Cindy Krum

Mobile Marketing

Finding Your Customers No Matter Where They Are

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que®

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About the Author

Cindy Krum is the CEO and Founder of Rank-Mobile, LLC, based in Denver, CO. She brings fresh and creative ideas to her clients, speaking at national and international trade events about mobile Web marketing, social network marketing and international SEO. Cindy is hosts a weekly radio show about mobile marketing called Mobile Presence on WebmasterRadio.FM. She writes for industry publications, and has been published in Website Magazine, Advertising & Marketing Review, Search Engine Land, ODG Intelligence, and quoted by many respected publications including PC World, Internet Retailer, TechWorld, Direct Magazine, Inc. Magazine and Search Marketing Standard.

Dedication

*My favorite thank you and a dedication for all of you, is a quote from Isaac Newton, who said: "*If I can see further than anyone else, it is only because I am standing on the shoulders of giants.*"*

Acknowledgments

I would specifically like to thank my editor, Rick Kughen, and my primary tech editor, Kim Dushinski, for all of their help and advice regarding the book. They have been invaluable assets.

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- The two conference series, Search Engine Strategies (SES) and SMX (Search Marketing Expo) for always including me in sessions about mobile marketing, and in some cases, creating mobile sessions just for me;
- SEOmoz and BlitzLocal, for always being available to help with logistics, offer sound business advice, act as a sounding board or give words of encouragement;
- WebmasterRadio.FM and WebProNews for giving me a digital form where I can take and give interviews, create an online dialogue and learn from my peers;

- Tech Editors, who worked with me, sometimes with little notice or preparation, to make this book as accurate as possible;
- And all my dear friends in the online marketing community, without whom this experience would have been much less enjoyable.

Starting a company and writing a book in the same year has been quite a challenge; and doing it all in a down economy has been nerve-wracking—to say the least. As I see friends and old colleagues lose their jobs, and successful companies tighten their belts or go under, I feel lucky. In the year that has taken to write this book, I have been surrounded by some of the smartest people in the world. I hope to keep my place in their good graces and some day, pay their good deeds forward.

We Want to Hear from You!

As the reader of this book, *you* are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

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Introduction

I believe that mobile marketing is the marketing of the future. My name is Cindy Krum, and I am the author of Mobile Marketing: Finding Your Customers No Matter Where They Are. *This book is intended to be a comprehensive guide for marketers and anyone who wants a clearer understanding of how they can integrate mobile marketing with their existing on- and offline marketing campaigns.*

Mobile marketing is a quickly changing industry. My hope is that this book is as comprehensive, timely, and accurate as possible. That being said, the mobile industry is still very inconsistent and, in many instances, opaque, complicated, and variable. It can be difficult to pin down different technological capabilities or get a clear understanding of how different technologies work together. I have done my best to describe the mobile world as I understand it, but I will be the first to admit that I am no

technology expert. Many people have a deeper understanding of specific mobile technologies, but few have the breadth of understanding for the entire channel or its potential relationship to other marketing channels. My strength is in my vision and my ability to help companies create unified mobile strategies that create long-term value while still generating an immediate return.

You will find several themes throughout the book. These themes are the core reasons that I have become so passionate about mobile communication and have become somewhat of an evangelist for mobile technology.

- **Empowerment**—The adoption of mobile technology has economic and political ramifications that help people lead better lives and have a voice in their society. Because mobile phones are cheaper that computers, in many places, smart phones are simultaneously a person's first personal phone and first personal computer. Jeffrey Sachs, from the Columbia University's Earth Institute, said that mobile technology has been "the single most transformative tool for development." It has already helped unify communities, stabilize economies, and provide access to information in areas where it was previously unavailable. Mobile technology has been used to monitor and verify election results, coordinate political protests, and enable disaster-management teams.
- **Ubiquity**—We are quickly approaching a time when almost every person in the world has access to a mobile phone. In both developed and developing countries, people rely on mobile phones to conduct business, receive information, and interact socially. Faster mobile network connections are constantly becoming available around the world, deepening our reliance on mobile data above and beyond our reliance on simple voice and text messaging. This ubiquity has broad social and cultural implications that have already had a dramatic impact on many people's day-to-day lives.
- **Relevance**—Mobile marketing messages can be location specific, time specific, and even person specific, making the message highly relevant to the person receiving it. Messages can even be tailored to meet the needs of a person or company at the exact moment that the need

arises—all of which exponentially improves the relevance of the message. Mobile technology is also the first communication channel that creates messages that can be saved and opened later—at the exact moment when they are relevant—without the risk of the message being lost or damaged in the process (such as when coupons are clipped or ads are printed).

These themes have fed my passion for all things mobile. They are fundamental differences that make mobile a uniquely powerful marketing technology. People around the globe have allowed themselves to become deeply dependant on a small piece of technology called a mobile phone, and that is what makes it so darn important!

I deeply hope that you find this book very valuable. I have done everything possible to present an unbiased synopsis, supplementing my own knowledge and experience with research and case studies, and calling upon industry experts to review my work whenever possible. This book has taken the better part of a year to research and write, and in that time, things have already changed dramatically. The editorial team and I have done our best to ensure that the chapters are all as current as possible at the date of launch, but if we have missed something, please forgive us. The hope is that the book gives you the foundational knowledge you need to make the right plan, hire the right people, and set the right expectations so that your mobile marketing initiatives succeed. Thanks for reading it!

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Getting Started with Mobile Marketing

Many elements make mobile marketing remarkable. This type of marketing is uniquely suited to help potential customers find you or learn about your products precisely when they need them. Many customers have their phones with them all the time, frequently as their primary means of communication with the rest of the world. Many people even report that they would be "lost" without their cellphone and find it hard to imagine life without it.

The Potential of Mobile Marketing

Analysts have been saying that it was "the year for mobile" for a long time, and this has created a false expectation. Mobile marketing will evolve just like traditional online marketing did—over time. It will see small surges as technology improves or key demographics change, but overall, we can expect the growth and acceptance of mobile marketing to follow a normal or slightly accelerated acceptance curve, similar to the growth of traditional Internet marketing.

Mobile marketing describes any attempt to appeal to potential customers with some sort of marketing message. Describing it in more concrete terms is difficult, because the term mobile marketing encompasses such a wide variety of activities, including

- Mobile advertising, in which brands pay to display visual ads embedded within the content of another website
- SMS and MMS
- Location-based mobile marketing
- Mobile applications
- Mobile search marketing
- Offline marketing in TV, radio and print
- Online marketing on websites, in searches, and with email

We are building on what we have learned from traditional Web marketing, but the technology will still have to work its way into society, as with every other marketing-laden technology before it. When other technologies were new, many people thought they could live without things such as TV, radio, and Internet. Not until the technologies sufficiently proved their value did they became tightly integrated into our society. There may not be a "year of mobile," but it is definitely the next new marketing opportunity. You must understand it or risk being left behind, because mobile marketing promises to be the most personal, targeted, and actionable marketing available in our time.

The following sections detail what makes mobile marketing something you can't afford not to master.

