"Pogue, the *New York Times* computer columnist, is among the world's best explainers."

—*Kevin Kelly, co-founder of* Wired

iPhone

THE MISSING MANUAL

The book that should have been in the box®

POGUE PRESS™
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David Pogue

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MICROSOFT CORP.
EXHIBIT 1265

iPhone: The Missing Manual BY DAVID POGUE

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Printed in Canada.

Published by O'Reilly Media, Inc., 1005 Gravenstein Highway North, Sebastopol, CA 95472.

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Executive Editor: Laurie Petrycki

Copy Editors: Teresa Noelle Roberts, Nan Barber

Proofreader: Nan Barber

Indexer: David Pogue

Cover Designers: Randy Comer, Karen Montgomery, Phil Simpson, and Suzy Wiviott

Interior Designer: Phil Simpson (based on a design by Ron Bilodeau)

Print History:

August 2007: First Edition.

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ISBN-10: 0-596-51374-7
ISBN-13: 978-0-596-51374-0

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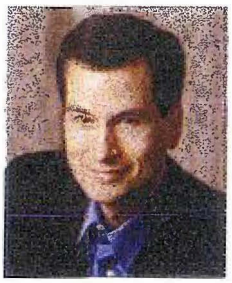
The Missing Credits



David Pogue (author, indexer) is the weekly tech columnist for the *New York Times*, an Emmy-winning correspondent for *CBS News Sunday Morning*, 2006 winner of an Online News Association award (for online commentary), and the creator of the Missing Manual series. He's the author or co-author of 42 books, including 17 in this series and six in the *"For Dummies"* line (including *Macs, Magic, Opera,* and *Classical Music*). In his other life, David is a former Broadway show conductor, a magician, and a pianist.

News, photos, links to his columns and weekly videos await at *www.davidpogue.com*. He welcomes feedback about his books by email at *david@pogueman.com*.

J.D. Biersdorfer (iTunes, syncing, and accessories chapters) is the author of *iPod: The Missing Manual* and co-author of *The Internet: The Missing Manual* and the second edition of *Google: The Missing Manual*. She has been writing the weekly computer Q&A column for the *New York Times* since 1998, and has covered everything from 17th-century Indian art to the world of female hackers. Her work has appeared in *Rolling Stone, The New York Times Book Review,* and the *AIGA Journal of Graphic Design*. Biersdorfer, who studied theater at Indiana University, now lives in New York City and is equally obsessed with the BBC and the banjo. Email: *jd.biersdorfer@gmail.com*.

Acknowledgments

The Missing Manual series is a joint venture between the dream team introduced on these pages and O'Reilly Media. I'm grateful to all of them, and also to a few people who did massive favors for this book.

Teresa Noelle Roberts gave the manuscript a delightful copy-editing makeover. I was thrilled to be reunited with my original Missing Manuals editor Nan Barber, who copy-edited some chapters and proofread the whole thing. And working with designer Phil Simpson on this book was a blast, as it has been now for 30 books in a row.

My gratitude also goes to photographer Tim Geaney, graphics goddess Lesa Snider King, and my cheerful intern Zach Brass; they helped me hammer away at the problem of capturing what's on the iPhone screen. Brian Jepson bailed me out of technical underbrush more than once. Apple's Greg Joswiak, Bob Borchers, Natalie Kerris, Jennifer Bowcock, and Mark Brunst donated valuable time to my cause—right in the middle of the iPhone launch.

Thanks, too, to the readers and fans who submitted delicious tips, inspired only by a desire to help their fellow iPhoners (and get a free book).

A few people undertook days-long special efforts to make this book the best it could be. They included Rich Koster, who, as the book's beta reader, helped to improve it in a hundred different ways (sorry, Rich, there's no room to mention your Web site, *http://disneyecho.emuck.com*). Bill Oakey spent a whole weekend helping me solve the "two-mailbox problem" (page 139) and other technical email issues. And Chris Vincent, with determination and talent, went the extra *several* miles to solve a rather key production problem. Their involvement was a highlight of the book-creation process.

Thanks to David Rogelberg for believing in the idea, and above all, to Jennifer, Kelly, Tia, and Jeffrey, who make these books—and everything else—possible.

—David Pogue

The Missing Manual Series

Missing Manual books are superbly written guides to computer products that don't come with printed manuals (which is just about all of them). Each book features a handcrafted index; cross-references to specific page numbers (not just "See Chapter 14"); and RepKover, a detached-spine binding that lets the book lie perfectly flat without the assistance of weights or cinder blocks. Recent and upcoming titles include:

- *AppleScript: The Missing Manual* by Adam Goldstein
- *AppleWorks 6: The Missing Manual* by Jim Elferdink and David Reynolds
- *GarageBand 2: The Missing Manual* by David Pogue
- *iLife '05: The Missing Manual* by David Pogue
- *iMovie 6 & iDVD: The Missing Manual* by David Pogue
- *iPhoto 6: The Missing Manual* by David Pogue and Derrick Story
- *iWork '05: The Missing Manual* by Jim Elferdink
- *Office 2004 for Macintosh: The Missing Manual* by Mark H. Walker, Franklin Tessler, and Paul Berkowitz
- *iPhone: The Missing Manual* by David Pogue

For Starters

The "For Starters" books contain just the most essential information from their larger counterparts—in larger type, with a more spacious layout, and none of those advanced sidebars. Recent titles include:

- *Windows Vista for Starters: The Missing Manual* by David Pogue
- *Windows XP for Starters: The Missing Manual* by David Pogue
- *Access 2007 for Starters: The Missing Manual* by Matthew MacDonald
- *Excel 2007 for Starters: The Missing Manual* by Matthew MacDonald
- *Quicken 2006 for Starters: The Missing Manual* by Bonnie Biafore
- *Word 2007 for Starters: The Missing Manual* by Chris Grover
- *PowerPoint 2007 for Starters: The Missing Manual* by Emily A. Vander Veer

- **Alarm.** You've got an alarm set. This reminder, too, can be valuable, especially when you intend to sleep late and don't *want* an alarm to go off. See page 249 for setting (and turning off) alarms.

- **Bluetooth connection.** The iPhone is connected wirelessly to a Bluetooth earpiece or hands-free car system, as described on page 188. (If this symbol is gray, it means that Bluetooth is turned on—and draining your battery—but it's not connected to any other gear.)

- **TTY symbol.** You've turned on Teletype mode, meaning that the iPhone can communicate with a Teletype machine. (That's a special machine that lets deaf people make phone calls by typing and reading text. It hooks up to the iPhone with a special cable that Apple sells from its Web site.)

