobile Internet.



Figure 7-4: The Ready.mobi page result for a made-for-mobile site.

Spotting made-for-mobile Internet sites

You know that the URL you're typing into your mobile phone browser is a made-for-mobile Internet address if it meets just one condition: It has the .mobi domain suffix, such as `http://mifd.mobi`. You can also look for addresses that look like these examples:

- ✓ `http://m.sitename.com`
- ✓ `http://mobile.sitename.com`
- ✓ `http://wap.sitename.com`
- ✓ `http://sitename.com/mobile`
- ✓ `http://sitename.com/wap`



We cannot list every variation of mobile Internet site address identifiers, of course, so just look for the terms *wap*, *mobile*, *wireless*, or *PDA* or the letter *m* before or after the `sitename.com` part. These made-for-mobile identifiers can truly help you out. Also, see whether the publisher advertises and promotes the site as a mobile Internet site.

Sometimes a regular Web site with a normal Internet URL detects that you're accessing the site from a mobile browser and redirects your request to its made-for-mobile Internet site. Although this detection doesn't take place on all Internet Web sites, check the site at `http://ready.mobi` to be sure how it works on a mobile phone.

Exploring information, entertainment, and more

Off-portal mobile browsing provides you with access to a broad scope of mobile Internet sites and services, including information, entertainment, travel, and business. There are a plethora of ways we could categorize the off-portal mobile Web; in the next couple of chapters we introduce you to mobile search, mobile entertainment, mobile shopping, and mobile financial services. To get you started on your off-portal surfing, here are a couple of examples of excellent mobile Internet sites.



You're billed for wireless data transfer for mobile Web browsing services based on the amount of data sent and received — not for time spent on the network, as with voice calls. Make sure that you have a mobile Internet service plan in place with your wireless carrier before trying out any of the sites or services highlighted in this book. See “Browsing On-Portal: Your Carrier's Made-for-Mobile Offerings,” earlier in this chapter, for more information about the costs.



You can look for mobile Internet sites in many ways; the simplest method is to use the Search function on your mobile phone to enter a word for the type of site you're looking for and then press Go. We detail mobile search capabilities in Chapter 8.

Information

Mobile Internet sites that provide news, weather, sports, financial, and traffic updates are handy to have when you're on the go.

To look at a city's weather forecast from The Weather Channel, follow these steps:

- 1. Open your mobile browser.**

You can usually open it from the main menu of your mobile phone.

- 2. Enter the URL for The Weather Channel at `http://weather.mobi`.**

Find the menu item labeled Enter Address or Go to URL or similar wording. Enter `http://weather.mobi` and open the page, as shown in Figure 7-5 (screen appearance may vary by handset model).



Figure 7-5:
Page
view of
weather.
mobi.

- 3. To change the location for the weather forecast, select the Change Location link on the right (refer to Figure 7-5).**

A form opens, similar to the one shown in Figure 7-6.

- 4. Enter the zip code of the city you want (we use Atlanta in this example) and click Search, or simply scroll down the menu selection to your city and click Select.**

- 5. Scroll down The Weather Channel's made-for-mobile Web page to see the city's weather conditions, forecasts, travel advisories, and outdoor activities, as shown in Figure 7-7.**

Figure 7-6:
Time to
select your
location for
your mobile
weather
report.

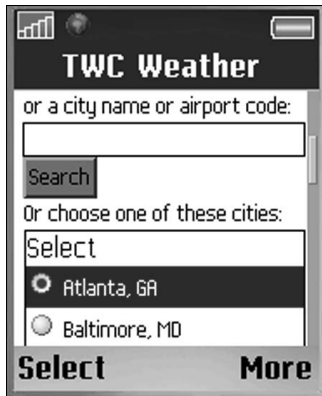


Figure 7-7:
Page
view at
weather.
mobi
showing the
weather in
Atlanta.



Other useful off-portal information sites are shown in this list:

- ✓ **BusinessWeek:** <http://businessweek.mobi>
- ✓ **Microsoft MSN:** <http://msn.mobi>
- ✓ **The New York Times:** <http://mobile.nytimes.com>

Entertainment

If you're looking for your favorite *High School Musical* ringtone, video, or music download, have them delivered directly to your phone even before the concert ends. Keep tuned into your favorite television shows from FOX, CBS, TBS, and more.



Check out these off-portal entertainment sites:

- ✓ **High School Musical 2 (Disney):** <http://hsm2.mobi>
- ✓ **TBS television to go:** <http://tbs.mobi>
- ✓ **TMZ made-for-mobile:** <http://tmz.com>

Travel

From flight times to checking in to a hotel to finding your way back home, mobile phones and anything to do with travel have always been helpful companions. Many airlines have mobile Internet sites, and hotel and car companies are jumping on board. If you get lost on your way, some terrific sites that are now in operation can get you where you need to go.



Here are some destination sites to try out on your mobile phone:

- ✓ **Orbitz travel updates:** <http://mobile.orbitz.com>
- ✓ **Hilton Hotels:** <http://hilton.mobi>
- ✓ **Pilot maps and directions:** <http://pilot.mobi>

If you want to know more about some of the products and services from your favorite brands, look them up on the mobile Internet just when you need to know. Go to the mobile Internet storefronts to purchase products, have brochures sent by e-mail, and get the latest news from the executive suite.



Find out more about these companies' product or service offerings over the air:

- ✓ **Purina for all the dog and cat lovers:** <http://purina.mobi>
- ✓ **Nokia mobile phones and services:** <http://nokia.mobi>
- ✓ **CISCO Networks:** <http://cisco.mobi>

Bookmarking a mobile Internet site

Bookmarking a mobile Internet site on your mobile phone is a timesaver because you save yourself many extra steps when you want to access the site again. The process generally works as follows, though some specifics may depend on your phone model:

1. **Open the page you want to bookmark.**
2. **Select Menu or Options (or whichever wording your phone uses).**
3. **Select Add to Favorites or Add Bookmark.**

The next time you want to look up the site, you can do it from your mobile phone. Click Bookmarks or Favorites, scroll down the list to the site you want to access, and click OK. If your phone asks whether you want to connect to the network, select Yes.

Another way to get on the Net: Mobile Web applications and widgets

Made-for-mobile Web applications and widgets are new mobile Internet offerings specifically designed by highly skilled experts in the mobile industry to give you a Web-like experience on your phone without having to launch your mobile browser. These products offer the utility and convenience that you may have come to expect from the computer Internet world and are limited to a few traditional mobile phones, almost all smartphones, and all PDAs. Once downloaded to your phone, both types of applications are fully integrated with the capabilities of your mobile phone, smartphone, or PDA. They also run in real-time (if required), which leverages your mobile Internet data connection to retrieve the information required to get the latest updates for the application without you having to browse the mobile Web for them. (iPhone and BlackBerry users know exactly what we're talking about.)

Mobile Web applications provide you with a full menu of rich media features and services with content to run the application delivered and updated over-the-air either once a day or when

the information is made available from the publisher. Here are a couple of cool mobile Web applications directly from a couple of popular favorite magazines:

✓ **People:** www.people.com/people/mobile

✓ **Sports Illustrated:** <http://sportsillustrated.cnn.com/mysimobile/download.html>

Widgets are simple little applications you download to your phone to view specific information like the news, the weather, and the stock market, and you need only one touch to view them. You can set the widget to provide you with only the information you want with the content delivered over the air right when you need it. Some of the best widgets are very basic, such as for weather (including animated maps and iPhone widgets from The Weather Channel at www.weather.com/mobile); others are more robust, such as the network of offerings from the mobile widget innovators at Widsets (www.widsets.com).

Chapter 8

Mobile Search: Find What You Want, When You Want It

In This Chapter

- ▶ Getting started in your mobile search
 - ▶ Distinguishing between Internet searches and mobile searches
 - ▶ Putting text messaging to work to find information
 - ▶ Checking out made-for-mobile directories
-

After you start surfing the mobile Internet a little, you might begin to wonder how on earth to make sense of all the wonderful made-for-mobile Internet sites you keep stumbling on. Although mobile Internet sites are still somewhat smaller in number than their desktop equivalents, hundreds of thousands, if not millions, of mobile Internet sites and pages are out there. And the number is growing fast.

How do you keep track of where everything is? And how do you find what you're looking for?

In this chapter, we talk about mobile search — what it can do for you and what it can't do — and then give you some tips for how best to explore your new mobile surroundings.



Mobile search services are usually free to use, but wireless carrier data-service fees still apply. Make sure that you know which type of mobile Internet package or program you have before trying any mobile search services. Additional charges may apply for links to any sites you find by using mobile search, especially if the recommended sites aren't made-for-mobile or on your wireless carrier's portal.

To Search Is to Find!

To get you started with searching, this section shows you a few common examples of how to use mobile search to find interesting information on the mobile Internet.

Before starting, make sure that your mobile handset is turned on, and then start the mobile browser. Some phones have a mobile search engine set to open as the home page. If that's the case, you can start using it immediately.

If not, you might need to enter the address of a made-for-mobile search engine. Try any of these:

- ✓ **Google:** <http://google.mobi>
- ✓ **Microsoft Live Search:** <http://m.live.com>
- ✓ **Yahoo! oneSearch:** <http://yahoo.mobi>
- ✓ **Find.mobi:** <http://find.mobi>

Figure 8-1 shows some search engines you can try:

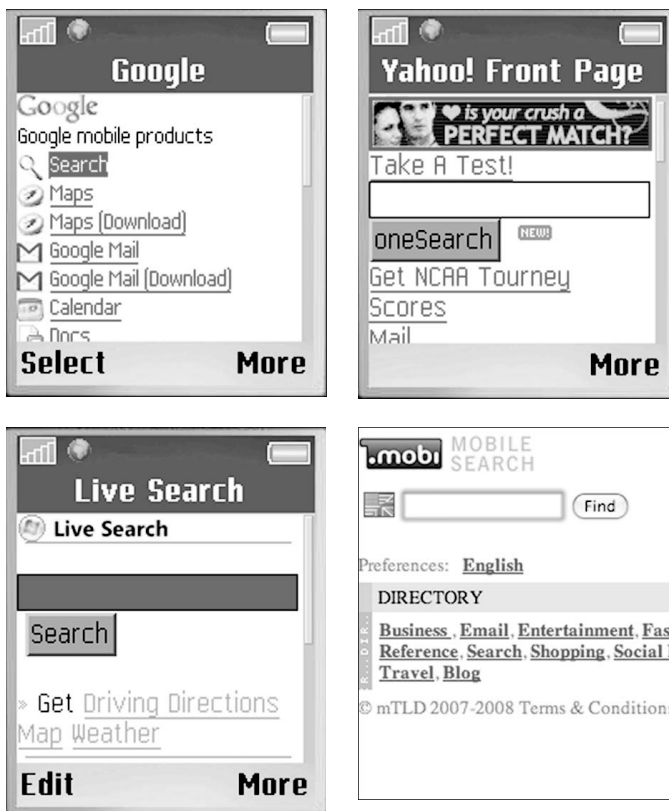


Figure 8-1:
The search
screens for
Google,
Yahoo!,
Microsoft
Live Search,
and
Find.mobi.

Searching basics

Most mobile search engines have similar user interfaces. You normally see an empty box (where you enter the search term) and a button you click to start the search.

You might see some other elements on the page, such as advanced search options or sign-in buttons, but don't worry about them for now.

After the search has been run, you see a list of results that relate to (you hope!) the topic you searched for. The search engine lists the results by most relevant — and of course you hope that the page you're most interested in is at the top of the list.



The following guidelines can help make your mobile search more effective:

- ✓ **Use short but precise terms.** Don't type long phrases into your mobile browser. Although you should refine your searches as much as possible, don't use lots of unnecessary words. For example, the search term `I want a taxicab in Austin` is no more effective than just `Austin taxicab`.
- ✓ **Benefit from location.** If you're looking for a term that has some local or regional relevance, consider entering the place name in the search query. In the examples in the upcoming sections, you'll see how some search engines spot common place names in a query. In fact, because some search engines even remember that location in subsequent queries, you'll also benefit in the future from results that are relevant to that location.
- ✓ **Use the best approach for the job.** Look around to find which option suits *you* best. If you're searching for local services and information, Google, Yahoo!, and Microsoft are helpful. If you're looking to find pages on the made-for-mobile Internet, `find.mobi` is a good option. If you're interested in music and video, you might decide that Taptu is the place to go.

The examples in the following sections illustrate how each of these work in more detail.

Finding a taxi cab

Imagine that you're in Austin, Texas, and you want to go shopping. Also, you have only your trusty mobile phone to help you find your way around!

First, you probably need some type of transport, so you start with the Google mobile search service to find a taxi:

1. **Open your mobile browser.**

You normally find it on the main menu of your mobile phone.

2. **Open the mobile Internet search engine page.**

Your browser might display a search box on its start page anyway. If not, find the menu item labeled Enter Address or Go to URL or similar wording (exact usage varies by handset model). Enter **http://google.mobi** and open the search page.

3. **Enter a search term, such as taxicab, into the Search box.**

4. **Select the Search button.**

Voilà! Your results appear, as shown in Figure 8-2.



Figure 8-2:
Search
results for
taxicab.

The results display the page title and, helpfully, a small snippet of the page that describes its contents. On your mobile phone, snippets are *truly* helpful because you don't have to click every link (costing time and money) to determine whether the page what you're looking for. (On the other hand, they take up valuable screen space on a mobile screen, so sometimes these snippets are quite concise!)

The first result shows a page about taxi cabs on Wikipedia.org. That's a good start because it's extremely relevant to what you're looking for in this example.

However, you want to find a telephone number for a taxi service, so the second entry looks better: 1-800-TAXI-CAB sounds exactly like the service you need!

After you click this link to go the site, it displays a search form and a list of cities and states. If you scroll down to Austin, you're all set with a list of taxicab companies.



Don't expect every mobile search engine to return the same results. Each one returns different pages.

Try the same task with another mobile search engine, Find.mobi, and see what you find. As before:

1. Open your mobile browser if it is not already open.

You normally find it on the main menu of your mobile phone.

2. Open the mobile Internet search engine page.

Find the menu item labeled Enter Address or Go to URL or similar wording (exact usage varies by handset model). Enter **http://find.mobi** and open the search page.

3. Enter a search term.

For example, enter **taxicab**.

4. Select the Search button.

On this search engine, the results are displayed in a slightly different way from the Google list, as shown in Figure 8-3. Not only that, but the result pages listed are slightly differently too. Some results are grouped as reference information (such as the Wikipedia result) and others as regular Web pages. Again, you probably don't need the reference pages, so skip to the first result in the second section: <http://taxicab.mobi>. It looks good!



Because mobile search engines are becoming increasingly *location-aware*, quite often you can enter your location in the search box to find more relevant answers more quickly.

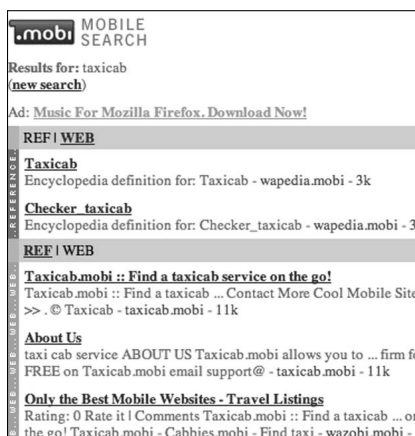


Figure 8-3:
Getting
search
results for
finding a
taxicab.

Try the Google mobile search again, and include Austin in your search term: **Austin taxicab**. Follow the same steps outlined earlier in this section for the Google mobile search for a taxicab.

As you can see in Figure 8-4, Google detects the word *Austin* in the search terms and identifies it as the name of a city and lists the taxicab companies in its results! This result is quite cool because it prevents you from having to follow any links. What's more, the listing even contains the cab companies' telephone numbers. Clicking these links makes your mobile phone dial the taxi cab companies. So, a few moments later, you're on your way!

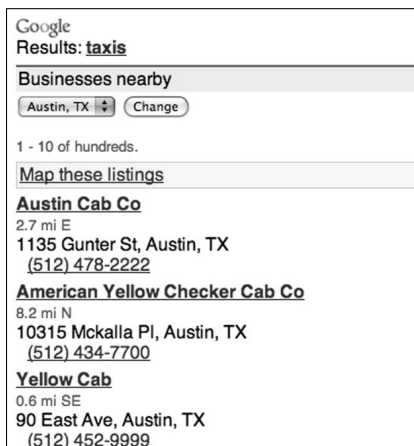


Figure 8-4:
Searching
for a taxicab
in Austin.

Going shopping

So now suppose that you need to find out where to shop in the city of Austin, Texas. In this search example, we show you how to look for stores or a shopping mall using Microsoft Live and the Yahoo! mobile Internet search engine.

First, try the phrase **Austin mall** at <http://m.live.com> and see what the search engine returns. If you get the same results we did, you don't see the results you need.

Second, try the same the phrase, **Austin mall**, at <http://yahoo.mobi>. The results show two candidates, with locations, numbers, and a link to directions — very cool! Click the titles of the results, and you see the address and cross streets of the mall location, as shown in Figure 8-5. This site might be useful if your taxicab driver doesn't know how to find the location where you want to be dropped off.

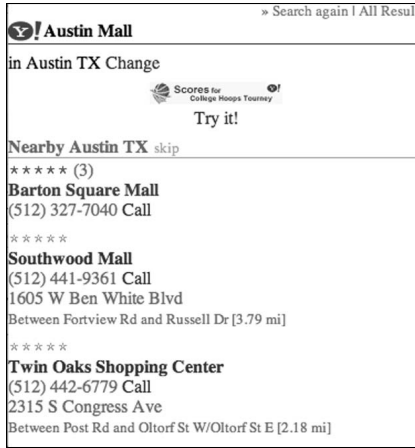


Figure 8-5:
Searching
for a
shopping
mall.

Yahoo! also provides a listing of shopping malls with call links. Clicking links displays user reviews of the shopping malls, as shown in Figure 8-6.



The interesting point in both searches (and in the Google taxicab example) is that you see dedicated results *in the mobile search page*. You don't have to click to go to another site, because all the information you need is right there.

This theme is an important one for the mobile Internet: Mobile users want to find information quickly, and the information they want should be relevant to where they physically are the moment they perform the search. Although it's early in the made-for-mobile Internet world, all these mobile Internet search engine services are starting to show how important this concept is.



Figure 8-6:
User review
of a
shopping
mall.

Searching for a song

On your way to the shops, imagine that you want to find some music to listen to on your phone. Perhaps you heard a snippet of a tune you love as you were leaving home, and you want to listen to the whole song.

One mobile search company, Taptu, provides an excellent service for finding music and media at <http://taptu.mobi>. If the tune you heard was “Peggy Sue,” by Buddy Holly, you can probably use either the song title or the author of the tune in the search engine. In the following example, we use the search term `Peggy Sue`.

Follow these steps:

1. **Open your mobile phone browser.**
2. **Enter the Taptu URL** — <http://taptu.mobi>.
3. **Enter the phrase `Peggy Sue` in the Search box, as shown in Figure 8-7.**



Figure 8-7:
The Taptu
opening
page.

4. **Click Search.**

There you go! At the top of the page is a link to a song and a link to a video of Buddy performing his classic tune, as shown in Figure 8-8.

(Lower on the list, you also see links to other relevant entertainment links, such as the film *Peggy Sue Got Married*.)

Clicking the results in Taptu is a quick way to find the music itself. You see a summary page, and you can see YouTube user ratings along with some other relevant information. From there, you can even see a 30-second clip of the video (if your mobile phone supports it) before you download the whole thing. This is invaluable if you're trying to ensure that it's the correct version of the song you're seeking.



Figure 8-8:
Searching
for Peggy
Sue.

Recognizing the Unique Characteristics of a Mobile Internet Search

In theory, a mobile Internet search engine offers a similar service to a regular Internet Web search. A user types a phrase, and the search engine should return a list of relevant pages as quickly as it can.

On the mobile Internet, however, getting this process right isn't without its challenges, for both the search engine and the user!

The made-for-mobile Internet is a little different from the regular Internet Web, and some of those differences make events somewhat surprising. Here are some key examples:

- ✓ **Mobile Web pages aren't as large as their cousins on the regular Web, so they don't contain as many words to be indexed.** Ensuring that the pages are relevant to what you, the user, want to find is a little more difficult.
- ✓ **The mobile Web is less "linked" than the regular Web.** Because mobile Web pages have precious little space for a screen display, they don't waste it on links to other sites, and focus instead on their primary content. That concept works well — until a Web search engine, which is accustomed to being able to judge the quality of sites based on incoming links, tries to figure out whether it's important.
- ✓ **Mobile search is for mobile users.** When you're searching for something on the regular Web, you're probably sitting at a desktop computer with a decent-size screen, and you're rarely in a hurry to go anywhere.

But the mobile Internet is, by definition, a medium designed to be used by humans on the move! Mobile device keyboards make typing keyword searches difficult in the first place; users don't necessarily have the time and patience to skim page after page of less relevant results. And location is important: Users very often want results that are relevant to their whereabouts (as we show in the Austin taxicab mobile search example, earlier in this chapter).

- ✔ **The mobile Web is, in many parts of the world, just emerging from wireless carrier portals** (or *walled gardens*). Users ought to be allowed to search for content both on and off those mobile Internet portals, and even then, made-for-mobile content doesn't yet exist for many topics.

To address this situation, some mobile Internet search engines provide a transcoding service to collapse full, desktop-style Internet Web pages into a sort of mobile-readable format. Although this solution doesn't always provide a particularly good experience for mobile users, it might be better than nothing. A collapsed Web page might still contain the material you're looking for, in the absence of a dedicated mobile Internet page on that topic.

Letting Text Messaging Help You Find Information

Another useful way to search on your mobile phone is to use text-messaging search services set up by Google, Tellme, and 4INFO. These mobile search services can often get you to certain types of information quicker than if you went via your mobile browser.

When you use text messaging search (sometimes called *SMS search*), you're limited to specific words and phrases, and you receive limited answers to your queries (usually fewer than 160 characters). Some services also offer links to mobile Internet sites for additional information about your mobile search requests.

Bear in mind that your request for information might incur premium-rate text messaging charges. Check with each service directly before you jump in with both feet, and make sure that you read the fine print.

An example of a text messaging search comes from 4INFO, a company that can help you find local WiFi hotspots, restaurants, movie showtimes, and many other pieces of day-to-day information. All you have to do is send a specific *keyword* text message (such as a package tracking number) to the 4INFO short code 44636 (4INFO spelled out on your mobile phone keypad),

and the service sends you the information you request. The 4INFO Web site listing of all its text messaging mobile search offerings (keywords) is at <http://www.4info.net>.



Although the service is free from 4INFO, wireless carrier standard text-messaging service fees apply. Make sure that you know which type of text messaging program you have before trying any text messaging services.

For a closer look at how this process works, follow these steps to find your local WiFi hotspot:

- 1. Open the Messaging application on your mobile phone and find the text messaging or SMS service.**
- 2. Enter the recipient or address as 44636 to go to 4INFO.**
- 3. Enter the keyword wifi 94025 on the message screen.**

The number is your zip code.

- 4. Press Send on your phone.**

Within seconds, you know where the WiFi hotspots are, as shown in Figure 8-9, and even whether they're free.



Figure 8-9:
A list of WiFi hotspots delivered by way of text message.

The future of search for your phone

A new category of mobile search is being launched by wireless carriers, handset vendors, and mobile Internet search engine companies: mobile search software applications. These made-for-mobile applications are available for a limited number of mobile phones, smart-phones, and PDAs. However, the cool part is that they usually help you find more than stores and restaurants — they also help you find information stored on your mobile phone itself. If you need to find a friend's phone number, for example, just go to the mobile search application and, if the number is on your mobile phone, the application retrieves it. If the number isn't there, the application can find it on the Web for you

instead. If you have a fairly new mobile phone, the mobile search software application may already be built-in for you. If it isn't and you want it, either go to your wireless carrier's or handset vendor's Web site to buy it or go online to Google, Yahoo!, or Tellme.

Another exciting development in this area is *voice-based* search. This is the ability for a user to dial a number, speak the phrase that they are looking for, and then have information returned to their phone via text message or Web link.

Watch out for both of these types of service becoming more common in coming months.

For more information about how to use text messaging searches, check out these Web sites:

✔ **Google SMS:** www.google.com/sms

✔ **Tellme:** www.tellme.com/products/TellmeByText

Looking into Made-for-Mobile Directories

Using a mobile Internet search engine isn't the only way in which you can discover content. The mobile Internet is still small enough that it's possible to categorize the interesting sites into manually edited directories.

If you get misty-eyed recalling the Web of the mid-1990s, you know that this is exactly how Yahoo! started: It was a hierarchical listing of Web sites, sorted by topic. The directory approach worked well when the Web was young: It was small enough to catalog, and it helped new users understand what sort of information was out there.

For the same reasons today, you can find some excellent site directories on the mobile Internet. If you can't find what you're looking for by using regular mobile searches, or if you just want to browse to see what's out there, try some of the services we describe in the following sections.

Finding carrier directories



Your wireless carrier's mobile Internet portal is one of the best mobile directories because it's (usually) free to use as long as you stay within its walled garden and you have the appropriate flat-rate mobile Internet package. Almost all the basic services, applications, and support information that you expect from them can be found on your wireless carrier's home page. See Chapter 7 for more details.

To open your wireless carrier's home page, just click the mobile browser or mobile Web icon on your phone and launch the service.

Visiting third-party directories on the mobile Internet

If you don't find what you want or like after perusing your wireless carrier's directory, we list a few excellent public mobile directories for you to visit:

- ✓ **YesWAP:** This helpful directory of mobile-only Web sites is well categorized, which makes it easy to navigate. Check it out in Figure 8-10. The service (at <http://yeswap.com>) contains hundreds of sites that have been human-reviewed, organized into categories such as News, Weather, Sports, Entertainment, and Technology.
- ✓ **WapSwap:** This directory of mobile-only sites is also well categorized. The site (at <http://wapswap.com>) adds intriguing categories, such as Food and Drink and Gadgets and Tech.



Figure 8-10:
The
YesWAP
portal.

✔ **JamPaw:** With categories similar to the ones in other directories, JamPaw (<http://jampaw.com>) offers an option to personalize your own list of links. It also contains a list of mobile Internet search engines, allowing you to quickly link to many of the ones we discuss in this chapter.

To visit any of these directories, follow these steps:

- 1. Open your mobile phone browser.**
- 2. Enter the URL of the directory you want to visit.**
- 3. Press Enter to go to the mobile Internet site.**

Chapter 9

Multimedia Entertainment for Your Phone

In This Chapter

- ▶ Adding entertainment from your wireless carrier to your phone
 - ▶ Downloading ringtones, wallpaper, games, music, and video to your mobile phone
 - ▶ Finding mobile entertainment content from sources other than your wireless carrier
-

A big reason why the mobile Internet is becoming popular is the capability to access mobile entertainment services anytime, anywhere, directly to your mobile device.

The entertainment industry has finally discovered the value of the mobile Internet as a medium to distribute content to mass market consumers, and ringtones, wallpapers, music, videos, and games are all available on the mobile Internet. The superstar singer Madonna, who had been reluctant to offer her music by digital download, was the first major artist to make preview ringtones from her album available only to mobile phone subscribers — before releasing it for purchase in stores and over the Internet.

To truly enjoy the user experience, you have to know where to find the best deals for mobile content and how to put it on your mobile phone.

This chapter shows you both on-portal and off-portal (see Chapter 7) examples of mobile entertainment options and describes how to find the best possible prices.

In Chapter 14, we show you how to become an active creator of made-for-mobile services, by either creating your own mobile-content storefront or uploading videos and pictures on your mobile blog. First, you have to know the basics.



The mobile entertainment market is booming with new made-for-mobile products and services hitting the red carpet every day. To keep you updated on the latest from the art, music, and entertainment worlds — both on-portal and off deck — keep our Web site, <http://mifd.mobi>, bookmarked on your computer

and mobile phone. We will keep you updated in the Mobile Entertainment directory showcasing what's available from the wireless carriers and third-party service companies.

Checking Out On-Portal Entertainment

If you look at the major U.S. wireless carriers — Alltel Wireless, AT&T Mobility, Sprint, T-Mobile, and Verizon Wireless — you see that they all offer a full range of entertainment capabilities for your mobile phone. They all have ringtones, wallpapers, music, videos, games, and even streaming TV available for you to enjoy on your mobile phone.

Wireless carriers have made it quite easy to use their on-portal services to find everything you need for your mobile phone. Each carrier's offerings vary and depend entirely on your chosen mobile phone model and service plan.

Because too many wireless carriers exist to be able to show you how each one offers its on-portal mobile entertainment services, the next few sections demonstrate a couple of services from each carrier. To find out more about what your wireless carrier offers, see Chapter 7, where we outline several on-portal mobile content links.

Downloading ringtones and wallpapers by AT&T

AT&T has developed the mobile entertainment shopping mall AT&T Media Mall, as shown in Figure 9-1. You can preview and download ringtones, graphics, games, music, videos, TV shows, and more to your phone for a monthly charge or one-time download fee. To view all available AT&T services, go to <http://mediamall.wireless.att.com> from the Internet browser on your computer. AT&T lets you subscribe to a content bundle or pay as you go for these services, which is typical of most carriers.

Here's how the AT&T service works:

- ✓ To sign up for the AT&T MyMedia monthly subscription programs, text-message the keyword **YES** to the short code 7225 from your mobile phone's messaging service menu.
- ✓ The monthly subscription is \$5.99 (for 15 credits), \$9.99 (30 credits), or \$14.00 (50 credits). Credits are to be used for ringtones, wallpapers, or other service you want to consume every month.

- ✓ You can cancel your AT&T MyMedia monthly subscription at any time by text-messaging the keyword **STOP** to the short code 7225 and following the instructions in the return message that's sent to your mobile phone.
- ✓ If you don't want a monthly subscription, you can simply pay for your products and services individually as you want them. For example, to download a ringtone, you're billed for the price of the selected ringtone and for the download cost. An average ringtone is about 10 Kbps and costs ten cents to download at an airtime rate of \$0.01 per Kbps. A graphical image can cost a bit more to download, depending on the size of the file.



Ringtones and wallpapers are often created in different technological formats. For example, ringtones come in three main types: monophonic, polyphonic, and Super Tone. The type of device you have determines which type of content works on your mobile phone.

You can download ringtones and wallpapers from AT&T in three ways: from your computer, by using your phone's browser, or by way of text message. The following sections explain the steps for downloading from your computer and from your phone's browser.



For more information on how to preview, purchase, and download any mobile content, contact AT&T directly over the Internet, call customer service, or visit a retail location.

Figure 9-1:
“Going to the mall” has a new meaning now!



Whatever your method of purchasing ringtones and wallpapers, charges appear on your monthly bill.

From a computer

You can save on your wireless data charges by surfing the AT&T Internet site to look at all the content offered before downloading to your phone. Follow these steps:

- 1. On your computer, go to the AT&T Web site at <http://www.wireless.att.com/cell-phone-service/welcome> and click the Shop tab and then Ringtones & More. Click the Ringtones and Graphics link.**

- 2. Search for a title and click its Buy button.**

You can click the Preview button first (it looks like a speaker) to listen to the ringtone.

- 3. Enter your personal and mobile phone information.**

A confirmation text message is sent to your phone with a link to the product you just purchased.

- 4. On your phone, scroll to the link and highlight it, and then select Enter by pressing your phone's softkey to download the ringtone and make it available on your phone. Follow the installation instructions, which vary by phone or model.**

After your selection is downloaded, your mobile phone displays a message asking you to confirm the file folder where it will store the product.

- 5. Press Enter to accept the download.**

The ringtone or wallpaper you purchased will now be stored on your mobile phone for you to access and use as you like.

- 6. Use the phone menu to go to the Settings area and set the new ringtone or wallpaper for the services you want to use it for.**

Depending on which product you selected, it's now ready for you to program for use whenever someone gives you a call, or to use as wallpaper on your screen.

From your mobile phone

You can also go directly to the AT&T mobile site on your phone to view the products offered and download them from wherever you are. Follow these steps:

- 1. Launch your mobile browser.**

Your browser opens to the AT&T portal home page featuring the MEdia Net services menu. You don't need to enter a URL.

- 2. Select Ringtones and Graphics from the MEdia Net main menu.**

- 3. Search for the title of a product you want to download and select it.**

4. Select the Buy button to download your selection to your phone.

After the product is downloaded, your phone displays a message asking you to confirm the file folder where it will store the product.

5. Press Enter to accept the download.

The ringtone or wallpaper you purchased will now be stored on your mobile phone for you to access and use as you like.

6. Use the phone menu to go to the Settings area and set the new ringtone or wallpaper for the service you chose.

Depending on which product you selected, it's ready for you to program for use whenever someone gives you a call or as a wallpaper on your screen.

Finding music at Sprint.com

Downloading ringtones is not the only way to get music to your mobile phone through the mobile Internet. Many of the latest mobile phone models can store music similar to an iPod from Apple or on any MP3 player. Wireless carriers have been eager to add iTunes-like digital music storefronts on their Web sites so that people can download music directly to their mobile phones.



The mobile Internet services in this section apply only to Sprint subscribers and don't work on any other wireless carrier networks or mobile phones. However, this section can still give you an idea of how these services work, because most carriers' services work in a similar way.

If you're not a Sprint subscriber, your wireless carrier may offer music downloads as well. Go to its Web site to start the process of downloading music to your mobile phone. You may have to experiment, but the steps should be relatively straightforward.

From a computer

As with ringtones and wallpaper, music downloads can work in a couple of different ways. The first one we cover here is from your computer, as it is easier to find what you want on your bigger computer monitor, surf all the selections made available, and preview the songs all without paying wireless data charges. Follow these steps on your computer to browse what's available:

- 1. On your computer, go to the Sprint Web site at www.sprint.com and click the Services tab in the middle of the page.**
- 2. Click the Music link on the left side of the page. Click the Sprint Music Store link.**

This step opens the Sprint Digital Lounge, where you can browse, preview, and purchase any of the songs offered for your mobile phone.

3. Click the Music link.

A list of songs appears, which you can purchase and download to your computer and transfer to your mobile phone.

4. Click the song you want to download.

You can listen to the song before you purchase it. If you haven't already signed in, and you want to buy the song, you need to sign into the Sprint Digital Lounge.

5. Click the Buy It Now button to purchase the ringtone.**6. After you've purchased the music, transfer it to your mobile phone by connecting your phone to your computer with the accessory cables that came with your phone or via Bluetooth.**

The best way to transfer songs to your phone is up to you; we recommend you visit your local wireless carrier store to show you how to do it, especially if you're not familiar with connecting your phone to your computer. If you are familiar with downloading songs to an iPod or other digital music player, then follow the steps recommended by your wireless carrier to download music to your phone.



Take advantage of all the great Sprint Digital Lounge services by signing up for either My Content Manager or Sprint Music Manager. You can manage all your mobile content, including music, that you purchase from Sprint right on your computer (like any digital music storefront). From My Content Manager, you can send (or transfer) your music to your mobile phone — or even to a friend's phone.



To take advantage of the music that Sprint offers, you must have a Sprint-compatible phone model and subscribe to an appropriate Sprint service plan.