Mobile Marketing Is the Most Personal Form of Web Marketing

I like to joke that the only thing more personal than a person's cell phone is his underwear. Mobile phones are not shared, like traditional phones or desktop computers might be, so they are a uniquely targeted means of communication. The

mobile phone is the most personal piece of technology that most of us will ever own.

- Our mobile phones are with us all the time. They know who we call and who we text, and they can triangulate where we are throughout the day.
- Smart phones have access to our entire address book and calendar. They can see what websites we are looking at and what applications we are downloading.
- Our mobile phones know what kind of entertainment we like. We use them to download and play videos, play games, or listen to music.
- Mobile phones can even hold and distribute digital likenesses of us with cameras, videos, and voice recordings.

Mobile Marketing Is the Most Targeted Form of Web Marketing

We can tell a lot about a person based just on cell phone use. In many ways, the mobile phone and the way it is used can provide powerful demographic and psychographic signals about the owner. People choose different carriers, handsets, or phone features because of their social and utilitarian needs. As marketers, we should use this information to present our audience with the most compelling marketing possible.

We can learn a lot about people from the handset they purchase. Businesspeople frequently choose devices that offer the best corporate email solution and allow simple computing, perhaps BlackBerrys or Treos. The more mod subscribers in the crowd will choose phones that focus more on applications and aesthetics, such as the iPhone or the HTC Dream. Teenagers and the younger crowd will choose phones such as the SideKick, to allow them to stay connected to their friends through text messaging, gaming, instant messaging (IM), and social networks.

Similarly, we can sometimes glean demographic and psychographic information about our audience based on the carrier for their mobile service. Although AT&T, Sprint, and Verizon do not target unique demographic profiles, smaller carriers and service resellers, called MVNOs (mobile virtual network operators) do cater to specific audiences. For instance:

- People who get service from Boost Mobile or Helio tend to be young and male.
- Virgin Mobile users also tend to be young but are more evenly split between the genders.

- People with service through Cricket, Blyk, or MOSH Mobile tend to be thrifty or have a lower income.
- People with service from BeyondMobile tend to be businesspeople.

Savvy marketers should have a good understanding of the demographic and psychographic indicators of their target market, as well as the top visitors to their website.

Mobile Marketing is a More Immediate Form of Web Marketing

Because our mobile phones are always with us, they make any message that we receive immediately available. And because we use our cell phones to stay connected with the rest of the world, we check them often—sometimes habitually or incessantly—which is also very powerful. This immediacy makes mobile marketing an extraordinary marketing option for last-minute or time-sensitive calls to action. The mobile nature of the delivery increases the odds that the recipient is already "out and about" and available to act immediately on information.

Mobile Marketing Is More Actionable Than Other Forms of Web Marketing

Mobile phones combine a number of technologies that close the gap between the "real world" that we live in and the "interactive" world that we market in. The convergence of technology in the cell phone has simplified and streamlined many actions:

- To upload a picture to the Internet, you used to have to take the picture with your digital camera, plug the camera into the computer, download the picture to the computer, and then upload the picture to the Internet. Now you can simply take a picture with your camera phone and immediately upload it to the Web.
- To place a call to a number you didn't know, you used to have to look up a phone number on a computer, and then switch devices and type the phone number into your phone. On a mobile phone, when you've found the phone number, you simply click on it to be connected.
- To make digital copies of music or movies, you used to have to download the files to your computer and then burn them to a CD or transfer them to a player. Mobile phones enable you to download and consume those files seamlessly, all on one device.

Mobile marketing enables us to make our marketing messages more interactive and actionable, which has a direct impact on the bottom line. It simplifies interaction between the brand and the customer, making it much easier for our customers to interact with our brand. It removes some of the barriers that previously prevented people from responding to our marketing message and from taking the call to action.

Mobile as a Direct Marketing Channel

In simple terms, direct marketing relies on the availability of our target market to receive and understand our marketing message directly, so mobile marketing falls neatly into this category of marketing. When compared to other types of direct marketing, the mobile phone offers a greatly expanded opportunity for our target market to receive our direct marketing messages. It has drastically changed our perception of availability, and this has changed how we market our products and services. Mobile marketing enables us to tap into the true essence of direct marketing as never before.

Direct marketing with mobile devices offers a lot of advantages over other types of direct marketing. It is particularly useful because it has these characteristics:

- Cost effective
- Scalable
- Targeted
- Personal
- Shareable
- Portable
- Flexible
- Interactive
- Immediate
- Measurable
- Effective
- Actionable
- Repeatable
- Fun

Mobile marketing also has the power to convert traditional marketing efforts into direct-response campaigns. TV or radio commercials that were previously just one-way broadcast messages—with minimal opportunity for a direct response—can be made interactive and trackable when combined with a mobile call to action.

Instructions telling potential customers to interact with your brand become more powerful when people can act on them immediately—and because most people keep their mobile phone with them at all times, mobile calls to action are more compelling than simply including a Web address or phone number and hoping the viewer will remember it later. When mobile communication calls to action are included, we close the loop and shorten the gap between us sending the message and recipients acting on it. The mobile phone is such a capable response mechanism that all types of direct marketing are lifted to the next level of effectiveness.

Direct Marketing That Is Personal

Mobile marketing is really the most personal direct marketing channel out there because of the variety of communication options it opens for us to reach a specific consumer with a specific message. It leverages the power of standard direct-marketing techniques and makes the message consumable and immediately actionable with one device.

Mobile marketing offers a bevy of creative marketing opportunities because the responses to our calls to action can come in a variety of different media and are uniquely trackable to one specific user. Information you get via mobile tracking can add dimension to your understanding of the customer's preferences and enables you to vary the channels of communication so customers don't feel overwhelmed.

Mobile marketing is also uniquely suited for persona marketing. Persona marketing is based on the idea that your customers can usually be classified into three or four groups, based on their demographic, psychographic (personality, values, attitudes, interests, and so on), and behavioral needs. Customers are grouped based on similarities and are given a name to represent the group. For example, a store that sells professional beauty products might be marketing to the following personas:

> **Katie the Cosmetologist:** Katie is young and either is still in cosmetology school or has graduated in the past two years. She is still testing different products she likes and is easily enticed by sales and promotions. She wants to feel and look like a master stylist in her salon, but she is still working her way up the ropes. She comes into the store about once a week to see if there's anything new or on sale.
>
> **Sally the Salon Owner:** Sally is a bit older and more set in her ways. She owns or manages a salon. Although she used to be a stylist on the floor, she now spends most of her time on the administration and logistics of running the business. She has products that she buys regularly and in bulk, and she is slow to add anything new to her shopping list. She shops twice a month and is less price sensitive because she isn't interested in trying new products. Promotions that involve bulk purchases or that encourage her to spend a certain amount of money to receive a specific discount are persuasive to her.
>
> **Susan the At-Home Stylist:** Susan can be almost any age but is usually younger. She is tired of paying salon prices for treatments and services she can easily provide herself at home much more cheaply. She is usually less price sensitive than Katie because she is buying products only for her own use or for a very short list of friends. She is not a professional, so she needs more help knowing what to buy and how to use it, but she still loves a good bargain.

Each of these personas would benefit more from different types of offers and different types of marketing messages. Information collected via a mobile device can be used to categorize customers, and distinct messaging strategies can be created for each persona. Different messages and incentives can be sent to people in each persona over different periods of time, using different communication and response channels.