- **Battery meter.** When the iPhone is plugged into its cradle (which is itself plugged into a wall outlet or computer), the lightning bolt appears, indicating that the phone is charging. Otherwise, the battery logo "empties out" from right to left to indicate how much charge remains.

Home Button

Here it is. The one and only *real* button on the front of this phone. Push it to summon the Home screen, which is your gateway to everything the iPhone can do.

Having a Home button is a wonderful thing. It means you can never get lost. No matter how deeply you burrow into the iPhone software, no matter how far off track you find yourself, one push of the Home button takes you all the way back to the beginning.

Sounds simple, but remember that the iPhone doesn't have an actual Back button or End button. The Home button is the *only* way out of some screens.

The Home button also wakes up the iPhone if it's in Standby mode. That's sometimes easier than finding the Sleep/Wake switch on the top edge.

Tip The Home button is also a "force quit" button. If you press it for six seconds straight, whatever program you're running completely shuts down. That's a good troubleshooting technique when a particular program seems to be acting up.

Tap

You'll do a lot of tapping on the iPhone's on-screen buttons. They're usually nice and big, giving your fleshy fingertip a fat target.

You can't use a stylus, fingernail, pen tip, or anything else; only skin contact works. That's too bad for people who wear gloves on the job.

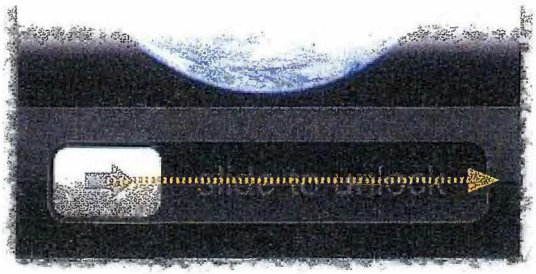
Drag

When you're zoomed into a map, Web page, email, or photo, you scroll around just by sliding your finger across the glass in any direction—like a flick, but slower and more controlled. It's a huge improvement over scroll bars, especially when you want to scroll diagonally.

Slide

In some situations, you'll be asked to confirm an action by *sliding* your finger across the screen. That's how you unlock the phone's buttons after it's been in your pocket, for example. It's ingenious, really; you may bump the touch screen when you reach into your pocket for something, but it's extremely unlikely that your knuckles will randomly *slide* it in just the right way.

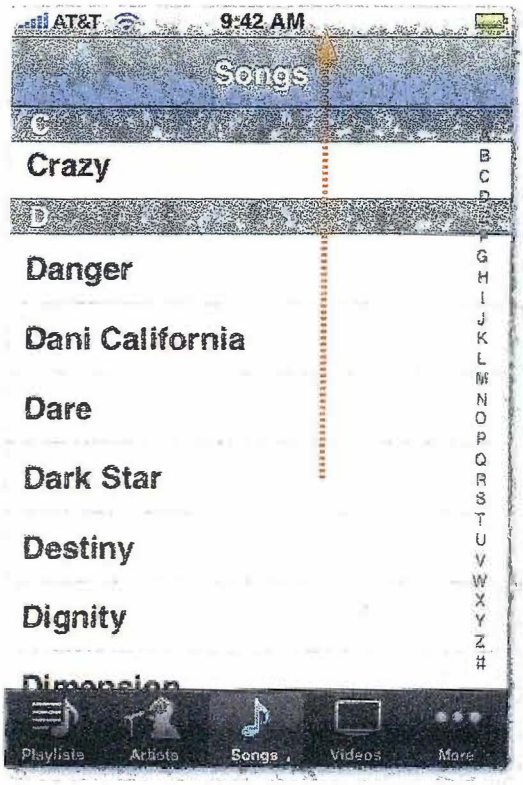
You also have to swipe to confirm that you want to turn off the iPhone, to answer a call on a locked iPhone, or to shut off an alarm. Swiping like this is also a great shortcut for deleting email or text message.



Flick

A *flick* is a fast, less controlled *slide.* You flick vertically to scroll lists on the iPhone. You'll discover, usually with some expletive like "Whoa!" or "Jeez!," that scrolling a list in this way is a blast. The faster your flick, the faster the list spins downward or upward. But lists have a real-world sort of momentum; they slow down after a second or two, so you can see where you wound up.

At any point during the scrolling of the list, you can flick again (if you didn't go far enough) or tap to stop the scrolling (if you see the item you want to choose).



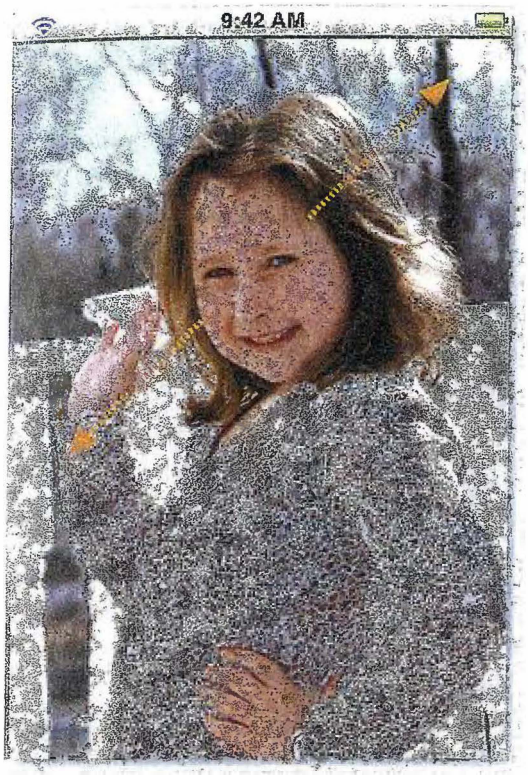
Pinch and Spread

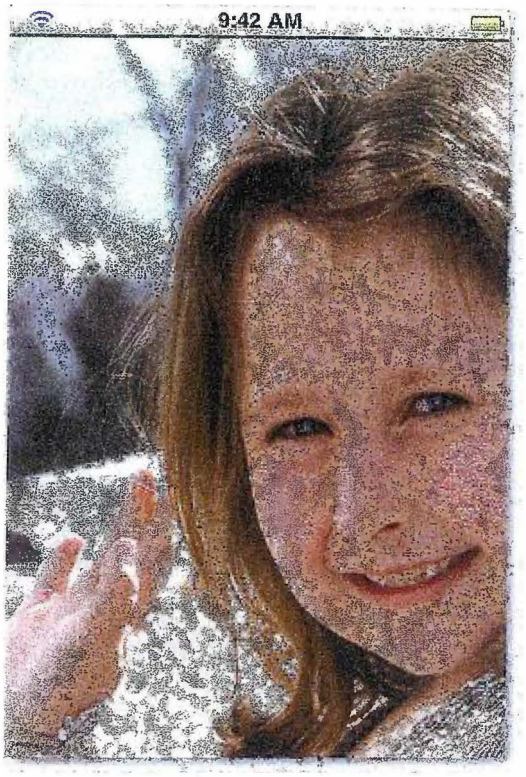
In the Photos, Mail, Web, and Google Maps programs, you can zoom in on a photo, message, Web page, or map by placing two fingers (usually thumb and forefinger) on the glass and spreading them. The image magically grows, as though it's printed on a sheet of rubber.