From your phone

If you don't want to use your computer to transfer music to your mobile phone, you can easily use your mobile phone to purchase and download music directly. The process is quite simple. Here are the steps to download music over-the-air (sometimes abbreviated as OTA):

1. Launch your mobile browser on your Sprint mobile phone. Click the Sprint Music Store link.

When you enter the Sprint Music Store for the first time, you need to set up your user identification and password. (If you have a user ID, you can skip this step.)

2. From the Sprint Music Store opening page, browse songs by Feature Music or by Categories, or search for a specific song.**3. When you have found the song you want to buy, highlight it and press the OK button on your phone.**

The information about the song will be displayed on your screen.

4. **Select the Preview option if you just want to listen to the song, or select the Buy Song option if you want to purchase the song and download it to your phone.**

When you buy the song, the file automatically downloads to your phone. Make sure it goes to your phone memory card (often called a microSD card). If you don't have a microSD card, or your memory is full, you will be alerted about that.

5. **After the song is downloaded to your phone, choose whether to listen to the song, add the song to a playlist, or simply continuing shopping for new songs.**

Grabbing games on the go with Verizon

If you're into games, you're in luck — people like you are downloading games and using them when they're bored or waiting for someone or when they simply want to relax after a stressful day.

Basically, two types of games are available:

- ✔ **Single-player:** Games that you download to your mobile phone to play by yourself when you have a moment. You pay only the cost of the game. Often they're free, and sometimes you only pay download charges.
- ✔ **Multiplayer:** Games that are played by more than one player. The players might be individuals or teams competing against each other or against an enemy that can be either a computer or a human player. Typically a multiplayer game requires you to be connected to the wireless carrier network. Be aware that airtime and wireless data charges apply when you're playing over the network.



When you purchase games from Verizon Wireless, you have two service options: subscription and unlimited. When you purchase a subscription, you can access a game for a limited period, and you're billed daily, monthly, or annually, depending on the game. When you choose the unlimited option, you can access the game whenever and for however long you want to play it and pay only a one-time fee.

To find games from Verizon Wireless, you have a few options:

- ✔ **From your computer:** Purchase games at the Verizon Wireless Games Web site at <http://products.vzw.com/index.aspx?id=games>.
- ✔ **From your mobile phone if you subscribe to Verizon Wireless:** The best way to find games is to select the Get Fun & Games button on your mobile phone. It directs you to the area of your phone where you can browse for games.

✓ **From your mobile phone if you know what you're looking for:** Use the Get It Now icon to search for a game to purchase. Follow these steps:

1. *On your mobile phone menu, select the Get It Now icon.*
2. *Select Games.*
3. *Select Get New App.*
4. *Select Top Sellers and press Go.*
5. *After you decide which game you want to purchase, simply follow the on-screen instructions to download it.*

The steps required to purchase and download content are similar to how you download ringtones and wallpaper.

Watching mobile TV and video by using Verizon Wireless

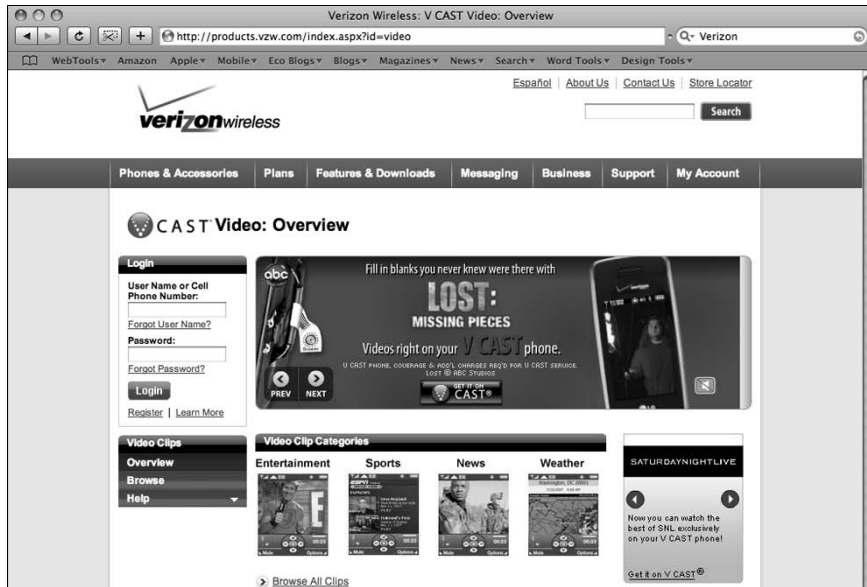
If you're of a certain age, you might remember the teeny Sony TV that fit into a shirt pocket and that you could watch while walking down the street or waiting in line. Sony didn't sell many of them because they weren't what people wanted.

Now, of course, you don't need to buy an extra device. You already carry around a portable TV — on your mobile phone. Watching TV is just a matter of using your phone to watch programs. Although mobile video isn't as mainstream as other services at the time we write this book (primarily because video still costs too much to have streaming TV live on your mobile phone), we think that this situation is about to change now that wireless carriers offer better and cheaper data plans.

All major national wireless carriers in the U.S. offer mobile TV and video. For example, find the Verizon Wireless V CAST service at <http://products.vzw.com/index.aspx?id=video>, as shown in Figure 9-2. (Although V CAST doesn't cover the entire United States, it's available in most major urban areas. To see whether you're in one, visit the Web site.)

To deliver V CAST mobile TV, Verizon Wireless uses a dedicated video network so that you can watch video in real time and not have to wait. (The alternative: Wait for a complete video file to be downloaded and saved before you can watch it. You can then store the video file on your device and watch the video even where you don't receive a signal — on a plane trip, for example.) Because Verizon Wireless uses a dedicated network, it's not possible for you to view V CAST Mobile TV in real time without being connected to the network.

Figure 9-2:
Watch streaming TV at the Verizon Wireless V CAST site.



Verizon Wireless has signed up with TV channels such as CBS Mobile, Comedy Central, ESPN Mobile TV, Fox Mobile, MTV, and NBC News 2GO. You can watch eight channels, benefit from parental controls, and watch unlimited basic video clips, including monthly access to the Verizon Wireless Mobile Web 2.0 service. The V CAST Mobile TV Basic plan gives you limited TV access and parental controls as well.

To take advantage of the Verizon Wireless mobile TV and video offers, you must have a compatible phone and subscribe to the appropriate Verizon Wireless service plan. If you're not a Verizon Wireless subscriber, your wireless carrier may offer mobile video as well. When you visit the Web site, it walks you through the process of downloading mobile video services to your mobile phone.

Downloading TV and video

To access V CAST Mobile TV and videos on your phone, follow these steps:

1. Open the Get It Now menu.

You have two ways:

- On your V CAST phone, press the right navigation key to open the Get It Now menu.
- Use the dedicated Mobile TV media softkey on the external body of a specially designed V CAST mobile phone.

2. **Highlight Pictures and Video or Get PIX & FLIX on the menu, and then press the OK button.**
3. **When you're prompted to select V CAST On Demand or Get V CAST Video, select one and then select OK.**

The first time you open V CAST Video On Demand, you're asked to choose a daily or monthly access subscription. Choose a subscription plan, and then select OK. If you're asked to upgrade your V CAST software, follow the instructions on your phone's screen.

4. **Highlight a video that you want to download.**
5. **Select the Options softkey.**
6. **Select Save Video and then select OK.**



Some videos are available only to watch, not to download.

Finding saved clips on your phone

After downloading and saving video clips, you have two ways to access your video clips:

- ✓ If you have a V CAST mobile phone, you have a V CAST application built into your phone. You can access videos by using the My Videos (or My Clips) option within the V CAST application.
- ✓ You can also access videos outside the V CAST application. Follow these steps:
 1. *Launch the Get It Now option on the menu from your V CAST-enabled mobile phone.*
 2. *Select Picture & Video (or Get PIX & FLIX) from the menu.*
 3. *Select My Videos (or My FLIX) to view your download.*

Going Your Own Way (Off-Portal)

If you want to “go your own way” (for all you Fleetwood Mac fans), you can easily do it — but it might cost you some extra money because that type of service isn't included in the package you subscribe to from your wireless carrier.

Exploring the mobile entertainment world on your mobile phone is both fun and enlightening — and sometimes frustrating, especially when you're using a service or entering a site that's not made-for-mobile.

In this section, we guide you to just a few of the most interesting made-for-mobile sites that you can explore and take advantage of.



Because of the amount of wireless data needed to send any video, audio, or TV content streaming over the air to your mobile phone, wait until you have a flat-rate, unlimited, wireless data plan in place before trying any off-deck services.

Finding music (and more) on the mobile Internet

Using the entertainment offers that your mobile carrier provides is probably the easiest way to obtain music and ringtones on your mobile phone. However, the variety of songs and genres they offer is often limited, and most carriers don't have the same number of choices that, for example, iTunes has.

Now you have other options for buying music and ringtones for your mobile phone. You can search the Web for music to download to your mobile phone, and hundreds of sites offer music and ringtones.



Be careful in choosing files to download to your mobile phone. We encourage you to respect artists' copyrights: If music or a ringtone is offered for free, the artist's rights have most likely been violated.

You have several options for finding music for your mobile phone:

- **Sony Music:** Offers music from its list of Sony BMG artists, as shown in Figure 9-3. You can choose from thousands of songs in its store. Visit www.sonymusicmobile.com.

Figure 9-3:
Surely you
can find
some tunes
at Sony
musicbox!

musicbox
MOBILE DOWNLOADS BY SONY BMG

CONTRACT US | HELP

SEARCH

Welcome to Sony Music Box! You can use this site to preview all the latest and greatest tones and graphics from Sony BMG artists. See something you like? Get Sony Music Box on your phone and download all of this content directly to your handset! To access the portal on your phone, click the icon associated with your carrier below:

at&t CHOLULAR / AT&T | Sprint SPRINTPCS | T-Mobile T-MOBILE | verizonwireless VERIZON WIRELESS | Alltel ALLTEL

ADVERTISEMENT
Here is your chance to WIN a MacBook Air

Most Popular

The top tones for the week ending March 23!

name	artist	category	preview
Love In This Club	Usher featuring Young Jeezy	R&B & Hip Hop	▶
No Air duet with Chris Brown	Jordin Sparks featuring Chris Brown	Pop & Dance	▶
Who The F Is That?	Dolla featuring T-Pain & Tay Dizm	R&B & Hip Hop	▶
Love In This Club (Young Jeezy Verse)	Usher featuring Young Jeezy	R&B & Hip Hop	▶
Never Too Late	Three Days Grace	Rock & Alternative	▶
With You	Chris Brown	R&B & Hip Hop	▶
Bleeding Love	Leona Lewis	Pop & Dance	▶

Digital Audio | Polyphonic

More Offers >

✔ **MTV Mobile:** The MTV store (www.mtv.com/mobile) offers ringtones, wallpaper, videos, TV shows, and music that you can purchase and play on your mobile phone. Here's how it works:

1. To send a selection to your phone, go to the Web site and select a song or ringtone.
2. When a new window opens, click the Preview icon to listen to your selection.
3. If you like what you hear, choose your carrier, select a format, and enter your phone number, as shown in Figure 9-4.

You can now either purchase from an MTV Mobile plan (you must already be signed up) or purchase an individual tone.

4. After you choose an item, select the Send to Phone button.

✔ **Napster Mobile:** At Napster Mobile (www.napster.com/napster/mobile), you can download music directly to your phone. You can purchase single tracks and have the song you just downloaded sent directly to your computer. To fully use this service, you must have a subscription to one of the wireless carriers with a Napster contract.

✔ **iTunes:** You may have downloaded thousands of songs from iTunes, and now you want some of those songs on your mobile phone so that you don't have to carry both a phone and an iPod. Apple hasn't made it easy to transfer music files from iTunes to a mobile phone other than iPhone, but now you have a few options for transferring the music to your mobile phone. You can even download an open source system, ourTunes (<http://ourtones.sourceforge.net>), from the Web.

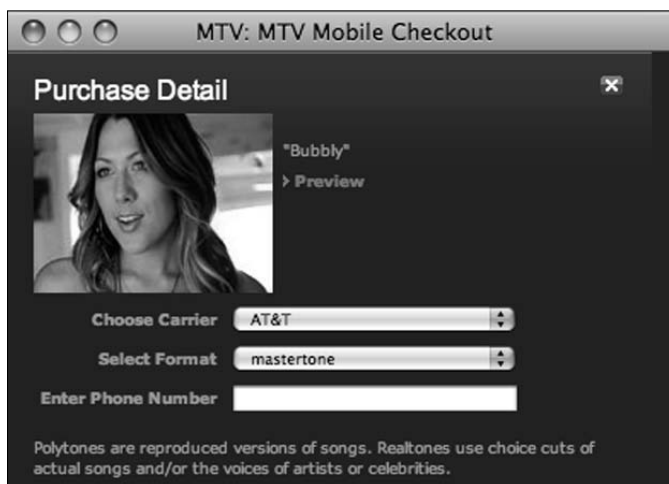


Figure 9-4:
The MTV
Mobile
checkout.



The steps required in order to purchase and download content are similar to those outlined for on-portal ringtones and wallpaper.

Exploring mobile games

If you like to play games but the games that your wireless carrier offers don't keep you challenged, thousands of other mobile games are out there for you to try out. Some of the hottest Internet and console game applications are now made-for-mobile.



Here are a few sites where you can shop around and download games to your mobile phone:

- ✓ **EA Mobile** is at www.eamobile.com.
- ✓ **gameloft**, shown in Figure 9-5, is at www.gameloft.com.
- ✓ **Jamster** has an excellent selection of mobile games at www.jamster.com.



The steps required to purchase and download content are similar to those outlined for on-portal ringtones and wallpaper.

The screenshot shows the Gameloft website interface. At the top, it says "Gameloft - Video Games for Mobile | Java Games - Microsoft Internet Explorer". The browser address bar shows "http://en.gameloft.ca/". The website header includes the Gameloft logo and the tagline "The #1 Mobile Games Publisher!". Navigation links include "Jobs", "My account", "Forum", "Contact", and "Français". A search bar is present with the text "Search for a game". Below the search bar, there are several game categories: "NEW", "Instant Fun", "Brain Training", "Action", "Sports", "3D", "Simulation", and "Sexy". A "PC Games" section is also visible, mentioning "Gameloft Games on your PC from 7.99 \$". The main content area features a large advertisement for "DEREK JETER PRO BASEBALL 2008" with a "BUY IT NOW" button. Below this is an advertisement for "ASSASSINS" with the text "Experience the incredible stealth and fighting abilities of an elite assassin!". A "GAME OF THE WEEK" section highlights "Grey's Anatomy The Mobile Game" with a "BUY IT NOW" button and a "DEMO" button. To the right, there is a "Hit Games" list with titles like "Brain Challenge Vol. 2: Stress Management", "Rayman® Flaving Rabbits", "MegaCity Empire: New York™", "Tennis Open 2007 Feat. Lleyton Hewitt", "Miami Nights: Singles in the City™", "Live Free Or Die Hard: The Mobile Game", "Midnight Pool™", "Sleak the Tank: the official mobile game", "Ghost Recon 2", and "Lumines Block Challenge". The bottom of the page has a "TOP GAMES" section and a "More Info" link.

Figure 9-5:
Play ball at
gameloft!

Checking out mobile TV and video



Mobile TV and video services are coming to a mobile phone near you, and quite soon. As the wireless carriers are offering these types of services on-portal, you may have heard of a few new off-portal entrants making this happen as well:

- ✓ **Media FLO TV service:** This site features live streaming mobile TV at its best. It's a simulcast service for entertainment, news, sports, and kids' television programming on a specially designed made-for-mobile TV network. The site streams 24 hours a day and has traditional broadcast-like programming, with popular TV shows and series from CBS Mobile, Comedy Central, ESPN Mobile TV, FOX Mobile, MTV, NBC2Go, NBC News2Go, and Nickelodeon — and many more in the pipeline. To access MediaFLO TV, you need a special handset and a service subscription. You also must understand that the service has very limited service area coverage (because it's a new network offering). Stay tuned to MediaFLO at <http://www.mediaflousa.com>.
- ✓ **YouTube Mobile:** Watch video clips, which is a fun way to kill some time. You can go live to YouTube Mobile directly from your mobile phone by entering the made-for-mobile URL <http://m.youtube.com> on your mobile browser. Also, go online from your computer to www.youtube.com/mobile to find out more about YouTube on the go. YouTube has some cool services available for you to tune in to (see Figure 9-6).

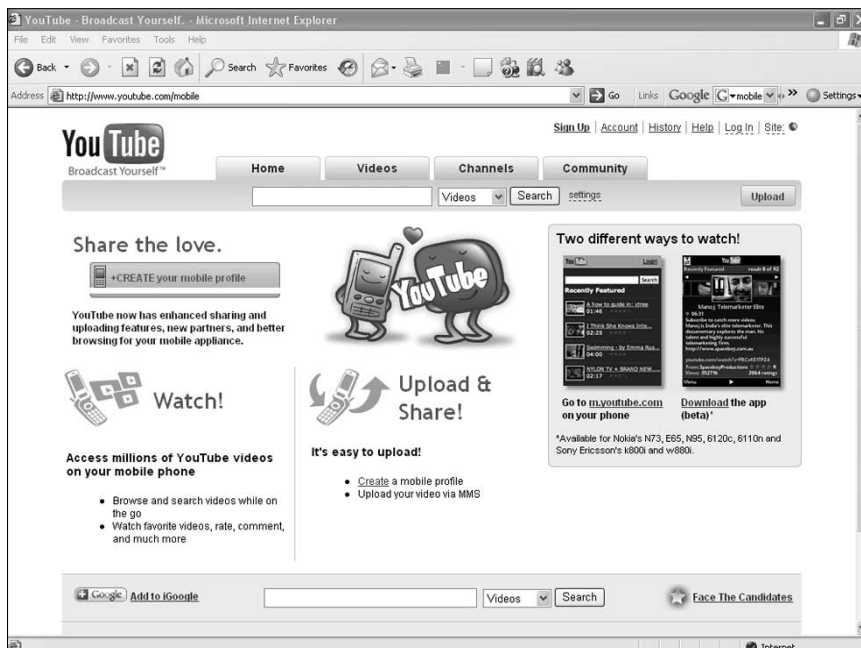


Figure 9-6:
It's video time at YouTube Mobile.

All games are platform dependent

The *platform* on a computer or phone is its underlying operating system software. The Sun Microsystems Java platform is the most common platform for traditional mobile phones. Most single-player games are created using Java. If you have a camera on your mobile phone, pretty well any mobile game created in Java works on your phone. A simple way to check to see if your mobile phone supports Java is to look through your phone manual or ask your wireless retailer. Mobile phone game companies also list the phones their games work on — so checking their Web sites is also very helpful.

For advanced mobile games, such as multi-player gaming, a more advanced phone is

required to run the game. The following smart-phone platforms are the most common for more advanced gaming applications: Nokia Series 60, Symbian OS, Windows Mobile, Palm OS, BlackBerry OS, and iPhone. Mobile phones cannot operate mobile games from different mobile operating system platforms. When you download mobile games or any other software application for your mobile phone, be sure to select the version made specifically for your device. If it isn't available, don't download a similar version; it probably won't work on your mobile phone and you'll still have to pay for it.

Chapter 10

Keep Me Posted: E-Mail and Instant Messaging Go Mobile

In This Chapter

- ▶ Exploring mobile e-mail service options beyond the BlackBerry
 - ▶ Finding and using mobile instant-messaging services
 - ▶ Participating in mobile social networking
-

When you want to contact your friends, family, or colleagues, sometimes the best method, of course, is to just call them. Many families and friends, however, are taking advantage of all the Internet has to offer, too, including e-mail, instant messaging, and even posting to blogs or social networking sites.

When you have access to the mobile Internet, you can access all these features from your mobile phone, and this chapter shows you how. You also find out about social networks designed just for mobile Internet users, such as Twitter.

Discover which options you have, how and where you can find them on the Net, what advantages they offer, and how you can best use them.

Discovering Mobile E-Mail Options

Today there are solutions with affordable e-mail. We show you how you no longer have to wait at home or at the office for the important e-mail from your boss. There are two types of e-mail:

- ✔ **Push:** In this “always-on” method, new e-mail is pushed instantly through the system to your e-mail account. Push is in many cases the preferred method because it tells you — just as your e-mail account on your computer does — when you have new e-mail. Research in Motion (RIM) first popularized push e-mail with its BlackBerry devices.

- ✓ **Pull:** You have to check your e-mail account from your Web browser on your mobile phone to retrieve new e-mail, similar to Web mail. Popular providers are Gmail and Yahoo! Mail.

If you're hooked on e-mail and need to move your inbox to your mobile phone, here's a list of services offered by major wireless carriers:

- ✓ **AT&T:** www.wireless.att.com/learn/messaging-internet/email/#mobile_email
- ✓ **Sprint:** www.nextel.com/en/services/email/mail.shtml
- ✓ **Verizon Wireless push e-mail for smartphones with Wireless Sync:** www.verizonwireless.com/b2c/splash/wirelessSync/wirelessync.jsp
- ✓ **Verizon Wireless mobile e-mail alert services:** http://products.vzw.com/index.aspx?id=messaging_email_learn

Each wireless carrier offers a different type of mobile e-mail solution in addition to a different way to deliver e-mail to your phone. We highly recommend that you talk with your local wireless carrier retailer or customer service representative for more information on its specific mobile e-mail offerings to find the best one suited to your budget and needs.



To use push mail without a BlackBerry, you need a smartphone or PDA, an account with a wireless carrier that delivers push e-mail, or an account with a third-party push e-mail software provider. Pull mail is a good option if you don't want or need to check e-mail all the time and you just want to check your e-mail a couple of times a day.

Getting Started with Always-On Push Mail

Ever since Research in Motion popularized the push technology in the late 1990s, a few innovative companies have been in a rush to deliver similar technology to the masses. But only in the past couple of years, unfortunately, have other providers been able to deliver similar technology on a variety of devices and across various platforms.

You can find several corporate push e-mail systems, such as Push, FlexMail, Chattermail, and Emanzio; a few well-functioning push e-mail utilities are also available for the general public, such as Emoze.



Before you download any third-party mail software, check with your wireless carrier. It might even have implemented technologies that can provide push e-mail or alerts from some of the major e-mail systems, business programs such as Microsoft Outlook and Lotus Notes, and personal services such as AOL, Yahoo! Mail, MSN Hotmail, Windows Live Mail, and Gmail by Google. Also, check for any additional costs you may be charged for mobile e-mail access and services.

The *Emoze* push e-mail system is available for Windows Mobile and Symbian Series 60 devices, such as from Nokia. When you download the free software to your device, you have two options:

- ✓ **Install the software directly to your mobile phone.** This approach makes Emoze work only for your Internet-based Gmail or Yahoo! Mail account. It's useful when you're away from a computer to check your e-mail. As with all mobile Internet services, you need to be careful about the amount of e-mail pushed to you because you may get charged for each one if you don't subscribe to a flat-rate data plan.
- ✓ **Install the software on your computer and on your phone.** This option is for corporate users and people running Microsoft Outlook for e-mail (a Mac version is in the works). You can set up the software so that your e-mail is pushed directly to your mobile phone as soon as the mail is received in Microsoft Outlook on your computer. To make this process work, you need to configure the appropriate Send/Receive schedule in Outlook.

The disadvantage of this option is that you need to leave your computer turned on with Outlook and Emoze running if you want to receive e-mail on your phone.

The following sections explain these installation processes and help you start using Emoze.

Installing Emoze directly to your mobile phone



Before you install Emoze on your mobile phone, you must have an e-mail account on a corporate Exchange server set up for WAP access, or an e-mail account with Google Gmail or Yahoo! Mail.

When you're ready, follow these steps:

1. **On your phone, go to <http://m.emoze.com> and download Emoze by clicking the Download Emoze Mobile Client link, shown in Figure 10-1.**

The program installs itself automatically on your mobile phone. The Emoze icon, which is round and green with a yellow triangle on a red background in the middle, appears in the application folder on your phone.



Figure 10-1:
The Emoze
download
page on the
mobile
phone.

2. To set up Emoze, go to the Messaging page on your phone or click the envelope key.
3. On the messaging page, click New Account.
4. When you're asked whether you want to synchronize with Outlook Exchange or use a POP3 or IMAP e-mail provider, select one and click Next.
5. Enter your name and e-mail address, and select the Automatic Setup check box. When the Finished indicator appears, click Next.
It takes a couple of seconds to automatically complete the process.
6. Type your username and password for your e-mail account, and click Next.
The Networks page opens.
7. Select one of the options and then click Next.
 - *The Internet:* If you're using Gmail or Yahoo! Mail, choose The Internet.
 - *Auto Config., WAP Network, Secure WAP Network, Work:* Choose one of these options if you're using Outlook over a corporate or private network.
8. Verify that the Incoming Server and Outgoing Server info is filled in correctly. Click Next.
9. Choose how many messages you want to store on your phone (All Messages, Today's Messages, or Last Three Days, for example) and how many bytes (characters) you initially want to have sent to you (Entire Message, Header Only, 500 bytes, 1000 bytes, or 5000 bytes). Click Next.

10. Choose how often you want e-mail pushed to you (every 15 minutes, every half-hour, every hour, once a day, or never). Click Next.

Use this option to control the number of bytes that are pushed to your phone. Note that connecting automatically may result in higher connection charges.

Installing Emoze on your computer

You can install Emoze on your computer by following these steps:

1. Go to www.emoze.com/en/products/index.html on your computer's browser and click the Products tab.
2. On the new page that appears, choose Personal Web Mail, assuming that you're using it for your personal Web mail account.

Other options are

- *Personal Home Mail (POP3)*
- *Small Business Solution*
- *Corporate Solutions*
- *Service Providers*

The Personal Home Mail (POP3) option limits which phone models you can use.

3. Working from the personal e-mail example, click the Get Emoze Now! link.

A new page opens and gives you these options:

- *Push My Office* is for people who have Microsoft Outlook or Lotus Notes. If you're using Microsoft Outlook, the installation process asks whether you have Outlook Web Access (OWA). OWA is available only on Microsoft Exchange Server, and if you use Yahoo! Mail, you aren't using OWA and you can click No to go to the next step. The Emoze software then automatically begins downloading to your computer. After the software is installed, it guides you through the setup process in a few easy steps.
- *Push My Gmail* opens a site where you can choose from a range of phone models. Choose your phone and click Submit. The site asks you about three options: PC Download, SMS Installation, and WAP Installation.

If you already installed the client software on your phone, click PC Download; the installation process begins. Make sure that you select the correct model before you download the software to your computer.

If you haven't installed Emoze on your mobile phone yet, click either SMS Installation or WAP Installation. If you click SMS Installation, the site asks for your country name and your mobile phone number. After entering that data, click Submit; you receive a message on your mobile phone that starts the downloading process. The WAP Installation is the same as we describe in the preceding section about installing Emoze on your mobile phone.

Sending and receiving e-mail with Emoze

After the setup process is complete, check out a few pointers to help you start using your e-mail on the go with Emoze:

- ✓ **View your e-mail messages:** Go to Messaging and click Emoze. This action opens your inbox, where you can view all your e-mail.
- ✓ **Send an e-mail message:** Click New, and the New Messaging page appears. Type in the To field the e-mail address of the person you want to send an e-mail to. If you already stored the address in your contact folder, just click the To field, and your contacts appear. Choose the one you want to send an e-mail to. Type a subject in the Subject field and then type the message. When you finish, click Send.

If you specified that Emoze should connect to the server every 15 minutes, you might not want to do any more. However, if you specified that Emoze should connect to the server once a day and you want to send the e-mail right away, go to Menu and click Send/Receive to send the e-mail right away.

- ✓ **Insert a picture:** Choose Menu⇨Insert⇨Picture. The Picture folder opens on your phone. Click on the picture you want to send, and click Send.
- ✓ **Delete a message:** Choose Menu⇨Delete.
- ✓ **Store a contact from e-mail:** Open the e-mail and choose Menu⇨Save to Contacts. The next time you send an e-mail to the contact, click the To field and select the person you want to send an e-mail to.



When you're connected to a network outside your wireless carrier and you're paying for roaming service, disconnect your push e-mail because it can become quite expensive to have it check for e-mail every 15 minutes. Choose Option⇨Exit. When you want to check your e-mail, just go to the Messaging site on your phone and click Emoze. Choose Menu⇨Send/Receive, and your phone retrieves the new e-mail.

Connecting with Pull E-Mail

Many e-mail systems can provide you with pull e-mail capability. They're basically Web mail programs, and the most common are AOL, Gmail, Yahoo! Mail, and Hotmail. All of them work well on your mobile phone.

You access these programs from the standard Web browser on your mobile phone. If you're using Web mail from your computer, these services function more or less as you're accustomed to on your computer. The only differences are the smaller screen and some lack of functionality, such as not being able to see 50 messages at a time, not being able to store e-mail in various dedicated folders, and not always being able to view attachments. Otherwise, you can easily navigate and send and view e-mail on your mobile phone.



The mobile Web sites for the most popular e-mail services are

- ✓ **AOL Mail:** m.webmail.aol.com
- ✓ **Google Gmail:** m.gmail.com
- ✓ **Windows Live Mail (and MSN Hotmail):** mobile.live.com
- ✓ **Yahoo! Mail:** m.yahoo.com/mail

AOL, Google, Yahoo!, and Microsoft also provide downloadable e-mail clients for smartphone and PDA users. After it's activated on your smartphone, for example, the e-mail client provides options to pull e-mail to your mobile phone at various times during the day. Turn off these settings if you don't have a flat-rate wireless data plan or when you're roaming. Go online to the mobile e-mail sites for each service provider for more details.

Yahoo! oneConnect: A one-stop mobile portal

Big service providers such as Yahoo! are now customizing their mail systems for mobile phones. If you're using Yahoo! Mail on your computer, you can download Yahoo! Go on your mobile phone. The Yahoo! Go bundle of applications is useful while you're on the run. It includes applications such as photos, sports, news, weather, finance, search, maps, and a few others

Yahoo! is also adding Yahoo! oneConnect, a mobile communications portal, to its offerings.

The simple oneConnect mobile Internet service offers lots of convenience by letting you manage e-mailing, instant messaging, text messaging, and social networking in one place. You need only one contact list, which makes it easier to find friends and send messages in a variety of formats. In addition, you can view your friends' status updates from Facebook or any of the other major social networking services.

Discovering Mobile Instant Messaging

Instant messaging (IM), which many people have become used to — or almost addicted to — on the computer, offers an exciting way of communicating with friends, families, or colleagues. The advantage of IM is that you can see which people in your private database are available and want to talk, and you can communicate with several friends or colleagues at the same time.

IM hasn't been available on the mobile phone until recently, but most mobile carriers now offer mobile instant messaging. (See "Messaging with your network instant messaging client," later in this chapter.) If your carrier doesn't offer IM or doesn't offer the service you want to use, you can always use a third-party service such as Yahoo! Messenger, Google Talk, or Mundu (at www.mundu.com). See "Opting for a third-party instant messaging service," later in this chapter.

Mobile IM is the next step in the evolution of text messaging, and it connects the mobile phone and Internet worlds by bringing the convenience and immediacy of mobility to IM services. Mobile instant messaging could, over the next few years, become as popular as text messaging is now.

Having IM on your mobile device means that you're no longer restricted to the fixed Internet world and can connect to the mobile community of almost 3 billion people across all networks and geographic boundaries. And, you can still see in real time the status of who is available.

With all these advantages, how do you get started with instant messaging? You can start at any of these places:



- ✓ **Your service provider's (nonmobile) Web site:** The first thing we advise you to do is to go to the Web site of your current wireless carrier to check out whether it offers mobile instant messaging. If it does, you can easily set it up from your computer.
- ✓ **Your mobile phone:** If you don't have a computer or access to a computer from school, a public library, or an Internet café, don't worry: We tell you how to set up a mobile instant messaging account directly from your mobile phone.
- ✓ **Customer service:** You can, of course, call your wireless carrier's help line and have it set up the mobile IM account and service — but you can fairly easily set it up yourself.

Before using your mobile phone for instant messaging, determine whether you have a subscription for accessing the mobile Internet through your wireless carrier. Check your mobile plan for details or call your provider.

Saying “c-ya” to text messaging

Text messaging, or SMS (Short Message Service), represents old technology. Although useful and quite popular, it’s more like a primitive form of computer-based instant messaging. Text messaging has two main problems:

Limited characters: You have only 160 characters (or fewer) to write your message. For a lot of people — particularly young people — this limitation is acceptable. They have learned to deliver their messages tersely and in sometimes cryptic, abbreviated forms. On some services you can now go beyond 160 characters, but you then have to pay extra to break the limit. We must admit that it’s also cumbersome to write

long messages on the small, non-QWERTY keyboards that most mobile phone models have.

Limited capabilities: Text messaging lacks capabilities that mobile instant messaging has, such as or confirmation about others’ availability (the same idea as buddy lists showing who’s online). Because text messaging is transaction based — rather than session based — a text message doesn’t give the sender confidence that the receiver has gotten the messages. In mobile instant messaging, community members know other members’ availability, allowing for real-time text messaging and communication.



Some extra costs might occur using the mobile instant-messaging service. Service providers often price each message you send as a text message. But if you have a conversation with several friends over an evening, it can easily add up to many messages and a very high billing amount if you don’t have the right wireless data plan.

Messaging with your network instant messaging client

The major mobile-network service providers in the United States — Verizon, AT&T, T-Mobile, and Sprint — all offer instant messaging services from the well-known and popular instant messaging providers, such as AOL Instant Messenger (AIM), MSN Windows Live Messenger, and Yahoo! Messenger.

If you don’t have an account with Yahoo! oneConnect or another network service provider, the information we offer in the following sections can help you get started using IM with whichever network service provider you use.

Verizon Wireless is the example we use of a mobile network service provider that offers you mobile instant messaging. It’s set up so that you can easily use the instant messaging account you’re already using from your computer — whether it’s AOL Instant Messenger, MSN Windows Live Messenger, or Yahoo! Messenger.



Signing up with a mobile instant-messaging account with Verizon or any other mobile network service providers we mention gives you some significant advantages:

- ✓ You don't need to abandon your existing IM account to participate in IM from your mobile phone.
- ✓ You can transfer all your contacts from your existing IM account to the mobile phone.
- ✓ You can synchronize messages from your computer to your mobile phone and vice versa so that you're always up-to-date with your chat.
- ✓ Sticking to one of the plans your wireless carrier offers most likely costs you less because the service is included in the data package that you already have signed up for, or your carrier may have a special package for the use of instant messaging.

Setting up instant messaging with your network provider

The easiest way to get going with mobile instant messaging is to visit your wireless carrier's Web site from your computer.

To sign up for a mobile IM account, follow these steps:

1. Go to your wireless carrier's Web site.

In this case, we chose Verizon Wireless (www.vzw.com), but all the other network service providers have similar instructions.

2. Click the Messaging tab on the home page, and after that, click the Mobile IM tab.

You see the Mobile IM Overview page.