Direct Marketing That Is Portable

Before mobile email access and text messaging, we relied on our computers for even the simplest text-based communication. If we were in a meeting, in transit, or just away from our computer, we simply could not be reached via text-based communication (short of being passed a note during a meeting). With mobile email and text, even when we're not really available, messages are still put through and are waiting for us the minute we become available, even if only for a second. We are no longer tied to computers for text-based digital communication.

When text-based communication lost its ties to the traditional computer, it opened up a world of marketing opportunities. It enabled us to communicate without interrupting the recipient's day, and it provided recipients the opportunity to consume our message when it was convenient for them and to save it or carry it with them for future reference. Mobile text-based communication—different from other types of direct marketing—gave us the potential for durable, portable marketing messages that could be consumed quickly and politely at the recipient's leisure.

Direct Marketing That Is Persistent

Before everyone had cellphones, most direct marketing was tied to specific locations. Direct marketers reached people at addresses or phone numbers that a group of people usually shared. A marketer's ability to communicate with people largely depended on people actually being at specific places. Marketers were forced to anticipate where people were, at whatever time they wanted to reach them. If people moved, went on vacation, or were just out and about, they were unavailable to receive our marketing messages.

Now, in a world where most adults (as well as many children and teens) have cellphones, we can more easily reach exactly who we are looking for, when we want to market to them. This is because mobile phone numbers are assigned to specific *people* instead of specific *locations*, and they are rarely used by more than one person. Mobile phones go with people when they move, go on vacation, or just go out to run errands.

This means we have more opportunity, as marketers, to reach the people we are trying to market to and less risk that our message will be screened out or lost by those who are not the intended recipient. We can spend less time simply trying to reach the person with our offer and more time crafting a persuasive marketing message and a meaningful call to action.

Direct Marketing That Is Intelligent

The data that we can gather about our customers through mobile marketing initiatives also can inform future marketing campaigns. Mammoth customer relationship management (CRM) systems and preference centers can be built off information available directly from a phone response. These systems can give marketers the opportunity to create deep, enduring relationships with their customers.

A good CRM system should be used to ensure that the right marketing messages reach the right customers exactly when they are most relevant. Triggered response emails and text messages can be set up to respond to any interaction that the user has with the brand, and they can be also be scheduled based on personal specifications that the user indicates in the preference center.

Some companies are already doing this: Some banks send account holders text messages when checks post to their accounts, and some pharmacies send text messages reminding recipients to refill their prescriptions. Other types of companies can leverage CRM systems for similar initiatives or for more creative mobile marketing efforts. Users will appreciate the high level of personalization and the responsiveness that you can show them, and this will help build trust and loyalty for your brand.

If you are using persona marketing in conjunction with your CRM database, you will be able to predict the communication preferences of new users based on the preferences of others in their persona group. If you can accurately predict a user's communication preferences, you can begin sending more effective and targeted messages to new customers more quickly—and you eliminate the possibility that they will become frustrated and unsubscribe from your communication lists.

Is Mobile Marketing Right for You?

Although mobile marketing can be powerful, it is not appropriate for every company. It has unique assets that make it particularly advantageous for some initiatives, but it is not predictable or stable enough for other initiatives. As with any marketing campaign, a mobile marketing effort must be closely considered and evaluated before the work begins. Companies that don't offer the right product or service, or don't have enough resources to get it right, should wait to undertake a

mobile marketing project. Understand your audience, know your objectives, and be prepared to fail.

So when should mobile marketing be used?

Brands

Well-known brands generally have different goals than lesser-known companies. Their objectives are more focused on maintaining brand equity and building brand loyalty, which can be done very effectively with mobile marketing. Most of the first forays into mobile marketing were undertaken by big brands that wanted to test the channel. Big brands tend to have bigger budgets that they can use to test new technologies and to reinvent themselves to appear innovative and new.

Big brands also usually have more research and information about their customers, to help segment and direct their marketing efforts. To target their messages appropriately, big brands—especially big brands that have a variety of product lines—should limit their mobile messaging to a specific type of product or service. For example, someone who wants to buy a $30 leather dog collar from Coach is likely very different from the person who wants a full set of Coach luggage. Similarly, a shopper who is interested in Apple software may be very different from a shopper who is interested in an iPod Shuffle.

Brands Case Study 1

Many international car manufacturers have made a good entrance into mobile marketing, the most notable being BMW, which has undertaken a number of great mobile marketing projects. To sell more snow tires in fall 2008, BMW tire centers in Germany sent customized MMS messages to all the people in their customer database who owned BMWs. The message reminded recipients of the importance of snow tires in bad driving conditions. It had a personalized greeting, recommended a specific tire for their car, gave the price, and listed dealerships in their area. The campaign achieved 30% conversion rate, which is no doubt attributable to the targeted nature of the offer to their list of recipients.

Brands Case Study 2

Starbucks is another company that embraced mobile marketing early. Starbucks tried a number of different campaigns, but in 2009, it launched a mobile loyalty campaign in Mexico that saw tremendous success. It started with postcards that encouraged the recipient to text the word "Starbucks" to a short code. When users texted in, they received a 2D barcode (QR codes) coupon that could be scanned off

the phone in the Starbucks cafes. The offer changed each time the barcode was scanned, so recipients were encouraged to redeem the coupon multiple times. Starbucks experienced a 60% redemption rate on the first redemption of the coupons, and the program created an engaged audience of recipients.

Brands Case Study 3

NASCAR is another big brand that has had massive success with mobile marketing. NASCAR has gone in a different direction, working directly with carriers such as Sprint to provide fans with special NASCAR features on some handsets that Sprint offers. NASCAR has also had success with text messaging and ring tone downloads, as well as Bluetooth location-based marketing at races. NASCAR has integrated mobile marketing with TV broadcasts during races and with its branded reality show, *NASCAR Angels.* Additionally, NASCAR has experimented with mobile microsites dedicated to helping its audience save gas. This project has included a mobile coupon element that gave participants discounts at ExxonMobile and Auto Zone.

Brick-and-Mortar Establishments

Stores, restaurants, and entertainment venues are in a unique position to leverage mobile marketing because of their ability to target local foot traffic. They can set up location-based Bluetooth broadcasts that send marketing messages directly to the consumer when they are in the area. They can also develop strategies that incorporate outdoor advertising, to allow users to text in for specials, menus, show times, directions, or other information.

In many instances, urban areas are largely segmented by the type of business in the area. Shopping, restaurants, and entertainment venues might be in one area; business and commerce locations might be in another; and transportation services might be in another. This makes targeting your mobile marketing message simple because the potential recipients have self-identified their interests.

The type of messaging that works best for brick-and-mortar stores depends on the product or service being provided. In general, your mobile messaging should be as specific and actionable as possible. If you are a store, give specific deals with expiration dates and instructions for redemption. If you are a restaurant, send out your specials for the evening and include prices. Restaurants can even allow visitors to text in to get on a waiting list, or receive a text message when their table is ready. Concert venues or clubs can let people know important details about the show, such as who will be playing and when, and how much it costs to get into the venue.