Once you've zoomed in like this, you can then zoom out again by putting two fingers on the glass and pinching them together.

Note The English language has failed Apple here. Moving your thumb and forefinger closer together has a perfect verb: *pinching*. But there's no word to describe moving them the opposite direction.

Apple uses the oxymoronic expression *pinch out* to describe that move (along with the redundant-sounding *pinch in*). In this book, the opposite of "pinching" is "spreading."





Double-Tap

Double-tapping is actually pretty rare on the iPhone. It's not like the Mac or Windows, where double-clicking the mouse always means "open." Because the iPhone's operating system is far more limited, you open something with *one* tap.

A double tap, therefore, is reserved for three functions:

- In Safari (the Web browser), Photos, and Google Maps programs, double-tapping zooms in on whatever you tap, magnifying it.
- In the same programs, as well as Mail, double-tapping means, "restore to original size" after you've zoomed in.
- When you're watching a video, double-tapping switches *aspect ratios* (video screen shape); see page 83.

Two-Finger Tap

This weird little gesture crops up only in one place: in Google Maps. It means "zoom out." To perform it, you tap once on the screen—with *two* fingers.

Address it by tapping the + button, which opens your Contacts list. Tap the person you want to text.

Note Your *entire* Contacts list appears here, even ones with no cellphone numbers. But you can't text somebody who doesn't have a cellphone number.

In any case, the text message composition screen appears. You're ready to type and send!

Tip Links that people send you in text messages actually work. For example, if someone sends you a Web address, tap it with your finger to open it in Safari. If someone sends a street address, tap it to open it in Google Maps. And if someone sends a phone number, tap it to dial.

Free Text Messaging

If you think you can keep yourself under the 200-message-per-month limit of most iPhone calling plans (remember, that's sent *and* received), great! You're all set.

Tip Then again, how are you supposed to know how many text messages you've sent and received so far this month? Your iPhone sure doesn't keep track.

The only way find out is to sign in to www.wireless.att.com and click My Account. (The first time you do, you'll have to register by supplying your email address and a Web password.) The Web site offers detailed information about how many minutes you've used so far this month—and how many text messages. Might be worth bookmarking that link in your iPhone's browser.

But if you risk going over that limit, you'll be glad to know there's a way to send all your outgoing text messages to be free.

Enter Teleflip, a free service that converts *email* into *text messages.* Teleflip requires no signup, fee, contract, or personal information whatsoever.

Until recently, the chief use for this service was firing off text messages from your computer to somebody's cellphone.

But the dawn of the iPhone opens up a whole new world for Teleflip. It lets you send an email (which is free with your iPhone plan) that gets received as a text message on the other end. You pay nothing.

Bluetooth Earpieces and Car Kits

The iPhone has more antennas than an ant colony: one for the cellular network, one for Wi-Fi hot spots, and a third for Bluetooth.

Bluetooth is a short-range wireless *cable elimination* technology. It's designed to untether you from equipment that would ordinarily require a cord. Bluetooth crops up in computers (print from a laptop to a Bluetooth printer), in game consoles (like Sony's wireless PlayStation controller), and above all, in cellphones.

There are all kinds of things Bluetooth *can* do in cellphones, like transmitting cameraphone photos to computers, wirelessly syncing your address book from a computer, or letting the phone in your pocket serve as a wireless Internet antenna for your laptop. But the iPhone can do only one Bluetooth thing: hands-free calling.

To be precise, it works with those tiny wireless Bluetooth earpieces, of the sort you see clipped to tech-savvy people's ears in public, as well as with cars with built-in Bluetooth phone systems. If your car has one of these "car kits" (Acura, Prius, and many other models include them), you hear the other person's voice through your stereo speakers, and there's a microphone built into your steering wheel or rear-view mirror. You keep your hands on the wheel the whole time.

Pairing with a Bluetooth Earpiece

So far, Bluetooth hands-free systems have been embraced primarily by the world's geeks for one simple reason: It's *way* too complicated to pair the earpiece (or car) with the phone.

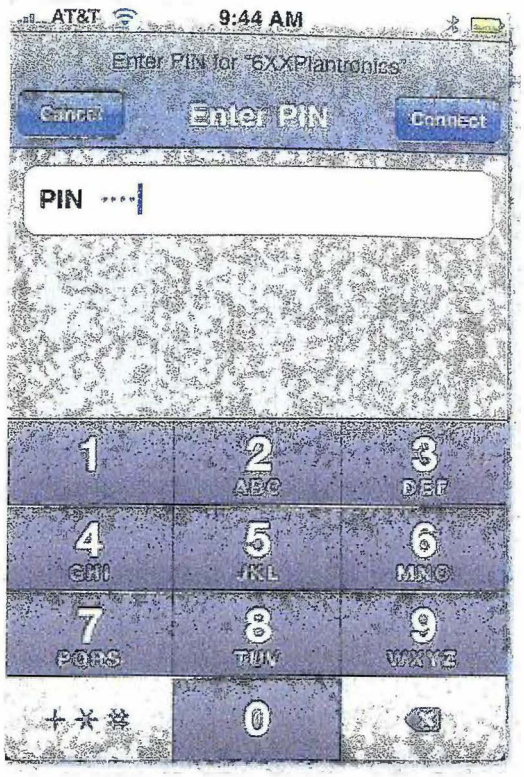
So what's pairing? That's the system of "marrying" a phone to a Bluetooth earpiece, so that each works only with the other. If you didn't do this pairing, then some other guy passing on the sidewalk might hear your conversation through *his* earpiece. And you probably wouldn't like that.

The pairing process is different for every cellphone and every Bluetooth earpiece. Usually it involves a sequence like this:

1. **On the earpiece, turn on Bluetooth. Make the earpiece discoverable.** *Discoverable* just means that your phone can "see" it. You'll have to consult the earpiece's instructions to learn how to do so.