3. In the Get Started section, click the Create an IM Account link.

4. When the new page opens, choose your IM service — AOL Instant Messenger, Windows Live Messenger, or Yahoo! Messenger.

If you don't already have an IM service, pick one and sign up.

Now you're ready to start instant messaging.

Sending and receiving instant messages

After downloading the instant messaging software, you can log in to instant messaging on your phone and begin messaging.

To log in, follow these steps:

- 1. Select the MSN icon, for example, in the middle of the screen. Then select OK to log in.**

- 2. Sign in with your username and password by using the keypad.**
- 3. Select Sign On and click OK.**

After you log in, your contact list appears. Now you're ready to use instant messaging.

To add a contact to your list, follow these steps:

- 1. Select the menu key in the lower-left corner. Click OK.**
- 2. Select List Actions from the pop-up menu. Click OK.**
- 3. Select Add Contact from the next menu. Click OK.**
- 4. Use the keypad to enter the contact's entire e-mail address.**
- 5. Select Send and click OK.**

When you want to send an instant message, follow these steps:

- 1. Select a contact from your list and click OK. Select Send and click OK.**
 - 2. Enter your message in the text window by using the keypad. Select Send and click OK.**
 - 3. Respond to your contact by entering more text from the keypad.**
- The Write button changes back to Send when your new text is entered.
- 4. Click OK when you're done.**

Repeat these steps for as long as your conversation lasts.

You can also *broadcast* an IM message (you write one message and send it to as many as five people at one time). Here are the steps to follow:

- 1. Select the menu key in the lower-left corner. Click OK.**
- 2. Select Send IM To from the pop-up menu. Click OK.**
- 3. Select Broadcast from the next menu. Click OK.**
- 4. Select as many as five buddies to receive the broadcast message. Select each name by highlighting it and clicking OK. When you're finished, click Next and click OK.**
- 5. Enter the message you want to broadcast by using the keypad. When you're finished, click Send and click OK.**

Your broadcast message is sent.

Opting for a third-party instant messaging service

If you want to use your own major instant-messaging service provider or the one your friends are using, you can do it with no problem. Interoperability is another reason that you might want a third-party IM service for your phone. Services such as Yahoo! don't tie in to whichever service your friends and family use, and it can be hard (practically impossible, really) for everyone you know to agree on which service to use. Some third-party clients offer an answer to this problem: An interoperable client works with almost any of the services.



Third-party IM clients have one major problem: The price you pay for a message is often the same as for a regular text message — around 15 cents for each message you send, unless messaging is included as a bundle with your wireless data plan.

In this section, we give you an example of how you can set up your Yahoo! instant messenger service outside the service your wireless carrier offers. Later sections also introduce you to Mundu, an interoperable client for mobile phones.

If your provider doesn't offer Yahoo! Messenger, you can simply browse to it from your phone's Web browser:

1. Type <http://m.yahoo.com> in your mobile phone's Web browser address line and choose Messenger, as shown in Figure 10-2.



Figure 10-2: The Yahoo! Messenger made-for-mobile front page.

2. Enter your Yahoo! ID and password (see Figure 10-3).

If you don't have a Yahoo! ID yet, you can establish one from your computer. Visit <http://mobile.yahoo.com/messenger> and then follow the instructions.



Figure 10-3:
Yahoo! sign-
in page.

3. Click Sign In.

You enter the Yahoo! Messenger site.

4. Start instant messaging.

If you don't have any friends on your buddy list, click Add Friend. Choose a friend that you know has a Yahoo! account and type that person's name. It appears on the buddy list with the indication "I'm Mobile" if the person is available.

Choosing an interoperable instant messaging client

If your friends and colleagues use a variety of different instant-messaging service providers and you want to chat with all of them while you're on the go, solutions are available. Mundu, from Geodesic Information Systems, in Mumbai, India, has the brilliant solution Mundu Interoperable Messenger (or just Mundu IM) for mobile devices. Users can chat with a variety of people on the most popular IM services at the same time. You can download Mundu IM from <http://messenger.mundu.com/mobile> (see Figure 10-4).



Unlike on other mobile instant messengers, where users chat on their own services, Mundu IM users can chat and conference with their contacts from MSN, Yahoo!, Google Talk, and AIM in a single chat session. Mundu is an incredible time- and money-saver when you're using limited space and bandwidth, because you don't have to think about who is on which network.

Figure 10-4:
Mundu
download
page on a
mobile
phone.



Mundu IM version 4 costs \$11 for lifetime use and now runs on Windows Mobile 5.0, Palm OS 5.2, and selected models of SonyEricsson and BlackBerry handsets. In the near future it will support a wider range of Symbian Series 60 devices, such as Nokia phones.

Installing Mundu IM

You have several ways to install Mundu IM on your phone. One method is to download the product to your computer and, using a data cable or Bluetooth device, transfer the file to your mobile phone.

A second method (perhaps the best one) is to download the product by using the Web browser on your mobile phone. Go to <http://messenger.mundu.com/mobile> and follow the installation steps on your phone. Mundu offers a five-day free trial for new subscribers.

The Mundu IM takes up approximately 350K on your phone after it's installed. The various platforms that Mundu IM supports have different download procedures, and you have to follow the specific steps for each one.

Exploring Mundu's features

You can do a lot of fun stuff with Mundu IM. Here are some of the key areas where you can try:

- ✓ **Multiple message services:** Mundu IM supports six IM services: MSN, Yahoo!, AIM, ICQ, Google Talk, and Jabber.
- ✓ **Phone calls:** You can make calls using Mundu IM during an active chat session.

- ✔ **Conferencing:** During a conference session, you can invite as many as ten contacts on different IM services to conference into a single chat window.
- ✔ **File transfers:** You can transfer documents, photos, audio recordings, or other media files from your local file or media folder on your mobile device and share them with your buddies on any of the IM services that Munda supports.

Exploring other interoperable instant messaging clients

In addition to Munda IM, a range of other mobile instant messaging services is available for you to explore. We list a few other sites you can investigate to see whether one of them is the mobile IM service you prefer to use.

eBuddy Mobile is a Web-based mobile IM application that works with AIM, MSN, Yahoo!, and Google Talk on your mobile phone without your having to install any program or Java applet. You can find it on <http://m.ebuddy.com>.

BeeJive is the JiveTalk instant-messaging service. Using your existing data plan, you can simultaneously log in to the major instant-messaging accounts, such as AIM, MSN, Yahoo!, Google Talk, ICQ, Jabber, and MySpace IM. JiveTalk currently supports the BlackBerry and the iPhone. A version for Windows Mobile 6 should be around the corner. You can check it out at <http://beejive.com>.

The application for BlackBerry costs \$19.95, and you can download it at www.beejive.com/download. The application for iPhone

or iPod Touch is a free beta version (at the time this book was written), and you can find it at <http://iphone.beejive.com>.

YehBA* Mobile Instant Messenger is part of the YehBA* Entertainment Hub, which includes a message center, a mobile phone hotspot (Bluezones), and iconized services. Its mobile IM service is based on open standard architecture that supports other public and private IM platforms. You can explore its services by visiting www.yehba.com.

On **Agile Mobile**, you can send instant, photo, voice, and video messages to the most common mobile IM providers, such as AIM, MSN, Yahoo!, ICQ, and Google Talk. Agile Mobile offers a free trial, but a permanent license costs a one-time fee of \$44.95. You can explore the services by going to www.agilemobile.com.

At the free **Trutap** service (<http://m.trutap.com>), mobile users can manage instant messaging, group messaging, photo blogging, and social networking — all from their mobile phones.

Chapter 11

Let's Make a Mobile Deal: Shopping and Coupons

In This Chapter

- ▶ Comparison shopping by mobile phone
 - ▶ Coupons on the mobile Web
 - ▶ Mobile shopping directory and malls
-

If you have a computer and a connection to the Internet, you probably have bought a book from Amazon, placed a bid on an item at eBay, or downloaded music to your Apple iPod from iTunes. Shopping online has grown like crazy in the past five years, since people installed high-speed Internet connections and started feeling more secure about shopping from their computers — not to mention the convenience and savings! Now you can have the same experience with your mobile phone. Many Internet shopping sites have made-for-mobile services and Web sites developed specifically for mobile shopping.

When you shop on the mobile Internet, you can, for example,

- ✔ Order the latest Tom Clancy novel and have it shipped to your home while you're standing in line at the train station.
- ✔ Visit your local café, order a latte, and enjoy it while sitting in the park and following a bidding war on eBay.
- ✔ Book a flight to Florida just as a snowstorm hits the ski slopes.
- ✔ Compare prices on the latest 52-inch LCD HDTV to see whether you should park at the mall or just head over to the electronics store. Or, even better, just buy your new TV from your mobile phone, have it sent to your home, and avoid all the traffic.

This chapter helps you identify, find, and use the shopping tools available to you on your mobile Internet-enabled phone: comparison sites, money-saving coupons, and shopping portals.

The ongoing trend of mobile shopping

Data from the Jupiter Research Internet shopping model shows that the number of U.S. online users grew from 124.7 million, or 44 percent of the population, in 2000, to 210.8 million, or 71 percent of the population, in 2006 — a staggering increase of 69 percent growth. Additionally, in the same period, U.S. online retail revenue (excluding travel, prescription drugs, and automotive) grew from \$24.1 billion in 2000 to \$130.3 billion in 2006, or more than five times as much shopping happening on the Internet. In other words, U.S. customers have truly embraced online shopping and feel quite comfortable using their computers to shop on the Internet.

Mobile Internet shopping is next in line for consumers to explore. According to a recent study by the market research experts at Gartner Group, consumers are prone to shop around rather than buy from their mobile phones. Interestingly, product price comparisons and store searches were the two mobile Internet shopping services most often used by mobile phone users in the study. Mobile shopping is expected to grow exponentially over the next couple of years. The high growth forecast is based on the fact that there are now more mobile phone users than computer users.

Checking Prices Before Buying

Shopping with your mobile phone is much different from shopping from a computer: Rather than spend time finding product information, you want to spend it uncovering specific promotions or prices to use to negotiate the best price.

You've had this experience: You find a great deal on a 22-inch computer LCD monitor at your local electronics store and then wonder whether you should buy it or check other stores. But you don't know whether the time spent driving to the mall will get you a better deal.

You can eliminate your indecision with your mobile phone. Do your comparison shopping and decide whether you should start bargaining with the store for a lower price (because you see that its competitor has the same product for a lower price) or head to another store to get the same monitor for a lower price.

In the following sections, we discuss two comparison sites: Frucall and mShopper.

Frucall

Frucall (a combination of *frugal* and *call*) is a fast and efficient way to perform product searches and compare prices while you're in a store. You can use Frucall services in one of three ways from your mobile phone:

- ✓ Over the mobile Internet
- ✓ Using text messaging services
- ✓ Making a traditional phone call

In this section, we describe how to use Frucall with the mobile Internet.

If you have a mobile Internet-enabled phone and want to check prices on a product, you can search by bar code, brand, make, or model. Follow these simple steps to enable Frucall services:

1. **In the URL box in the Web browser on your phone, type `http://frucall.com/m`.**

The Frucall mobile site opens, showing a number of choices, as shown in Figure 11-1.



Figure 11-1:
Save your dollars with Frucall search.

2. **Choose the item you want to search for and type your search criteria:**

- *Product search by brand/make:* If you know only the product name, you can type it into the Product field — for example, **Nikon D40X**.
- *Product search by bar code:* If you know the 12-digit universal product code (UPC), the most common type of bar code, type it into the Product field — for example, to find Molly Johnson's CD *messin' around*, type **602517003040**.

The *ISBN* is the 10- or 13-digit number that uniquely identifies a book. (This book's ISBN, for example, is 9780470239537.) If the book has a UPC bar code, the number at the bottom of the bar code is the same as the 13-digit ISBN.

3. Click the search results; a list of prices, stores, and merchant ratings appears.

For example, the lowest price for the Nikon D40X is \$420.00; it's sold by Camera Addict and has a 4.01 merchant rating (out of 5.0). (See Figure 11-2.) The highest price is \$799.99, sold by Sixth Avenue Electronics, with a 5.0 merchant rating. In other words, the same product has a \$379.99 price difference — or almost half the price between the cheapest and most expensive prices. (We completed this price test in January 2008; you may see a much different price by the time you read this chapter.)



Prices alone don't tell the whole story. For example, for the higher price of a digital camera, you might also receive extra accessories. Be sure to click the store name to find out all the details before making a buying decision.

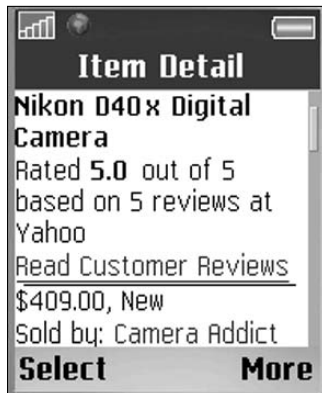


Figure 11-2:
Searching
for a digital
camera.

mShopper

mShopper is similar to Frucall and is easy to use. Follow these steps to comparison shop on mShopper:

1. Open your mobile phone browser and go to the made-for-mobile site at www.mshopper.net.

The front page appears with the various options you have with mShopper, as shown in Figure 11-3.

You have these options:

- *PriceIt:* Search for a product by brand or make and model and style. For these steps, we choose this option.
- *BrowseIt:* Search for a product by category and/or merchant.

- *Hot Deals*: Find specific deals by the vendors associated with mShopper.
- *Get First Dibs*: Receive a text message for deals that you have notified mShopper that you have interest in.



Figure 11-3:
mShopper helps you find the best deals going.

2. **To search for a price by brand or make, enter the manufacturer. Go to the Model or Style field and enter the model number. Click Next.**

A list of various models appears.

3. **Click the model you're interested in.**

Now you have a choice of looking at more details or getting a price.

4. **To get the price, click Price It.**

A new screen opens with the best price.

5. **Sign up for the service.**

Before you can buy from mShopper, you have to sign up for its services.

Sign-up for the service is only necessary if you buy products through mShopper. When signing up, you have to specify your preferred shipping address and credit card information and choose a PIN number.

6. **To buy your product from mShopper, click Buy It Now! and type your 10-digit phone number. Then click Next.**

You go to the pricing page, which also gives you the shipping fees and the total costs.

7. **Follow the few extra steps through the buying process and you're done.**



Consumer Reports ShopSmart

Consumer Reports has developed ShopSmart Mobile for mobile phone users. ShopSmart Mobile provides readers with unbiased test results and up-to-date online and in-store prices. Get expert product and service ratings sent directly to your mobile phone. ShopSmart Mobile is one way to compare quality and prices on various products from toasters to TVs to treadmills, as shown in the following figure.

ShopSmart Mobile is currently available from Verizon, AT&T, Sprint, Alltel, and US Cellular.

To find ShopSmart Mobile, visit www.consumerreports.org/cro/customer-service/consumer-reports-shopsmart on your computer and take the tour.



Saving Your Money with Mobile Coupons

Coupons have been around for centuries in some form or another: You receive coupons in the mail, you see coupons in local newspapers, and you may even find them online. But coupons are hard to keep track of. You have to rip them out of the paper or print them, and then store them and remember to take them with you. With the new mobile Internet services coming to market, you don't have to remember to bring your coupons with you because they're right on your phone.

Cellfire has amazing offers from food to entertainment to retail shopping and more. At Cellfire, you're only a few key taps away from finding convenient savings on the products you want to buy. See Figure 11-4.

To access Cellfire, visit www.cellfire.com on your computer or enter <http://cellfire.com> into your mobile Web browser to directly access the made-for-mobile site.

To get coupons directly to your phone using Cellfire, follow these steps:

1. Click **Get Cellfire Now** and download the application to your phone by clicking **Agree and Download**.

2. Go to your application folder and click the Cellfire icon.

Cellfire has stored a range of coupons, from video rentals to flowers, on your phone. Click the wanted vendor — such as Hollywood Video, if you want to rent a video.

3. When you're at the store, select the coupon you want to use and click OK. Review the details of the coupon and click Use Now.

A coupon code shows up on your screen.

4. Show the coupon code to the cashier and click Done when the cashier types the code.

Figure 11-4:
Rent a video
using
Cellfire.

Social shopping: A new trend

When you participate in *social shopping*, or Shopping 2.0, you receive shopping advice from your trusted friends online. As more and more people shop online, this phenomenon develops quite naturally from the old style of friends meeting over a cup of coffee to discuss the shopping experience. A range of sites is available, such as Kaboodle, MyItThings, ProductWiki, ShopStyle, and Zebo.

A few social shopping sites have found their way to the mobile Internet. At Wishpot Mobile Services (www.wishspot.com), users can query to find the best product prices and

reviews. A user can send to a specified phone number (the text messaging short code 699474) a text message containing a UPC code or an ISBN number or product name (or related keywords) and then receive a response that includes information about the product, including its price and reviews.

The first time a user sends this type of text message to the Wishpot service, she receives an extra text message that includes information about a temporary account created on the site. All messages sent or received by the user are subject to standard text messaging rates.

Finding Mobile Shopping Sites

Just like on the Internet, thousands upon thousands of made-for-mobile storefronts exist, for purchasing products ranging from mobile content such as ringtones to tickets for the next Toronto Blue Jays game to the plane tickets to get to the stadium. It's all on your mobile phone and available on the mobile Internet.

In the following sections, we discuss two of these sites: AOL Shopping and mPoria.

AOL Shopping

AOL has its own shopping site for mobile phones: AOL Shopping. You can easily access AOL Shopping on your mobile phone. Follow these steps:

1. **Access AOL Shopping by entering <http://wap.aol.com/shopping> in the Web browser on your mobile phone.**
2. **Enter the product name or product model number in the search box. Click Search.**

Your mobile phone displays a list of products, prices, and ratings, as shown in Figure 11-5.

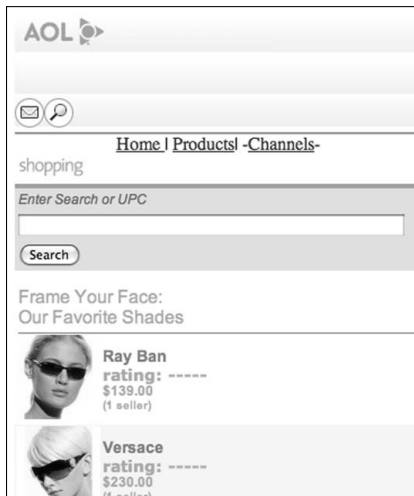


Figure 11-5:
AOL
Shopping on
your mobile
phone.

Virtual Mobile Shopping Malls, by mPoria

The new company mPoria features a slew of product and service companies as part of its virtual mobile shopping mall. You can choose new Moosejaw clothes, buy a new golf club from Golf Outlets USA, or even grab an external hard drive for your computer — all from your mobile phone. Enter **http://mporia.mobi** on your mobile browser and get ready to shop 'til you drop (see Figure 11-6).



Figure 11-6:
The mPoria
mall.

Other shopping sites to try

This section lists a few made-for-mobile Web sites to enhance your mobile shopping experience. Three of the listed sites are shown in Figure 11-7.



- ✓ **American Airlines:** <http://aa.com>
- ✓ **Amtrak:** <http://amtrak.mobi>
- ✓ **CoverGirl:** <http://wap.covergirl.com>
- ✓ **edmunds2go:** <http://pda.edmunds.com>
- ✓ **Fandango:** <http://mobile.fandango.com>
- ✓ **Hilton Hotels:** <http://hilton.mobi>
- ✓ **Major League Baseball (MLB):** <http://wap.mlb.com>
- ✓ **Starbucks Store Locator:** <http://mobile.starbucks.com>
- ✓ **Xbox:** <http://xbox.mobi>



Figure 11-7: Fandango (top), MLB (bottom left), and Starbucks (bottom right) all have mobile sites.

Chapter 12

Mobile Access to Your Money

In This Chapter

- ▶ Performing banking tasks on your mobile phone
 - ▶ Trading stocks on the mobile Internet
 - ▶ Making payments by using your mobile phone
-

Most financial service providers (in a similar manner to computer Internet services) are now looking for ways to provide consumers with ways to use new technologies to add more “self-service” access to their accounts.

In this chapter, we show you how to get started in mobile banking and mobile trading and in making mobile payments from your mobile phone. Now, on the mobile Internet, you can check account balances, transfer funds, pay bills, make trades, and more.

Mobile Banking

Imagine having an ATM in your pocket or purse: It would be kind of cool, but bulky and quite heavy. Well, the ATM for your pocket or purse *has* arrived — in the shape of your mobile phone. The phone can’t spit out money (at least not yet), but it can make your life easier by providing access to your bank accounts whenever you need it most — usually while you’re heading to the mall or standing in line to make a big purchase or driving on a cross-country family trip. Checking balances, transferring funds, and making payments has never been more convenient.

Most major banks worldwide have made-for-mobile banking services and Web sites offering simple services with similar functions to ATMs and Internet banking Web sites. Here’s a list of the most common mobile banking tasks:

- ✓ Check account balances.
- ✓ View account activity and history.
- ✓ Transfer funds between eligible accounts.

- ✓ Pay bills.
- ✓ Find an ATM or branch location.

With mobile banking, you can whip out your mobile phone and go to your bank's made-for-mobile Web site and — poof! — like magic, your balance appears in front of your eyes. With a few clicks on your mobile phone, you can transfer funds from your savings account to your credit card account, even as you stand in a checkout line. That is *cool!*

Signing up for an account

To be able to do your mobile banking, you must have an account at a bank that offers mobile banking. You have two choices:

- ✓ **An account at your existing bank:** Visit your bank's Internet Web site or call to find out whether it offers mobile banking services. If it does, find out how to get signed up, either in person at the bank or online. You may have to sign up for Internet or telephone banking services first in order to receive mobile service.
- ✓ **An account at a new bank:** If your bank doesn't have mobile banking, set up an account with a bank that offers that type of service. Here's a list of a few banks that offer mobile banking:
 - *Bank of America:* mobilebanking.bankofamerica.com
 - *Citibank:* www.citibank.com/domain/citimobile.htm
 - *SunTrust:* www.suntrust.com/mobilebanking
 - *Wachovia:* www.wachovia.com/mobilebanking
 - *Wells Fargo:* www.wellsfargo.com/mobile



You may not want to move all your existing accounts to a new bank just for the convenience of mobile banking, but before making that decision, inquire about any benefits a new bank can offer you. You just may find that switching is a good idea.

Keeping your accounts private

Mobile banking sounds cool, but how safe is it? How do you ensure that no one swipes your banking information? Or, what happens if you lose your phone and someone else tries to enter your bank account? All these questions are good ones, and in this section we give you some answers.

Mobile banking is safer than you might think. There have been, compared to Internet banking, few reports of mobile banking fraud. Here's why:

- ✔ **Your mobile phone browser limits what you can store on your mobile phone.** You can't keep much information on it, and if you lose your phone, no one can get to your information.
- ✔ **You must enter a username and a password or PIN number every time you access your mobile account.** Unlike an Internet browser that "helpfully" remembers your username and password, which anyone can get to, mobile banking sites have an added layer of security.
- ✔ **All information sent between the mobile phone and the bank has 128-bit encryption (the most secure kind) to prevent anyone from snooping on it.** As with any online transaction, encryption protects the information transferred over the mobile Internet to keep all your transactions away from unwanted eyes viewing any part of it.

If you feel secure about banking online from your computer over the Internet, mobile banking should make you feel right at home (so to speak). For more information on mobile-banking security, visit your bank's Internet site or ask your teller about it the next time you visit your local branch.

Getting started

You can get started quite easily after you register for your bank's made-for-mobile services. Most major banks make their services available on wireless-carrier mobile portals and also off-portal (as separate Web sites) so that you have access from your phone at all times. Check with your wireless carrier and with your bank to find the best way to access its mobile-banking services. (Your bank may also have guides and online resources to help you find its mobile banking services on your phone.)

Mobile Trading

Time is money, especially in the area of finding stock quotes and trading in the stock market. If you have stocks or shares in a publicly traded company and the symbols NYSE and NASDAQ mean something to you, this section is for you.

Whether you call it mobile trading, mobile stock trading, or mobile brokerage services, we call them all *mobile trading* in this chapter. Mobile trading was one of the first made-for-mobile consumer applications that made good sense (or cents) for everyone involved. It started in the 1990s as a service that sent simple stock quote alerts and notifications to alphanumeric pagers and grew

to become a full-blown, two-way service that sends stock quote alerts and updates with immediate stock trading from wireless Internet PDAs and two-way pagers.

Stock trading companies and financial services providers such as Charles Schwab, TD Ameritrade, and E*Trade have been jumping through hoops to help their customers obtain instant access to stock market information in order to better service this time-sensitive, money-sensitive marketplace. Timing *is* everything in the stock market! And, there's no better mechanism to deliver time- and money-sensitive services than the mobile Internet.

Text-messaging my banker is better than any American Idol

Mobile browsing isn't the only way to keep your bank information updated while you're on the go. Text messaging (or SMS) banking services have been around since the 1990s. Almost all banks that offer made-for-mobile Web site banking services have text messaging services; some banks that don't yet have mobile browsing sites already have SMS banking services.

If you don't have mobile Web browsing capabilities or just don't want to launch your browser

while standing in line at the store, you can get access to your account balances with a simple text messaging note sent to your bank. Chase Mobile (<http://chase.com/mobile>) is an excellent example of how SMS banking services can help you out anywhere and at any time on your mobile phone. Call your bank or go online to find out which mobile banking services it has.

CHASE | Chase.com | Find ATM | Branches | Contact Us

Chase Mobile | How It Works | Demo | Security | FAQ

Text your account. It texts you back.

Chase Mobile
Personal checking, savings and credit card customers have 24-hour access to new balances, transaction history, credit card due date and amount without having to log on.

Fast:
Get access to your accounts, online or second anywhere your cell phone has service.

Secure:
At Chase, we use multiple safeguard technologies to keep your information secure.

Free:
There's no charge from Chase, but standard text messaging and other rates from your wireless provider still apply.

Try Chase Mobile

Chase Mobile Resources:

- ▶ Chase Mobile Help Line: 1-877-248-1672
7 AM to 9 PM, local time, 7 days a week
- ▶ Contact
- ▶ Comments
- ▶ Device and Carrier Info

Starting out with mobile trading services

To receive mobile trading services, you need an account with an industry-accredited financial services provider that provides stock market trading, such as Charles Schwab, TD Ameritrade, or E*Trade.

Some banks also offer mobile trading services in addition to mobile banking services. To obtain access to mobile trading provided by your financial services provider, you may have to sign up for its Internet or telephone trading services. Check with your vendor directly to determine which services it offers and to find out what you must do to sign up for mobile trading.



The made-for-mobile Web sites at the following companies provide mobile trading services; to access one, open your mobile phone browser and enter its made-for-mobile Web site address:

- ✓ **Charles Schwab:** <http://pb.schwab.com> (shown in Figure 12-1)
- ✓ **E-Trade:** <http://wireless.etrade.com> or <http://etrade.mobi>
- ✓ **TD Ameritrade:** www.amtdw.com/



Only industry accredited and federally licensed financial services providers can legally offer stock trading transactions on your personal accounts.



Figure 12-1:
Charles Schwab, ready to trade.

Receiving stock quotes directly on your phone

In addition to receiving stock market info from your mobile trading service, you can get stock quote information from news and information providers such as Bloomberg, BusinessWeek, CNN, and thousands of other information portal Web sites (and mobile Web sites). Go online from your computer to your preferred information sources and look for their mobile or wireless offerings.



Examples of made-for-mobile Web sites that feature stock market information are shown in this list:

- ✓ **BusinessWeek:** <http://businessweek.mobi>
- ✓ **CNNMoney:** <http://cnnmoney.mobi> (shown in Figure 12-2)
- ✓ **Quote.com:** <http://quote.mobi>

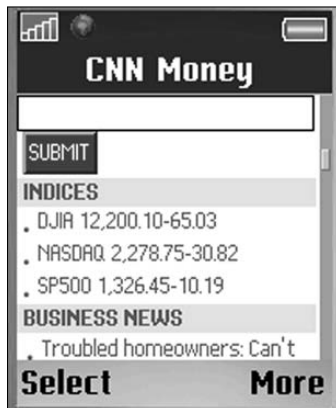


Figure 12-2:
CNNMoney goes where you go.

To access a mobile stock market service listed here, open your mobile phone browser and enter its made-for-mobile Web site address.



Many financial news services also offer text messaging alert services; simply go online to your favorite financial news and stock market quote site, look for a mobile alert program, and have the latest stock market updates delivered directly to your phone.

Check out the text messaging alert service from Dow Jones Online at <http://alerts.dowjones.com/Alerts>.

Making Mobile Payments

The mobile Internet brings a new way to think about your money. From mobile banking to mobile trading, financial services providers have offered new, innovative services to increase convenience and access to information for their customers.

One more convenience is mobile payments (or *mobile commerce* or *m-commerce*). Mobile payment is the next frontier for most retailers and financial services providers to give consumers more convenient ways to shop. Basically, it means providing mobile phone access to money tied to your bank with a cash account or credit card that you can spend online or at any retail store. You don't need to carry a wallet or a set of credit cards — you just need to carry your mobile phone. (Or is it your wireless wallet?)

You can sign up to make payments at a mobile-payment company or at another service that your carrier provides.

Signing up with a third-party company

You can make a mobile payment by adding a product or service charge to your mobile phone bill or by using a mobile-payments provider. Quite a few mobile-payment companies, options, and services are now on the market. Here are two:

- ✓ **PayPal** is an industry leader in e-commerce, and it has also taken the lead in m-commerce. Go online with your computer Internet connection to see PayPal offers at www.paypal.com for both merchants and consumers (see Figure 12-3). Search the site for **Mobile** and find more ways to spend your money than you ever thought possible. The mobile site is at <http://mobile.paypal.com/shop>.
- ✓ At **Obopay**, a new entrant in the mobile money space, you can use text messaging or mobile Web browsing or even download a made-for-mobile application to pay for purchases or send money to friends without dealing with an IOU. Check out Obopay at www.obopay.com (see Figure 12-4).



Figure 12-3:
Sign up to
make
payments
through
PayPal.



Figure 12-4:
Obopay.

Checking with your wireless carrier

Some wireless carriers accept payments on behalf of merchants for products or services that are added to your monthly bill; products and services range from movie tickets to digital content. Almost all wireless carriers in the United States and Canada have mobile payment services available for these *micropayments* (usually less than \$20). The wireless carrier sets a predetermined limit on the maximum amount you can charge to your mobile phone bill at one time or per month.

The United Kingdom (UK) is leading the pack with the new service PayForIt. Users can charge non-mobile-related products and services to their mobile phone bills. See details at www.payforituk.com.

In Canada, the wireless carrier Bell Mobility has teamed up with Cineplex-Odeon movie theaters to let you buy movie tickets on your mobile phone and have the charge billed to the monthly statement from your wireless carrier. Or, you can send charges to your personal PayPal account — all with an additional service fee for the convenience, of course.

Coming soon: NFC and wireless wallets

Wireless wallets — having your mobile phone replace your wallet to access your money — are here to stay, thanks to the tiny innovation Near Field Communications (NFC).

Near Field Communications (NFC) is a short-range wireless connectivity technology, which enables a mobile phone that has a unique chip built into it, such as an RFID tag, to be used like a credit card or key fob to make product and service payments.

Here are a couple of cool examples of how mobile NFC phones, or wireless wallets, are coming to market:

In San Francisco, Sprint and Boost Mobile are working with the Bay Area Rapid Transit authority (BART) to promote the made-for-mobile payments through a specially programmed mobile phone and touchless payment receiver to purchase items as diverse as train tickets and cheeseburgers. Other companies included in the program are Jack in the Box restaurants, Western Union, and First Data Corporation. For more information about this trial program, check out <http://labs.sprint.com/intro/mobiletransit>. (Also check

out the San Francisco BART mobile Web site at <http://bart.mobi>.)

In New York City, Atlanta, Spokane, and many more cities across the United States, MasterCard has been rolling out programs with AT&T (formerly Cingular) and Nokia mobile NFC phones to transact payment services for almost any product and service where the MasterCard PayPass service is accepted. For more information about the MasterCard PayPass mobile program, check out www.mastercard.com/paypass; for an overview of the 2007 New York City mobile program trial, visit www.mastercard.com/us/paypass/mobile.

Visa has also jumped into the mobile payments NFC world with its PayWave platform. Most of its initial programs are running well in Asia and will be coming to North America very soon. For more information on Visa programs for mobile payments, visit www.visa.ca/en/merchant/products/mobile.cfm.

Part IV

I Want My Own Mobile Internet Space

The 5th Wave

By Rich Tennant



“There’s been a lot of interest shown in your home, but no offers. I suggest we either lower the price or start selling advertising space on your mobile site.”

In this part . . .

Now you're an expert in using the mobile Internet. But why stop there? You're just as clever as anyone else on the mobile Internet, so why not build your own mobile Web site, publish your own sound and video, and — heck — even start your own online business? You're in luck, because you don't have to start from scratch. Lots of tools are available to get you up and going before you can say "point and click."

Chapter 13

Staking Your Claim in the Mobile Internet World

In This Chapter

- ▶ Putting your content on the Web for all the world to see
 - ▶ Working anywhere you feel inspired
 - ▶ Selecting a mobile phone model
 - ▶ Choosing your activities on the mobile Internet
-

The Internet is an interactive, two-way medium of communication. You can consume information and benefit from all the wonderful services the World Wide Web has to offer, and you can produce and publish information, digital images, videos, music, and sounds for the world to see. These days, the Internet is full of opportunities to create content, and the mobile Internet is no exception.

In this chapter, we guide you through some of the ins and outs of creating new products and services of your own on the mobile Internet. This chapter helps you get a basic understanding of what you want to do, whether for fun or professionally. The remaining chapters in Part IV go into more detail on how to make it all happen.

For now, just sit back and take out your Post-it Notes and highlighters.

Expressing Yourself with Your Own Content

Content, for the purposes of this book, is anything you might create using digital tools, services, and technologies. You might hear people talk about *user-generated content*. This term generally refers to content created by you, the average Joe or Jane Internet user, versus some major media publisher, professional artist, or music producer. A piece of content can be anything from a

sentence or paragraph of text you wrote to a photo taken with your digital camera or camera phone or a video clip you created.

If you're an Internet user, you may be creating content already. If you have ever posted a review of a product to an online shopping site such as Amazon or eBay, you created your own content that is now part of the Web for everyone to see. If you went one step further and built your own page on MySpace or Facebook or another similar site, you know something about the benefits of generating and maintaining your own space on the Internet. If you're an avid photographer, you might already be using a photo-sharing site such as Flickr to share your images with friends and relatives.

Now imagine taking those benefits with you wherever you go. You can not only check in on your friends' Internet Web pages and photos or check the latest from your favorite blogs, but more importantly, you can also create content directly on your mobile phone and share it over the mobile Internet from wherever you are. You can create content on both a computer and a mobile phone. You can also consume content on both a computer and a mobile phone. The best types of Internet services allow you to create and consume content on both. When you're creating content on your phone for your friends, family, and even people you don't know for them to view, download, and enjoy from their mobile phones, you're really living the dream of the mobile Internet.