Brick-and-Mortar Establishments Case Study 1

In Oswestry, England, in 2007, a text-messaging campaign created by a restaurant called The Venue encouraged diners to text the word "Venue" to a short code to add themselves to a list that would receive special offers and notifications via text. After only two text-message broadcasts, the average number of diners in the restaurant more than tripled. This was ideal for the restaurant because it could send out text messages at exactly the time it wanted to bring in foot traffic. The restaurant also noted that this approach saved time and money compared to the print flyers it had tried previously.

Brick-and-Mortar Establishments Case Study 2

In 2009, T-Mobile launched a Bluetooth marketing campaign that targeted London shoppers as they passed local T-Mobile stores. Graphics in store windows encouraged passersby to activate their Bluetooth. Those who did, or who already had Bluetooth enabled, were sent messages encouraging them to upgrade their phone to one of the T-Mobile exclusive handsets. T-Mobile reported an increase in foot traffic and sales in stores, and noted that customers seemed very interested in the marketing initiative.

Brick-and-Mortar Establishments Case Study 3

In 2007 in Las Vegas, the MGM Grand created a marketing campaign that started with "moving billboards" driving the strip. (These were actually small trucks with billboards on the rear of the cabs.) The billboards advertised the award-winning nightlife at venues within the MGM Grand and encouraged pedestrians to text in to be "added to the VIP list." People who texted in a code were sent a response asking for their first and last name and the number of people in their party. The campaign successfully drove traffic into the casinos and also helped build a database of people who opted in to receive text messages.

Events

Mobile marketing is particularly valuable for things that happen in real time, such as sporting events, concerts, conferences, and conventions. Savvy marketers can reach a targeted consumer base exactly when the consumer has the desire to interact. This type of mobile marketing can make an event run more smoothly, create goodwill with attendees, and enable the organizers to build a mobile marketing database of contact information to use in subsequent marketing efforts. The following are some examples of event-based mobile marketing:

- **Sporting events**—Many stadiums have begun to encourage interaction by creating text-in contests and polling, revealing the results to visitors while they are still in the venue. When visitors text in a response to the prompt, an auto-response can be sent, encouraging them to opt in for team statistics and discounts on tickets, food, and beverages in the venue.
- **Concerts and clubs**—Visitors can also be reached with contests and polls. Attendees can be encouraged to send pictures or text from their mobile phone to a particular short code, and those messages can quickly be displayed on a large monitor in the venue, to add to the experience. Alternately, the venue can encourage visitors to text in when they hear a song that they like so that a link to a downloadable ringtone or MP3 can be sent back. MP3s and other downloads that are promoted at the event can even be set up with short pre-roll advertisements or branded message that remind the recipient about the venue or about upcoming shows.
- **Conferences and conventions**—Marketers have the opportunity to leverage many services that can be consumed on the mobile phone. For example, the event might sponsor or provide such things as free WiFi and text-message notifications. Conferences can offer name badges that mobile phones can scan, to immediately enter new contacts into the phone.

Events Case Study 1

At the Pick 'n Pay Argus Cycle Tour in Cape Town, cyclists were encouraged to enter a contest hosted by Powerade to win prizes at the event. To participate, they had to download a packet of free content to their phone. The content included Powerade ringtones and wallpapers, along with a bar code that would be scanned off the phone to determine whether the recipient had won. The initiative helped reinforce the brand with its target market, but it also did a good job of driving visitors to the booth at the event, which increased the sales of other products offered that day.

Events Case Study 2

At the Event Marketing Summit in Chicago in 2009, attendees were encouraged to text "EMSUMMIT" to a short code to interact more with the event. After opting in, attendees could get schedule updates and reminders on their phone, but they could also interact with speakers in real time by texting comments or questions to be

displayed on the venue's main screen. A company called Mozes provided the text-to-screen capability as part of a self-promotion campaign at the event, so participants also received text messages reminding them to visit the Mozes booth at the show to enter more raffles and learn more about the technology.

Events Case Study 3

In 2007 in the United Kingdom, at an event called V Festival (sponsored by Virgin Mobile), concertgoers and festival attendees were encouraged to download a Mobile Festival Survival Kit that included a variety pack of different content for their phones. Multiple mobile survival kits were distributed, and they included things such as brightly colored flashing screen savers to help friends find each other in the dark and short animations of a flame, to be held up in place of a lighter during concert ballads. The survival kit also encouraged people to sign up for text messages to alert them when different bands were about to go on stage.

Who Is Mobile Marketing Wrong For?

Believe it or not, mobile marketing isn't the answer for some companies—at least, not yet:

- **Companies without the resources**—The mobile marketing industry is still coming together and remains in flux. Companies that don't have the financial resources to test campaigns and possibly fail should consider waiting until the channel is more solid and predictable. In fact, for some companies, it might be best to wait until there are more tools to simplify the mobile marketing process. Mobile marketing is not for the faint of heart. It requires planning, money, and manpower. Companies should always be prepared to fail and should understand that it might take a couple tries to get it right.
- **Companies without an objective**—The mobile phone gives every marketing medium the potential for a direct response, so having a specific call to action is crucial to the success of a mobile marketing campaign. Calls to action can encourage anything from responding to a print or TV call to action, to signing up for text alerts, placing a call from your site, or requesting directions to your store.

  Calls to action highlight the conversion events in your campaign. Viewers "convert" when they take some action that you suggest or offer. Multiple conversion events should be tracked with each initiative, and each conversion event should be assigned some monetary value to help you determine the return on investment for the campaign. Without a

clear call to action, gauging the success of your campaign will be more difficult. Mobile marketing is new and exciting, but that shouldn't be why you initiate a campaign. Your marketing efforts must create some type of value or return on investment to be successful. Always set clear objectives and targets so you can evaluate your success.

- **Companies without the technical resources to handle the response**—Nothing is worse than having a good response to your marketing campaign and having technology fail. Even your first mobile marketing campaign has the potential to be fantastically successful and highly viral, so you must plan for that, too. Before you launch a campaign, make sure that you have process-tested and load-tested all the back-end technology. This includes anything that you will be using to send or receive text messages, take calls, provide downloads, or spark any other conversion events that your campaign might include.

  Not only can a technology failure waste time and money, but it will eliminate all the value you created in the communication. Technology failure can cause long-term damage to your relationship with customers, making it much less likely that they will respond to your mobile calls to action in the future.

- **Companies without the human resources and inventory to handle the response**—Determining what the response rate of a mobile marketing campaign will be can be difficult, but it is important to plan for both extremely good and disappointingly bad response rates. If your mobile marketing campaign includes in-person aspects, such as creating foot traffic to a brick-and-mortar establishment, it is important for the location to be staffed and ready to handle any surge in customers.

  In some cases, such as with Bluetooth and WiFi broadcasts, when your restaurant or venue has reached maximum capacity, your message can be throttled or stopped completely. In other cases, such as with billboards or banners near your brick-and-mortar store, you have less ability to update the messaging. If you are trying to drive foot traffic into a store for a specific item and you run out of that item, you are in a similar pickle. Basically, if you don't have enough inventory or availability, you should rethink mobile marketing until those are more secure or until you have a very good understanding of the response rate you can expect.