2. **On the iPhone, tap Home→Settings→General→Bluetooth. Turn Bluetooth to On.** The iPhone immediately begins searching for nearby

Bluetooth equipment. If all goes well, you'll see the name of your earpiece show up on the screen.



❸ **Tap the earpiece's name. Type in the passcode.** The *passcode* is a number, usually four or six digits, that must be typed into the phone within about a minute. You have to enter this only once, during the initial pairing process. The idea is to prevent some evildoer sitting nearby in the airport waiting lounge, for example, to secretly pair *his* earpiece with *your* iPhone.

The user manual for your earpiece should tell you what the passcode is.

When you're using a Bluetooth earpiece, you *dial* using the iPhone itself. You generally use the iPhone's own volume controls, too. You generally press a button on the earpiece itself to answer an incoming call, to swap Call Waiting calls, and to end a call.

If you're having any problems making a particular earpiece work, Google it. Type "iPhone Motorola H800 earpiece," for example. Chances are good that you'll find a writeup by somebody who's worked through the setup and made it work.

Apple's Bluetooth Earpiece

Apple's own Bluetooth earpiece ($130), sold just for the iPhone, is one of the tiniest and simplest earpieces on the market. It has several advantages over other companies' earpieces. For example, it comes with a charging cradle that looks and works just like the iPhone's, but has a hole for charging the earpiece simultaneously.

Better yet, this earpiece pairs itself with your phone *automatically.* You don't have to go through any of that multi-step rigamarole. All you have to do is put the iPhone and the headset into the charging cradle simultaneously—and the deed is done.

There's only one button on the earpiece. Press it to connect it to the iPhone. When the iPhone is connected, you'll see a blue or white ✻ icon appear at the top of the iPhone's screen (depending on the background color of the program you're using).

Note When Bluetooth is turned on but the earpiece isn't, or when the earpiece isn't nearby, the ✻ icon appears in gray.

To use this earpiece, pop it into your ear. To make a call or adjust the volume, you use the phone itself as usual. The only difference is that you hear the audio in your ear. The microphone is the little stub that points toward your chin (the iPhone's own mike is turned off).

You answer a call by pressing the earpiece button; you hang up by pressing it again.

Car Kits

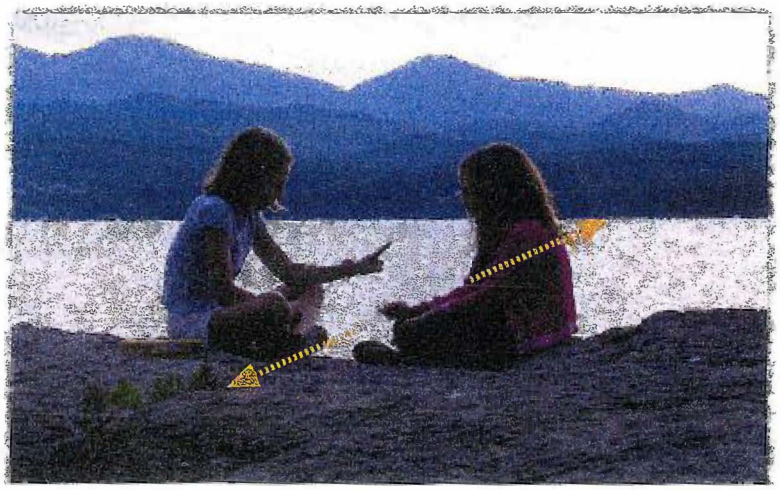
The iPhone works beautifully with Bluetooth car kits, too. The pairing procedure generally goes exactly as described above: You make the car discoverable, enter the passcode on the iPhone, and then make the connection.

Once you're paired up, you can answer an incoming call by pressing a button on your steering wheel, for example. You make calls either from the iPhone or, in some cars, by dialing the number on the car's own touch screen.

Of course, studies show that it's the act of driving while conversing that causes accidents—not actually holding the phone. So the hands-free system is less for safety than for convenience and compliance with state laws.

- **Zooming** a photo means magnifying it, and it's a blast. One quick way is to double-tap the photo; the iPhone zooms in on the portion you tapped, doubling its size.

  Another way is to use the two-finger spread technique (page 18), which gives you more control over what gets magnified and by how much. (Remember, the iPhone doesn't actually store the giganto ten-mega-



pixel originals of pictures you took with your fancy digital camera—only scaled-down, iPhone-appropriate versions—so you can't zoom in more than about three times the original size.)

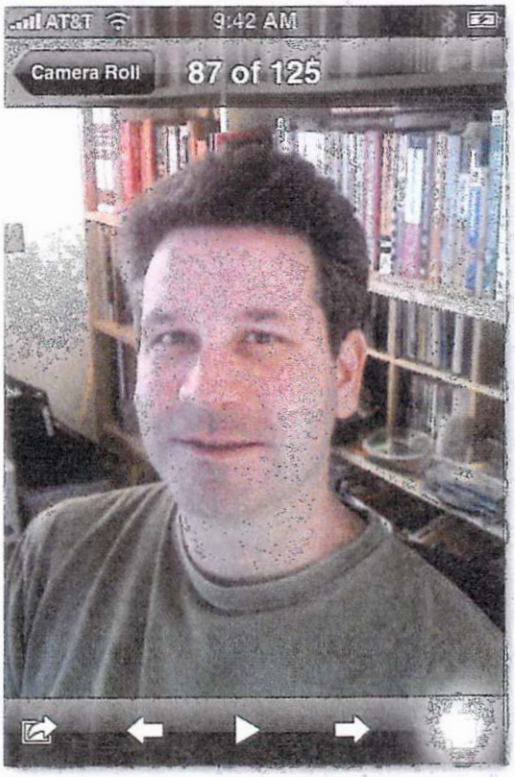
Once you've spread a photo bigger, you can then pinch the screen to scale it down again. Or just double-tap a zoomed photo to restore its original size. (You can't flick over to the next photo until you've restored the first one to original size.)

- **Panning** means moving a photo around on the screen after you've zoomed in. Just drag your finger to do that; no scroll bars are necessary.

Deleting Photos

If some photo no longer meets your exacting standards, you can delete it. But this action is trickier than you may think.

- **If you took the picture using the iPhone,** no sweat. Open the photo and then tap the 🗑 button. When you tap Delete Photo to confirm, that picture's gone.