Working at the Point of Inspiration

Did you ever find yourself during the course of your normal day (say waiting for a train) having an idea and thinking to yourself "I'd better remember that for later?" but invariably being unable to remember it later? These kinds of inspiring moments happen throughout the day, but we are often unable to act on them.

With an Internet-connected mobile phone, you can create content at this point of inspiration and share that inspiration with others. You can take a picture and immediately share it with friends and family on a photo-sharing Web site, for example. Or, you can write a blog entry while you're standing at a political rally and immediately share your thoughts with the world. You can send an instant message to a group of friends and receive an immediate response, no matter where you or they are.

E-mail was the first indispensable application of the Internet. These days, nearly everyone is familiar with e-mail addresses and how to use them. But for all its success, e-mail is just taking something physical — sending a real-world letter — and re-creating it in the digital medium. Communication on the Internet has moved beyond e-mail in both its sophistication and the potential size of the audience.

Public is the new private

Before you put information about yourself on the Web, ask yourself what level of information you're comfortable putting in the public record. If a prospective future employer (or a future significant other) types your name into a search engine, what will that person find, and will the information show you in the best light? Many Web sites for uploading or sharing content allow you to set permissions for this content — that is, who can see it and who can't. On Jaiku, for example, you can set your permissions so that only your contacts can view your Jaiku messages. On Flickr, you can set permissions on a per-photo basis to control who gets to see that photo: everyone, friends and family, just friends, just family, or only yourself. For example, if

you're posting photos of your kids, you may want to set permissions so that only friends and family can see them. Some photo upload tools allow for manipulation of these permission levels. Facebook also allows for the sophisticated use of permissions to ensure that the right people are seeing the right information. Figure out how to use these permissions before you start uploading and updating willy-nilly.

Facebook and Flickr are two services that give users detailed control over privacy settings for posted items. As of this writing, these controls are available only from the Web site — not the mobile Web site, however.

Modern Internet services include blogging, photo sharing, podcasting, and video sharing. New messaging categories are fast evolving, including myriad ways that users can interact over popular social networking sites (for example, writing on someone's Wall in Facebook) and one-to-many messaging services, such as Twitter and Jaiku.

One-to-many messaging services like these have been growing in popularity in the last few years. They essentially combine elements of instant messaging and chat (like MSN Messenger and AIM) with blogging to produce a new kind of medium — a medium that has a distinctly mobile flair. The types of messages published on these services often are about “what I'm doing right now” such as “about to board a flight to Hong Kong” or “just saw the new Bond movie.” Like blogging, it's a way to express yourself in a public forum. Like chat, users can respond in real time and generate conversation. The term *microblogging* has also been used to describe these services.

Deciding Which Mobile Phone to Use

It might go without saying, but if you intend to do photo- or videoblogging from your phone, make sure to buy a mobile phone with a good embedded camera! Not all camera phones are created equal: In fact, you have to choose from a wide range of quality when you select a camera phone. Just looking at the megapixel count doesn't tell the whole story. For example, look for phones that have a real glass lens. Nokia Nseries phones usually provide

high-quality images and videos. Some Sony Ericsson phone models are preloaded with a photo-sharing or photo-blogging application. We tell you more about that topic in Chapter 14.

Smartphones allow you to download and install applications on them; models such as Apple iPhone, Palm OS Treo, RIM BlackBerry, Sony Ericsson, Windows Mobile, and Nokia Nseries phones are particularly good choices for podcasting. Phones that can connect over a WiFi network (such as you might have in your home or find in many cafés, hotels, or other public buildings) as well as a cellular network are also particularly good choices for podcasting and photo uploading because these tasks often require the ability to send a lot of data from the device to the Internet. Even fast cellular networks still offer comparatively slow upload speed compared to WiFi.

You have many ways to create content on the mobile Internet. Some of these methods involve downloaded applications that you need to install on your phone. Some of these methods can be accomplished by using existing preloaded applications or within the phone's Web browser. You need to be aware of whether your phone supports downloadable applications and/or what applications for content creation come preloaded.

Consider a smartphone the mobile phone equivalent of a server. Like a server, the mobile phone is robust and capable of multitasking and operating a whole bunch of applications and services at the same time. If you're truly serious about your mobile Internet freedom, get a smartphone.



For a summary of all your mobile phone options, read Chapters 4 and 5 for more details and an overview of the services offered by the wireless carriers.

We strongly advise that you read your mobile Internet service data plan before treading into using your mobile phone for creating, producing, and delivering any of the services we highlight in this part of the book. Make sure that you have a plan with unlimited data services, if possible. If you don't, publishing your work from your mobile phone can be expensive.

Deciding What You Want to Do with the Mobile Internet

To get the most out of the next few chapters, think about what you want to do on the mobile Internet, why you want to do it, and how you want to do it. Here are some points to consider:

- ✓ Do you simply want to make yourself heard?
- ✓ Do you want to share your experiences with your friends, family members, and loved ones?



Special offers from your wireless carriers

Many cellular carriers (mobile network operators) are offering special package deals for access to a particular social network or service for a flat rate. Although these offers may seem to be a good deal, you should scrutinize what you're getting. Can you really get the same service without paying the extra monthly rate? If you have a good Internet price plan, the answer is probably yes.

However, examine the fine print closely. Some special offers include perks such as unlimited photo uploading (although this may be tied to using one specific upload application). If you have an Internet price plan that includes a cap on bandwidth usage per month and you think you might end up overextending that bandwidth

by uploading camera phone images to your favorite social network, going with a special offer from your operator may make sense if it means that the bandwidth used in accessing that specific network doesn't count against your regular monthly usage.

The most Internet-friendly mobile phone rate plans offer unlimited data usage with high usage caps. Why do you need unlimited data usage? Because when you're using the Internet on your phone, you don't want to be continually thinking, "What is this costing me?" The rate plans offered with the Apple iPhone are good examples of plans that offer unlimited data usage.

- ✔ Do you want to keep a connection to social groups?
- ✔ Do you want to showcase your own products or services?
- ✔ Do you want to do a little bit of everything available on the mobile Internet, to keep up with the rest of the mobile Joneses?

To get a better understanding of what your needs and wants are, read through the next few sections.

Web site designers and developers

Since the launch of the Internet, the Web has become a multi-billion-dollar business for designers, developers, and technology providers. You see references everywhere to Web site domains such as .com, .net, .org, and .biz.

The next wave of opportunity is delivering made-for-mobile Web sites and services to the billions of mass-market mobile Internet users. Whether you have secured an excellent .mobi mobile Internet domain name (like Tim McGraw, the country music legend, did at mcgraw2go.mobi) or are using a mobile-Internet-friendly name for your old site (like m.facebook.com for Facebook), serving up the mobile Web is about as easy as it gets.

However, you have to make sure that your mobile Web site works well on *all* mobile phones (not just the iPhone, the BlackBerry, and other smartphones): If the site doesn't work well on all phones, you will miss out on more than 200 million potential American users who are trying to find you.

With the launch of the iPhone, Apple has revolutionized the way people think about the mobile Internet. As of this writing, the Apple iPhone is (with a few key caveats) the most impressive Internet-connected mobile phone on the market. Immediately after the iPhone launch, many Web enthusiasts began writing content exclusively for the iPhone's Web browser.



Apple has encouraged this practice by publishing content developer guidelines for the iPhone. Content creators must understand, however, that many people out there who have other Internet-capable handsets can also benefit from their content or service. A word to the wise: Read Chapter 15 (and the rest of Part IV) before jumping to iPhone conclusions. You should develop your mobile Internet Web sites and services with the goal of satisfying as many of the billions of users as possible rather than a couple of million.

Social networkers

If you're a regular user of a *social networking* site, such as MySpace, Facebook, Bebo, or Piczo, you probably understand the need to update your Internet presence throughout the day, upload camera phone images, and share your thoughts about what you're doing right now with either your group of friends or with the world at large.

To get set up on your mobile phone, check with your current social networking provider. Almost all social networking providers have made-for-mobile service offerings: text messaging, mobile Web, and even downloadable applications for your smartphone to get your updates and digital images uploaded to your network.

If you're a social networker, another great place for you to start is with your wireless carrier. Facebook, MySpace, and other top social networking services have cut deals with the wireless carriers to make creating, developing, and updating your social status quite easy. Chapter 14 goes into more detail on mobile social networking services and how to use them to your advantage on the mobile Internet.

Shutterbugs

What good are all those pictures you're taking with your camera phone if nobody ever sees them? These days, millions of users are uploading images from their digital cameras or camera phones to photo-sharing Web sites,

Children and social networks

These days, children as young as six are spending a lot of time on social networks. There's nothing necessarily alarming about this — children and adults alike treat social networking services as a way to keep in touch and hang out with their peers. In much the same way as parents need to monitor their children's television viewing, however, parents also need to be aware of their children's Internet usage and help give them the information and tools they need to stay out of harm's way online. This statement is especially important when these social networks are accessed from mobile devices because this access is often outside the home and less subject to parental scrutiny. There's no need to panic, though: A few words in your teen or pre-teen's ear should help the situation enormously. In general, common sense rules like "don't talk to strangers" and

especially "don't share personal information with people you don't know" are a good place to start.

The United Kingdom Government's "Home Office" department has produced a document called "Good Practice Guidance for Social Networking and User Interactive Services." This document is packed with good advice for parents. It's available at

<http://police.homeoffice.gov.uk/publications/operational-policing/social-networking-guidance?view=Binary>

Note: Although compiled by a UK government task force, this document provides good guidance that is broadly applicable no matter what country you live in.

where they can be viewed by others who often leave comments and start online conversations.

Mobile photo sharing allows you to go one step further: Upload camera phone images as you take them to create a real-time photo feed, provided by either your wireless carrier or independent vendors. It's the difference, for example, between sharing images with friends or family while on vacation to create real-time postcards of where you are and what you're doing versus showing photos when you get back from the trip.



Wireless carriers offering camera phones have some of the best services to upload and share your mobile digital imagery. To find out more about which picture uploading and sharing services your wireless carrier has to offer for your camera phone, check out your carrier's Web site or visit your local retailer.



If you want to check out third-party solutions other than what your wireless carrier has to offer, go to your favorite Internet provider's Web site to see whether it has a mobile phone offering. Flickr, Picasa, and Webshots all have mobile Internet offerings:

- ✓ **Flickr:** www.flickr.com/tools/mobile
- ✓ **Picasa:** www.google.com/mobile/photos/index.html
- ✓ **Webshots:** www.webshots.com/html/mobile.html



Webshots has a helpful resource table to show you what can be done on your mobile phone with its service offering.

Musicians and artists

Think about how powerful the Internet has been as a medium for you to share your works of art. It's quite the power shift when you can display your work over the Internet rather than try to get "discovered" through the ever-elusive, greedy showbiz agent network, isn't it? With just a computer, an Internet connection, and a few friends knowing how to set you up, you can now strut your stuff to the whole world. Now imagine being able to share your digital artistry with more than 3 billion mobile phone users worldwide — very cool.

Imagine charging anywhere from a dime to a couple of bucks every time a user downloads your work to his mobile phone. That's not only very cool, but it can also get you out of that boring day job if you know how to tap into the mobile Internet marketplace. Rather than let your friends download old Ricky Martin ringtones, why not have them download your latest soon-to-be hit? You can publish your own made-for-mobile content with mobile Internet marketplace vendors and start making money from your content.



Mobile Internet marketplace sites on the Internet are available at

- ✓ **Bango:** www.bango.com
- ✓ **oober:** oober.mobi

Bloggers

Blogs (short for *Weblogs*) have become a cornerstone of the Internet and the Web. Anyone can use a blog to share his thoughts, expertise, insight, or just rants on any subject with a potentially global audience.

So what's different about mobile blogging versus plain old blogging at your computer? Mobile blogging puts that power into the palm of your hand, allowing you to update your blog from wherever you are. You can upload camera phone images and include them in your blog entries and broadcast your inspiration as it occurs. True, you can blog remotely using a laptop, but

can you capture your life thoughts while walking through a crowded airport terminal or walking the streets of an exotic city? Can you jot down a particularly good quote while at a party and broadcast it immediately to the world? Mobile blogging gives you this power. Put mobile blogging together with the ability to take and send pictures, and you can become an online photojournalist without ever touching a computer.



Most of the major Internet blogging services have mobile versions:

- ✓ **Microsoft Windows Live Spaces:** mobile.spaces.live.com
- ✓ **Blogger:** www.blogger.com/mobile-start.g
- ✓ **Typepad:** www.typepad.com/mobile/

Podcasters

The stereotype of a podcast is that it's created by people sitting in dark, windowless rooms, in front of computers. It's much more exciting to take your podcasting skills on the road, creating and editing video or audio snippets on your mobile phone and sharing them with your podcast community. Be aware, however, that mobile podcasting is available only on mobile phones that support traditional podcast file formats (MP3, MOV, WAV, and others).

The mobile Internet can bring podcasting into previously uncharted territory: real-time, right-now podcasting — live. Given that, you should keep in mind some best practices for mobile podcasting that can keep you on the straight and narrow.



If you're going to use podcasting tools (especially photo or video capture), make sure to get permission from your subjects *before* you turn the camera on them. People value their privacy and don't like it invaded by being photographed if they haven't first granted permission. Also, it's always a good idea to make sure that you have permission to use any material you're incorporating, such as background audio or photos, or that this material has been explicitly licensed for public use.

Creative Commons, an organization that promotes freely redistributable content and develops licenses and guidance for content creators, provides a helpful legal guide for podcasters, which contains some information especially relevant to mobile podcasters. See the section "Interviewing Someone or Asking Someone to Join You in Conversation As Part of Your Podcast" on the Creative Commons Web site for some good guidelines. Interviews often result in uncomfortable misunderstandings if they're not handled properly. Check it out at http://wiki.creativecommons.org/Podcasting_Legal_Guide.

Political activism by way of your mobile phone

Because of its egalitarian nature (anyone connected to the Internet can, under most circumstances, access any Web site), the Internet can be a useful tool for grassroots organization and activism. Indeed, smart use of the Internet has been crucial to some political candidates' fortunes and to the success of other grassroots or even underground movements.

More recently, the mobile phone, with its ability to take pictures and capture information in the moment, has begun to play an important role as well. For example, in 1997, camera phone images and video of the brutal repression of protestors in Burma were a crucial factor in generating international awareness of the situation there. It's quite a powerful tool if you think about having everyone with a mobile phone

being empowered to share their side of the story, isn't it?

Closer to home, the tools of a mobile blogger or podcaster can be used for citizen journalism. You can organize or stay informed of rallies or other events from wherever you are. Blogging and photo blogging can be some of the simplest mechanisms for putting out a message.

Mobileactive (www.mobileactive.org) provides resources and data and a community for people using the mobile phone and the mobile Internet as a political action tool. They write and maintain strategy guides for people running campaigns or engaged in activism on how to best make use of mobile technology.

Here are some useful Web sites for more information about mobile podcasting:

✔ **Voice Indigo:** www.voiceindigo.com

✔ **Tribal Shout:** www.tribalshout.com

Entrepreneurs and corporate go-getters

As an entrepreneur, you can create and update information about your business or venture, maintain your network, and be continually informed of what's going on in your peer group. You can take advantage of mobile Web site services, social networking, and blogging tools, as well as make information on your business available to billions of mobile Internet users.

Any of these mobile Internet services and applications can easily be combined to make your day-to-day life on the job easier. Before you get any new great ideas, however, check with your resident IT managers or webmasters: They probably know which types of services work well within your Internet and intranet capabilities.

Also, you need their input to make sure that you're not breaking any company-information security rules or policies.

Chapter 14

Creating Content, Social Networking and Blogging from Your Mobile Phone

In This Chapter

- ▶ Social networking with your mobile phone
 - ▶ Discovering how to make money from your digital content
 - ▶ Keeping your blog up-to-date with one of the popular blog services
 - ▶ Podcasting from your mobile phone: Audio and video upload
-

So you're ready to serve up your digital content — text, audio, and visual — to the rest of us in the mobile Internet world. How do you do it? In this chapter, we show you a few ways to find out for yourself.

To help you through the maze of mobile Internet third-party application provider offerings, we review the features that some of the best made-for-mobile service delivery companies have to offer. Each company has its own area of expertise related to helping you make your way through all the complexities of getting on the mobile Internet, independent of a wireless carrier or mobile device. This list describes some of these service-delivery companies:

- ✔ **Web site designer and developers:** Provide new ideas on how to extend the reach of your Internet Web sites.
- ✔ **Social networkers:** Keep everyone posted on your every move from wherever you are.
- ✔ **Camera phone shutterbugs:** Experience picture sharing at its best — live, in color, and in real time.
- ✔ **Musicians and artists:** Make some money by selling your own ringtones and images.

Mobile phone operating system software overview

Mobile phones today are very much the mini-computer of tomorrow. Some of the most popular phone vendor interfaces and operating environments are listed in this sidebar. Each vendor has useful resources and developer communities with detailed information about each mobile phone operating environment as well as how you can sign up for its developer program.

The **Series-60 (S60)** smartphone operating system and user interface layer is based on the Symbian core operating system and licensed by Nokia, LG, and other companies. A full list of S60 smartphones can be found at <http://www.s60.com/life/s60phones>, and more information on the Symbian mobile operating system with a list of their other mobile phone vendor licensees can be found at www.symbian.com.

UIQ is another smartphone operating system and user interface layer based on the Symbian core operating system and is licensed by Sony Ericsson, Motorola, and other companies. A full list of UIQ smartphones can be found at <http://www.uiq.com/uiqphones.html>.

The **Windows Mobile** smartphone operating system was built by Microsoft and is licensed to a number of phone manufacturers, including Motorola, Samsung, and Sony Ericsson. For more on Microsoft Windows Mobile, visit <http://www.microsoft.com/windows/mobile/default.aspx>.

The **Palm OS** smartphone operating system was built by Palm and runs exclusively on mobile phones, such as the Treo. Information on Palm is at <http://www.palm.com/us>.

- ✔ **Bloggers:** Participate in anywhere-anytime journalism delivered to any device you want.
- ✔ **Podcasters:** Capture the event and deliver it to your audience right away.



We strongly advise that you read your mobile Internet service data plan before using your mobile phone for creating, producing, or delivering any of the services we highlight in this part of the book. Make sure that you have a plan with unlimited data services, if possible. If you don't, publishing your work from your mobile phone can be quite expensive.

Chapter 13 covers some reasons that you might want to create content on your phone. In this chapter, we get into some specific ideas, or scenarios, for content creation. We also show you some of the innovative products that can help you get out there and get read, heard, and seen on the mobile Internet.

Social Networking

Say that you want to communicate with multiple people at one time (sometimes called *one-to-many* messaging). For example, you're at a concert with a group of friends and you want to keep in touch with all of them during the show.

You may want to be able to update the page of your favorite social networking site (such as MySpace, Bebo, or Facebook) with a description of whatever you're doing as you're doing it. Many social networking Web sites provide special versions of their sites for mobile phone browsers.



Mobile Internet Web sites for social networking are available right on your mobile phone browser. A few of the most popular made-for-mobile social networking sites ready to use on your phone are shown in this list:

- ✓ **Facebook:** m.facebook.com
- ✓ **MySpace:** m.myspace.com
- ✓ **Twitter:** m.twitter.com
- ✓ **Jaiku:** m.jaiku.com
- ✓ **Bebo:** m.bebo.com

To access these mobile social networking services on your mobile phone, follow these steps:

1. **Open your mobile phone browser.**
2. **Enter the made-for-mobile URL.**

For example, for Facebook, you enter **m.facebook.com**.

3. **Press Enter.**

Twitter

You can use Twitter to communicate your activities with multiple friends and receive messages back from them. Visit the Twitter Web site at www.twitter.com on your computer (to sign up) and at m.twitter.com from your mobile browser. At Twitter, you can also set up message notifications by text message (SMS).

If you have an iPhone, you have access to a number of Web applications that provide easy-to-use interfaces for Twitter. Each of these provides a different look and feel and provides access to different functions that go above and beyond the m.twitter.com mobile site. Just visit one of these, plug in your Twitter username and password (you must already be registered with Twitter), and you're good to go. Hahlo (at www.hahlo.com) is a particularly good Twitter client; find a full list of iPhone Web applications such as this at www.apple.com/webapps. You can also use some of these clients on other advanced mobile phone models, such as the Nokia Nseries.

Jaiku

You can use the Jaiku service, (now a part of Google) to share your location with friends you choose to be connected to and to read your friends' messages and see their locations. Jaiku works across mobile phones and computers alike.

If you have a Nokia Nseries phone (such as Nokia N73 or Nokia N95), the best way to use Jaiku is by downloading and installing Jaiku's dedicated application on your phone. This allows you to integrate Jaiku into your phone's address book so you can better keep up with what your friends are saying. Visit www.jaiku.com from a computer for instructions on how to download and install the Jaiku application and view a list of compatible phones.

Jaiku also has a mobile Web site at m.jaiku.com that works well on most mobile browsers, as shown in Figure 14-1.



Figure 14-1:
Jaiku on the
mobile
phone.

Facebook and MySpace

With Facebook at m.facebook.com, shown in Figure 14-2, you can accomplish most of the usual functions as you can on Web site, including sending and receiving messages, writing on "walls," and sending RSVPs for upcoming events.

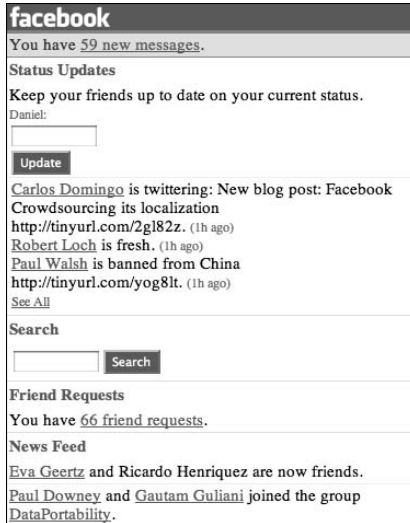


Figure 14-2:
Facebook
on a mobile
phone.

Facebook goes one step further with the iPhone, by providing a full site in the iPhone look and feel at `iphone.facebook.com`. Facebook also uses the advanced capabilities of the iPhone browser to make the application feel like part of the phone, as shown in Figure 14-3.

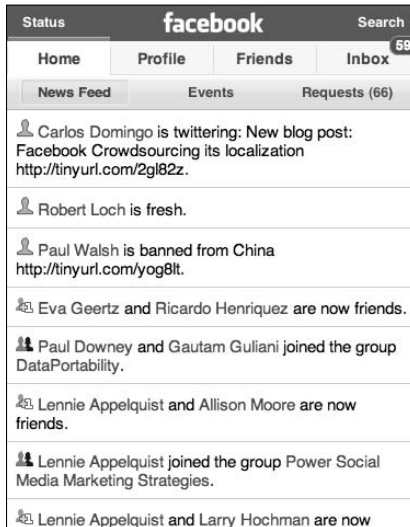


Figure 14-3:
Facebook
on an
iPhone.

MySpace provides basic functionality at `mobile.myspace.com` (shown in Figure 14-4), which allows you to see messages and update your status online. The mobile site has none of the possibilities for design, um, creativity, that the Web site has, but at least it's a start.



Figure 14-4:
MySpace
on a mobile
phone.

Bebo and Mippin

A full-featured mobile version of Bebo is available at `m.bebo.com`, as shown in Figure 14-5. Bebo also has some sophisticated features for text messaging (SMS) and picture messaging (MMS). Bebo shows its European roots by enabling these features for not just U.S. operators but also European operators.



Figure 14-5:
Bebo on a
mobile
phone.

At Mippin (`mippin.com`), users can subscribe to feeds from commercial sources or from their favorite blogs and then read these news sources in a mobile phone's browser by using a simple user interface, as shown in Figure 14-6. Users can also share their favorite blog posts or other content with friends by using Twitter or Facebook or by using good old-fashioned text messaging or e-mail.

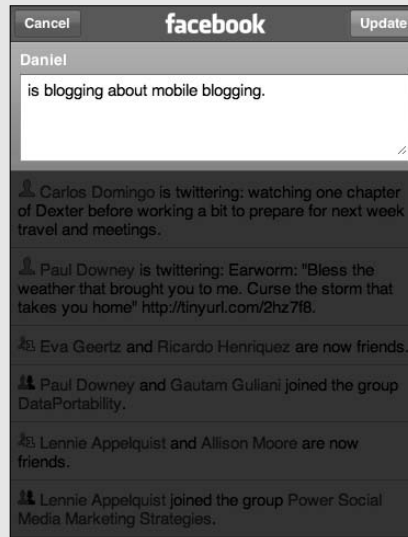


Figure 14-6:
 Mippin on a
 mobile
 phone.

Your Facebook status

Updating your status on Facebook can resemble microblogging. When you update your status, it shows up in your *minifeed* (the running log of all your activities and actions on Facebook), so your friends on Facebook are automatically notified. You can easily update your status at the Facebook mobile site (m.facebook.com) or at its iPhone-specific site (iphone.facebook.com, shown in the following figure).

You can also integrate your Twitter (<http://apps.facebook.com/twitter/>) or Jaiku (<http://apps.facebook.com/jaikubook/>) feeds into Facebook to create the same effect.



Sharing Photos on the Fly

Say that you're taking a trip and you want friends and family members to be able to keep up with you as you travel. Or, maybe you're a photojournalist who wants to start taking pictures and make them available on a photo-sharing site as you take them.

Web sites such as Flickr have popularized the concept of *photo sharing*: uploading digital photos to the Web so that others can view them. Many Web photo-sharing services also allow for mobile Web access. One benefit of sharing photos while you're on the go is that you can share them with your family and friends as "instant postcards" during a trip.

Depending on the photo sharing site you use (such as Flickr), friends can follow your exploits on their own mobile phones or by subscribing to RSS feeds of your photos.

To access Flickr mobile Internet services (as shown in Figure 14-7) on your mobile phone, follow these steps:

- 1. Open your mobile phone browser.**
- 2. Enter the Flickr mobile URL, m.flickr.com.**
- 3. Press Enter.**

Flickr itself allows for photo uploads directly from supported mobile browsers. From m.flickr.com, select Upload. Then navigate through the file system on your phone to the photo you want to upload. (Your photo must already be saved to the phone's memory card or internal memory.) You can then upload the photo and name it in the same way you would on the computer version of the Flickr Web site.

If you own certain models of the Nokia phone (specifically, the N73 and N95 models, as of this writing), you can take advantage of a built-in method for posting photos to Flickr. Download the Nokia Share Online application from Nokia Beta Labs at www.nokia.com/betalabs/shareonline, shown in Figure 14-8.

The benefit of using the Nokia application is that it offers seamless integration into the camera phone's operating system: Sending a photo to Flickr is as easy as sending a picture message. The disadvantage is that this application works with only certain Nokia phone models and works only with Flickr.

However, this process of uploading can be laborious. The best way to upload photos from your phone is to download and install a special application for this purpose. Many of these applications exist — you just need to know where to look for them and how to download and install them.

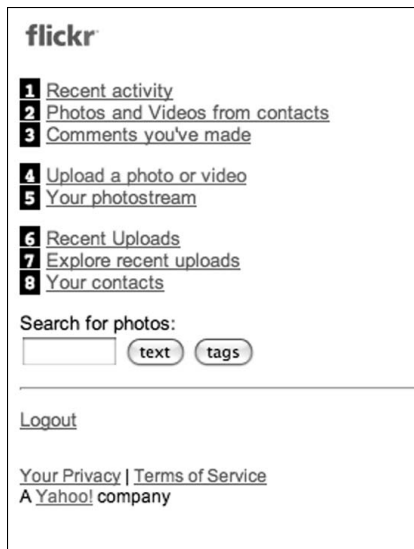


Figure 14-7:
Flickr
Mobile.



Figure 14-8:
Nokia's
Share
Online.

For example, if you're traveling, you may want to keep in touch with friends and family by taking camera phone images and sharing them through a photo sharing site.

ShoZu is a popular and slick photo-upload application that makes it easy. This downloadable application, which is compatible with many phone types, allows for seamless photo (and video) uploads to many photo-sharing Web sites, including Flickr, Facebook, YouTube, and Picasa; blogging services,

such as Blogger, Vox, and LiveJournal; and many other services. ShoZu clearly has an advantage in terms of the number of services supported and the number of phone models supported, including Motorola, Nokia, and Sony Ericsson, and Palm smartphones.

Go to www.shozu.com on your computer or to m.shozu.com on your mobile browser to sign up for the ShoZu service and download the ShoZu application to your phone.

If you want to take it up a notch and send virtual video postcards, you can use Kyte to capture on-the-spot reporting, as shown in Figure 14-9.

ZoneTagging it

Although ZoneTag is only a research prototype, and supports only Flickr, it's arguably one of the coolest ways to upload photos. In addition to letting you upload and tag your photos, ZoneTag attempts to automatically *geotag* your photos by using the global positioning system (GPS) function on your mobile handset or by taking an educated

guess at your location if your phone doesn't have GPS.

When you geotag your photos in this way, you can then view them on a map. The map feature in Flickr, for example, shows clusters of images taken in various spots as blue circles overlaid on top of the terrain, as shown in the following figure.

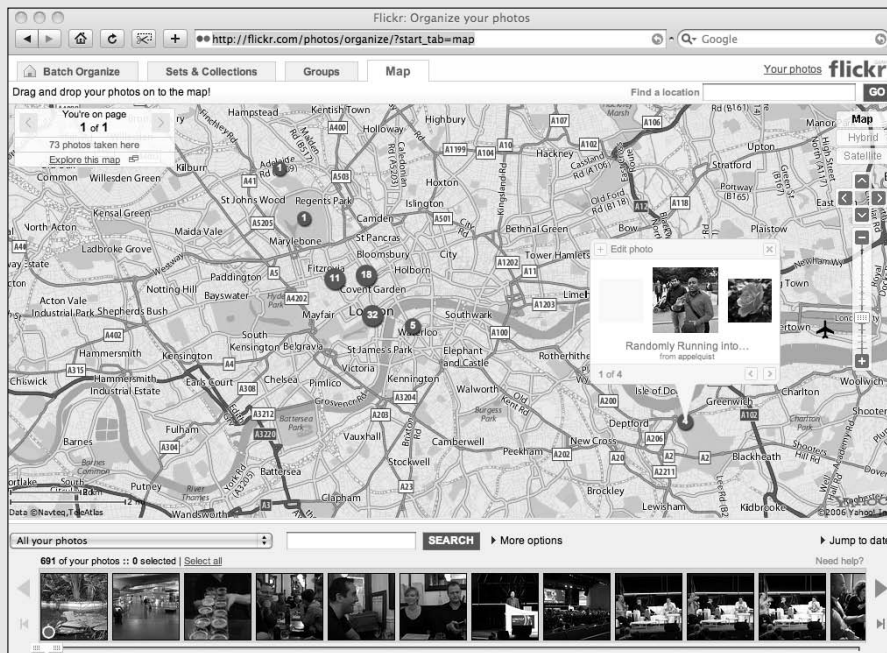




Figure 14-9:
A Kyte video
podcast.

Making Money from Your Digital Content

You may be the next rising hiphop star or even the next digital Andy Warhol. But how do you take advantage of all that is mobile to push you to the top to fame and fortune? Why not self-publish your digital content directly to more than 200 million mobile phone subscribers in the U.S., for starters? It could be the big break you have been looking for, or it could help pay the rent for all that studio time.

In the next two sections, we discuss two popular services: Bango and oober.

Bango

Bango (at www.bango.com) is a mobile Internet pioneer in helping content creators and developers make money from their digital media. Many in the industry consider Bango, shown in Figure 14-10, a one-stop shop to build, promote, and collect money from any type of mobile Internet presence you want to manage. Bango's mobile payment-processing capabilities are world-class, providing you with the capabilities to accept credit cards, PayPal, and direct wireless-carrier billing services. Bango keeps your costs low by taking

a share of the money generated by the sale of your content, kind of like e-commerce networks did in the 1990s. The Bango mobile payment system has proven to be one of the best in the world.

Bango Buttons, a cool application for your Web site, mobilizes your content for you to immediately promote, so you can begin making money from it — literally at the push of a button. When your digital media is enabled with a Bango Button, you can set a price for the media and have it published on a made-for-mobile Web site powered by Bango at `wap.com`, which is available on any mobile phone browser in the world. Your site has its own identity as well (for example `yourname.wap.com`) as your own mobile Internet destination address for you to promote.

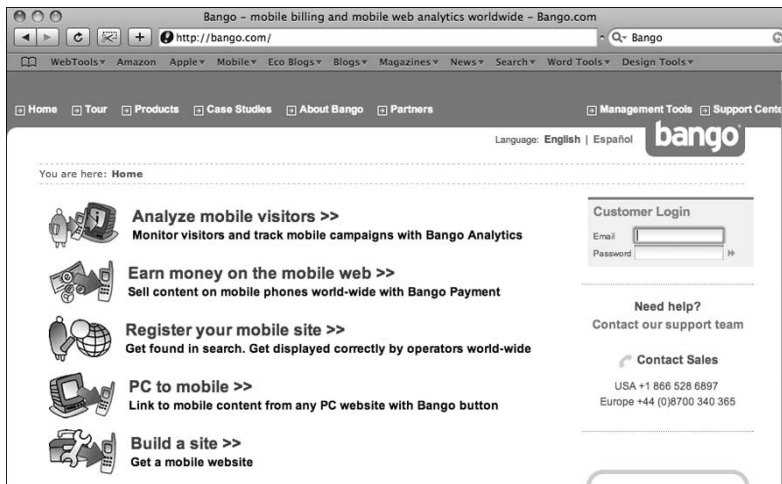


Figure 14-10:
The Bango
home page.

oobee

To create and publish your own mobile Internet storefront, oobee (`oobee.mobi`) is a helpful service provider to get you going. All you need is your own content ready in digital format. Using oobee, you can sign on and create and launch your own mobile Internet storefront to sell any digital content you have made and have the rights to. The content can include clips of sounds and music to produce ringtones as well as pictures and graphical art for mobile phone wallpaper.

Figure 14-11 shows oobee. It offers consumers a simple platform connected to all the major wireless carriers for content delivery, and a billing system for you to begin making money from your content. The system also works on a revenue-sharing business model like the one Bango uses: For a subscription to the service (promotional storefronts at no cost, superstores for \$100, and mega-storefronts for \$200 — each has a different revenue-sharing model), see

`www.oober.mobi/html/ooberWorld2.jsp`; you set the price for your content, usually about a buck or two as a retail price.

After you set up your storefront, you can then promote a dedicated mobile Internet Web site (or bind it to your own computer Web site page or a MySpace page) to promote your new made-for-mobile content offerings.



Figure 14-11:
The oober
home page.

Bloggng with Popular Blog Services

Unless you've been living under a rock for the past five years, and probably even if you have, you know what a blog is. Just to be on the safe side, though, a *blog* is a Web site run by software that makes it easy to add content to. Most blogs are updated frequently by one author and contain lists of fairly short, dated entries. Some blogs contain photos or other types of media. Blogs can be found on pretty much any topic, from astronomy to knitting to Zoroastrianism.

If you have a blog and, like most bloggers, you also have a day job and a family life, you probably find it a challenge to keep your blog up to date. Blogging from a mobile device can make your life easier by allowing you to create, edit, and update your blog from anywhere you have wireless carrier network access.