2

Understanding the Challenges in Mobile Marketing

Many different elements must come together to build the mobile marketing experiences that we desire to create for our target audience. The number of possible combinations of handsets, browsers, operating systems, and networks can create exponential problems for mobile marketers who are not ready to face the challenge. And although it is important to understand the many aspects of mobile content delivery, it is also crucial to understand that you won't be able to address every possibility. Focusing on the minutia is more time-consuming than it is worth and likely will stall your project and have a direct negative impact on the ROI.

One of the most important things you must do when planning a mobile marketing campaign is to anticipate where your campaign or message might fail, and adapt to include alternative or contingency messaging. Know how

your message will appear in the best-case rendering scenario and in the worst-case rendering scenario. Then do what you can to ensure that there is an elegant degradation between the best- and worst-case scenarios, in which limited rendering technology will cause more complex elements of the campaign to silently fail, in favor of less complex elements. Your message should always be clear and compelling, regardless of the technological difficulties.

The Changing Face of Telecom

Internationally, traditional land-line service providers, Internet service providers (ISPs), and mobile service providers are struggling to address the rapidly changing demands of their consumers. As services such as TV, phone, radio, and Internet become exclusively digital, many companies are fighting to protect their interests and expand their service offerings.

As many households eliminate land lines and switch to mobile phones and VoIP, traditional phone service suppliers are struggling to maintain their sources of revenue. Similarly, as many homes and businesses turn from copper-wire broadband Internet access to wireless broadband, traditional ISPs become more concerned that they will not be able to recoup their investment. Cable TV companies are threatened because people are accessing TV and movies on the computers and mobile phones. Even mobile networks are threatened by pressure from other carriers to decrease the cost of mobile data communication and, further, by subscribers who rely more heavily on data than voice communication. Some mobile subscribers even use their "unlimited data plans" with VoIP technology to totally circumvent the need for carrier-provided voice communication.

All of this unrest should be taken as a clear signal that the telecom industry is on the brink of major change. We are about to enter a period in which consolidation will be the only avenue that will effectively address the consumer's needs. Consolidation will be good, but it will still leave the companies struggling to turn a profit, as the price for data- and IP-based communication continues its race to the bottom.

The good news for mobile marketers is that many of the key players are looking to advertising and marketing as their saving grace. Each of the different companies that provide data-based service can access subscribers' information and track their behavior. When the multitude of different companies consolidate and combine

their efforts, they will have access to a great deal of information about their subscribers' digital consumption habits. Traditional phone, broadband, and cable TV service providers are quickly realizing the power that this kind of information has for marketers and are adjusting their business models to include an advertising and content-targeting profit center.

The History of Mobile Network Technologies

To understand and anticipate the future, it is important to understand the past. A very strong correlation exists between the history of traditional Internet marketing and the history of mobile marketing. At first, mobile devices were used purely as a utility, much like the Internet. Not until the technology had thoroughly penetrated the mainstream market did marketers understood the power of the medium.

Mobile marketing can cover a variety of different initiatives, but it began with text and picture message marketing, the creation of mobile-friendly websites, and mobile banner advertising. Now marketers can place advertising within mobile games and mobile videos, and even within a mobile TV broadcast. More creative mobile marketers are also using full-screen interstices, which appear while a requested webpage is loading, in addition to location-based Bluetooth marketing and interactive mobile games and applications to entice their audiences.

Before you can understand the nuances of those types of marketing initiatives, you must understand the evolution of the mobile networks, handsets, operating systems, and mobile browsers. This chapter explains how those technologies have evolved and discusses how all the innovations come together to affect your marketing message.

Mobile phones are only as powerful as the network technology that runs them. A network's speed can have a huge impact on what types of mobile marketing will be successful with your demographic. Understanding how the different network technologies interact will help you make critical decisions about your mobile marketing campaign. Figure 2.1 shows the 15-year evolution of mobile networks. The following sections briefly explain each of the major mobile network technologies.

1G

The first generation of cellphone signals was based on a circuit-switching domain and relied on an analog radio signal transmitted by the phone and picked up by towers. Radio towers used digital signals to connect to other radio towers and then to the rest of the telephone network. Because G1 technology relied on analog instead of digital signals, they were less reliant on the caller's proximity to a cellphone tower.

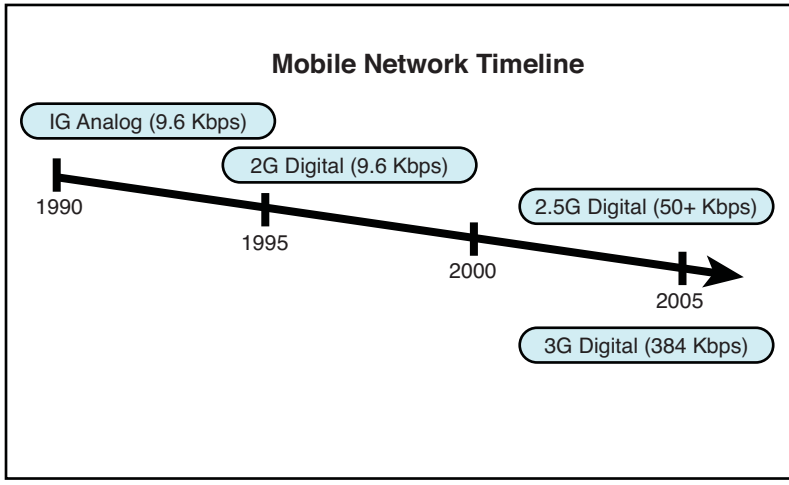

Figure 2.1 *Mobile networks have grown from 1G speeds of just 9.6 Kbps to 3G speeds of 384 Kbps in just 15 years, with 4G networks in the near future.*

2G

2G networks are the second generation of cellphone networks that relied on a digital signal instead of a radio signal. This technology, launched in Finland in 1991, is based primarily on a packet-switching protocol for transferring voice digitally. Phones that ran on a 2G network were smaller and had better battery life because they were not required to emit as strong of a radio signal. The voice quality on 2G phone networks was generally better and more secure because of digital encryption. Because 2G technology relied on a digital signal instead of analog signal, it was able to transmit more than voice, such as text messages and email.

2G technology was good for the carriers because it was more efficient on the spectrum. It allowed carriers to push a higher volume of calls through their network, but it relied more on proximity to a cellphone tower; when a caller moved out of range, calls were dropped entirely instead of progressively degrading. Technologies that are directly related to 2G are code division multiple access (CDMA), time division multiplex access (TDMA), and Global System for Mobile Communications (GSM).

CDMA

Used in North and South America as well as Asia, this subset of 2G technology still accounts for 17% of subscribers in the world. In code division multiple access (CDMA), the system relies on each phone being assigned a specific code, which allows multiple users to be put on the same transmission channel.

TDMA

Most 2G networks relied on time division multiplex access (TDMA) to transmit digital signals that were divided into different time slots instead of codes, as in CDMA. The signals are sent in rapid succession, all while sharing one digital channel. The timing requirements for this type of technology frequently made it unreliable as a mobile phone transmission technology because when callers moved closer to or farther away from a tower, they would misalign the timing requirements of the system and disrupt the transmission.