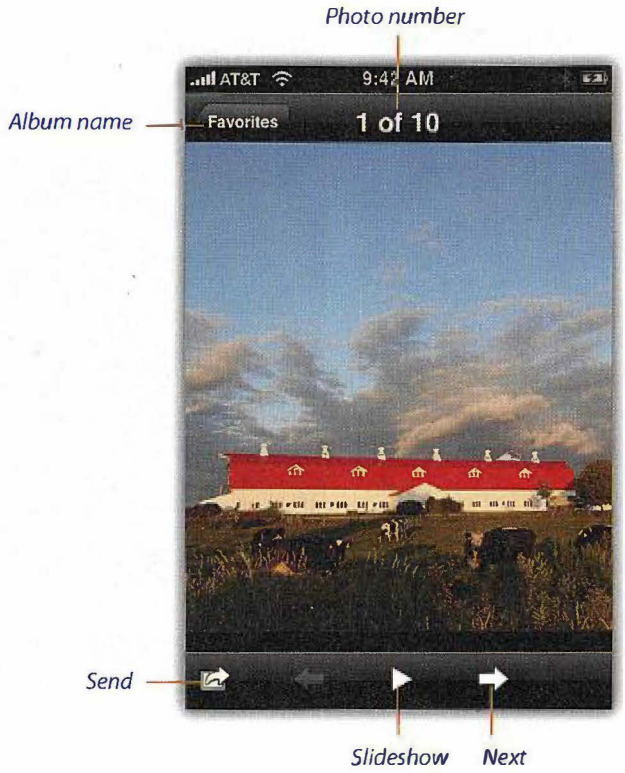


- **If the photo was synced to the iPhone from your computer,** well, that's life. The iPhone remains a *mirror* of what's on the computer. In other words, you can't delete the photo right on the phone. Delete it from the original album on your computer (which does *not* mean deleting it from the computer altogether). The next time you sync the iPhone, the photo disappears from it, too.

Photo Controls

If you tap the screen once, some useful controls appear. They remain on the screen for only a couple of seconds, so as not to ruin the majesty of your photo, so act now.

- **Album name.** You can return to the thumbnails page by tapping the screen once, which summons the playback controls, and then tapping the album name in the upper-left corner.
- **Photo number.** The top of the screen says, "88 of 405," for example, meaning that this is the 88th photo out of 405 in the set.



- **Send icon.** Tap the icon in the lower left if you want to do something more with this photo than just staring at it. You can use it as your iPhone's wallpaper, send it by email, or use it as somebody's headshot in your Contacts list. All three of these techniques are described in the next section.

- **Previous/Next arrows.** These white arrows are provided for the benefit of people who haven't quite figured out that they can ***flick*** to summon the previous or next photo.

- **Slideshow (▶) button.** Flicking is fun. But starting an automatic slideshow has charms all its own. Its gives other people a better view of the pictures, for one thing, since your hand stays out of their way. It also lets you use some very cool ***transition*** effects—crossfades, wipes, and Apple's classic rotating-cube effect, for example.

  Just tap the ▶ button to begin the slideshow of the current album or roll, starting with the photo that's already on the screen. You can specify how many seconds each photo hangs around, and what kind of visual transition effect you want between them, by tapping Home→Settings→Photos (page 260). You can even turn on looping or random shuffling of photos there, too.

  While the slideshow is going on, avoid touching the screen—that stops the show. But feel free to turn the iPhone 90 degrees to accommodate landscape-orientation photos as they come up; the slideshow keeps right on going.

Tip What kind of slideshow would it be without background music? Tap Home→iPod, and start a song playing. Yank out the earbuds, so that the music comes out of the speaker instead.

Now hit Home→Photos and start the slideshow—with music!

Photo Wallpaper

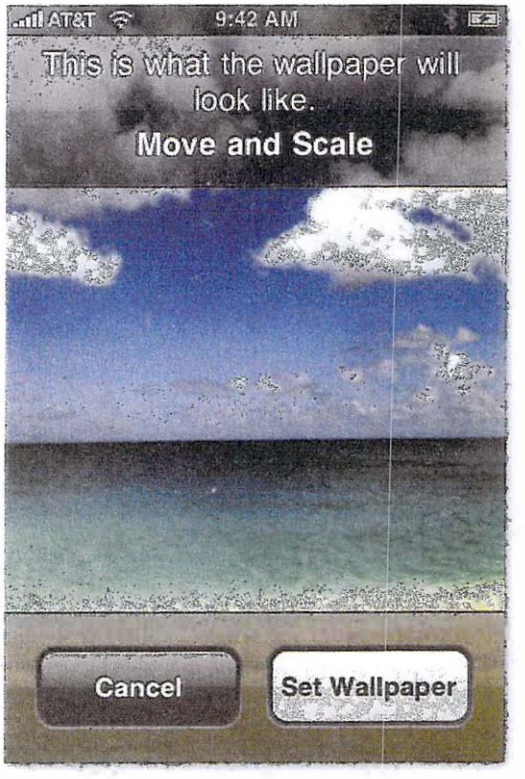
Wallpaper, in the world of iPhone, refers to the photo that appears on the Unlock screen every time you wake the iPhone. On a new iPhone, an Earth-from-space photo appears there.

You can replace the Earth very easily (at least the photo of it), either with one of your photos or one of Apple's.

Use One of Your Photos

Open one of your photos, as described in the previous pages. Tap the button, and then tap Use as Wallpaper.

You're now offered the Move and Scale screen so you can fit your rectangular photo within the square wallpaper "frame." Pinch or spread to enlarge the shot (page 18); drag your finger on the screen to scroll and center it.

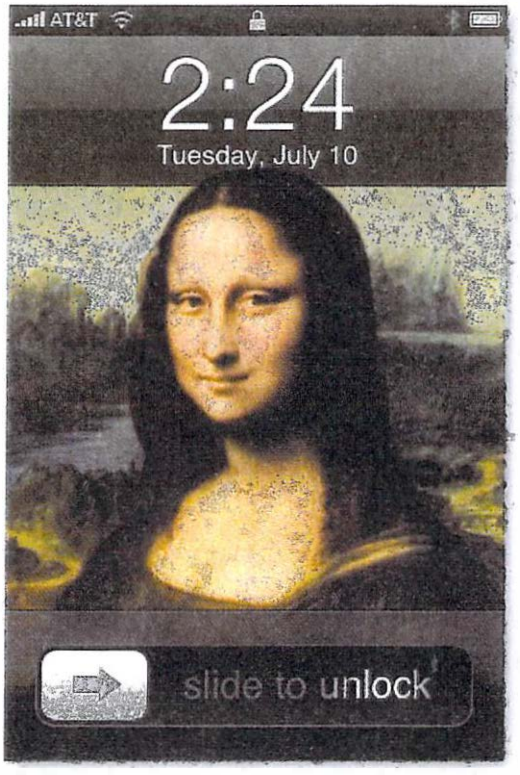


Finally, tap Set Wallpaper to commit the photo to your Unlock screen.