Watch out for roaming-access charges

Many of the applications and services discussed in this chapter use applications that automatically send updates over the Internet, often without your express consent. When you're traveling abroad or are using another carrier's network (*roaming*), these data charges can add up. Many applications, such as Jaiku, warn you when you're roaming and let you turn off the application. Not all applications offer this option, however.

As an alternative, use a dual-mode phone, such as the Nokia N95 or the Apple iPhone, which

can attach to high-speed WiFi networks and exclusively use WiFi networks when you're abroad. A special Turn Off Data Roaming option on the iPhone Control Panel automates the use of roaming: When you select this option, you can be sure that when you're using data (such as in your e-mail program or Web browser), you're using only the WiFi network and not the cellular network. Of course, WiFi networks are usually available only in select locations and may also cause you to incur charges from using them.

Windows Live Spaces

You can use the Windows Live Spaces blogging service to set up a blog and write blog entries on its mobile Web interface. Just visit `mobile.spaces.live.com` from your mobile phone browser, as shown in Figure 14-12. Or, you can set up everything from the computer, at `spaces.live.com`. If you already have a Windows Live Messenger (formerly called MSN Messenger) ID, you just have to sign in with this username and password, and then you can create your mobile blog straight from the phone and start posting.

Spaces

dappelquist

Add blog entry

Blog title:

Entry:

Publish Cancel

You can use e-mail publishing to submit blog entries and photos more easily from your phone.
[Set up e-mail publishing](#)

[9] [dappelquist home](#)
 [0] [Windows Live Spaces](#)
 [*] [Top of page](#)
 [#] [Bottom of page](#)

[Sign out](#)

Figure 14-12:
A Windows Live Spaces blog posting.

You can also blog to Windows Live Spaces by e-mail from your e-mail-capable mobile phone. For full instructions, visit www.microsoft.com/athome/intouch/mobileblogging.aspx.

Blogger

Using the popular Blogger service from Google, you can create a new blog by picture messaging (using Multimedia Messaging Services, sometimes called MMS) or e-mail. To get started, send a text message or a photo from your phone to the e-mail address go@blogger.com. Blogger then sends you the URL of your new mobile blog. As of this writing, this service is supported only on U.S. wireless carriers.

Sony Ericsson has also bundled Blogger-compatible blogging software in its latest Internet-capable camera phones. Just select **Blog This!** from the handset menu after you take a picture, and you can get started with a new blog right away. Make sure to confirm that Blogger is preinstalled before buying the handset, however. See help.blogger.com/bin/answer.py?hl=en&answer=72578 and www.sonyericsson.com/product/blog for more information on how to use this function, shown in Figure 14-13.



Figure 14-13:
The Sony
Ericsson
K800
blogging
function.

TypePad

TypePad, a product from Six Apart, allows you to blog from your mobile phone using your phone from the downloadable application TypePad Mobile. This application, shown in Figure 14-14, is available for

- ✓ Series 60 phones, such as the Nokia Nseries
- ✓ UIQ phones (such as those sold by Sony Ericsson)
- ✓ Windows Mobile 5 phones
- ✓ Palm OS 5 phones

See www.sixapart.com/typepad/tmdownload.html from your computer for more information on this application and for instructions on downloading and installing it. Or, go to <http://get.typepad.com> from your mobile browser to download the application directly.



The TypePad service isn't free. It costs upward of \$4.95 per month for service and hosting. It also doesn't allow you to sign up for the service from your mobile phone. You must use the Web page to sign up.



Figure 14-14:
TypePad
Mobile.

Podcasting from Your Mobile: Audio and Video Upload

From being a citizen journalist to creating a cool little ditty from your mobile phone, mobile Internet podcasting empowers you to capture any moment of time, upload it, and share it with your network of followers.

Whether you're a professional or an amateur, mobile podcasting service providers have made it quite simple for you to get on the airwaves.

Microblogging: Trend of the future?

In the past few years, a new type of messaging has emerged on the Internet: one-to-many short messaging, or microblogging. *Microblogging*

refers to writing short blurbs about what you're doing as you're doing it and publishing them for the world (or just a small group of friends) to see.

ShoZu (www.shozu.com), which we discuss earlier in this chapter, in the section "Sharing Photos on the Fly," lets you capture video and upload it to your favorite video-sharing service, such as YouTube.

The relatively new Kyte service (www.kyte.tv) brings together photo and video sharing, podcasting, chatting, and microblogging into a single service. On Kyte, shown in Figure 14-15, you can create and upload photos, videos, and audio tracks as you create them on your phone. You then upload them to channels you create. Others can then subscribe to your Kyte channel and view your content as you update it, or chat back to you and to others who might also be tuned in. All features are available from both the computer and the mobile phone, by using a downloadable client.

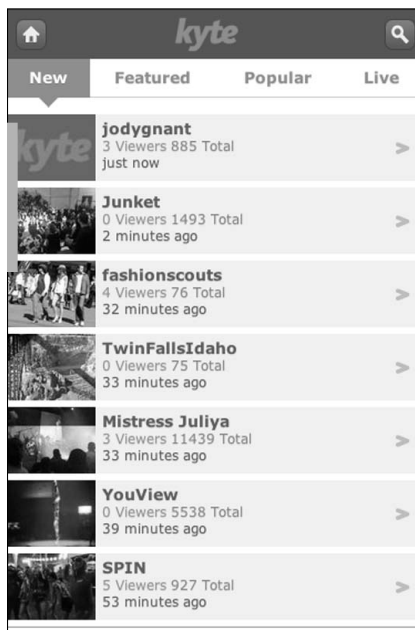


Figure 14-15:
KyteTV.

Qik (www.qik.com) provides a helpful and easy-to-use downloadable client for creating mobile live video podcasts. Integration with Twitter means that you can announce to all your Twitter friends when you're videocasting and invite them to leave live comments. It's like carrying around your own portable television studio.

Chapter 15

Building and Developing Mobile Web Sites

In This Chapter

- ▶ Understanding why to build a mobile Web site
 - ▶ Exploring the Web addresses of mobile Web sites
 - ▶ Finding a host mobile Web site
 - ▶ Converting a preexisting Web site to work on the mobile Internet
 - ▶ Choosing to build a dedicated mobile Web site
 - ▶ Developing and testing mobile Web technology
-

If you already read Chapters 13 and 14, you know that you have lots of ways to get your site up and running on the mobile Internet. Getting your social networking site, community, or photo-sharing sites online is easy, but of course it doesn't stop there. You won't be surprised to discover that you can do a lot more.

Pretty soon, you might find yourself yearning to go a bit further and build a stand-alone site for yourself. Maybe you already have a Web site and you want to make sure that it works on mobile handsets. Maybe your business or organization wants to use the mobile Internet as a new way to stay in touch with customers or members. Maybe all this talk of going mobile has given you a good idea for a new start-up altogether. The good news is that all these goals are well within your grasp. The act of building mobile Web sites really isn't rocket science. Even if you have very little technical experience, lots of tools, conventions, and techniques are already out there for you to use. In this chapter, we walk you through them, one by one. So don't panic, and get ready to see how easy developing your own Web site for the mobile Internet really is!

Discovering Why You Should Build a Mobile Web Site

You might be reading this chapter for a number of reasons. Certainly you're interested in building a mobile Web site. But why should you? However easy it is, you still need to put time, love, and care into building something that your visitors will enjoy and return to.

Not everyone has regular access to a computer, and even those who do are quite often away from their computers. If you already have a Web site, how do those mobile users access that information or those services? Providing and promoting a mobile Web site — even if it's simply a mobile version of your current site — increases the overall number of visitors you'll have and lets them access your site whenever they want, wherever they are.

Maybe you run a Web site for a local sports team. Imagine how useful it might be for fans to be able to access that site when they're physically at the game. They might want to look up scores or player histories or check upcoming schedules — and if the team has a mobile Web site, the fans don't have to wait until they get home.

Or, perhaps you own a small business and you want to reach new users and have a closer relationship with them. If you run an auto repair garage, for example, a mobile site is a helpful way for prospective visitors to find your shop. (Your customers, after all, are probably mobile when they need your services!)

The mobile site itself might even be a new way for you or your business to make money. These days, you have plenty of ways to collect payment for content from a mobile site, and your products or services might be something you can sell through that site. You might even put some mobile advertising in your site, just like you can on a regular Web site. (We look at some more of these business activities in Chapter 16.) Finally, maybe you're simply an individual who wants to build a site to see what the fuss is all about. After all, this stuff is exciting, and a mobile Web site about yourself or your family is just a cool thing to have!

Establishing an Identity with Your Web Address

By “establishing an identity,” we don't mean dressing up with a fake nose, a wig, and a pair of thick glasses. On the mobile Web, no one needs to know what you look like!

But if you want to build a site and have people find it, you need an identity for your site — just as Web sites do on the computer Internet, mobile sites need addresses, or *URLs* (Uniform Resource Locators) as they’re sometimes known, too.

A *Web address* consists of the characters a user types into a mobile browser to get to your site. Alternatively, if another site has included a link to your site, it must reference it by that address. For your mobile site, you need to choose an address — hopefully, one that is easy to remember and helps identify your site for users.

Knowing what's in a name

Most Web addresses look something like this:

```
http://www.example.com/home.htm
```

The `http://` part tells your browser how to communicate with the site when it’s asking for pages — in this case, the Web page named `home.htm`.

The `www.example.com` part is the *domain*, or sometimes the *host*. This main address of the site tells the browser which Web server to connect to in the first place. This part is also the one that users normally remember (and type in their browsers).

Domains on the Web often end with `.com`, which has become a convention for many sites, particularly for companies based in the United States. But other *top-level domains* (as they’re known) exist, such as `.org` and `.gov`, which tell users that sites are associated with nonprofit organizations or governments, respectively. You also find country-code addresses, such as `.co.uk` for the United Kingdom or `.ca` for Canada, which are used to illustrate the relevance of the site for users in those countries.

Dedicated to mobile

What do we mean when we say a “dedicated address” for your mobile Web site? Well, think of it this way: When your users see a Web address ending with `.com`, for example, they know with almost certainty that it will work on their computer. But let’s be honest — the chances that it will work perfectly on their mobile handset are slim. And even if the site

does display satisfactorily, it isn’t necessarily designed to serve the needs of a mobile user. So using a suitably distinct address — such as `http://yourcompany.mobi` — just for the mobile Web site gives you a chance to declare that it is more suitable for the mobile handset *and context* of the mobile user.

Mobile Web addresses are no different from regular Web addresses in many respects. They have the same structure, and mobile Web sites use the same technology (known as HTTP, or HyperText Transfer Protocol) to serve up pages. If you have an existing Web domain, it can even double as the address of your mobile site too. (If you plan to have your mobile site share the same address as a regular Web site, however, you need to be clever about the way you build the site. It needs to detect whether the user is viewing it with a regular browser or a mobile handset and then serve up the correct set of pages. (Unfortunately, this task isn't as easy as it might sound!)

In fact, there are lots of advantages to using a dedicated address for your mobile site. A different address helps users understand that such a site exists — they probably won't just try your normal Web address on the off-chance that it works. And, if you have a business, advertising a mobile address shows that your company is in step with these exciting new technologies. And, of course, with a mobile site, you might even choose to offer different content, services, or products to your users. A different address makes that distinction clear: It's your way of saying "I built this site for mobile users!"

When it's time to choose your mobile address, you have a few options. As with Web addresses for the regular Internet, you can choose from plenty of conventions for your mobile site addresses.

Using dedicated domains for mobile sites: .mobi

A common convention for mobile Web sites is to use the `.mobi` top-level domain. Since 2006, site owners have been able to use `.mobi` domain names in exactly the same way as they do in domains ending with `.com`, `.net`, `.org`, and others.

Imagine that you already have a site at

```
http://www.mycompany.com
```

Using the `.mobi` extension, you can easily set up a sister mobile site at

```
http://mycompany.mobi
```

In fact, most companies that sell `.com` domains (known as *registrars*) also provide `.mobi` addresses, so you can buy both at the same time.

One helpful aspect about a `.mobi` address is that it tells users that the site is primarily for use on their mobile phones. And, plenty of companies are already familiar with using different top-level domain addresses (for different countries, for example), so it's a fairly easy choice.

The `.mobi` address provides to the mobile Web what `.com` does to the regular Web: a consistent convention for letting your mobile users know they'll have a good experience. On that basis alone, it's certainly a good choice for your mobile Web site address.

In addition, the company that manages the `.mobi` addresses, dotMobi, also provides a lot of free tools and resources for you to set up your site. Through its developer community (<http://dev.mobi>), you get plenty of support and advice to help you get started in the world of mobile.

And, like the other top-level-domains (`.com`, `.net`, `.org`), the list of all `.mobi` addresses (known as a zone file) is regularly provided to search engine companies, so you can be sure your site will be picked up by the search engines too — pretty useful if you want to promote the site!

Using existing domains

If you want to keep your existing Web domain, but create a specific mobile address, you can follow a couple of conventions.

One possibility is to place an extra section at the start of the domain name. You can then use this section, often known as a *third-level* domain, to replace the `www` that's often used at the start of Web addresses. One common replacement is `mobile`, and another is simply `m`. So your site address could then become

```
http://mobile.mycompany.com
```

or

```
http://m.mycompany.com
```

This approach is useful if you want to hold on to the use of your existing `.com` site, but it might involve some extra keystrokes on the part of the user. The use of a single letter `m` — to indicate mobile support — may also be a little cryptic for many users. Although some host providers may charge you for extra third-level domains, only a small amount of configuration is required, and of course you don't need to buy a new domain name.

You can also use directories under the domain name. These are like folders in a desktop file system: a hierarchy of names after the address that help split up the site into useful sections. You might choose to use the name `mobile` in that way and use a site address like this:

```
http://www.mycompany.com/mobile/
```

Way back WAP

On a historical note, you might still see mobile Web addresses that look like `wap.mycompany.com` or `www.mycompany.com/wap`.

Wireless Application Protocol (WAP), which was launched in 1999, is an older way of getting mobile phones to access Web-like content.

WAP phones used to be incompatible with regular Web pages, and a few companies set up WAP-specific sites. Since then, things have moved on (like most forms of technology) and most modern phones don't require — or even support — WAP pages. The fact that some addresses still contain those three letters is just a throwback to the days when they did.

Again, a directory involves even more typing for the user, but it doesn't require you to configure anything special on your Web server. You might choose to use this technique while you're developing the site and then use a dedicated `.mobi` address when you go live with it.

Hosting Your Mobile Site

Although you can often build and develop a mobile site on a local computer, sooner or later you need to host it on the Internet itself. *Hosting* means placing the files and graphics and such on a Web server.

Some mobile network operators (also known as *carriers*) require site owners to host their sites on the operator's network if they want it to be seen by the users who buy their handsets and plans from that operator. This is known as the *walled garden* philosophy, and often means that you have to strike a deal with that operator to make your site available to those users.

More commonly (these days), operators let their users visit any sites that are hosted on the Internet. That's good news: If you want your site to be visited by mobile phones, all you need to do is host it on the Internet like a regular site!

Choosing a hosting provider shouldn't be too difficult. If you already have a regular Web site, you can use that provider, and if you don't, you can just go out and choose a hosting provider that fits your budget.

After you sign up with your hosting provider, someone there can tell you how to make sure that your mobile site address is pointing to the right place. If you bought a new mobile domain, you probably need to tell your domain registrar where your hosting servers are.

You should also be able to get a file transfer protocol (FTP) account. You need this server address and username/password combination in order to upload your pages to the server. Hold on to this information: You need it when you're ready to go live with your site.



If that process sounds too hard, remember that most hosting providers sell domains, and most domain registrars offer hosting, so you can probably get the whole thing set up in one place anyway!

Making Big Decisions

When you're building a new mobile site, spend some time thinking about your approach and the tools you're going to use.

If your mobile site is the first site you create, you have lots of choices. You can build the mobile site any way you want, and you don't need to worry about making it consistent with anything you had before — an existing Web site, for example.

For many site owners, however, the mobile site supplements an existing Web presence. Building a second site from scratch is pretty foolish, especially if the two sites will share a lot of each other's pages and content. So at this point, you need to plan a strategy to reuse as much of that material as possible.

One good question you should ask yourself is whether you want your mobile site to be static or dynamic.

Many sites are made up of a set of static pages that are saved on the server as individual documents. If your server has lots of files on it, with names ending in `.html` or `.htm`, you have a *static* site. Each of these files is a single page on your site, and if you want to change a page, you have to change one of those files (by either editing it or uploading a new copy). This approach is useful if your site is small and simple, and you just want to get going quickly.

On the other hand, you might have a *dynamic* Web site, for which most of the information is stored in a database and the pages are created on demand by using a programming language such as PHP or ASP. This task isn't easy for nonprogrammers, but that approach does mean that the site is easier to maintain because you can edit the information in the database and the pages are updated automatically. In addition, you can be sure that each page is consistently formatted. If you have a blog site, chances are that you've seen this approach in action.

Of course, you can also decide whether you want your *mobile* site to be static or dynamic. There are some particular advantages to making your mobile site dynamically generated, but it's important for you to find an approach that suits your needs and your skills.

The scenarios we describe in Table 15-1 for choosing between the static and dynamic site approaches might sound somewhat baffling, so we walk you through some of the options later in this chapter. Remember, however, that regardless of the type of site you're building, you can always find tools and techniques that are ready for you to use.

<i>You Have This</i>	<i>You Want to Build</i>	
	<i>A simple, static mobile site</i>	<i>A flexible, dynamic site</i>
No Web site currently	You're spoiled with choices: You can start from scratch with a wide range of mobile site builders that tend to produce sites with static pages.	Take a look at some dynamic site options, such as blogging platforms, or a content management system such as WordPress. (We discuss these later in this chapter.) Or brush up on some programming skills.
An existing static site	You need to copy and convert your existing pages to create a new set of mobile-formatted ones. Remember to keep both sets of pages up to date. Tools that help with the conversion — or even keep the pages in sync — are quite useful.	Converting a current static site to a dynamic mobile one might be a challenging approach because you'll probably want to update the existing Web site to a dynamic one first, and then make it ready for a mobile version. You need to copy your current static pages into a dynamic platform and then start from there.
An existing dynamic site	Unless you're just experimenting, bolting static mobile content onto a dynamic Web site doesn't seem like a helpful idea. You probably should try making the most of the fact that you're already running a dynamic site.	This option might be one of the easiest routes to take! Depending on the platform you're using, it should be fairly simple to coax your dynamic Web site into serving up mobile pages.

Using a Mobile Site Builder

No one likes it when things are more complicated than they have to be. And, building a Web site, whether it's mobile or not, can certainly seem quite complicated. If you want to build a mobile site from scratch as easily as possible, you can do a lot worse than getting started with special *mobile site builder* software.

Web browsers display pages that are written in HyperText Markup Language, or HTML. *HTML* contains all the information that a Web browser needs in order to display a page, including the text of the page, its links, its layout, and information about the images in it. Mobile browsers are no different, although some of them prefer a newer version of the language, XHTML (the X stands for eXtensible).

Unfortunately, although browsers love *reading* HTML and XHTML, most humans don't love *writing* it. A *site builder* is a piece of software designed to take the technical skill (not to mention the pain and frustration) out of writing those Web pages, and makes it an intuitive activity or a visual process that all of us can understand. But there's even more good news: You can find mobile site builders, too, which are specifically designed to create sites for the mobile Internet. These programs make your life very easy. In the next few sections, we take a look at some of your options.

The Site.mobi Site Builder

dotMobi, the company that provides `.mobi` domain names, also provides Site Builder (see Figure 15-1), which makes it easy to create sites. To get to Site Builder, simply go to `http://site.mobi` by using your computer's Internet browser.

Most Web site builders require you to sign up. Site Builder simply asks you for a username and password, and then you're off.



The key to creating a good mobile site is having a simple design. With Site Builder, the first thing you do is select a color scheme and a template for your site. Quite a few choices are offered, so you should be able to give your site some distinction and, if you're creating a site for a business or an organization, match the color scheme you need.



Figure 15-1:
The
welcome
screen to
Site Builder.

A common design for a mobile Web site is to have an entry page with a logo and a list of links — that then link to individual pages within the site for more detail. Of course, this method isn't the only way to lay out a site, but it's a good start. You can always change the design and structure later.

As you work your way through the Site Builder Wizard, shown in Figure 15-2, follow the simple instructions.

Site Builder lets you select a visual theme for your site and then define the pages you need, as shown in Figure 15-3.

After you choose your pages, the wizard even validates your site against the dotMobi ready.mobi page checker, as shown in Figure 15-4. This tool is a helpful way to ensure that your page has a good chance of working on real mobile handsets.

Finally, the wizard concludes by asking you for your hosting details (FTP information), as shown in Figure 15-5. These details should have been provided by your hosting provider. The FTP info allows the site.mobi tool to upload the site directly to your server. And you're done!

Figure 15-2:
Choosing the color scheme and design.



Figure 15-3:
Selecting and organizing your mobile pages.



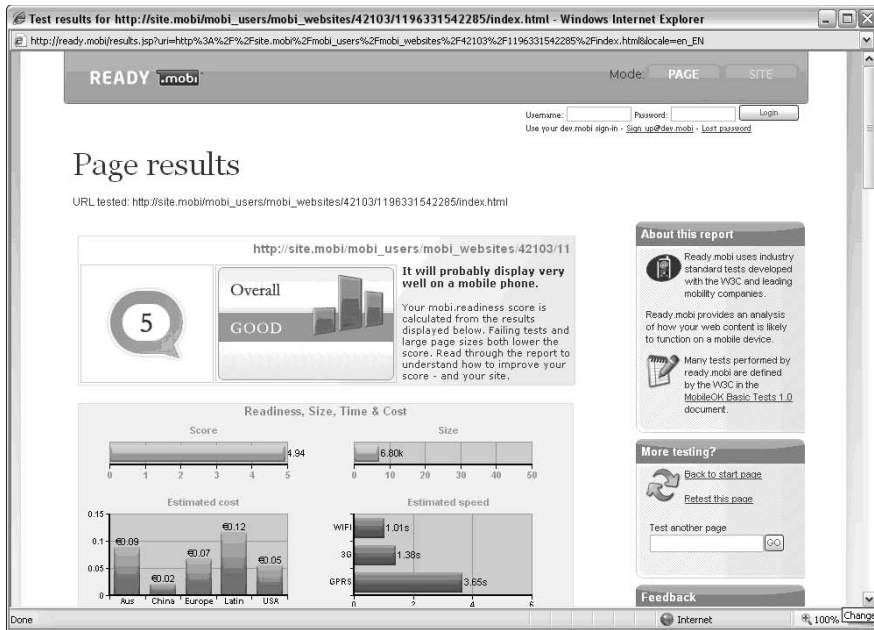


Figure 15-4:
The ready.mobi page checker.

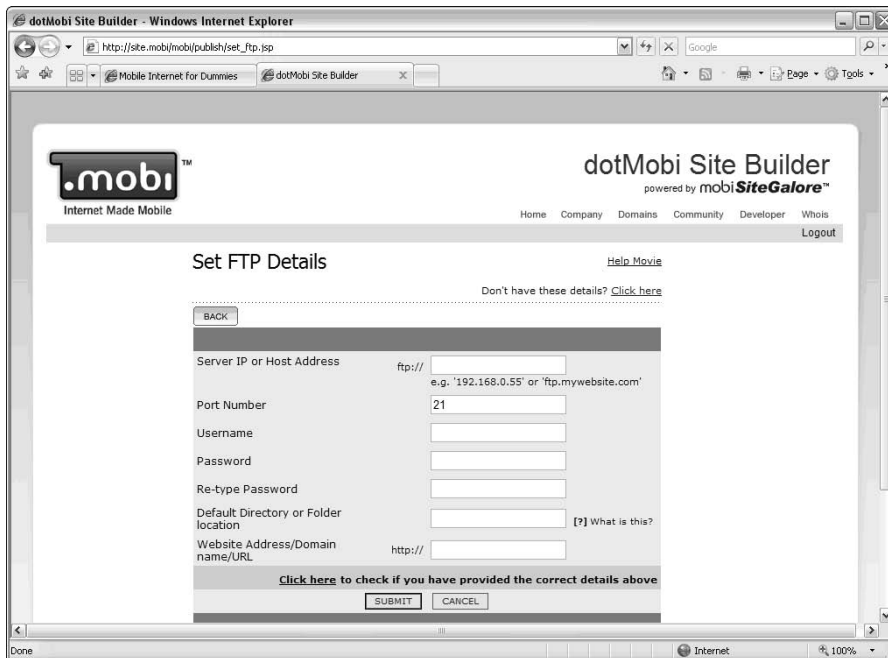


Figure 15-5:
Enter your FTP details to upload your new site

WebSite Tonight

Another popular site builder is WebSite Tonight, available from GoDaddy. Depending on where you bought your domain or hosting service, you may already have used this tool for building regular sites.

WebSite Tonight, shown in Figure 15-6, can also be used to build mobile sites. It's a simple way to build your site, and as with the dotMobi Site Builder, you can be confident that the pages it produces will work well on mobile handsets.

WebSite Tonight is available from the GoDaddy home page (www.godaddy.com) — click the Site Builders link.

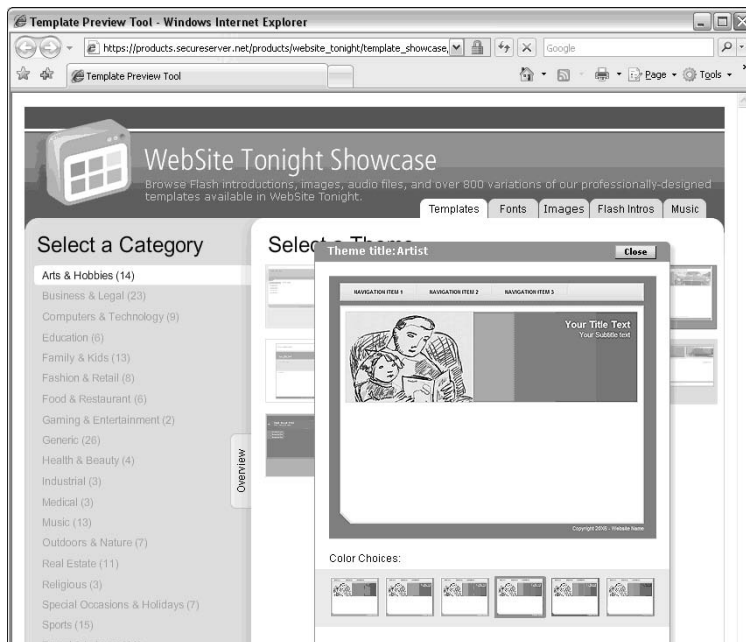
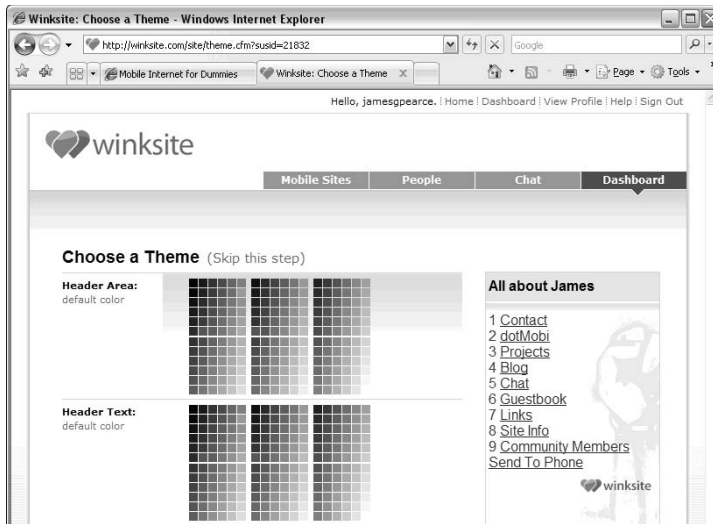


Figure 15-6:
Choosing
site design
with
WebSite
Tonight.

Winksite

Another helpful way to create a mobile presence is Winksite, at <http://winksite.com> and shown in Figure 15-7. Although this service can be used to set up social networking pages, it also doubles as a neat way to build a site. Winksite guarantees that sites are compliant with the dotMobi best practices for building sites.

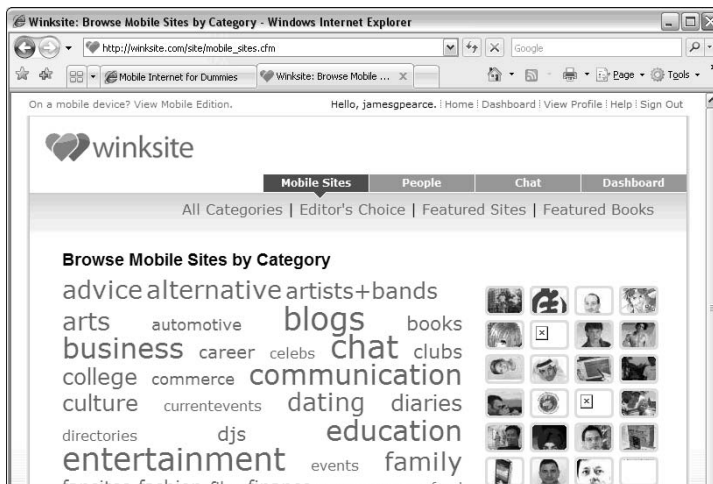
Figure 15-7:
Designing colorful mobile sites with Winksite.



As with the other tools we describe, at Winksite you can quickly choose themes and create and edit pages. It's centrally hosted, which means that all the pages you create are managed by Winksite, so you don't need to worry about providing hosting details.

Being centrally hosted also means that all sites can be categorized, as shown in Figure 15-8, and that users can create a social network of sites. For example, you might like to create links or relationships with others with whom you share something in common.

Figure 15-8:
Categories of sites built with Winksite.



You can also add mobile advertising into a Winksite, as a way to help make you feel that your efforts in mobile development have all been worthwhile. We talk about making money from your mobile content in Chapter 16.

Converting an Existing Web Site to a Mobile One

The first half of this chapter describes tools for building new, static Web sites from scratch. But if you have an existing Web site, you probably don't want to type all that content again. Instead, you might be looking for a quick fix and want to simply try to convert your current Web site to a mobile site.



You should bear in mind a few considerations when you take this approach. Think carefully about what your users truly want to do when they're mobile. They might not *want* to be able to see your entire regular Web site. Maybe only part of your current site is truly applicable for people on the move. On the other hand, you might be able to offer *extra* features to your mobile users that your regular Web site doesn't already have.

For example, if you run a retail store, your regular Web site might have lots of photographs of the store and details about your products. Somewhere down at the bottom of the page, you might list some contact details and provide a link to a map to show the store's location.

But the chances are good that visitors to your mobile site will have different priorities, and a simple conversion of the existing content might not be what they're looking for. They probably don't have the time or patience to browse through all your nice photography!

For instance, if people are visiting your site by using their mobile phones, it's a good guess that they're already in the area and thinking about coming to your store. The priorities for the mobile site might simply be to confirm what type of store it is and what your business hours are, to find simple directions to the store, and to provide a phone number.

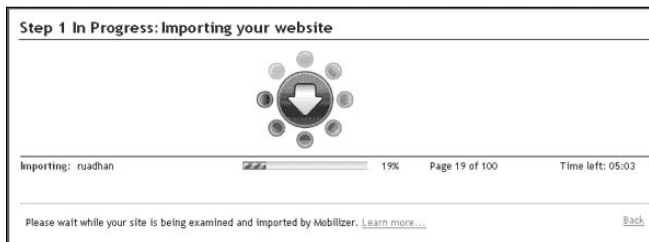


Make sure to put a telephone number on your site. After all, potential visitors are using their phones! When you're converting an existing site, also consider how often you need to update either site. Some conversion techniques take a single "snapshot" of your Web site in its current state and convert it to a mobile version. If you ever change the regular site, the changes don't automatically happen to the mobile site, and then you have the unenviable task of keeping two sites up to date — not fun!

If you decide to take the route of converting a regular Web site to one for the mobile Internet, a particularly useful conversion tool is Mobilizer, from the UK company Ubik (www.ubik.com). This service lets you save and edit your converted site and its structure. But it also maps your regular Web site to a mobile one in real time, so it removes the worry of having to keep two sites up-to-date yourself.

To start, simply visit the Web site and sign up by providing your e-mail address. (At the time of writing, the service is in beta so some of this functionality may change). You're then asked to enter the address of your existing site, and Mobilizer begins the process of importing your Web site, as shown in Figure 15-9.

Figure 15-9:
The progress bar while Mobilizer converts your site.



In addition, Mobilizer is particularly good at being able to cater to different mobile handset models. As you use the tool, you see that it can produce versions for large smartphones as well as it does for simpler low-end phones.

After the site is imported, you can change the content, how much of it appears on each page, and what each page looks like.

Plugging Made-for-Mobile Content into Dynamic Sites

These days, many regular Web sites aren't built from static pages, but instead generate pages dynamically from information in a database. Many such systems are custom-built specifically to fill the needs of the site itself, but many common content management systems (CMSs) are used throughout the Web to create easily maintained Web content.

Examples of common CMS platforms include TYPO3, Joomla!, and Drupal. Content management systems designed specifically for bloggers include MovableType and WordPress.



In fact, if you're thinking about mobile but don't have any sort of Web site yet, consider a CMS from Day One. These days, a CMS is cheap and easy to set up, and you have the advantage of having all your content and pages stored in a flexible way. If you're a blogger, you probably can't avoid this approach!

The good news is that if you're using a CMS, the chances are good that the platform already includes mobile capability. Most CMS products allow you to turn on extra modules to give you extra functionality, and mobile modules are becoming quite common.

With a mobile module in your CMS platform, you have an excellent way to quickly get existing content into the hands of mobile users. Typically, the module detects when a user is accessing your CMS-based site with a mobile handset, and then quickly formats the theme, style, and layout of the page to ensure that the content that's produced works well on a mobile device.

Again, think carefully about what mobile users might truly want to *do* on your site. There might be more to this approach than simply turning on the CMS platform's mobile module — you might also want to build a set of specific pages for those users. But at least this approach gets you started very quickly.

TYPO3

TYPO3 is a common content management platform, and one that has an excellent mobile module for it: the Wireless Universal Resource File (WURFL) extension. The WURFL module is a database of mobile handset information that detects whether a device is mobile and then adapts the resulting content according to the device.

The site can then be created and edited as usual, as shown in Figure 15-10.

Figure 15-10:
Editing the
content of
the mobile
page.



The result is content that can be viewed on both a mobile device and a regular desktop browser (see Figure 15-11).

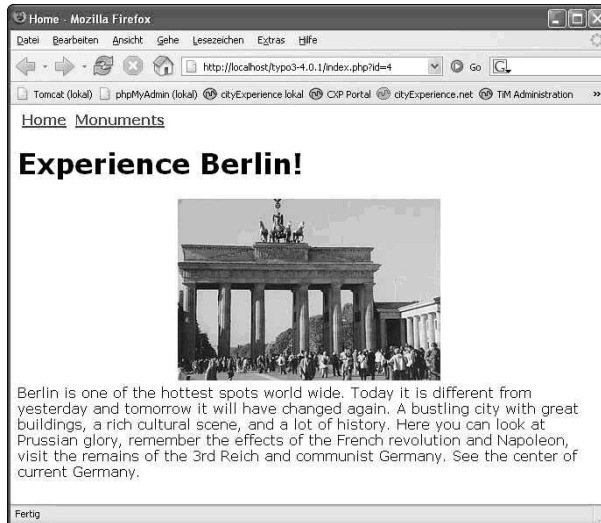


Figure 15-11:
How the
resulting
mobile page
looks in a
desktop
browser.