GSM

Global System for Mobile Communications (GSM) was developed to address some of the shortfalls of TDMA technology. It was originally created in Finland in 1991 and is now used around the world. It requires timing advance commands to be sent to the base station, which sends signals to the mobile phone, telling it whether it should transmit the signal earlier and, if so, by how much. It accounts for 80% of the subscribers around the world. GSM is the most ubiquitous set of standards for mobile phones. Because of its success, many other 2G technologies, including CDMA and TDMA, eventually transferred to GSM. GSM is so widespread that international roaming is now much more simple, because phones can almost always access a signal that they can use.

2.5G

2.5G networks offer some improvements over 2G networks but are not quite as fast as 3G networks. They use a circuit-switching domain for voice communication and a packet-switching domain for data communication. This set of standards enables high-speed data transfer over existing 2G GSM or CDMA networks that have been upgraded, and it usually describes when a 2G network has been upgraded with GPRS for data transmission. Technologies that are directly related to 2.5G are GPRS, EDGE, and iDEN.

GPRS

The first improvement in mobile data transmission, Generated Packet Radio Service (GPRS), can be added to 2G, GSM, or 3G networks. GPRS achieves moderate improvements in data transmission by using TDMA to improve packet switching over the mobile network. As with many other technologies, after its initial deployment, GPRS technology was later integrated into GSM.

EDGE

Enhanced Data Rates for GSM Evolution (EDGE) was launched in the United States by Cingular in 2003. Through optimization of packet switching, it provides better than a threefold improvement over other networks in capacity and performance of data transmission, making mobile computing and data transmission much more valuable. Sometimes referred to as 2.75G, EDGE improved the rate of data transmission over GSM networks. Although it was originally intended for GSM, it can be added to 2G, 2.5G, and GPRS networks as well.

iDEN

Integrated Digital Enhanced Network (iDEN) combined voice compression with TDMA to improve on 1G radio telephony. It is a proprietary subset of 2G technology developed by Motorola and used by Nextel in the United States and Telus in Canada. The technology is important for Nokia and Telus because it allows for push-to-talk radio and dispatch functionality that enables mobile phones to be used as long-range walkie-talkies. Many airports also use iDEN networks to enable their push-to-talk handsets.

3G

The third full generation of mobile technology, 3G networks can provide more advanced services while achieving higher network capacity than 2G technology. In terms of data, they provide mobile phones with broadband- or near-broadband-speed transmission. These networks are functionally similar to WiFi but are meant to cover a much larger area. The first 3G network was launched in Japan by DoCOMo; later the next year, SKTelecom launched another in South Korea. Monet Mobile Networks and Verizon were the first to launch 3G technology in the United States in 2003, and the 3 Network was the first to launch in Europe (the United Kingdom and Italy). (Download: 5.8Mbps, upload: 14.4Mbps).

4G

4G systems represent a collection of wireless standards that are all adapted to be 100% packet and IP based. They will be a complete replacement for current networks and will provide a comprehensive and secure IP solution where voice, data, and streamed multimedia can be given to users on an "anytime, anywhere" basis. 4G networks are designed to give subscribers access to much richer content on their phones, including IPTV, streaming audio and video, digital video broadcast, and video chat, at much higher data rates than previous generations. 4G promises

higher network capacity and more simultaneous users per cell. (Download and upload: 15–30Mbps) Technologies directly related to 4G are WiMax, LTE, and Clearwire.

WiMax

WiMax is an IP network designed to move data instead of voice communication. It could replace mobile technologies such as GSM and CDMA or simply can be added to networks with GSM and DSMA to increase their capacity. The WiMAX Forum was formed in June 2001 to promote conformity and interoperability of the standard, called WiMAX. The group describes WiMAX as "a standards-based technology enabling the delivery of last mile wireless broadband access as an alternative to cable and DSL."

Questions still surround the viability of WiMax technology. Sprint and Clearwire are the only large service providers that have committed to using WiMax for mobile technology. Most other service providers that have embraced WiMax are using it as a fixed wireless technology. The WiMax forum anticipates that the WiMax mobile networks will focus less on service to mobile phones and more on service to other wireless Web-enabled devices.

LTE

Long-Term Evolution (LTE) it is an IP data network that optimizes the transmission of data (rather than voice) packets. It is expected to be deployed in 2010, but it competes with WiMax as the 4G standard of choice for network operators. AT&T and Verizon Wireless in the United States and many European carriers have already said they plan to use LTE instead of WiMax because it appears to be more efficient. LTE promises to bring high-speed data access not only to mobile phones, but also to HD TVs, LTE-enabled music players, and much more. Some people believe that WiMax technology will be subsumed into LTE, but that debate is still being played out.

Clearwire

Clearwire is a brand-name wireless Internet service provider (ISP) that operates in the United States, Ireland, Belgium, Spain, Denmark, and Mexico. It provides a unique wireless network that uses WiMax technology with 3G technology to provide 4G wireless network access. Clearwire launched in the United States in 2008, but its goal is to provide nationwide 4G network connections in the future. The company has been testing many different high-speed mobile technologies but has been criticized because it has not adopted the WiMax technology.

WLAN and WiFi

Wireless local area network (WLAN) technology is Internet access that is broadcast from wireless access points, otherwise known as wireless routers or "hotspots." These wireless access points send short-range radio signals that can be accessed by a variety of different devices, such as PCs, game consoles, mobile phones, MP3 players, and PDAs. Many people use the terms *WLAN* and *WiFi* interchangeable, but WiFi is actually a designation to indicate a specific WLAN technology that has been certified by the WiFi Alliance.

Bluetooth

Developed in 1994 but popularized in the late 1990s, Bluetooth technology uses radio broadcast to allow multiple proximal devices to recognize each other and send information between them wirelessly. When multiple Bluetooth devices are linked in a group, it is called a personal area network (PAN). Bluetooth can connect many devices, including mobile phones, computers, printers, digital cameras, and video game consoles, and allow them to pass information back and forth.

VoIP

VoIP stands for voice over Internet Protocol or voice over IP. It is simply a means of using a broadband Internet signal to transmit voice. Skype and Vonage were the first to make this type of communication mainstream. With the addition of a signal converter or a headset on the computer, VoIP calling allows computers to have phone calls with other computers or directly with phones. Because this can be done at a very low cost, many traditional phone service carriers are losing customers to VoIP services. As mobile data networks improve, mobile VoIP is becoming a reality that many mobile careers are reticent to embrace.

FemtoCell

FemtoCell is a technology that is used indoors to boost indoor mobile handset signals by converting a wired broadband signal into a radio signal that mobile phones can pick up. AT&T, Sprint, and Verizon already offer FemtoCell base stations for subscribers' homes, and it is also being deployed in some commercial locations. This type of technology will likely be important for improving access to mobile marketing messages to your demographic when they are inside and mobile signals are weaker.

UMA

Similar to FemtoCell, UMA is deployed through a base station that uses WiFi signals to carry voice and data from mobile handsets to a base station. The base station provides improved access to GSM and GPRS by tapping into unlicensed aspects of the network spectrum. In the United States, this is being promoted by T-Mobile; in the United Kingdom, it is being promoted by British Telecom.