Use an Apple Photo

The iPhone comes stocked with a few professional, presized photos that you can use as your Unlock-screen wallpaper until you get your own photographic skills in shape.

To find them, start on the Home screen. Tap Settings→Wallpaper→Wallpaper. You see a screen full of thumbnail miniatures; tap one to see what it looks like at full size. If it looks good, tap Set Wallpaper. (How did Apple get the rights to the Mona Lisa, anyway?)



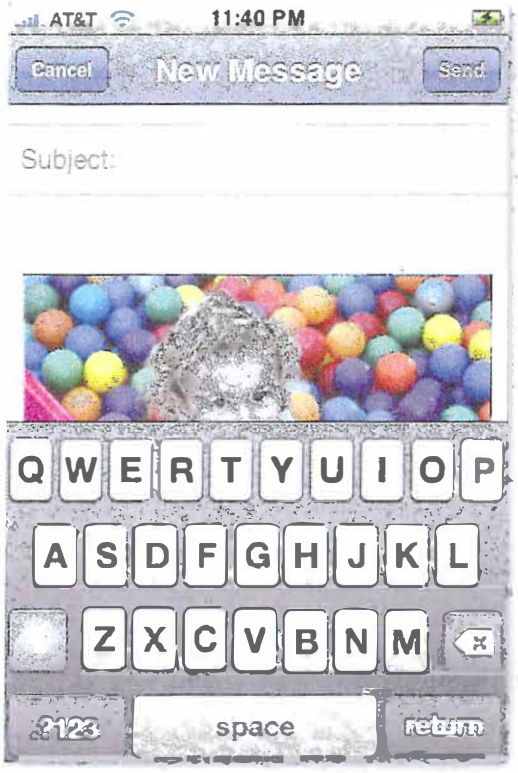
Photos by Email—and by Text Message

You can send any photo—one you've taken with the iPhone, or one you've transferred from your computer—by email, which comes in handy more often than you might think. It's useful when you're out shopping and want to seek your spouse's opinion on something you're about to buy. It's great when you want to give your buddies a glimpse of whatever hell or heaven you're experiencing at the moment.

Once you're in the Photos program, tap the button, and then tap Email Photo. Now you can email it to someone, right from the phone. The iPhone automatically scales, rotates, and attaches the photo to a new outgoing message. All you have to do is address it (page 150) and hit Send. (The fine print: You can attach only one photo per email. Photo resolution is reduced to 640 x 480 pixels. Void where prohibited.)

Tip Most photo-sharing sites, like Flickr.com and Snapfish.com, let you send photos from a cameraphone directly to the Web by email. For example, Flickr will give you a private email address for this purpose (visit www.flickr.com/account/uploadbyemail) to find out what it is.

Keep in mind that this system isn't as good as syncing your camera shots back to your Mac or PC, because emailed photos get scaled down to 640 x 480 pixels—a very low resolution compared with the 1600 x 1200 originals.



Sending Photos to Cellphones

Now, if you had an ordinary cellphone, you'd be able to do something that's quick and useful—send a photo as a *text message*. It winds up on the screen of the other guy's cellphone.

That's a delicious feature, almost handier than sending a photo by email. After all, your friends and relatives don't sit in front of their computers all day and all night (unless they're serious geeks).

Alas, the iPhone is one of the very few phones that can't send or receive MMS messages (multimedia messaging service), the technology required for this trick. Officially speaking, you can send photos only as *email* attachments. And very few cellphones can receive email, let alone with attachments.

A Tale of Two Networks

The iPhone is capable of getting online using either of two methods (which is one more than most phones):

- **Wi-Fi hot spots.** Wi-Fi, known to the geeks as 802.11 and to Apple fans as AirPort, means wireless networking. It's the same technology that lets laptops the world over get online at high speed in any Wi-Fi *hot spot*. Hot spots are everywhere these days: in homes, offices, coffee shops (notably Starbucks), hotels, airports, and thousands of other places.

Tip At *www.jiwire.com*, you can type an address or a city and find out exactly where to find the closest Wi-Fi hot spots. Or, quicker yet: Open Maps on your iPhone and type in, for example, *wifi austin* tx or *wifi 06902*. Pushpins on the map show you the closest Wi-Fi hot spots.

When you're in a Wi-Fi hot spot, your iPhone has a very fast connection to the Internet, as though it's connected to a cable modem or DSL.

Better yet, when you're online this way, you can make phone calls and surf the Internet simultaneously. And why not? Your iPhone has two independent antennas—one for Wi-Fi, and one for the cell network.

- **AT&T's cellular network.** Unfortunately, the whole world is not yet a Wi-Fi hot spot. Whenever you're outdoors, in a taxi, or otherwise in a non-Wi-Fied area, you have a Plan B to fall back on: AT&T's own cellular network. That is, your iPhone can connect to the data over the same airwaves that carry your voice.

  The problem with the AT&T data network (called the EDGE network), of course, is that it's slow. Really slow—sometimes dial-up slow. And you can't be on a phone call while you're online using EDGE.

Note AT&T also has a much faster data network—its so-called "3G" (third-generation) network. But it's available only in 160 U.S. cities so far, and the chips required to receive it draw an enormous amount of battery power. For those reasons, Apple designed the iPhone to use the older, slower network until the newer, faster one, and the chips necessary to receive it, improve.

Just how much faster is Wi-Fi than EDGE? Well, network speeds are measured in kilobits per second (which isn't the same as the more familiar kilo*bytes* per second; divide by 8 to get those).

AT&T's EDGE network is supposed to deliver anywhere from 70 to 200 kbps; a Wi-Fi hot spot is capable of delivering 6,500 to 2,100 kbps. You'll never get speeds near the high ends of those ranges—but even so, you can see that there's quite a difference.

The bottom line: getting online via Wi-Fi is *awesome*, and getting online via EDGE is...well, not so much. That's why the iPhone always prefers, and hops onto, a Wi-Fi connection when it's available.

Sequence of Connections

The iPhone isn't online all the time. To save battery power, it actually opens the connection only on demand: when you check email, request a Web page, open the YouTube program, and so on. At that point, the iPhone tries to get online following this sequence:

- First, it sniffs around for a Wi-Fi network that you've used before. If it finds one, it connects quietly and automatically. You're not asked for permission, a password, or anything else.