Drupal

Drupal is a popular open source content management system (CMS). Although Drupal is a little more powerful and configurable than many other CMSs, it's becoming a popular choice for people building community-based sites. Its mobile theme makes mobilizing your content really easy.

The Drupal community site at <http://drupal.org> provides all the downloads and instructions you need to get started. At first Drupal can be fairly daunting, but it's worth it. The `.mobi` loader module (in the Modules section) and the `.mobi` theme (in the Themes section) work together to provide a good introduction to using Drupal for mobile purposes.

WordPress

Blogging is extremely popular as a way for individuals and companies to make themselves heard on the Internet. Literally millions of bloggers post articles every day — and because blog content is so timely (and bite-sized), it's a great candidate for converting for mobile use.

The majority of blogs are written on CMS-like platforms specifically built for the task of blogging. WordPress is a popular option, and it has an excellent mobile module. In just a few clicks, you can get your blog out there on the mobile Web!

You can find more information on the WordPress mobile plug-in at <http://dev.mobi/node/78>.

Hosted blog platforms

Many blogs are run as part of centrally hosted services, and many of these are starting to add mobile capabilities.

You can use Google's Blogger service, for example, to upload posts using e-mail or picture messaging. The blogs are also available for reading on mobile handsets — take a look at <http://go.blogger.com> for more details.

The Microsoft Live Spaces platform also provides mobile capabilities automatically. If you have a Live Spaces blog, you can simply go to <http://mobile.spaces.live.com> to access it with your mobile handset.

Handcrafting Mobile Content

Maybe all this talk of site builders, content management systems, and mobile modules has left you cold, and all you really want to do is get your hands dirty by building mobile pages yourself!

Even if you're planning to use a CMS or site builder and are just curious about what's going on behind the scenes, it's quite useful to understand the basic technology behind a mobile Web page.

Getting a handle on the basics

A mobile Web page is similar to a regular Web page. The page is written as a piece of *markup*, which is a mixture of the text that will appear on the page, along with extra information about the layout of the page, the formatting of the text, and any other elements of the page, such as graphics.

As we mention earlier in this chapter, most Web site pages are written with the markup language HTML. But mobile phones prefer to render XHTML, a slightly more modern type of markup.

XHTML is more structured than HTML, and you have to follow a few more rules than you do in HTML. But the small amount of extra effort is worth it because you can be more confident that it will work on a range of different mobile phones.

Within the page, you probably also want to have some graphics to make the page look a little more exciting than it does with just plain text.



Mobile phones have quite small screens, so keep the image sizes fairly small (120 pixels wide is a good rule). GIF or JPG picture formats are widely supported by most handsets.

Writing your first mobile page

Creating the markup for a page doesn't require anything more clever than a text editor. You can even use Windows Notepad to write your first page.

So, if you are using Windows, open Notepad (choose Start→Programs→Accessories), and get ready to write your page!

The page should start off with some special instructions to describe the fact that what follows is XHTML, and then the title of the page, and so on.

You can copy the following page into a text editor. The section named `<body>` is the main part of the page that the user sees. (Note that you need to type the closing `</body>` tag to indicate where the body of the page comes to an end.)

```
<!DOCTYPE html PUBLIC "-//WAPFORUM//DTD XHTML Mobile
    1.0//EN" "http://www.wapforum.org/DTD/xhtml-
    mobile10.dtd">

<html>
<body>

</body>
</html>
```

Within the page, text must be structured in paragraphs. These paragraphs are enclosed in `<p>` tags, like this:

```
. . .<html>
<body>
<p>My first mobile page</p>
<p>And here is a second paragraph</p>
</body>
</html>
```

Save this file to your computer's hard drive as `index.htm`. Although you're designing this page to be viewed on a mobile phone, you should check how it displays in your own Web browser too. For the purpose of seeing how the page looks, viewing the page in your computer's Web browser is a quite useful way to see the page as it develops. If you have saved the file as `index.htm`, double-click the file in Windows Explorer (or Mac Finder) and the page automatically launches in your default browser.

In XHTML, whenever you start sections with tags (such as `<p>` for paragraph), you must remember to close them again (with `</p>`), in reverse order to the sequence in which you opened them.

For example, if you want to format some of your text, you can use the `` tag for bold and the `<i>` tag for italics:

```
. . . <html>
<body>
<p>My first mobile page</p>
<p>
This is <b>bold</b>.
<br />
This is <i>italic</i>.
<br />
And this is <b><i>both!</i></b>
</p>
</body>
</html>
```



Notice how we used the `
` tag to indicate that we want to break the line. It's a special sort of tag that opens and immediately closes. Although our markup shows the text on different lines, the mobile browser runs all the text together in one line unless it sees a `
` tag to explicitly insert a break.

You just created your first basic mobile Web page!

Adding pictures and links

To include an image in your page, use the `` tag and provide some information to indicate where the image file is. Suppose that you pick a nice image to put in your page and save it in the same directory as the page of markup. You use the `src` attribute to tell the browser which file to use.

Put the image tag into your page and see what happens:

```
. . . <html>
<body>
<p>My first mobile page</p>
<p>

</p>
</body>
</html>
```

Notice how we also specified the `alt` attribute to provide some extra text. The `alt` attribute is required in XHTML, and is quite helpful for mobile: The `alt` text is displayed while the image is loading (which might take a few seconds, depending on the user's network speed).

Creating a hyperlink from one page to another is also quite easy. If you have a site with lots of information on it, you have to provide people with a way to navigate it.

The `<a>` tag creates a link, and the `href` attribute tells the browser where to go when the user clicks it. Inside the `<a>` tag is the text that's linked. If you have a second page, you can link them together like this:

```
. . . <html>
<body>
<p>My first mobile page</p>
<p>

</p>
<p>
<a href='page2.htm'>Go to page two</a>
</p>
</body>
</html>
```

```
. . . <html>
<body>
<p>My second mobile page</p>
<p>
<a href='index.htm'>Home again!</a>
</p>
</body>
</html>
```

After you create a basic page and add text and images to it, you can prepare to go live with it, which we discuss in the next section.

Uploading the site

We have to show you a few more things to do before you can truly say that you've gone live with your site. For starters, your Web page is still on your computer's hard drive. Although *your* Web browser can see the files locally, the pages have to be hosted on the Internet before a mobile device can see them.

Most hosting providers provide file transfer protocol (FTP) for uploading content to their servers. You must have FTP software on your computer to connect to their servers to do the uploading. Your hosting provider will probably recommend a good FTP program — examples include SmartFTP, CuteFTP, and Filezilla, and these are all easy to find on the Web.

Your hosting provider will also provide you with the FTP details you need to enter into these programs to start the upload. You'll be given a server address, a username, and a password. You may also be told to use a particular mode of FTP (either passive or active). These settings will vary from hosting provider to hosting provider.

On some hosting platforms, you may not need to use FTP and may be able to upload pages and content by using your Web browser. But whichever approach you use, your goal is to get your two pages and the graphics uploaded to the server.

After the files are on your live server, you can use your regular Web browser to make sure that your Web site still works as expected. But now that your site is live on the Web, you can also connect a real mobile device to it and see what it looks like. To load the page, just enter the address of the first page into your mobile browser and — ta-da! — you should be able to see the simple site you just created.

Testing and Improving Your Site

After you've uploaded your site, the chances are good that the page looks a little different on a mobile device than it did on your regular Web browser. For starters, the mobile screen is smaller, of course, and the fonts are different. But the basic layout should look the way you expected. Try clicking the links to make sure that they work.

At this point, you probably want to rush out of the room to find someone else to show your new creation to. Go on: Be proud of it!

But there's a good chance that whoever you choose to show off to has a different kind of phone than you do — and if they do, you'll immediately notice that the page looks a little different than the way it does on yours. Every mobile phone is a little different — and sometimes more than a little. This is important, because every little difference might affect the way your page displays.

To minimize the problems that these differences may cause, access your Web site on a few different phones. For simple pages like the ones in this chapter, you can be fairly confident that they will render correctly on most handsets. But as you start to build more and more complex pages, you should start testing their behavior on a range of different handsets.

Unfortunately, there isn't really a good substitute for old-fashioned trial-and-error testing, and most people don't normally have dozens of different types of phones on hand. Fortunately, you can do a number of things anyway. dotMobi provides a free online page and site tester (at <http://ready.mobi>), which is a helpful way to find out how well you built your site and to view it in a simple emulator.

You can also check out the useful service DeviceAnywhere, which lets you connect to a range of handsets — over the Internet — and test your site on them. You can find the service at <http://deviceanywhere.com>.

Chapter 16

Making Money on the Mobile Internet

In This Chapter

- ▶ Discovering the types of money-making opportunities on the mobile Internet
 - ▶ Making money with premium-rate text messaging
 - ▶ How to start mobile advertising campaigns for made-for-mobile Web sites
-

The mobile Internet economy is growing exponentially every day. The U.S. is home to more than 200 million mobile phone subscribers, and wireless carriers are always looking for new ways to offer more Internet-like services to the mass-market mobile consumer.

With billions of text messages being sent, mobile content being available from big-name publishers such as ESPN and *People* magazine, and a plethora of mobile shopping Web sites hitting the airwaves, the mobile Internet marketplace is ripe for any business, large or small.

This chapter introduces you to mobile Internet revenue-generating opportunities to help you start understanding the commercial relationships available to make money from made-for-mobile products and services you may want to develop. Review what some of the services have to offer, link to their programs, and start your own mobile Internet business within days or weeks.

In this chapter, we look at ways of designing and developing mobile Internet services that make money from premium rate text-messaging short codes (called premium SMS, or PSMS), mobile payments, and mobile advertising. We also explore creating relationships with wireless carriers and with mobile-technology, mobile-payment, and mobile-advertising companies.

Discovering the Types of Mobile Internet Businesses That Are Available to You

In this chapter, we show you what some of the best made-for-mobile service companies have to offer. Each has its own expertise in helping you make your way through all the complexities of getting on the mobile Internet, independent of wireless carrier or mobile device.

A helpful reference point to see all the mobile Internet opportunities awaiting your entrepreneurial spirit is at the Carlson Marketing interactive Web site at <http://mobileagencyofrecord.com> (see Figure 16-1). Scroll over any of the tactics on the chart to see an overview of the types of mobile Internet services you can offer.

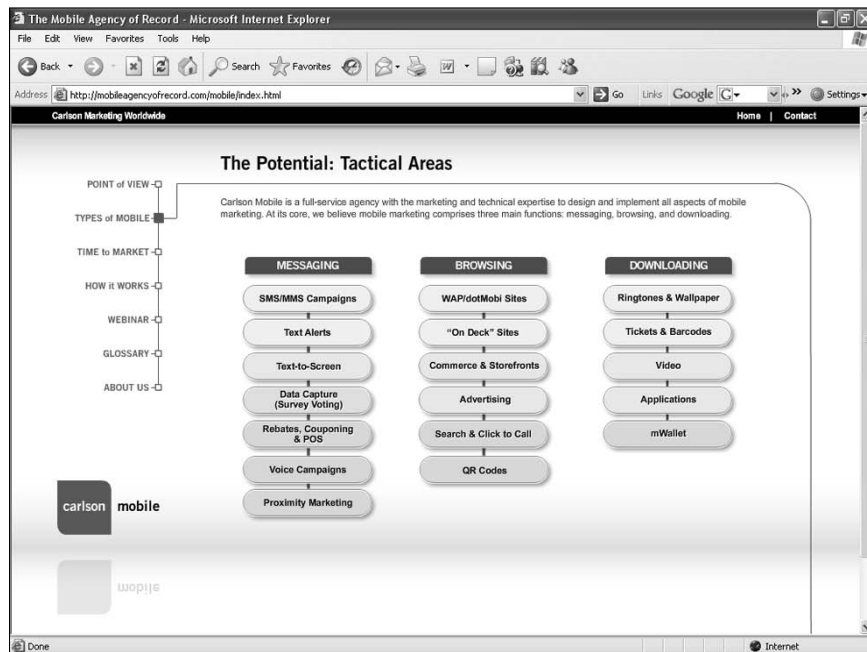


Figure 16-1:
The Carlson Marketing Agency of Record overview.

In the next few sections, we cover a couple of examples and ideas for you to get started on your mobile Internet venture.

For Web site designers and developers

If you create a Web site that works on mobile devices, you may want to take it to the next level. By joining the AdMob, Decktrade, or Medio mobile advertising network, you can include mobile advertising banners on your site to make money from the mobile Internet audiences you're attracting. Visit these three ad networks at these URLs:

- ✓ **AdMob:** www.admob.com
- ✓ **DeckTrade:** www.decktrade.com
- ✓ **Medio:** www.medio.com



Adding mobile-payment options for your digital and physical goods from PayPal increases your chances for additional sales from anywhere-anytime mobile consumers. For more information, check out the PayPal Web site at <https://www.paypal-promo.com/mobilecheckout/index.html>.

For social networkers

Include a premium-rate text messaging poll or voting application from the ooobar-on-SMS self-serve programs to raise money for your next social gathering or event. The ooobar service lets you keep 45 percent of the revenue from these premium messages. (Premium messaging adds an extra charge to messages sent to or from your organization's SMS number.) To find out more, see the ooobar-on-SMS Web site at www.onsms.com.

If you have Google AdSense links on your Web site, make them made-for-mobile on your network. See Google AdSense at www.google.com/adsense/www/en_US/mobile to find out how to put AdSense ads on your mobile Web site.

For camera phone photographers

To promote your work, load your images on the OVI by Nokia mobile media services Web site (www.ovi.nokia.com). Users can download your pictures to use as mobile phone wallpaper and more.

For musician and artists

At your next show, have your fans download your latest release before they leave by adding mobile payments to your made-for-mobile Web site developed with Bango (www.bango.com). Or, let them buy tickets to your show with mobile phone barcode-like passes from bCode (www.bcode.com).

For your business

Mobile marketing, payments, and promotions help drive people to your Internet storefront, retail location, and brands. By combining all the services we feature earlier in this book, you can extend your business to mobile Internet consumers worldwide. Mobile agencies such as AKQA (www.akqa.com) and Carlson Marketing (www.carlsonmarketing.com) are here to help. From campaign design to fulfillment, you're never alone in the uncharted waters of the mobile Internet.

Have your mobile strategies delivered with the end-to-end capabilities of the Infinity mobile marketing platform from iLoop Mobile. You receive premium-rate text messaging, mobile content storefronts, and mobile Web sites all simplified from one technology provider. Here are the URLs for iLoop Mobile and other full-service mobile technology shops:

- ✓ **iLoop Mobile:** www.iloopmobile.com
- ✓ **Jambo Mobile:** www.jambomobile.com
- ✓ **SinglePoint:** www.singlepoint.com
- ✓ **Air2Web:** www.air2Web.com



Dozens of ways exist to mix and match your mobile Internet revenue-generating opportunities. You can also find hundreds of companies available to partner with in your new mobile ventures. We created a directory of mobile Internet vendors on the companion mobile Web site for this book.

Discovering the Three Best Ways to Make Money on the Mobile Internet

We could make you wade through a full made-for-mobile MBA to find out how to make money on the mobile Internet, but because we're limited to a single chapter, we walk you instead through three of the most common ways to get the most revenue from what you have to offer:

- ✔ Premium-rate text messaging for mobile payments from text-based information and mobile content storefronts
- ✔ Credit card and PayPal acceptance for mobile payments
- ✔ Mobile advertising to make money from target audiences viewing your made-for-mobile Web sites

Premium-rate text messaging and storefronts

One of the most popular mobile Internet services is now text messaging. Premium-rate text messaging has become the best way for anyone interested in joining the mobile Internet economy to share their mobile content and have it billed to consumers' monthly wireless-carrier statements.



For more information on text messaging, short codes, and service examples, be sure to read Chapter 6. The more you know about the power of text messaging, the better you're prepared to see whether it can work for you.

Services you can build and publish to mobile Internet consumers include

- ✔ Text-based information *push* alerts and on-demand *pull* services, including news, sports updates, jokes, pick-up lines, thoughts of the day, horoscopes, traffic updates, transit updates, polls, voting, trivia, contests, charity fundraising, and more
- ✔ Interactive chat and service subscription payments for content
- ✔ Mobile digital content storefronts for ringtones, wallpapers, games, videos, and music
- ✔ Product storefronts and vending machines where payments are made through a mobile phone

If you're selling content, you may find it useful and convenient to bill for content by using premium-rate text messaging (also known as premium SMS or PSMS). What is premium-rate text messaging, you ask? It's the text message equivalent of calling a premium-rate phone number (such as a 1-900 number). Calling this type of number costs a caller more per minute than calling a regular number because a service is being offered. (For example, many customer service hotlines work on this basis.) Premium-rate text messaging is similar, except that the text message or offer for content can also be sent *to* the customer. The advantage of premium-rate text messaging is that it's simple to do.

Premium-rate text-messaging services and billings are connected to wireless carriers by means of industry-approved and -certified aggregators. *Aggregators* work with you (the mobile content provider), your mobile service vendors, and wireless carriers to set program pricing, mediate required connections, secure premium-rate short codes for, and manage revenue-sharing payouts.

Most programs offered with premium-rate text messaging are in the \$1–10 range. The revenue from premium-rate text messaging programs is split among all parties involved, including the aggregator and the wireless carrier.



For a list of aggregators in the United States, go to the Common Short Code Administration Web site at www.usshortcodes.com/csc_partner.html and click the Connection Aggregators link.

For a list of aggregators in Canada, go to the CWTA's Canada Text Messaging Resource Centre at www.txt.ca.

It's still not a bad deal when you consider the complex task involved in doing it all for millions of mobile consumers 24/7.

Setting up a short-code program

To secure access to a premium-rate short code, you need to

- ✓ Find and work with an aggregator to secure your premium-rate short code with your country's short-code registry. In the United States, see www.usshortcodes.com; in Canada, see www.txt.ca.
- ✓ Apply for a premium rate short-code license (they last between 3 and 12 months) and secure connection agreements to all the wireless carriers that you want to process your mobile payments.
- ✓ Build your premium rate short-code mobile Internet service and promote your offering to your target audience.

The plan is simple, but it can take from two to eight weeks to set up your end-to-end premium rate short-code program. Also, you have no guarantee that your target audience will buy the products and services you offer.



Just because you think you have an excellent premium-rate text messaging program doesn't mean that the aggregators, wireless carriers, and mobile solution vendors you work with think so too. They aren't responsible for promoting and understanding all the benefits and values of your program: Their purpose is to provide technology, infrastructure, and billing services. Additionally, they don't provide these services for free: They charge you for the licensing, development, and support of your program.

Running your text-messaging program

You have two ways to run a premium-rate text messaging program:

- ✓ Secure your own premium rate text-messaging short code directly with an aggregator, as we outline in the preceding section.
- ✓ Leverage a premium rate text-messaging short code already approved by the wireless carriers and aggregators from a mobile messaging service provider.

To take advantage of a premium rate text-messaging short code already approved and on the market, work with the service provider that's licensing and managing the short code to secure keywords that work with your offerings. You also have to share any revenue from the sale of your mobile content and service offering.

To find out more about sharing a premium rate text-messaging short code for your mobile Internet offerings, visit the following companies to find out more about the programs they offer:

- ✓ **Air2Web:** www.air2Web.com
- ✓ **iLoop Mobile:** www.iloopmobile.com
- ✓ **Jambo Mobile:** www.jambomobile.com
- ✓ **ooober:** www.ooober.com
- ✓ **SinglePoint:** www.singlepoint.com

These are a few examples of premium-rate text messaging short-code programs:

- ✓ **MTV:** Receive information services for MTV Insider, MTV Mobile Alerts (see Figure 16-2), and TRL Alerts priced from \$2.99 per month.
- ✓ **Jamster:** Check out the \$9.99 monthly subscription plans to receive ringtones, wallpapers, games, and more. Visit www.jamster.com/jcw/all/aboOverview.do for more details (see Figure 16-3).



You're charged by your wireless carrier to use and access these services. Each service you try is detailed on your next wireless carrier bill along with the service charge.

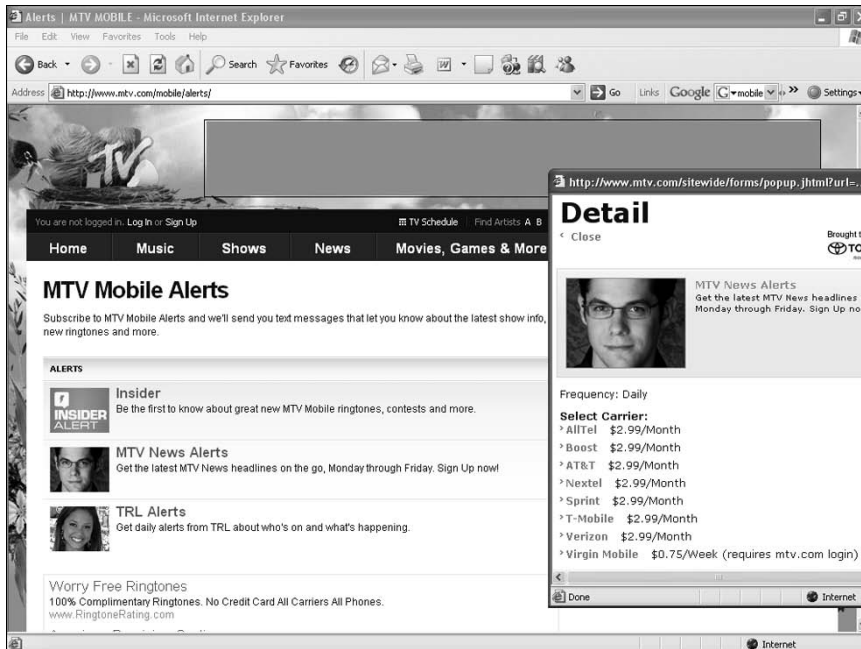


Figure 16-2:
MTV Mobile
Alert.

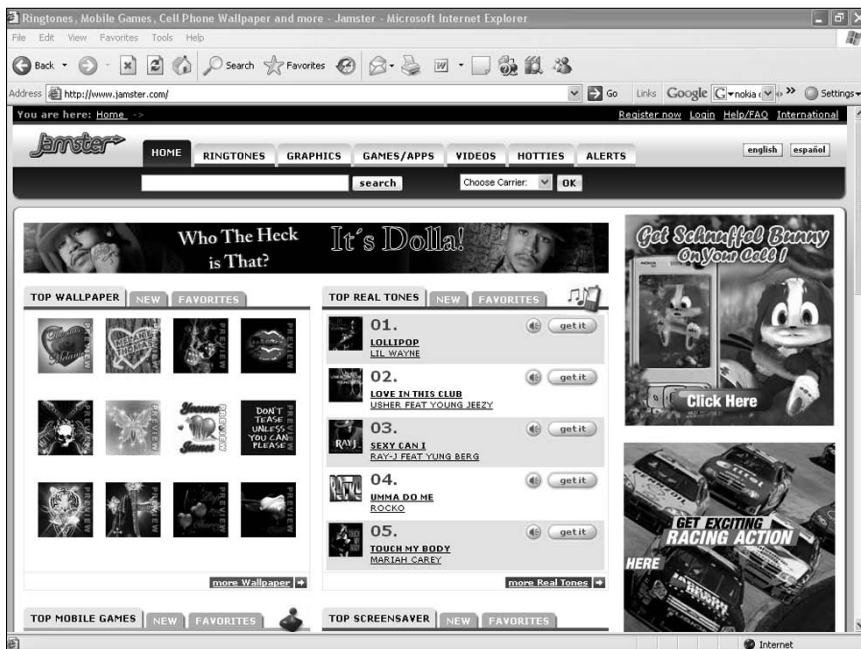
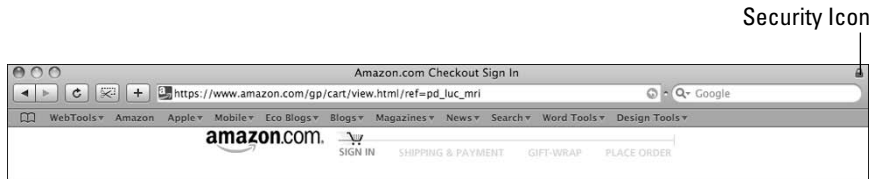


Figure 16-3:
The Jamster
online store.

Taking credit cards over the mobile Internet

You can accept credit card numbers from mobile browsers as payment for content in the same way you can take credit card numbers on the Internet. However, you should be aware of security issues. On the Internet, when you connect to a secure Web site (such as when you enter credit card information or use your bank's Web site to check your balance or pay bills), your connection is secure, and you know that it is because you can see the security icon in your browser, as shown in Figure 16-4.

Figure 16-4: The security icon on a desktop browser.



On the mobile device, the security of your transactions is less certain. A user's browser often cannot operate securely. Some advanced browsers on advanced devices are secure, but you cannot assume that all browsers have this capability.

Advances have been made by mobile-payment billing solution providers to help solve this problem. These companies have developed secure payment technologies to work from almost any mobile browser.

To start a mobile storefront or leverage one that already exists, visit these companies:

- ✓ **Bango:** www.bango.com
- ✓ **mPoria:** www.mporia.com
- ✓ **PayPal Mobile:** www.paypal-promo.com/mobilecheckout/index.html

Mobile payments and commerce are in the very early stages of development in North America, with the exception of billing by using premium rate text-messaging short codes from aggregators and wireless carriers, which make up a large fraction of the revenue.

Visa, MasterCard, and other financial payment providers are looking at new ways to leverage mobile phones as wireless wallets. For more information on Visa mobile payment initiatives, visit Visa at <http://corporate.visa.com/md/fs/consumer/mobile.jsp>.

Embracing mobile advertising

The mobile advertising market is set to explode — it really is. Most industry experts and market research analysts have been tracking mobile advertising as the next wave of moneymaking opportunity for the digital media world. Billions of dollars will be spent and made in the mobile advertising space over the next three to five years.

Figure 16-5 illustrates a simple example of the flow to expect from delivering a mobile advertising campaign to a consumer on the mobile Web.

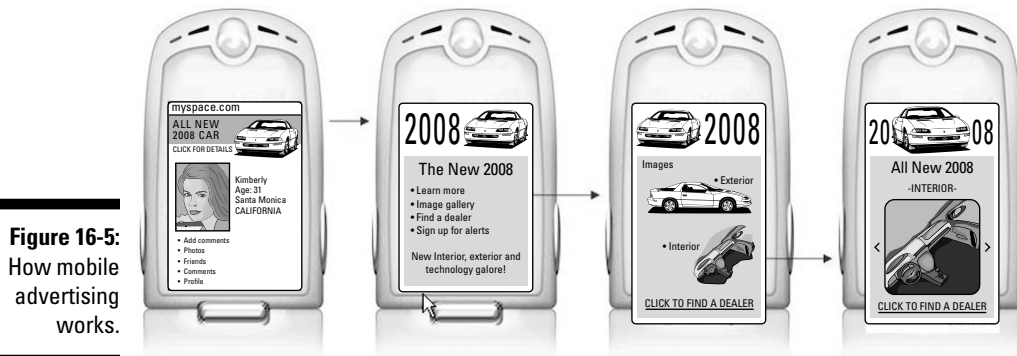


Figure 16-5:
How mobile
advertising
works.

One reason behind the explosion of the Web was the advent of advertising, and the same situation is now happening on the mobile Web. Mobile advertising offers you two opportunities:

- ✓ **Mobile Web site owners can make money.** Run ads on your site to create an income stream from site visitors. Generally, the more visitors you have, the more you can make.
- ✓ **Mobile Web site owners can buy advertising to promote a mobile Web site after it's built.** After all, if you build it and don't tell anyone about it, no one will come.

Many site owners follow up on both of these opportunities: Advertise on their own sites to make money, and reinvest some of the money earned to run ads elsewhere to promote their sites. The more traffic that site owners generate, the more money they make, and so on. Advertising on the mobile Web has been proven time after time to be the best way to promote a made-for-mobile Web site.

One brand wanted to build traffic for its mobile Web site themed around sport sponsorship. It spent 0.4 percent of its total advertising expenditures on the mobile-advertising network provider AdMob, and spent the rest on

traditional media. The AdMob advertising buy delivered 40 percent of its traffic. This example clearly makes a compelling case for mobile advertising indeed.

It's not surprising that a mobile channel should outperform other media in generating traffic for mobile Web sites. After all, the mobile Web can lure consumers to a mobile Web site with one keypad click, whereas consumers who see an offline ad have to remember the address, know how to use the mobile Web, have the correct settings on their phones, and then use an awkward interface to enter the URL.

For this reason, mobile advertising is bound to outperform other forms of advertising, in the same way that Web advertising outperforms other forms of advertising.



Some forms of advertising can be controversial, especially the kind that interrupts whatever the user is trying to do at the time. However, the kind of advertising that has appeared on the mobile Web so far has been restricted to text and graphical banners, which were pioneered on the Internet by the likes of Overture (Yahoo!) and Google.

Generally speaking, most users are happy with this format because the ads can prove to be genuinely useful in helping users to find the content they're looking for, and can be easily ignored if they don't. More importantly, most people understand that advertising allows content owners to offer their products and services for free, or on a subsidised basis. Faced with the choice of free content with advertising or paid-for content with no ads, most people choose the advertising route.

If you're thinking of running mobile advertising to promote your site, or thinking of monetizing your site by allowing advertising on it, you have a few choices of partners to consider. Your choices range from wireless carriers (such as the Sprint Mobile Media Network at www.sprintmedianetwork.com) to Google, Yahoo!, and new mobile advertising companies such as AdMob, Millennial Media, ScreenTonic, Third Screen Media, and the Nokia Ad Services Business. The Nokia unit was recently formed with the acquisition of the mobile advertising pioneer EnPocket.



The dotMobi Advisory Group published a useful mobile advertising white paper that details the whole mobile advertising ecosystem. Read it for free at www.advisorygroup.mobi/mobileadvertising/whitepaper.pdf.



If you want to get into the mobile ad serving business, you can build your own or check out companies such as Smaato (www.smaato.com), which allows you to put your own name, or *private label*, on its technology to get you started.

Check out the upcoming section to find out how you can use AdMob and the Internet giants at Google to start making money now from mobile advertising on your made-for-mobile Web sites.

Advertising with AdMob

AdMob (www.admob.com) started at the beginning of 2006, marking the launch of the world's first mobile advertising network. Two years later, AdMob has reflected the huge growth of the mobile Internet, having served more than 15 billion mobile Web ads at the time of this writing. When a mobile ad company grows this quickly and has numbers this high, it's a clear indication that mobile advertising will become a huge industry — and quickly.

The idea behind AdMob is straightforward: It finds mobile Web sites (such as yours) with existing visitors and offers to run text link advertisements on its site on a *pay per click* (PPC) basis. Certain sites and markets can also run graphical banners. For many of these mobile Web sites, advertising represents a new revenue stream and, in many cases, a completely new business model. When AdMob has sites to advertise on, the sites can be offered to potential advertisers to run ad campaigns.



Read through the Mobile Marketing Association mobile advertising guidelines for the latest information and industry best practices for mobile ad banner sizes, styles, graphics, and text links. (See the nearby sidebar, “Best practice guidelines from the Mobile Marketing Association,” for more information on the guidelines and where to find them.)

Figuring out who the mobile advertisers are

If you're going to run ads on your site, you should know who might be advertising there. You need to be in complete control, so don't sign up with a system that doesn't let you approve all advertisers before their ads are published. For instance, you might not want certain sorts of advertisers, such as those promoting adult content (although AdMob doesn't run these kinds of ads anyway) or your competitors to advertise on your site.

Broadly, you can expect to see two types of advertisers:

- ✓ **Mobile content sellers:** These companies sell special products and services, such as ringtones, games, and software applications, for mobile phones.

For these companies, the mobile advertising channel is a major turning point because it changes the mobile phone, in a stroke, from a distribution channel to a mobile marketing channel. The most exciting part is that these ads preach to the converted: Because you know, beyond a shadow of a doubt, that people who see the ads are mobile-literate and active users of their phones, you lessen your wastage of ad dollars dramatically.

- ✓ **Mainstream advertisers:** The second and potentially much larger type of advertiser is the blue-chip brand, such as Ford, Procter & Gamble, and Adidas.

These brands have woken up to the huge potential of the mobile Web and are starting to realize that it might just be even bigger than the Internet. Already, mobile phones outnumber Internet-connected computers, which means that more people can potentially access the Web by using their mobile phones. That's why the smart money is betting that the mobile Web will be as important, if not more important, than the computer Internet.

Putting ads on your mobile Web site

After you build your mobile Web site, getting ads on them is easy. All you need to do is register with a company such as AdMob. The registration process generates the code you need in various programming language options (such as PHP, Ruby on Rails, and CGI/Perl). Next, follow these simple steps:

1. **Go to www.admob.com.**
Figure 16-6 shows the AdMob Web site.
2. **Click the Get Started button in the Publishers section.**
3. **Fill in the account registration details to set up your profile, services, and accounts. Then follow the online instructions to get started with mobile advertising on your mobile Web site.**
4. **Select the language for the ad code that works best for your site.**
5. **Copy the entire code snippet and paste it into your site's source code. Paste the snippet wherever you want an ad to appear.**

The exact method for inserting the ad into your site's source code varies depending on how your site is constructed. For example, if your site is managed from the WordPress blogging platform and you're using the WordPress mobile plug-in, you have to edit the template for the mobile page. This type of operation can usually be accomplished from the administrative facility of whatever site publishing system you're using.

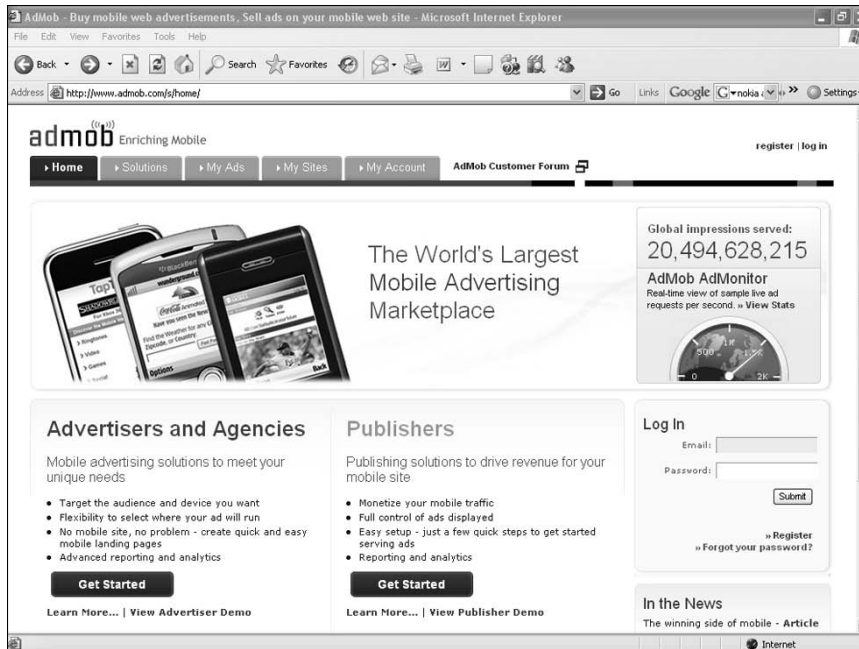


Figure 16-6:
The AdMob
Web site.