The Evolution of Mobile Devices, Handsets, and Operating Systems

Just as a marketing message is only as powerful as the network sending it, it is only as powerful as the handset that is receiving it. The capability and evolution of mobile computing has always been directly tied to the handset. Before you launch a mobile marketing campaign, you must understand what type of devices will be displaying your marketing message.

The true predecessor of the mobile phone is actually the two-way radios used by sea captains, ambulances, and police cruisers. These set the groundwork for the first mobile phones, which also operated on radio signals through the G1 mobile networks. The first mobile phones were large and cumbersome, and not at all intended for mobile computing. They simply tapped into analog radio frequencies to receive and send calls. The first commercially available cellphones were designed to be permanently installed in cars, drawing power directly from the car battery. Later models—the size of a briefcase—were "transportable" and could be plugged in to the cigarette lighter in the car to get power, but they were quite heavy, usually weighing in at about 15 pounds.

Figure 2.2 *1983: Motorola's DynaTAC 8000X "brick phone" was the world's first commercially released mobile phone. Photo courtesy of Motorola.*

The next evolution of the mobile phone was apparent with the introduction of a truly handheld cellphone, affectionately referred to as the "brick phone." In 1983 the Motorola DynaTAC was the first mobile phone to receive FCC approval in the United States (see Figure 2.2). It

weighed about 2 pounds and cost about $4,000, and had a battery that would last for about half an hour without recharging.

As technology improved, cell phones switched from 1G analog radio signals to a 2G digital signal, which allowed them to become much lighter and smaller. The addition of GSM technology also enabled newer phones to send the first text messages (see Figure 2.3).

Figure 2.3 *The first phones capable of text messages—two 2G GSM phones with chargers and base stations. Photo courtesy of Clemens Pfeiffer via Wikimedia Creative Commons License 2.5, a freely licensed media repository.*

Mobile computing was actually a reality long before mobile phones were deeply integrated into our society. It began with the first laptops, when the idea of mobile computing was quite revolutionary. Laptops allowed people to take their computer with them instead of having to save information on disks and rely on accessing a desktop PC wherever they went. This was important for people who required a specific set of software to perform certain tasks, but in many cases, laptops were too cumbersome for people to lug around on a daily basis. Despite the drawbacks of

these first laptops, they were the genesis of all other types of "mobile" data technology.

Mobile computing hit a new plateau with the evolution of personal digital assistants, otherwise known as PDAs. Businesspeople commonly used PDAs to keep track of their calendar and address book. The first PDAs were not Web enabled, but usually included simple software to help their owner keep notes, set reminders, and perform simple calculations.

As time moved on and technology improved, mobile carriers began offering PDAs that were both voice and data enabled. In 1993, IBM and BellSouth launched the Simon Personal Communicator, the first mobile phone to add PDA features. It was a phone, pager, calculator, address book, fax machine, and email device, and was the predecessor to what we now call the smart phone.

The term "smart phone" was coined long after the first smart phones were commercially available. There is no agreed-upon definition for the term "smart phone," but it generally refers to a phone that has an operating system that allows applications to be added or removed, that can take and send data, and that can access Web content. The first true smart phone was the Nokia 9210, which offered an open operating system and a color screen, as well as email, text, and voice communication capabilities (see Figure 2.4). Palm also offered a series of Palm Pilots that ran the Palm operating system, had PDA features, had a full QWERTY keyboard, and were capable of sending data and voice transmissions.

Figure 2.4 *The first true smart phone—the Nokia 9210. Photo courtesy of Nokia.*

In 2001, Research In Motion (RIM) released the first BlackBerry. The BlackBerry was the first smart phone that really focused on improving the usability of mobile email communication. It ran the Symbian operating system, which could accept third-party applications, and it was widely adopted by business professionals who needed access to their email when they were not in the office. In 2002, Handspring launched the first Treo, and Microsoft launched the first Pocket PC, which ran the Windows Pocket PC operating system, now referred to as Windows Mobile. Both of these handsets offered a full QWERTY keyboard, making text and email communication much easier.

The Windows Mobile operating system now runs on many devices and is frequently used by Palm instead of its own operating system. In general, Windows Mobile devices provided much of the same functions as the previous smart phones, with a much nicer interface, similar to the desktop version of Windows. The Windows Mobile operating system also provided simplified versions of Microsoft software, such as Word and Excel, which were quite handy for power users.

Although these original smart phones were important to the advancement of mobile computing and quite useful for businesspeople, they were not widely adopted. These first smart phones and voice-enabled PDAs were quite expensive (between $400 and $800), and many of the functions were considered unnecessary for the normal user. In terms of mass adoption, the "candy bar" phone first offered by Nokia in 2003 was very popular; it offered some of the advanced features of the more capable phones yet sold for only $150 (see Figure 2.5). Text messaging or navigating the Web on this phone required users to type letters using the traditional phone keyboard. Users pressed number buttons multiple times, to represent different letters in the alphabet. Many users, and especially teens, became quite adept at this kind of text communication, but it was less than ideal.

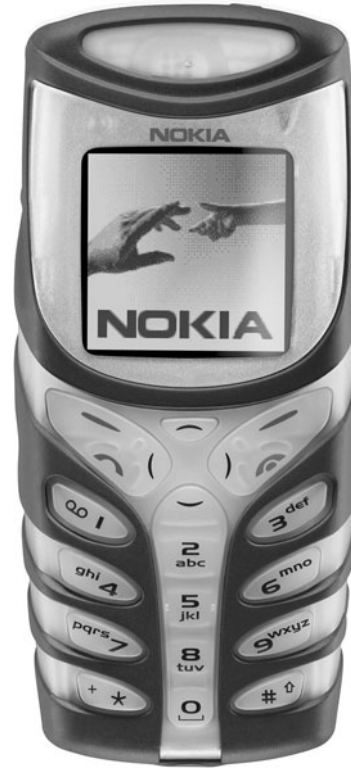

Figure 2.5 *The first widely adopted and lower priced smart phone was Nokia's "candy bar" phone. Photo courtesy of Nokia.*

The first SideKick was launched in 2002 as a means of targeting more capable phones to the younger generation. It offered a full QWERTY keyboard, which made it much easier to send text and email. It had a large monochrome screen that slid up to reveal the keyboard, and it had a touch-pad that worked much like a mouse on a computer. It could surf the Web with the ability to render HTML, and it also introduced "chat," otherwise known as instant messaging, which had previously been accessible only on traditional computers. This was the first smart phone to be considered "cool" and was popularized partially because of its appearance in multiple rap and hip-hop music videos.

The Razr (see Figure 2.6), launched in 2004, was the next phone to be considered "cool." It had fewer capabilities than the SideKick, but it also had a much lower price point, which made it accessible for a larger demographic. Unlike the SideKick, it had a slim profile and was intended mostly for calling and texting. By 2007, the Razr was the single most widely distributed handset in the world.