- If the iPhone can't find a previous hot spot, but it detects a *new* hot spot, a message appears on the screen. It displays the new hot spot's name; tap it to connect. (If you see a 🔒 icon next to the hot spot's name, then it's been protected by a password, which you'll have to enter.)
- If the iPhone can't find any Wi-Fi hot spots to join, or if you don't join any, it reluctantly connects to the cellular EDGE network. You won't win any speed competitions, but at least you'll be able to get online.

Note Well, *usually* you'll get online. The EDGE network is available almost anywhere you can make a voice call. You'll know when you're connected to EDGE because a icon appears on the phone's status bar. (When you're on via Wi-Fi, by contrast, you see there instead.)

Silencing the "Want to Join?" Messages

Every now and then, you might be bombarded by those "Do you want to join?" messages, at a time when you have no need to be online. You might want the iPhone to stop bugging you—to *stop* offering Wi-Fi hot spots.

In that situation, from the Home screen, tap Settings→Wi-Fi and turn off Ask to Join Networks. When this option is off, then the iPhone never interrupts

your work by bounding in, wagging, and dropping the name of a new network at your feet. You always have to visit this Settings screen and select a network each time you want to go online, as described next.

The List of Hot Spots

At some street corners in big cities, Wi-Fi signals bleeding out of apartment buildings sometimes give you a choice of 20 or 30 hot spots to join. But whenever the iPhone invites you to join a hot spot, it suggests only one: the one with the strongest signal and, if possible, no password requirement.

But you might sometimes want to see the complete list of available hot spots—maybe because the iPhone-suggested hot spot is flaky. To see the full list, from the Home screen, tap Settings→Wi-Fi. Tap the one you want to join, as shown on the facing page.

Commercial Hot Spots

Tapping the name of the hot spot you want to join is generally all you have to do—if it's a home Wi-Fi network. Unfortunately, joining a *commercial* Wi-Fi hot spot—one that requires a credit-card number (in a hotel room or airport,

for example)—requires more than just connecting to it. You also have to *sign into* it, exactly as you'd do if you were using a laptop.

To do that, return to the Home screen and open Safari. You'll see the "Enter your payment information" screen either immediately, or as soon as you try to open a Web page of your choice.

Supply your credit-card information or (if you have a membership to this Wi-Fi chain, like Boingo or T-Mobile) your name and password. Click Submit or Proceed, try *not* to contemplate how this $8 per hour is pure profit for somebody, and enjoy your surfing.

Turning Off the Antennas—and Airplane Mode

To save battery power, and (on a plane) to comply with flight regulations, you can turn off one or both of the iPhone's antennas: Wi-Fi and cellular.

- **To turn Wi-Fi on or off.** From the Home screen, tap Settings→Wi-Fi. Tap the On/Off switch to shut this radio down (or turn it back on).

- **To turn both antennas off.** When you turn on Airplane mode (tap Settings, then turn on Airplane Mode), you turn off *both* the Wi-Fi *and* the cellular antennas. Now you can't make calls or get onto the Internet at all. You're saving battery power, however, and also complying with flight regulations that ban cellphones and other transmitters.

Once you're in Airplane mode, anything you do that requires voice or Internet access—text messages, Web, email, Weather, Stocks, Google Maps, and so on—triggers a message. "You must disable Airplane mode to access data." Tap either Cancel (to back out of your decision) or Disable (to turn off Airplane mode, turn on the antennas, and get online).

Note In the Safari Web browser, the message says, "Safari can't open the page because it can't find the server," but it's saying the same thing: No Can Connect to Internet Now, Boss.

You can, however, enjoy all the other iPhone features: use its iPod features, work with the camera and photos, or use any of the mini-programs like Clock, Calculator, and Notes. You can also work with stuff you've *already* downloaded to the phone, like email and voicemail messages.

When you first open a Web page, you get to see the *entire thing*. Unlike most cellphones, the iPhone crams the entire Web site onto its 3.5-inch screen, so you can get the lay of the land.

At this point, of course, you're looking at .004-point type, which is too small to read unless you're a microbe. So the next step is to magnify the *part* of the page you want to read.

The iPhone offers three ways to do that:

- **Rotate the iPhone.** Turn the device 90 degrees in either direction. The iPhone rotates and magnifies the image to fill the wider view.

- **Do the two-finger spread.** Put two fingers on the glass and drag them apart. The Web page stretches before your very eyes, growing larger. Then you can pinch to shrink the page back down again. (Most people do several spreads or several pinches in a row to achieve the degree of zoom they want.)

What to Do With a Message

Once you've viewed a message, you can respond to it, delete it, print it, file it, and so on. Here's the drill.

Read It

The type size in email messages can be pretty small. Fortunately, you have some great iPhoney enlargement tricks at your disposal. For example:

- **Spread two fingers** to enlarge the entire email message (page 18).
- **Double-tap a narrow block of text** to make it fill the screen, if it doesn't already.

Drag or flick your finger to scroll through or around the message.

Tip You can also, of course, just ask the iPhone to use a larger type size. From the Home screen, tap Settings→Mail→Minimum Font Size. You can choose the minimum type size you want from these options: Small, Medium, Large, Extra Large, or Giant. (What, no Humongous?)

It's nice to note that links are "live" in email messages. Tap a phone number to call it; a Web address to open it; a YouTube link to watch it; an email address to write to it; and so on.

Reply to It

To answer a message, tap the Reply/Forward icon (↩) at the bottom of the screen. You're asked if you want to Reply or Forward; tap Reply. If the message was originally addressed to multiple recipients, you can send your reply to everyone simultaneously by clicking Reply All instead.

A new message window opens, already addressed. As a courtesy to your correspondent, Mail places the original message at the bottom of the window.

At this point, you can add or delete recipients, edit the Subject line or the original message, and so on.