6. Test your installation.

By default, the code is set to run in test mode. In this mode, if the ad code is properly installed, a Test Ad link is displayed on your site. When you can see the test link, you're ready to set the code to Live mode.

7. To set the code to Live mode, find the location in the code that reads **Change to Live When Ready to Deploy**. On the line below it, change **Test** to Live.

8. Reload your page and you're done!

If the code is properly installed, your site is activated by the system and you receive an e-mail notification.

In just a couple of lines of code, you can launch your mobile Web site supported by the AdMob network of advertisers and agencies.

Now it's up to you to promote your made-for-mobile Web site to your friends and associates, on billboards and in magazines, and using e-mail marketing campaigns and even the mobile Web itself.

Creating a mobile advertising campaign

You can set up a mobile ad campaign surprisingly quickly, directly on the AdMob platform and on any other mobile advertising service provider's network. You can take a simple campaign from planning to execution in about ten minutes. In this section, we show you how that process works.

AdMob uses an intuitive wizard to guide you through the creation of a mobile ad. Here are the simple steps to launch a campaign:

- 1. Register or log in to the AdMob site at www.admob.com.**
- 2. Click the My Ads button and select Create Ad from the menu.**

This step opens a series of pages that help you complete the steps. The wizard walks you through a series of choices you need to make to target your campaign.

- 3. Create the ad by entering as many as 35 characters of compelling copy that gets consumers interested enough to click.**



Many advertisers tend to personalize their ads by quoting the user's phone model. This strategy might not resonate well with you, but to the youth market, the phone model is more important than the make of your car might be to you. An ad that says "Ringtones for the RAZR" or "Games for the iPhone" truly grabs their attention.

- 4. Decide in which countries you want to run your ad.**

You can select the country (for example, U.S.), region (for example, Europe), or even global campaign, depending on your requirements. You can also choose on which types and brands of handset to run your campaign. You also choose the type of channel to advertise on, whether it's communities, news and entertainment, or portals. You have the choice of five channels of interest to select from.

- 5. Decide how much you want to pay for each click your ad receives.**

AdMob operates on an auction system. The higher your bid, the more likely your ad is to be served, and thus the more clicks you get.

Getting to Know Google Mobile Ads

Google operates the Google Mobile Ads service, which complements its highly successful Google AdWords service. Google Mobile Ads can appear on mobile Web sites (sites specifically designed for mobile phones) or on Google mobile search engine result pages displayed to mobile Internet users.

The mechanism for creating a mobile ad in Google is similar to how you create a Google AdWords advertisement. First, you must set up a Google AdWords account (go to adwords.google.com). From there, you can create a campaign and then, within that campaign, create mobile text ads.

Using Google Mobile Ads, you can also place a phone number in the ad and give users the option to click to call when they see the ad. Remember that they will view your ad on a phone — what else can they do with their phones other than use the mobile Internet? Believe it or not, users can make phone calls on their phones too. Think about incorporating a click-to-call feature to bring potential customers one step closer to you.

Additionally, Google Mobile Ads can help you target your ads by wireless carrier. If you want to show T-Mobile customers something different from what AT&T customers see, for example, you might want to use this cool service feature, called *carrier targeting*. For example, you might run ad campaigns for handset upgrades that are specific to a particular mobile operator.

For more information on Google Mobile Ads, go to this link on your computer's browser: services.google.com/adwords/mobile_ads.



If you're interested in building mobile advertising services into your mobile Web site from the start, both iLoop Mobile and Akmin (at www.mobisitegalore.com) have integrated terrific mobile advertising and commerce utilities into their mobile Web site building tools.

Chapter 17

A Mobile Internet Web Development Resource Guide

In This Chapter

- ▶ Finding development resources
 - ▶ Discovering carrier and handset development resources
 - ▶ Adhering to standards and best practices
 - ▶ Checking out industry forums and news
-

Throughout this book, we talk a lot about mobile Internet sites and services and how you can use and build them. In this chapter, we list more sites, resources, and places to go for help. This chapter just contains our favorites, so of course it's not complete by any means. But if you're starting to become familiar with mobile and content creation or you want to go a little further in the wonderful world of mobile, you should find plenty of information in this chapter to keep you interested, intrigued, and busy.

We categorized these resources according to what you might be looking for: pure development issues, details about specific mobile handsets or carriers, standards information, or news and industry information. We hope that you'll find something, whatever your level of interest.

Independent Mobile Development Sites

Many, many sites on the Web are geared toward helping you with regular Web development. There aren't quite as many dedicated sites (yet) for *mobile* Web development, but you can certainly find enough to be able to read about the subject and become an expert.

dev.mobi

http://dev.mobi

One of the largest and most popular mobile development communities is hosted by the dotMobi company, which is responsible for .mobi domain names. dotMobi funds the community from the domain name business, so a wide range of excellent resources is available — all for free. The site is a good starting point for all your mobile activities (see Figure 17-1).



Figure 17-1:
Developer
tools galore
at dev.mobi.

Here are some of the features on the dev.mobi site:

- ✔ **Regular blogs from the dotMobi team:** Read posts from industry experts such as James Pearce, Andrea Trasatti, Ronan Cremin, Jo Rabin, and Ron Mandel.
- ✔ **The dotMobi *Mobile Web Developer's Guide*:** This downloadable and comprehensive guide to mobile Web development discusses a number of mobile best practices, techniques, and approaches.
- ✔ **A lively forum of developers:** If you ever get truly stuck in your mobile adventures, post a question on this site and find help from thousands of other members.

- ✓ **A list of tools for development:** Dev.mobi lists development tools (such as environments, content platform plug-ins, browser toolbars, and test tools) that you can use daily. A dotMobi promotion with DeviceAnywhere, a service that tests Web sites on different mobile devices, offers a free trial on its mobile testing network.
- ✓ **Training and certification:** The site contains an online training course, links to learning materials, and everything you need to prepare for dotMobi certification. You can take the certifying exam in many locations worldwide for a small fee. If you're a professional developer, being certified means you know what you're talking about in mobile — and is something you can brag about on your résumé!



Anyone who spends more than a few days working with mobile Web sites will realize the challenges of device diversity. Every phone is different and you need to know just *how* they are different to be sure that your site works well on all of them. dotMobi provides its DeviceAtlas at <http://deviceatlas.com> to help solve just that problem — it is a vast, authoritative repository of information about thousands of mobile handsets from around the world.

Developer.com

<http://www.developer.com/ws>

Although many articles at Developer.com are targeted at *thick client* development (software that runs in a handset rather than a pure Web site), its wireless Developer.com subsite provides some good introductory articles.

The Scripts

<http://www.thescripts.com/forum/forum228.html>

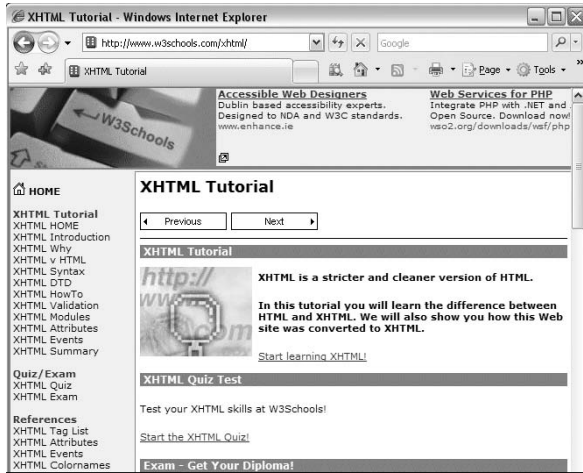
A small section of a larger development community, these forums are fairly active and cover a wide range of mobile development topics.

W3Schools Mobile

<http://www.w3schools.com/xhtml>
<http://www.w3schools.com/wap>

The W3Schools site contains easy-to-understand articles and reference guides for many Web development technologies. The site, which features sections for XHTML and WAP/WML, serves as a consistent reference for what you can do with those languages (see Figure 17-2).

Figure 17-2:
Web
program-
ming
tutorials at
w3schools.



wmlprogramming

<http://tech.groups.yahoo.com/group/wmlprogramming>

One of the oldest and most well established mobile development communities is wmlprogramming: Its name reflects its founding back in 1999, in the good old days of WAP!

Run by the ever-enthusiastic Luca Passani, wmlprogramming is run primarily as an e-mail-based list.

If you're a Yahoo! Groups member, you can sign up immediately and read its regular traffic either as it happens or as a digest.

A number of other sites and services that Luca provides are associated with this mailing list, including

- ✔ **Global Authoring Practices:** This practical list of common-sense developer techniques can be read instead of, or in addition to, the W3C Best Practices (see the “Standards and Best Practices” section later in this chapter).
- ✔ **The Wireless FAQ (Frequently Asked Questions):** This is a comprehensive guide to mobile development, although much of the content focuses on WAP, and it isn't actively kept up-to-date.
- ✔ **Wireless Universal Resource File:** Otherwise known as WURFL, this useful resource is a file of mobile handset information that you can use to recognize — and adapt your content for — thousands of different

mobile handsets. A related tool called WALL (also available on the site) makes it easy to use this data to tune your site for different types of phones.

Carrier Development Sites

Many carriers around the world provide information about developing applications and sites for their networks (especially those that provide private, or *walled garden*, content). The list isn't exhaustive, of course, but should give you a flavor of what's available.

If your favorite carrier isn't listed in this section, check out its Web site to see what it offers. Look for a Developers link on the company's main site.

AT&T devCentral

<http://developer.att.com>

AT&T hosts an excellent developer community, particularly for the United States market.

This site features an excellent set of links to information about a wide range of technologies, including BlackBerry, Java, Palm, and Symbian. It also provides

- ✓ **Device listings:** The AT&T site is notable for a superb list of all the handsets on its network. You can also filter and sort them in a wide range of interesting ways.
- ✓ **Marketing promotion:** Check out a guide to how to promote and launch your application on the AT&T network and make money from it by using its billing platform.
- ✓ **Forums, Webcasts, and events:** A rich selection of forums and events for the community provide helpful, high-quality advice.

Orange Partner

<http://www.orangepartner.com>

Orange, part of France Telecom, also provides a large number of mobile networks around the world, and its Partner site is its developer community (see Figure 17-3).

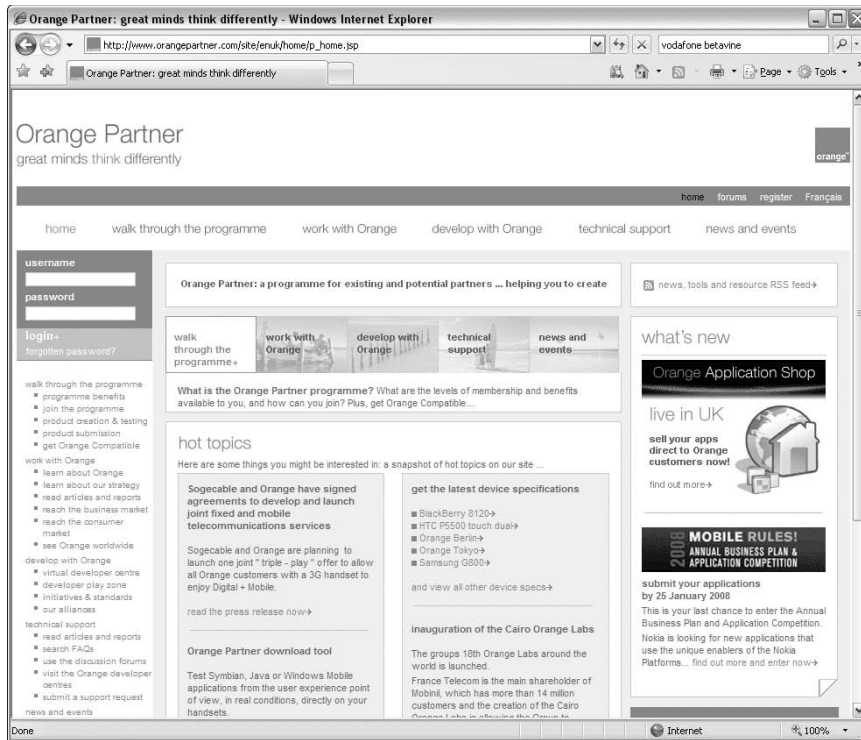


Figure 17-3:
Developer
resources
from Orange
in France.

The site is well organized to take you through the process of developing mobile content and applications and then launching and monetizing them. Some parts of the site require registration and approval by Orange.

The site features

- ✓ **Information about the Orange business:** Including the types of applications or sites that it looks to deploy on its network
- ✓ **A virtual developer center:** Including device and interface specifications, guidelines, tools, and testing
- ✓ **Forums:** Moderated by experienced Orange developers from around the world

Verizon The ZON

<http://www.vzwdevelopers.com>

The Verizon developer site, The ZON, features sections on many of the technologies provided on the Verizon CDMA network, including SMS (text messaging), MMS (picture messaging), WAP (wireless application protocol), and Web, video, music, and enterprise development. In particular, the site focuses on *BREW technology* (a system for delivering spiffy applications that work well on Verizon's phones), but most mobile developers can find interesting information on the site.

Vodafone Betavine

<http://www.vodafonebetavine.net>

Vodafone provides a large number of mobile networks outside the United States, and its Betavine site is an attractive site for developers (see Figure 17-4).

The site tends to focus on building — and testing — downloadable mobile applications, but it covers a range of other topics, including Web and dotMobi development.

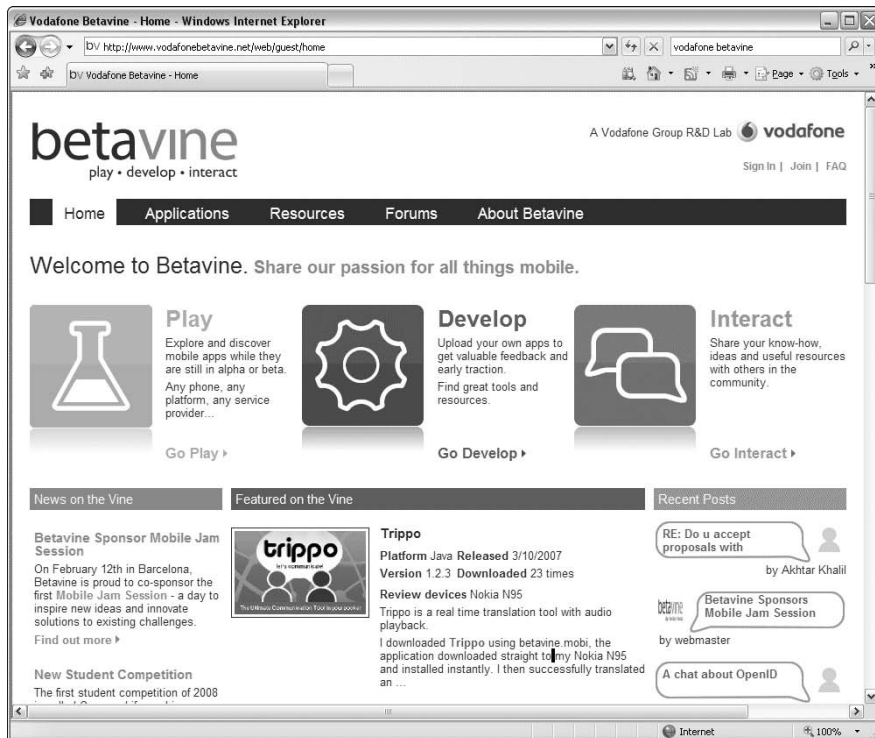


Figure 17-4: Betavine shows Vodafone's latest mobile technologies.

Handset Development Sites

Understanding how mobile devices work is an important part of the mobile development process. Each phone model is different, and each manufacturer has clear ideas about how you should make the most of the functionality of their phones.

Many manufacturers, particularly the major ones, run developer sites, which are often brilliant places to pick up accurate information about just what their phones can do and how you should design for them.

Apple

`http://developer.apple.com/iphone/devcenter`

With the launch of the iPhone, Apple has focused on ensuring that developers can write useful sites for the handset. Check out the iPhone section of its Dev Center site (see Figure 17-5).



Figure 17-5:
The Dev Center lets you make iPhones even cooler.

The site, which requires registration, has excellent guidelines on all aspects of developing for the iPhone handset; in particular, it helps you to understand how to make Web sites look great on iPhones.

BlackBerry

<http://na.blackberry.com/eng/developers>

For people developing e-mail or Web applications for BlackBerry devices, the list of developer resources from Research In Motion (the company that makes the devices) is comprehensive.

The simulators are excellent, and the API documentation for Java application support in BlackBerry devices is well written.

Motorola

<http://developer.motorola.com>

The Motorola developer program site provides the usual listing of handsets and their specifications, and also features some strong download tools, such as the MOTODEV Studio, which contains all the Motorola APIs, tools, and documentation in one development environment.

Forum Nokia

<http://forum.nokia.com>

Forum Nokia, one of the longest established mobile development sites, is an absolutely vast resource of material, documentation, and support. It also has one of the biggest and most vibrant memberships in the industry. If you want to find out anything about Nokia mobile phones, the technologies they support, or even many of the network technologies that Nokia develops, this site (see Figure 17-6) is invaluable.

The site is huge, and it's worth knowing exactly what you're looking for when you enter it. The information is split into categories according to the handset *platform* (for example, Series 40, 60, 80), technology (as diverse as Java, Web, or VoIP), or development activity (such as consultancy, testing, quality, and usability). Nokia also loans devices to developers to help ensure that their sites and applications work correctly.

The screenshot shows the 'Device Specifications' page on the Nokia Forum. The page features a navigation menu on the left, a search bar at the top right, and a main content area with a table of device specifications. The table lists various Nokia handsets with their display sizes, platforms, and supported technologies.

Device	Display	Java	Developer Platform	Messaging	Browser
Nokia 6220 classic	240 x 320	CLDC 1.1 MIDP 2.1	S60 3rd Ed	IM MMS+SMS SMS	HTML S60 OSS WAP 2.0 XHTML
Nokia N78	240 x 320	CLDC 1.1 MIDP 2.1	S60 3rd Ed	IM MMS+SMS SMS	HTML S60 OSS WAP 2.0 XHTML
Nokia 6210 Navigator	240 x 320	CLDC 1.1 MIDP 2.1	S60 3rd Ed	IM MMS+SMS SMS	HTML S60 OSS WAP 2.0 XHTML
Nokia N96	240 x 320	CLDC 1.1 MIDP 2.1	S60 3rd Ed	IM MMS+SMS SMS	HTML S60 OSS WAP 2.0 XHTML

Figure 17-6:
Everything you could possibly want to know about Nokia phones.

As a newcomer to mobile development, you might find these three pages quite useful:

- **Device Specifications:** Lists every Nokia handset, including details about screen size, platforms used, and technologies supported:

http://forum.nokia.com/devices/matrix_all_1.html
- **Web Technologies:** Tells you how to write pages that work well on fully featured browsers as well as on some of the mid- and low-range handsets. You can find excellent documents, tools, forums, and links for developing Web sites for all types of Nokia handsets:

<http://forum.nokia.com/main/resources/technologies/browsing>
- **Media Tools:** Lists software you can use to compose ringtones, mobile video, and other types of media content for Nokia handsets:

http://forum.nokia.com/main/resources/tools_and_sdks/listings/media_tools.html

Openwave

<http://developer.openwave.com>

Openwave may not be a name you're familiar with, and that's not a surprise, because it doesn't make mobile handsets itself. However, the Openwave mobile Web browser is standard in a huge percentage of handsets — particularly in the United States.

So, if you haven't found what you need on a manufacturer-specific site, the Openwave Developer Network site is an excellent cross-handset resource.

Openwave (see Figure 17-7) provides a widely used handset simulator that you're sure to find useful if you're developing mobile Web sites or applications for a wide range of Openwave-based handsets.



Figure 17-7:
It's a
handset
on your
computer's
screen.

Sony Ericsson

<http://developer.sonyericsson.com>

Sony Ericsson places strong emphasis on providing information for mobile developers, and its Developer World (see Figure 17-8) is a useful resource.

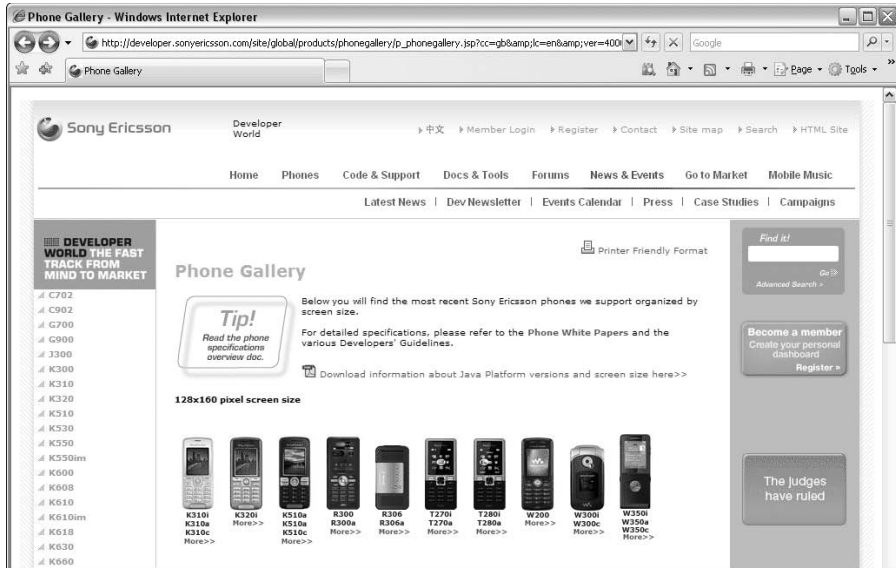


Figure 17-8:
All about
Sony
Ericsson
handsets.

As well as a detailed device listing of all Sony Ericsson devices past and present, the site features the usual array of code samples, documents, and forums — all to a high standard. One unusual feature is a wiki: This developer site is quite active in encouraging its members to help each other.

Sun J2ME

<http://java.sun.com/javame/>

Sun has a huge development network (known as SDN) covering many types of technology and flavors of Java. If you're interested in developing installable applications for mobile handsets, Java Micro Edition (often referred to as J2ME) is an excellent choice. This site (see Figure 17-9) has plenty of information to get started.

The site is best suited to developers who already have a working understanding of Java, and it doesn't have any specific information about particular mobile devices (for which you should consult the other sites listed in this section).



Figure 17-9:
J2ME runs
on phones
just about
everywhere.

Samsung

<http://developers.samsungmobile.com>

The heart of the Samsung developer site is a detailed list of its handsets. The site focuses on Java capabilities, but also contains links to software developer kits (SDKs) and tools for a range of development activities.

The site also has a Content Market page listing applications for download to Samsung phones and a fairly small FAQ (frequently asked questions) page.

Standards and Best Practices

It might often seem that the mobile world is full of acronyms and technical standards, all of which have been placed in your way to make your job more difficult. But, numerous as they are, most standards bodies provide a lot of readable information and support for developers.

In addition, a number of sites provide best practice and style guide advice. In general, these sites aim to describe how best to use existing standards rather than to reinvent them.

dotMobi

```
http://dev.mobi/article  
http:
```

The dotMobi mobile development community dev.mobi has worked closely with the W3C and promotes its mobile Web Best Practices extensively. Click the Articles and Tools links on the site for the latest on standards and best practices.

Global Authoring Practices (GAP)

```
http://www.passani.it/gap
```

Luca Passani, who maintains the wmlprogramming developer community, also manages the Global Authoring Practices (GAP). A list of best practices for mobile Web development is at www.passani.it/gap. Many are similar to the W3C and dotMobi recommendations, but these practices particularly take into account some of the limitations of legacy mobile handsets.

Open Mobile Alliance (OMA)

```
http://www.openmobilealliance.org
```

If you're interested in reading further about some of the standardization activities behind a lot of the modern mobile Web technologies, you can certainly find plenty on the OMA site at www.openmobilealliance.org. It covers more than any single individual could possibly digest! On the other hand, it has some gems, too, including details of the UAProf (User Agent Profile) standard for phone specifications.

World Wide Web Consortium (W3C)

```
http://www.w3.org/Mobile
```

The World Wide Web Consortium (W3C) is the standards group set up to help develop and make recommendations about Web technologies. Its Mobile Web Initiative (MWD) has taken steps to do the same in the world of mobile and has produced a range of valuable work in this area.

In particular, the W3C's Best Practices document and associated mobileOK Checker work to provide a good, common-sense introduction to developing safe mobile Web content.

Industry Fora and News

If you want a more industry-centric view of what's going on in mobile, lots of forums, news sites, and other resources are available. These sites might not focus on the technology at a development level, but they're helpful for reading about a topic, finding out what's going on in the industry, and, of course, picking up ideas on what other people are up to.

FierceWireless

<http://www.fiercewireless.com>

FierceWireless (see Figure 17-10) is one of the most reliable and comprehensive mobile news sites. It provides a wide range of RSS feed- and e-mail-based materials at www.fiercewireless.com.

The screenshot shows the FierceWireless website interface. At the top, there's a navigation bar with links for FierceWireless, FierceWireless-Europe, FierceDeveloper, FierceMobileContent, FierceBroadbandWireless, FierceVoIP, FiercePTV, and FierceTelecom. Below this is a search bar and a 'GO' button. The main content area is divided into several sections: 'COMMENTARY' with an article titled 'Flat-rate Revolution' by Sue Mark; 'SPECIAL REPORT' with an article titled 'Mobile UI advances to watch in 2008'; 'LATEST NEWS' with three articles: 'Motorola hires Liska as new CFO', 'Alltel offers LBS roaming nationwide', and 'RIM ups new subscriber count for Q4'. On the right side, there's a 'FREE NEWSLETTER' sign-up form and a 'READER POLL' about the Frontline auction. The browser window title is 'FierceWireless - Wireless Industry, Wireless Technology News, Wireless Security News - Windows Internet Explorer'.

Figure 17-10:
FierceWireless keeps you up to date on mobile news.

ForumOxford

<http://openmoodle.conted.ox.ac.uk>

As part of Oxford University's continuing education program, the Next Generation Mobile Applications Panel provides a vibrant online community and forum for discussing the real and strategic issues of the mobile world.

Registration is free, and you find many of the mobile industry's experts participating there, discussing a wide variety of excellent topics.

INMobile

<http://www.inmobile.org/information>

Positioned as a site (requires registration) for industry leaders, the INMobile group (see Figure 17-11) provides online and e-mail-based forums with good discussions about the mobile industry.

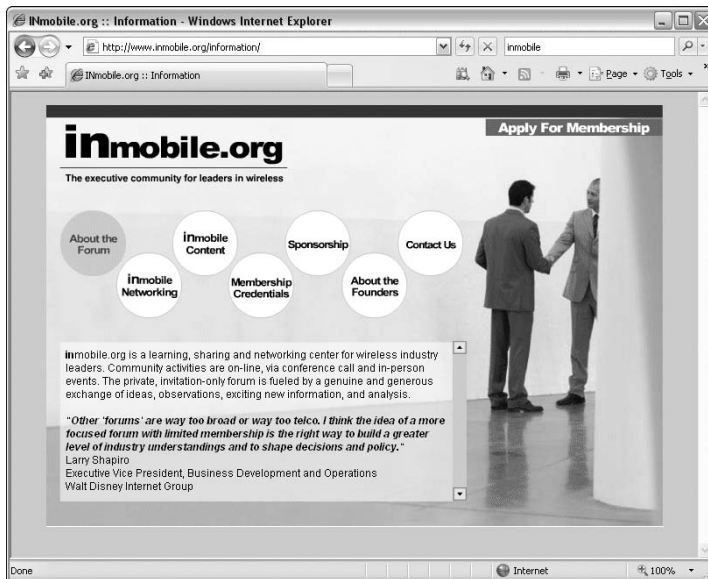


Figure 17-11:
inmobile,
for those
who make
the cut.

MobileMonday

<http://www.mobilemonday.net>

MobileMonday (see Figure 17-12), which describes itself as “a global community of mobile industry visionaries,” is well known around the world for its large number of city chapters and their community-organized events.

If you’re in a major city, the chances are good that there’s already a MobileMonday group near you. If not, why not start one?

The screenshot shows the MobileMonday Global website. At the top, there's a navigation bar with links for Home, Events, Community, News, Bloghive, About, and Contact. Below this is a section for 'Industry News' with a featured article titled 'Tammisto interviewed by Paul Ruppert' dated 18 Feb 2008. To the right, there are event listings for February 25 (Turku: Mobility in logistics) and March 10 (Austin: A special session with James Pearce and Brian Fling). Below the news are two calendar views for February and March 2008. On the right side, there is a login and sign-up form with fields for Username and Password, and a 'Remember me' checkbox. At the bottom, there is a 'Global Partners' section listing various cities and partners like Nokia and Next Ventures.

Figure 17-12: MobileMonday has mobile news from around the world.

Unstrung

<http://www.unstrung.com>

Another widely read online publication, Unstrung (see Figure 17-13) provides extremely comprehensive news about the wireless and mobile industries at www.unstrung.com.



Figure 17-13:
Unstrung's
mobile
news and
analysis.

Lots and lots more blogs

The mobile industry is a vibrant one. There are lots of contributors worldwide to the mobile Internet and its promise for the future. Many of them run their own, personal blogs, and these provide excellent, independent views of the mobile industry and developing for it.

Many useful blogs are aggregated by the W3C at its Planet Mobile Web service at www.w3.org/Mobile/planet, but the following blogs are particularly notable for their excellent coverage of the mobile world:

- ✓ Russell Beattie: <http://russellbeattie.com>
- ✓ Dennis Bournique: <http://wapreview.com/blog>
- ✓ Kai Hendry: <http://natalian.org>
- ✓ C. Enrique Ortiz: <http://weblog.cenriqueortiz.com>
- ✓ Tom Hume: www.tomhume.org

- ✓ Mike Rowehl: www.thisismobility.com
- ✓ Martin Sauter: http://mobilesociety.typepad.com/mobile_life
- ✓ Andrea Trasatti: <http://blog.trasatti.it/>
- ✓ Barry Welford: www.staygolinks.com
- ✓ Rudy De Waele: www.m-trends.org

Two of the authors of this book also have mobile blogs:

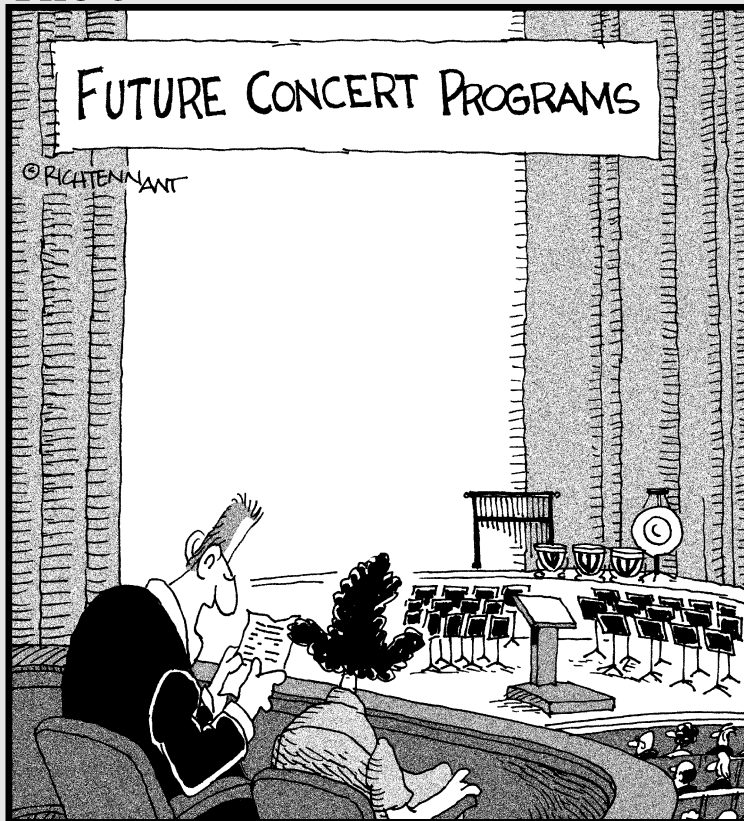
- ✓ Dan Appelquist: www.torgo.com/blog
- ✓ James Pearce: www.tripleodeon.com/

Part V

The Part of Tens

The 5th Wave

By Rich Tennant



"Ooo – they're performing Ring Tone No. 9, Opus 13
by Sashimi Hornblower – one of my favorites."

In this part . . .

We have lots of interesting odds and ends about the mobile Internet that we want you to know about, so (to provide the illusion of organization) we grouped them into lists. By the strangest coincidence, each list consists of exactly *ten* facts. (*Note to the literal-minded:* You may have to cut off or glue on some fingers to make your version of ten match up with ours. Perhaps it would be easier just to take our word for it.) The glossary is in this part of the book, too.

Chapter 18

Ten Fun Things You Can Do On the Mobile Internet

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You can use the mobile Internet in many ways to keep in touch with family members, friends, and colleagues *and* to run a business. In this chapter, though, we specifically focus on some fun stuff. Our list isn't complete, so if you find new and fun things to do on the mobile Internet, please let us know by sending an e-mail to us at info@mifd.mobi.

Download Music

Downloading music to your computer has been a popular task for many years, and Apple has sold billions of songs to people using iTunes to download them to their iPods. But the iPod isn't the only game in town: If you don't already have an iPod (or any other digital music player), there's no reason that your mobile phone can't become a substitute. Many mobile phones can now play MP3 music files. Gartner Group estimates that consumers around the globe will spend \$32.2 billion on music for their handsets by 2010, an increase from \$13.7 billion in 2007. Those numbers represent an incredible growth rate. And music, in all its forms (especially ringtones) generates the second highest revenue among mobile Internet service, after text messaging.

To download music, start with your mobile network service provider — many of them now have arrangements with online music stores to let you shop for and download music. If your network service provider doesn't have this type of service, check out the ones on this list:

- ✓ **Napster Mobile:** Transfer music directly to your mobile phone. You can purchase single tracks or preview 30-second clips before you buy. Songs you download are sent to your computer automatically. Check the site (www.napster.com/napstermobile) to see whether your phone is compatible with the service.

- ✔ **HooQs:** Download your favorite music and video clips to your mobile phone. This Web-based service is free: <http://m.hooqs.com>. You can build your own channels from a range of media sources and from these categories: Animals and Nature, Celebrities, General, Humor and Fun, Movies, Music, News, Sports TV, Tech and Science, and Adult Entertainment.
- ✔ **Songs2mobile** (www.songs2mobile.com): After you download this application to your computer from www.songs2mobile.com, it compresses your music files into smaller files that you can store on your mobile phone. This process turns your mobile phone into an MP3 player if your phone isn't already capable of playing that type of file.