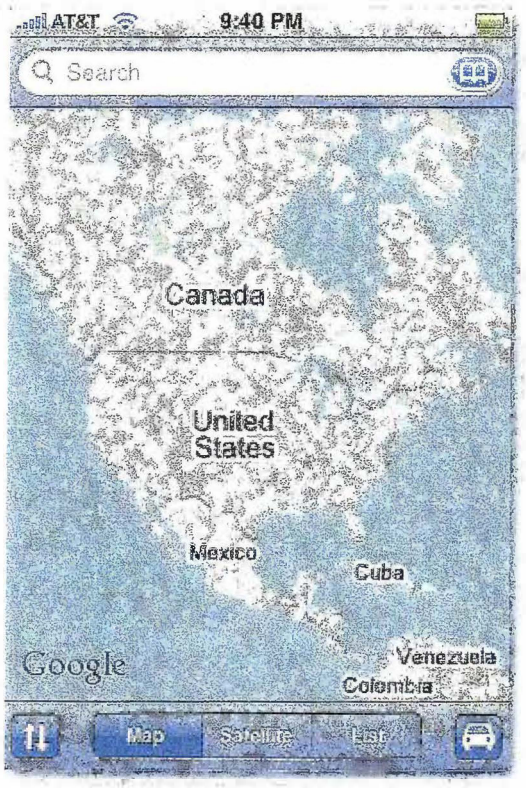
Google Maps on the Web is awesome enough. It lets you type in any address or point of interest in the U.S. or many other countries—and see it plotted on a map. You have a choice of a street-map diagram or an actual aerial photo, taken by satellite. Google Maps is an incredible resource for planning a drive, scoping out a new city before you travel there, investigating the proximity of a new house to schools and stores, seeing how far a hotel is from the beach, or just generally blowing your mind with a new view of the world.

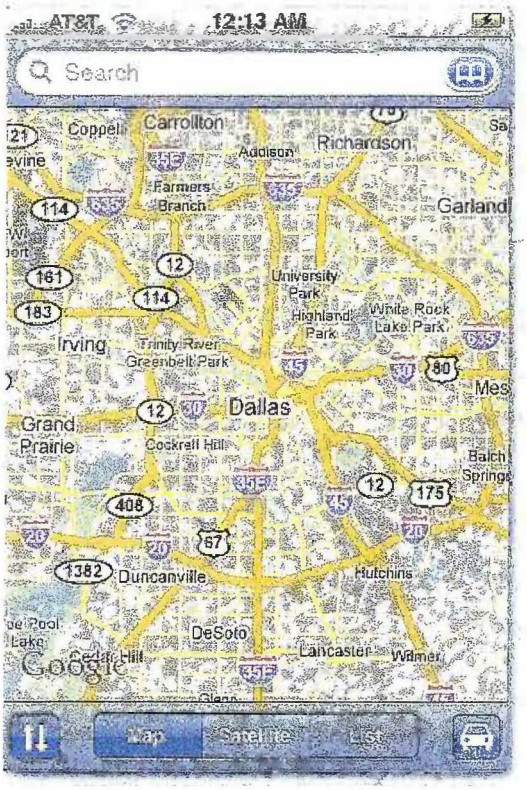
And now you've got Google Maps on the iPhone, with even more features—like turn-by-turn driving directions, live national Yellow Pages business directory, and real-time traffic-jam alerts, represented by color coding on the roads of the map.

Note Your happiness with Maps depends a lot on how you're connected to the Internet. A Wi-Fi connection is fairly snappy. A cellular EDGE connection may mean waiting a few seconds every time you scroll or zoom the map.

Browsing the Maps

The very first time you open Maps, you see a miniature U.S. map. Double-tap to zoom in on a region of the country; double-tap again to zoom in on a state; and so on, until you're seeing actual city blocks. You can also pinch or spread



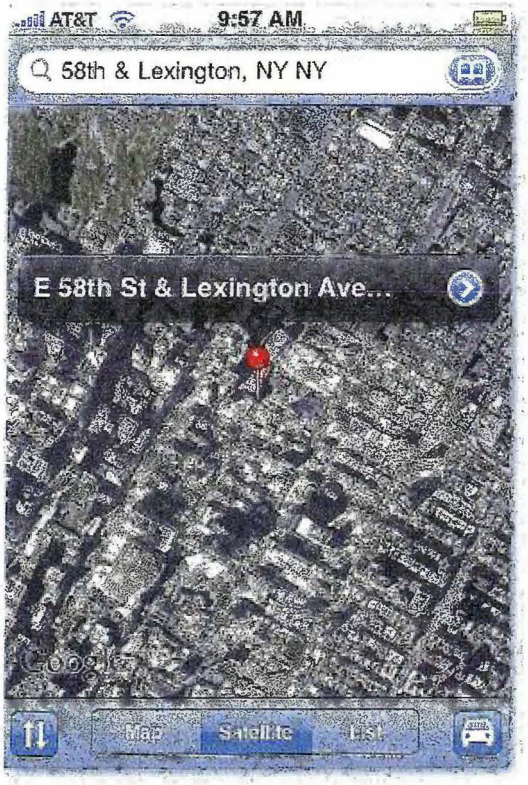


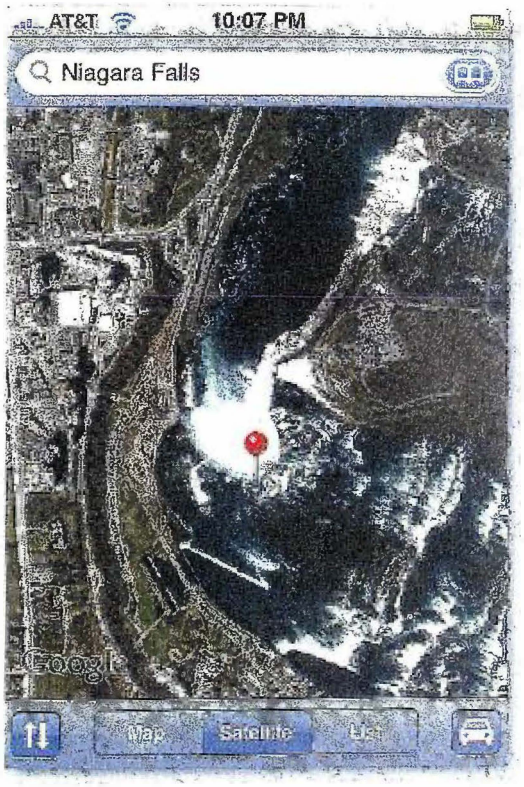
two fingers (page 18) to magnify or shrink the view. Drag or flick to scroll around the map.

To zoom *out* again, you use a technique that's not available anywhere else on the iPhone: the *two-finger tap.* So—zoom in with *two* taps, one finger; zoom out with *one* tap, two fingers.

At any time, you can tap the Satellite button below the screen to view the same region as an aerial photo. (There's no guarantee it's a very *recent* photo—different parts of the Google Maps database use photography taken at different times—but it's still very cool.)

Note If you zoom in far enough, the satellite photo eventually vanishes; you see only a tiled message that says, "No Image" over and over again. In other words, you've reached the resolution limits of Google's satellite imagery. Do some two-finger taps to back out again.





Searching the Maps

Instead of tapping your way to a particular spot on the map, it's often far more efficient to *type* a location, especially when you don't know where that location is to begin with.