Music occupies a lot of space and bandwidth, so make sure that you have a good data plan with your mobile network service provider and enough storage space on your phone to store all the songs you want to listen to.

Watch Live TV

If you want to watch TV from your phone, you have several options. On Makayama (www.makayama.com), for example, you can watch more than 100 channels from 10 countries live on your smartphone. With the Makayama Pocket Live TV, your phone practically becomes a portable TV, which you can use to amuse yourself while you're standing in line or waiting for your delayed flight.

Makayama has two drawbacks, however:

- ✔ **You must download software.** If you travel a lot, though, it's a worthy investment.
- ✔ **You must have a smartphone.** A traditional flip phone doesn't make the cut.

Also, check with your wireless carrier — it's eager to build broadcast technology in order to distribute live TV to mobile subscribers.

Share Pictures

Using Flickr to share photos and videos on the Web has become quite common and popular. But do you know that this task is now possible using your mobile phone? Gartner Group expects that by 2010 more than 1 billion camera phones will be shipped worldwide. The quality of camera phone images has increased significantly over last year. In fact, some phones, such

as the Nokia N95, can shoot photos in 5-megapixel resolution. When the day comes when phones have as much as 8-megapixel resolution (coming sooner rather than later), many people will trade in their digital cameras for handy, high-end camera phones.

This list describes some photo-sharing services and specifies where you can upload and share your photos from your mobile phone:

- ✓ **Flickr:** Flickr (<http://m.flickr.com>) is one of the most popular photo-sharing sites to let people upload, store and share digital photos for free at their ad-supported Web site. Now you can use your camera phone to upload and access your pictures on Flickr. Additionally, Flickr recently added video upload to its service.
- ✓ **SnapMyLife:** At the SnapMyLife site, at <http://snapmylife.com>, you can upload, download, and tag photos and then share them with friends and family.
- ✓ **Photobucket:** Upload, share, link, and find photos, videos, and graphics at this site (<http://m.photobucket.com>). You can also create slide shows of photos and videos with music. At the Photobucket online store, you can print photos and add them to shirts, hoodies, mugs, calendar, stickers, wall posters, and many other items.

Pay for Stuff

The new *Near-Field Communications (NFC)* technology will, for better or worse, soon turn your mobile phone into a debit or credit card. Phone manufacturers embed an NFC chip in the phone that makes it possible to pay for goods and services by either using a touch-sensitive interface or placing the phone within an inch or so of an NFC reader. When the purchase is accepted, the user's bank account or credit card is charged for the amount.

The NFC mobile-payment system is in the trial stage in the United States. It's already widely used and popular in Japan; the Japanese people frequently use NFC to buy a variety of goods from vending machines and convenience stores. With NFC, you don't need to find change to pay for your goods — pull out your NFC enabled phone, swipe it to pay and you are on your way.

NFC mobile phone and payment services are coming to a city near you with MasterCard and Visa leading the way. For more information go to:

- ✓ **MasterCard PayPass Mobile:** www.mastercard.com/us/paypass/mobile
- ✓ **Visa PayWave:** www.visa.ca/en/merchant/products/mobile.cfm

Find a Hotspot

Depending on where you come from, finding a WiFi hotspot where you can sit down and work from your laptop when you're traveling can be a challenge. Of course, you can open your laptop to look for a spot while you trot around the city, but that method exposes you to data theft — and is quite inconvenient.

If your mobile phone is always on, locating a hot spot is easy and convenient. If you own a Nokia S60 phone, for example, you can purchase the Psiloc Hotspot Finder at <http://shop.psiloc.com/en>. Or, better yet, you can simply text message your zip code, city name, area code, or airport code to a HotSpot Finder service at 4INFO (that's 44636) to get a list of the nearest available locations.

Mobile Dating and Matchmaking

Online dating has become quite popular. The trouble is that you have to be close to your computer to look at who is interested in your profile and has responded to it. A range of online dating services has gone mobile, therefore, so that subscribers can update their profiles or check the sites from their mobile phones.

Likely the most advanced made-for-mobile matchmaking site is MatchMobile at <http://match.com/mobile>. Another mobile matchmaking site is Meetmoi at <http://meetmoi.com>.

Try it out! You might just find that next hot date or the love of your life while surfing the mobile Internet.

Scan In a Whiteboard

You probably have been in this situation before: After a brainstorming session, the whiteboard is full of great information nuggets you don't want to lose, and people are reluctant to write them all down. Creating a record of the whiteboard brilliance is now easy for you: Just use your camera phone to take a picture of the whiteboard. A new service from scanR can process the pictures and turn them into PDF files for you to share with your associates.

Find ScanR at www.scanr.com or on the mobile Web <http://m.scanr.com/download> to download the latest version of the software to your phone.

Always Keep Updated with Widgets

Widgets, which are small applications that you download to your computer or mobile phone, are designed to do only one thing or a few things and they do them very well (such as The Weather Channel's iPhone widget at www.weather.com/iphone). The widget concept is quite different from a full blown software application. It offers a limited, very specific feature set while leveraging the Net to keep you posted on your favorite local news, sports teams, quote of the day and more without launching your browser. Hundreds of widgets are out there that you can download to your mobile phone. You just have to limit yourself so that your phone doesn't become too cluttered with them.

One of the best places to search for mobile widgets is at WidSets (www.widsets.com). In fact, WidSets has more than 2,000 different widgets in its database available for over 300 different mobile phone models, so you have plenty to choose from and explore.

Other great widgets are available from Yahoo! at <http://mobile.yahoo.com/gallery>, including MTV News, MySpace, and eBay mobile phone widgets.

Make a Movie

Yes, that's right — make a movie. Some mobile phone models have video capabilities (such as the Nokia N95) for you to shoot and upload video clips to your computer to enable you to create mini-movies. If you have the right level of cinematic ambition, you can show your mini-movies at the annual Mobifest in Toronto, Canada. Mobifest (www.mobifest.ca) is targeted to made-for-mobile filmmakers. On the Web site, you can upload your profile and your mini-movie for viewing. But don't plan to shoot a two-hour-long, full-feature movie with your mobile phone and post it on the site. These movies are short — one minute to three minutes at the maximum. And, remember: If you don't get accepted or receive a nomination, you can always put your film on YouTube for everyone in the world to see. The most important thing is to have fun.

Read a Book

Whether you're on a train, at the airport, or at the park (or even under the covers at home), you can now get a book on the screen of your mobile phone. No more paperbacks to lug around — simply open your phone, go to your mobile book of choice, and read the next chapter of your favorite novel.

There are a couple of ways to get books to your mobile phone. One of the most common ways is by accessing them online from your mobile browser. A great service by mobile publisher TX2PH (www.tx2ph.com) lets you read books from Mark Twain to Mary Shelley through its made-for-mobile Web site. WattPad (m.wattpad.com) lets you publish as well as read over 80,000 books with your mobile phone. And, if you are interested in following up on your weekly Bible studies, try out <http://mobible.mobi> from your phone browser.

Another way to get books on your mobile phone is through preloaded microSD/MMC cards (memory cards for mobile phones) from companies, such as Mobile Digital Media (www.gomdm.com/index.asp).

Chapter 19

Ten Things to Avoid

Going mobile can be pricey if you don't watch what you're doing. Even though the mobile Internet is useful and fascinating, you can pay some potentially high costs if you don't connect specifically with made-for-mobile products and services.

In this chapter, we summarize ten behaviors that can easily cause you to spend way too much money surfing the mobile Internet.

Disregarding the All-You-Can-Eat Data Plan

Not all plans are equal, even if people give the same name to different types of plans. An unlimited plan from one carrier may not include the same services as an unlimited plan from another. (And, the plan might not even be unlimited or all-you-can-eat.)

Make sure that you know exactly what you sign up for on your wireless carrier service plan. Our advice sounds like common knowledge and just plain good sense. However, we see too many people misunderstand the fine print of plans they are on without fully knowing what is or is not included with their subscription to mobile Internet services before they even really get started.

If you plan to surf the mobile Internet with a computer Internet all-you-can-eat enthusiasm, you might be quite surprised (or shocked) at the costs you can potentially ring up if you don't have the appropriate wireless data service plan in place.

A mobile Internet all-you-can-eat plan isn't the same as your voice plans — unlimited wireless data plans can cost as much as \$100 per month, not including any of the other products or services you subscribe to or purchase with your mobile phone.

Exceeding the Length of Limited-Time Promotional Access Plans

If you don't have a wireless data plan by now — get one. And, be sure to negotiate a deal with your wireless carrier or retailer. Often, you can get one to three months of free mobile Internet access (text and picture messaging, mobile Web, ringtones and wallpapers, video and TV, and more) to try out and — they hope — get hooked on. The mobile Internet market is quite competitive, with wireless carriers creating new promotions every week to lure your business. Take advantage of one of these promotional programs — even if you're a current subscriber your wireless carrier will probably offer it to you if you ask. Try out as many services as you can within the promotional period so that you can find out — before you pay full price — whether they are useful in your private and professional lives.



Keep track of when the promotional period ends, and know the exact charges you will incur if you keep the service after that date. If you need to decrease your usage and eliminate services you truly don't need, do not delay. If you do, the first bill you receive after the promotional period could be huge.

Engaging in Text-Messaging Overkill

Admit it: Sending a text message to vote for *American Idol* is fun. Although standard text messages cost only 15 to 20 cents apiece, they add up fast if you're a power messenger. Make sure that you have an unlimited text-messaging plan if you're a power user, and read the fine print to find out exactly what the costs per message are with your plan and what additional costs you accrue for any text messages used over your plan limits.

Premium-rate text messaging to short-code numbers for ringtones or news alert services add up quickly if you are not careful. A joke-of-the-day service or a daily sports update or stock quote can cost you as much as \$2 every time you receive a message. If you subscribe to a service for ringtones and wallpaper with premium-rate text messaging billing, it can cost \$5 to \$10 per subscription alone.

Although premium-rate text messages are often useful, you should know how much you pay per message, how frequently messages are sent, and how (and where) to cancel the service when you don't want — or can't afford — to use it any more. Canceling a service is sometimes as simple as sending the keyword **STOP** to the service's short code. More information about short codes is available in Chapter 6.

The *roaming* coverage agreement between mobile carriers enables you to automatically continue using your wireless carrier's services when you're outside the geographical coverage area of your home network. Your service still works normally, but you pay an extra cost to the wireless carrier whose network you're borrowing. Most U.S. carriers no longer charge for roaming in the United States (except perhaps on the exotic Gulf of Mexico network), but if you take a trip to Canada or Mexico or beyond, your text messaging (SMS) service can cost twice as much as it does at home, and your roaming messages aren't covered under most text messaging plans.

Using Services That Aren't Made-for-Mobile

If you're planning to surf the mobile Internet by using the browser on your mobile phone, make sure that the Web sites you visit clearly identify themselves as mobile ready. If you're in doubt about a site, check out the free service at <http://ready.mobi> from your computer to test the site first.

Ensure that any product or service you download using your mobile phone is specifically designed to work with your device. Accessing a product or service that isn't specifically designed for your mobile phone can cause problems, especially if it's an off-portal product not recommended or provided by your wireless carrier.

You must fully understand that anything you put on your mobile phone by way of a wireless data connection may be charged by the megabyte or kilobyte (as opposed to by the minute, as in voice calling). If the products and services you access aren't made-for-mobile, you're still charged for the network usage to access it.

Incurring Costs Outside Your Coverage Area

Wireless data roaming charges are *extremely* expensive. You may be charged for every little wireless data bit and byte that is sent from, and received by, your mobile phone, regardless of whether you requested the data directly.

Whenever you use any type of mobile phone, including BlackBerry, Treo, or any other smartphone model, to chat, browse the mobile Web, send e-mail, or participate in instant messaging, make sure that you're in your wireless

carrier's coverage area, and turn off any automatic connections you may have set. (You usually can turn off services from the Settings menu on your mobile device or inside the application itself.)



If you truly need to know what's happening by e-mail while you're out of your coverage area, set your device to automatically download only e-mail header information — not the full messages. This way, you can open only the e-mail that's important to you. If you need to peruse all your messages, find a nearby Internet café.

These days, national calling plans, unlimited data plans, and widespread coverage by the large U.S. wireless carriers makes it easy to forget all about roaming. Traveling in the United States rarely costs you extra on your mobile phone bill because most phones have a national service plan.

However, if you travel to another country and don't know the roaming cost, you might be in for a big surprise. Roaming charges can vary from \$1 to \$2 — or more — per minute or per packet of data, depending where you're going. Contact your wireless carrier to find out the roaming charges in the countries you're traveling to. Ask about paying for an international plan that lowers the per-minute or per-kilobit fees in the country you're visiting.

Signing Up for Too Many Monthly Fees

Whenever you sign up for mobile Internet products and services (both on-portal and off-portal), such as text messaging alerts, ringtones, wallpaper, games, music, videos, and other cool stuff, you may find you have enrolled in a monthly plan for the product or service. Subscribing to additional mobile Internet services could become quite costly, adding more to your monthly bill than you had expected.



When you sign up for services on a mobile phone, always scroll to the bottom of the signup page so that you don't overlook any items, such as check boxes, lurking there. The check boxes often automatically sign you up for ongoing or unrelated third-party services.

Exceeding Your Voice Plan's Minutes

Choose your voice-plan options carefully, and always monitor your monthly usage. If you overshoot your allocated contract minutes in any given month, you could face hefty overage fees and per-minute calling rates beyond the

ones specified in your plan. Request that your wireless carrier spell out the overage fees, and ask whether it offers *rollover* minutes, in which unused minutes in one month are “rolled over” for free to future months.

If you have a *friends-and-family* plan, where you can save money by connecting a group of people to a bundle of services offered by the wireless carriers, find out exactly which services are included. Connecting with your friends and family members by voice, e-mail, text messages, instant messages, and chat wherever they are during the day can be quite expensive if you don’t read the fine print to see what’s included and how much of the services offered are included in your plan.

Also, see whether you pay additional charges for long-distance or international calls. Some wireless carriers let you call any other mobile phone on the same network or make long distance calls for reduced fees.

Skipping the Fine Print Before You Sign a Contract

Every wireless carrier’s contract comes with fine print. (And, if you’re as old as some of the authors of this book, the fine print is hard to read.) Don’t forget to read it — very carefully. If you’re unsure about anything, ask.

When you’re shopping for a plan, write down everything your salesperson promises you during the sales talk (including the salesperson’s name), and have her specify the items included in the contract before it’s printed for you to sign. If the sales rep refuses to specify the details, or if you aren’t satisfied for any reason, just walk away.

After you sign the contract, renegotiating is difficult, and any changes you get to make will likely cost you extra dollars. We can report from experience that when the wireless carrier screws up your contract (like not including the promised text messaging bundle or free ringtones for 3 months), nothing provides as much satisfaction as walking into the store and presenting that piece of paper the employee signed — and getting it fixed fast.

In most cases it is an oversight from the wireless carrier’s data entry people or a promotional code was not selected when the contract was entered. If you have your notes from the sales rep, it makes everything much easier to get resolved and credited to your account for future use.

Changing Your Wireless Carrier Plan Early

If you're tired of your plan with your wireless carrier, that's no problem — you can change plans any time. Be aware, however, that getting a different number or adding a feature or simply trading up for a new phone model can launch you into a new two-year contract.

Or, if you're changing wireless carriers, you likely have to pay an early-termination penalty fee if the terms of your old contract haven't expired.



Whenever you make *any* change in your current mobile phone plan, always ask the wireless carrier whether a “catch” is involved.

Always do your homework first and try to negotiate for better terms before you make a change. One of the authors of this book got three free months of mobile Internet service — just for asking. Another author got a free mobile phone — just for asking. Ask your wireless carrier occasionally about offers it might not be telling you about.

Underestimating the Final Price

Have you ever wondered why the price that a wireless carrier advertises for its service is almost always lower than what you end up paying for it? It's not that the carrier is trying to mislead you — it's just that some expenses (all those taxes, surcharges, and other licensing fees) aren't calculated in the promoted price versus the actual monthly cost of providing the services you have to pay for (very much like buying a new car — the Manufacturers Suggested Retail Price or MSRP is never the same as the price you pay when you drive the car off the lot.)



Add as much as 30 percent more to the advertised price and then compare plans based on this calculation.

Before you even think about signing a contract, have the sales rep explain how the costs are calculated — and then give you a printout of those extra charges. Staple the printout to the business card of the person you spoke to — it could come in handy after you receive your next bill, especially if you're a new subscriber.

Chapter 20

Ten Frequently Asked Questions

To make sure that you have a basic understanding of the mobile Internet, we list some of the common questions people ask — and our answers — to help you get on your way to enjoying what the mobile Internet has to offer.

Most of these questions are answered in detail throughout this book, and you can always visit our Web site at <http://mifd.mobi> for additional insights and tips. Don't forget that our Web site works from your computer *and* your mobile phone — so help is available for you anytime and anywhere you need it.

What Is the Mobile Internet?

The mobile Internet, or mobile Web, works similarly to the way the Internet works. However, the term *mobile Internet* applies specifically to services and Web sites designed to be viewed on mobile devices that have small screens and use low bandwidth. The mobile Internet is for you, on the go, to use with your mobile phone (or other handheld devices, such as a PDA or iPod Touch) to access information, blog and entertain, bank, buy products and services, pay for products, and communicate with family, friends, and colleagues.

Can I Access the Mobile Internet on My Mobile Phone?

Most newer mobile phones now have access to the mobile Internet by way of text messaging services, made-for-mobile applications, and browsers that are installed in the phones. If you aren't sure that you can access the mobile Internet and you have a phone with a noncolor screen, ask your wireless carrier whether your phone supports the mobile Internet and which types of services are available to you.



If you have a camera phone, it's highly likely that you're ready to go, and you may just need to sign up for a wireless carrier mobile Internet package to get started.

If your phone cannot yet access mobile Internet services, consider setting up the phone to access the mobile Internet yourself. It's quite simple, and you can follow the instructions we provide in Chapters 4 and 5. If you still have difficulty, call your wireless carrier or go to its Web site, which has the information.

How Can I Start Using the Mobile Internet?

First, access the mobile Internet from your wireless carrier's portal. This method is often included in the fee for a mobile Internet data plan. The portal normally gives you access to useful information and services, such as news, weather, entertainment, search, and much more. If the information you can access from the carrier's portal doesn't satisfy you, you can go elsewhere (off portal) and search for the thousands of made-for-mobile services and sites that are available for the mobile Internet. The way to explore the full mobile Internet is by using a search engine, such as Google Mobile or Yahoo! Mobile, or by entering a site's URL in the Web browser on your mobile phone. Chapter 7 introduces on-portal versus off-portal browsing, and Chapter 8 explains how to use mobile search tools.

Where Can I Find Mobile Internet Web Sites?

You can look for mobile Internet sites in many ways, although the simplest route is to use the Search function on your mobile phone to enter a keyword and then press Go.

Another option is to look through this book at the numerous examples that show you where to go to find services that should work on any Internet-enabled mobile phone.

Also, look for ads and articles that list mobile Internet URLs.

How Do I Know Whether a Web Site Is Made-for-Mobile?

The easiest way to ensure that the URL you're entering into your mobile phone is a made-for-mobile Internet address is to see whether it has the .mobi suffix, such as `http://mifd.mobi`.

Another way to find out whether a site is a made-for-mobile Internet address is to see whether it looks like one of these examples:

```
m.sitename.com
mobile.sitename.com
wap.sitename.com
sitename.com/mobile
sitename.com/wap
```

Sometimes (not always), a non-mobile Web site with a standard URL detects that you're accessing the site from a mobile phone and redirects your request to its made-for-mobile site. Visit `http://ready.mobi` to check whether the site works on a mobile phone. See Chapter 7 for details.

How Can I Enter a Mobile Web Site Address?

The way you enter a URL for a mobile Web site varies from phone model to phone model. However, most new phones already have Web browsers installed. You just open the browser, find the Enter Address or Go to URL box, and enter the URL address. If you can't figure it out, read your manual or go to the phone manufacturer's Web site and search for the phone manual. Another good place to visit is your wireless carrier's Web site — search for mobile Web browsing. If all else fails, you can head to your wireless carrier retailer and ask someone there to show you how to access the mobile Internet from your phone.

How Do I Bookmark a Mobile Internet Site?

When you find a mobile Internet Web site on your mobile phone and you know that you want to return to it, you can save time the next time if you *bookmark* the site (create a menu entry that serves as a shortcut). Here are the steps to follow (they may vary slightly by mobile phone model):

1. **Open the page you want to bookmark.**
2. **Press the Menu or Options button (or whatever wording your phone uses).**
3. **Select Add to Favorites or Add Bookmark.**

The next time you want to look up the site from your mobile phone, you can select Bookmarks or Favorites, scroll down the list to the site you want to visit, and click OK. If your phone is asking whether you want to “connect to the network,” select Yes.

How Do I Get the Most from My Data Plan?

Here are four rules for getting the most from your plan:

- ✔ **Visit only made-for-mobile Web sites.** They’re designed to work with kilobytes rather than megabytes of data — and not eat up your data plan in a matter of minutes. Also, stay on your wireless carrier’s mobile Internet portal if you’re unsure.

Following this rule also helps you avoid Web sites that are filled with *frames*, which are rich media Internet images and videos that don’t work on your phone.
- ✔ **Don’t waste time on slow-loading sites.** If you open a site that takes a long time to download, leave as soon as possible. Staying just chews up your money.
- ✔ **Track your usage as you go.** To keep an eye on how many kilobytes you use each month, visit your mobile carrier’s Web site or check your monthly billing statement.
- ✔ **Always be on the lookout for a better deal.** Review the amount you spend each month and switch to a different carrier whenever you find a better mobile Internet data plan. Competition forces wireless carriers to continually change their data plans.

Can I Use the Mobile Internet Abroad?

If you can use your mobile phone to make a call in a foreign country, you should have no problem using it to access the mobile Internet. If your phone service is from Verizon Wireless, Sprint, or Virgin Mobile, it probably won’t

work outside North America. If your phone service is from AT&T, T-Mobile, or Alltel, and it's a tri-band or quad-band phone, it should work in almost all countries.

Check with your wireless carrier before you travel abroad to determine whether you can use your phone in the country or countries you're visiting — and to find out what your roaming charges will be.



When you're traveling, keep your use of all mobile Internet services to a minimum — and consider not even using them. The mobile Internet can become quite expensive when it's used abroad. Some mobile phone models have an option for turning off mobile Internet services. Check your phone's user manual or ask your wireless carrier before leaving the country.

Why Use the Mobile Internet Instead of a Computer?

Because the mobile Internet is a medium in itself, it's quite different from the Internet everyone has become accustomed to. And, what you do on the mobile Internet is also quite different — perhaps not so much today, but rather tomorrow, after the mobile Internet is well developed. At that point, you will probably use it more than you now use your desktop or laptop because you most likely will always have your phone with you.

Here are just a few examples of activities you may eventually do on the mobile Internet — if you haven't already explored them by now:

- ✓ Compare prices of goods while you're shopping in a store.
- ✓ Have some fun with blogging or uploading camera phone pictures.
- ✓ Look up a street map to find the address you're looking for.
- ✓ Buy a ticket to your favorite destination while you're waiting in line.
- ✓ Check your e-mail while heading to the golf course.
- ✓ See what the weather is like where you're going before you pack your suitcase.
- ✓ Follow the latest bid on eBay.
- ✓ See the latest update of the breaking sports story that you're following.

Glossary

A *dapted from the Mobile Marketing Glossary developed by the Mobile Marketing Association at www.mmaglobal.com*

3G: The third-generation wireless service, which promises to provide high data speeds, always-on data access, and greater voice capacity. The high data speeds accommodate full-motion video, high-speed Internet access, and videoconferencing.

alert: A notification, typically in the form of a text or multimedia message, containing time-sensitive information (event details or weather, news, or services updates, for example) that are pushed to a mobile subscriber who has opted-in to receive this information. **Note:** If a mobile subscriber hasn't opted in to receive this information, the message is considered to be spam.

application: A program that runs on your phone, such as a Web browser or game.

bandwidth: The number of bits per second that a modern mobile phone can transmit and receive. Usually measured in kilobits (thousands) or megabits (millions).

banner size: The width and length dimensions (typically presented in pixels) of a banner or image advertisement placed on the mobile Web.

billing aggregator: An organization that provides one or more billing services (Premium Short Message Services, direct-to-bill, credit card, PayPal, loyalty points, or credits, for example) to off-portal mobile service providers.

Bluetooth: A communication protocol that enables a mobile device equipped with a special chip to send and receive information wirelessly over short range, using the 2.4 GHz spectrum band.

carrier: A company that provides wireless telecommunications services; also referred to as mobile carrier, mobile network operator, operator company, or wireless carrier.

chat: A software program that enables asynchronous interaction between two or more mobile subscribers.

click-through: To click an online ad or a mobile ad to reach a third-party destination.

common short code: A short number (typically consisting of four to six digits) to which text messages can be sent from a mobile phone. Wireless subscribers send text messages to common short codes with relevant keywords to access a wide variety of mobile content.

content aggregator: An organization that contracts with an array of content providers and redistributes licensed content.

content provider: A company that creates and offers content, such as graphical products, ringtones, games, news, information, and entertainment services.

data charging: Imposing a fee for the cost of using a mobile network for data services. The two primary models are pay-as-you-go, which is effectively metered billing because the charges increase in proportion to the amount of data the user consumes, and preset rates (over a monthly usage period) for predetermined amounts of data that can be consumed. These charges become significant in the distribution of rich media content that drives large amounts of data across the networks.

deck: A browsable portal of links to content, preconfigured usually by the network operator and set as the default home page to the phone's browser.

dual band: A type of handset that supports, and is compatible with, two different standards or two different frequencies or bands. In North America, dual-band handsets operate at 800 to 850 MHz and 1900 MHz; elsewhere they operate at 900 and 1800 MHz.

friendly off-deck: A type of off-portal mobile Internet content that has been validated against operator standards for technical performance and suitability of content.

full music download: A download of a complete song (rather than a section of a song) for playback on a mobile device.

gallery: An extended set of menus containing links to third-party content and usually accessed from the main (mobile carrier) deck on the assumption that the content has undergone some basic acceptance testing, though less detailed than the testing applied to content featured on the main deck.

Global Positioning System (GPS): A system of satellites, computers, and receivers that can determine the latitude and longitude of a given receiver (within its system) located on Earth. It pinpoints the receiver's location by calculating the time it takes for signals from different satellites (positioned at various locations) to reach the receiver.

handset: A mobile phone, mobile device, or mobile terminal.

image ad: An image on a mobile Web site with an active link that a wireless subscriber can click to be redirected to a destination where an offer resides.

information on demand: A type of content, delivered by text message, where subscribers receive weather and traffic updates or horoscopes, for example, at a predetermined time and frequency.

Java: A programming language developed by Sun Microsystems. Programs authored in Java don't rely on an operating system, as long as Java Virtual Machine (JVM) is installed on the device.

Java games: A type of mobile game written in the Java programming language. The destination or player device must have Java Virtual Machine (JVM) installed for it to run.

jump page: A secondary page to which a user is directed after clicking an ad, where additional information or mechanisms are provided for making purchases. A user is often guided to a new Web page by way of an ad banner, a link, or another offer-related communication.

kilobits per second (Kbps): A commonly used unit of measurement for data transfer speed. A kilobit is 1,000 bits. Higher data rates are expressed in Mbps (millions of bits, or megabits, per second) or in Gbps (billions of bits, or gigabits, per second).

location-based service (LBS): A service provided to a mobile subscriber based on the geographical location of that person's handset. The handset must be equipped with a position-location technology, such as GPS, to provide the geographical location information to the network. LBSs include driving directions or other information about nearby resources, such as restaurants, ATMs, and movie theaters. A LBS can also track the movements and locations of people.

menu: A list of selections that is accessible by pressing either the left or right softkey while using an application.

messaging: The system of sending and receiving text messaging, multimedia messaging, e-mail, and instant messaging by using mobile phones or devices.

Multimedia Messaging Service (MMS): A type of messaging in which messages contain multimedia objects, such as video.

mobile browser: A software application used to view Web sites; similar to an Internet browser on your computer and developed specifically for mobile handsets.

mobile browsing: The process of viewing Web sites on a mobile handset.

mobile carrier: *See* carrier.

mobile content: Entertainment, sports and news information, and games, for example, delivered (either on-portal or off-portal) by using any type of wireless media in a non-advertising format. The location, delivery method, and technology level of the content are irrelevant.

mobile game: A game created for and played on a handset or handheld computer. The majority of mobile games are downloaded to a handset and played using the basic technologies and controls built into the device (arrow keys, softkeys, and number keys). Some mobile games are developed to be played using the communications technologies present in the device or provided by the service provider or carrier, such as by text message (SMS), multimedia message (MMS), or location identification technologies. Mobile games are now authored on Java and other mobile phone software-application development platforms.

mobile handset: *See* handset.

mobile Internet: The nonvoice mobile phone services (messaging, mobile content, and value-added services delivered over the wireless data channel) provided by all companies in the mobile ecosystem, including advertisers, aggregators and distributors, carriers, content providers, and publishers.

mobile message: *See* messaging

mobile network operator: *See* carrier.

mobile subscriber: A consumer who enters into an agreement with a carrier. After the agreement is executed, the carrier must provide wireless telecommunications services to the subscriber.

mobile TV: Television or video programming formatted for the mobile screen. Programs are streamed or broadcast by using various mobile technology platforms.

mobile video: *See* mobile TV.

mobile virtual network operator (MVNO): A mobile service provider that leases or uses the network infrastructure of one or more major mobile carriers. For example, Helio and Virgin Mobile use the Sprint network.

mobile Web: Similar to the Internet, a collection of Web sites specifically designed, developed, and supported to work on mobile handsets over a carrier's data network.

mobile Web site: *See* WAP site.

multimedia messaging service (MMS): A telephone system that enables users to send and receive messages that include multimedia objects, such as images, audio, video, or rich text fonts.

multiplayer mobile game: A made-for-mobile game that can be played simultaneously by several players at the same physical location on one handset (pass-and-play) or offsite, on separate (network-enabled) handsets.

number portability: Also referred to as local number portability (LNP); the ability for users of mobile services to retain their mobile phone numbers for as long as they want, even when they change wireless carriers.

off-portal (or off-deck): A point-of-sale or -access on a mobile network outside the carrier's own mobile Web portal where consumers can view and purchase information and mobile products, content, and utilities.

on-portal (or on-deck): A point-of-sale or -access within a carrier's own mobile Web portal where mobile customers can view and purchase information and mobile products, content, and utilities. *See also* walled garden.

on-device portal: A portal that runs within a user's phone and provides access to information and resources on the mobile Internet.

page view: A unit of measure that tracks the number of times users load a particular Web page or WAP site page.

pay-per-download: A method by which mobile subscribers select the content or services they want and are billed for only the requested product. The content is often presented in print with separate order codes for each download, or through a browse-and-buy mobile Web site on the phone. No further billing of the mobile subscriber occurs until more content is requested.

personalization content: Any content that serves to customize the handset or service for its owner, often based on the owner's personal style and entertainment preferences. The content includes all graphics (wallpapers, screen-savers, and phone themes) and certain types of audio (ringtones, ringbacks, alerts, and greetings) and video products (video tones).

picture message: An SMS designed with QWERTY text to form a picture and sent by using SMS.

premium billing: A type of billing in which consumers pay more than standard text messaging or SMS rates.

premium rate: *See* premium billing.

premium short message service (PSMS): A billing mechanism by which mobile subscribers are charged more than the standard text messaging rates for mobile content or subscriptions.

prepaid: A term used for no-contract, no-rental-charge service in which a mobile subscriber buys credit in advance for the use of a mobile carrier's services.

pull messaging: A system in which content is sent to a wireless subscriber one time on request — for example, the content of the response (including any related advertising) sent to a customer who requests the local weather forecast from a WAP-capable browser.

push messaging: A system in which content is sent by or on behalf of advertisers and marketers to a wireless mobile device at a time other than when the subscriber requests it. Push messaging includes audio, short message service (SMS) messages, e-mail, multimedia messaging, cell broadcast, picture messages, surveys, or any other pushed advertising or content.

QWERTY: A text entry using a typewriter-like keyboard.

Really Simple Syndication (RSS): A system to allow easy checking of frequently updated Web sites and other resources.

ringtone: The audio tone, or *ring*, that a handset owner hears whenever a call is received. The ring can be a music clip, sound effect, or voice effect and is either a device default or a handset setting made by the handset owner.

roaming: A type of service that allows mobile subscribers to use their handsets on the networks of other mobile carriers after leaving the geographic coverage area of their own wireless carriers.

screen real estate: A term that indicates the quality and size of the handset screen — for example, the area that advertisers can use for banner placement.

screen saver: An animated image that's activated on a display whenever no user activity has been detected for a specified period.

screen size: The amount of display space that a particular handset offers. The size usually is measured in pixels, inches, or millimeters.

service provider: A company providing Internet or mobile Internet related solutions to consumers and businesses.

short code: Short for common short code. *See* common short code.

Short Message Service (SMS): A system of sending and receiving short text messages between mobile devices.

single-player game: A mobile game (for example, Tetris, Bubbles, or Sudoku) that's played by only one player.

smartphone: A handheld device that integrates mobile phone capabilities with the more common features of a handheld computer or PDA. A consumer can use just one smartphone device to store information, send and receive e-mail, install programs, and talk by mobile phone.

SMS chat: A feature, mostly embedded in newer handsets, that allows mobile subscribers to chat by using the SMS protocol.

SMS message: A message, sent by way of a Short Message Service commonly referred to as a text (or txt).

standard rate: The normal rate at which text messaging services are applied to a mobile subscriber's wireless bill or that result in messages being deducted from a subscriber's messaging plan allowance.

streaming: An Internet-derived term for the one-way transmission of video and audio content.

subscriber: *See* mobile subscriber.

Subscriber Identity Module (SIM): A type of smart card inserted into a handset containing a mobile subscriber's details, such as telephone number, encoded network-identification information, PIN, and phone book. A mobile subscriber's SIM card contains all the key information required to activate the handset and can be moved from handset to handset.

subscribe: To arrange (initiated by a mobile subscriber) to receive products or services on an ongoing basis, typically with periodic premium billing events. It's not a one-time usage service.

text link: A mobile advertisement (usually limited to 16 to 24 characters), represented by highlighted and clickable text with a link embedded within the highlighted text.

text message: *See* SMS message.

video tone: A ringtone with audio and video that alerts mobile subscribers whenever an incoming call is received on their mobile devices.

walled garden: A restricted set of services that a carrier provides for its wireless consumers.

wallpaper: A piece of graphical content that's formatted to fit handset screens.

WAP (Wireless Application Protocol): A standard for applications that use wireless communication, a predecessor to the mobile Web still in use.

WAP site: A Web site specifically designed and formatted for display on a mobile device.

widget (mobile): A third-party Web-based application that can be embedded in a 3G mobile phone, smartphone, and PDA.

wireless carrier: *See* carrier.

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