Figure 2.6 *The Razr had fewer capabilities than the SideKick but was much more affordable. Photo courtesy of Motorola.*

The first-generation iPhone was launched in the United States in 2007 (see Figure 2.7). Considered a "multimedia smart phone," the iPhone made mobile computing much easier and more interactive than any previous phone, and it raised the bar in terms of the phone "cool factor." In 2008, the second-generation iPhone was launched, adding GPS and other services to the mix. The third-generation iPhone will launch later in 2009. Apple has seen the same success with the iPhone that it did with the iPod, creating a wide-spread cult following and truly raising the bar for the rest of the industry. In a pure evaluation of revenue, Apple is now the third-biggest manufacturer of cell phones worldwide, after Nokia and Samsung, and in 2008, the iPhone 3G surpassed the Razr as the most widely distributed handset in the world. The iPhone runs on its own Apple operating system that is easy to use and fun.

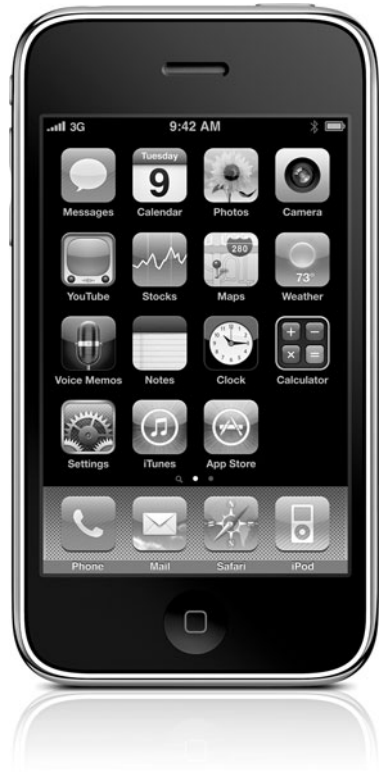

Figure 2.7 *The Apple iPhone revolutionized smart phones. Photo courtesy of Apple.*

The iPhone is considered the first true Web browsing phone because it can display full HTML Web pages almost exactly as they would be displayed on a traditional computer. It is highly customizable and has a large screen that adjusts itself based on whether you are viewing it in landscape or portrait mode. The iPhone has done so much to change the landscape for mobile marketing that I've dedicated an entire chapter in this book to understanding the technology (see Chapter 4, "Everything You Need to Know About the iPhone"). It is one of the best things that has ever happened to mobile marketing.

Since the launch of the iPhone, many carriers have begun offering iPhone clones that purport to offer a similar mobile experience, especially in terms of providing true Web browsing. In 2008, Google, T-Mobile, and HTC joined forces to launch the Dream, which was the first phone to run the Android operating system, created by Google. The Dream phone and Android operating system were meant to rival the iPhone in terms of Web browsing, the capacity for third-party applications, and the "cool" factor. Palm launched the Palm Pre in mid-2009, which also is intended to compete directly with the iPhone (see Figure 2.8). Despite much fanfare, it missed the mark, and none of the iPhone clones have yet to prove much of a threat to the iPhone.

Figure 2.8 *The Palm Pre is considered by many to be an iPhone clone. Though it has many nice features, it hasn't proven to be much of a threat to the iPhone.*

The History of Mobile Browsers

One of the hardest parts of working on the mobile Web is working with the mobile browsers, but each year the situation improves. To understand the evolution of mobile Web browsers, you only have to look to the evolution of traditional browsers.

The two technologies are similar and thus follow a familiar path in terms of milestones and innovations. Mobile browsers became a reality about 10 years after traditional browsers did, so all the major benchmarks in the evolution of mobile browsing occur 10 years after they did for traditional browsing.

In their genesis, both mobile and traditional Web browsers only rendered text and were navigated through text commands because they had no mouse devices. Because of many browsers that interpreted HTML slightly differently, Webmasters had difficulty anticipating how a website would look on different browsers. As browsers improved and consolidated, pictures and color were incorporated with

the text, and directories and portals were created to help us move around the Web and find new websites. With the traditional Web, we got to a point where there were only three or four major browsers, and they all rendered HTML in a similar way. Unfortunately, mobile browsers have yet to hit that milestone.

Mobile browsers in 2009 are about where traditional browsers were in 1999. There has been some consolidation and movement toward a more similar rendering standard across all mobile browsers, but mobile Web rendering can still be unpredictable and difficult to control or get perfect.

Mobile browsers must overcome a number of hurdles that traditional browsers didn't have. Mobile browsers can potentially be loaded on an infinite number of handsets, each with different specifications, including screen size, available memory, input technologies (keypad, scroll wheel, touchscreen, and so on). With some phones, the browsers must work in both landscape and portrait mode, and different carriers may choose to block some handset technology not blocked by others. Some phone manufacturers also assign different functions to various buttons on the devices, further complicating mobile browsing.

It is also important to note that because mobile phones are constantly being improved and replaced, mobile Web browsers tend to go through more versions within a primary version number than traditional Web browsers do. On a traditional computer, users have to download a new browser each time there is an update, but mobile phones are shipped with a browser preloaded, so it is easier for the browser companies to distribute updated software whenever they have a new version. It is common for one mobile Web browser to already have many different versions that predate it.

The good news is that the situation is improving by leaps and bounds every year. The list of mobile browsers for which Web developers must develop is getting shorter, and the mobile browsers are coming ever closer to a unified rendering standard. The launch of true Web browsers in 2007 on mobile phones has already done a lot to change how people use their phone and think about Web access. Furthermore, an increasing number of digital devices, such as game stations, GPS units, and MP3 players, include a Web browser or, in some cases, a mobile Web browser.

Following is a list of common Web browsers in use today:

- **Openwave**—Credited with the launch of the first mobile browser in 1997 (but then operating under the name UnwiredPlanet), Openwave is still a popular mobile browser. It represented 29% of the mobile browsers in the world in 2008. The first OpenWave browsers supported only WAP, but the browser has updated to support HTML and other, more complex coding languages. It is a reliable mobile browser that is native on many mobile phones.

- **Nokia Browsers**—Nokia's first mobile browser launched in 1999 and was capable of rendering only WAP websites. It frequently accessed only WAP content provided directly from the mobile carrier. The original Nokia WAP browser was licensed to other handset manufacturers to help encourage the adoption of WAP programming standards. Subsequent versions of the mobile browser adapted with the technology to render full HTML and XHTML. Nokia browsers represented 34% of the mobile browsers in the world in 2008.
- **Opera Mobile and Opera Mini**—Opera launched its first mobile browser in 2000. It was unique, in that it was not tied exclusively to any operating system, but it could be added to any phone that allowed third-party applications. Opera currently offers two browsers, Opera Mobile, which is intended for larger, more capable smart phones, and Opera Mini, which is intended for smaller, less capable phones. Opera browsers are also frequently preloaded on phones that run the Windows Mobile or Symbian operating systems.
- **Blazer**—Blazer launched its first mobile browser in 2000, supporting WAP, HTML, and iMode. This mobile browser was developed specifically for the Palm operating system and is found on Palm OS Palm and Treo handsets. It was one of the earlier mobile browsers available and was one of the first to support WAP and HTML instead of exclusively WAP.
- **Internet Explorer Mobile**—Launched in 1996 as Pocket Internet Explorer, Internet Explorer Mobile is the default mobile browser on all Windows Mobile, Windows CE, and many Palm devices. From the beginning, Internet Explorer supported HTML rendering and only later added WAP rendering with the release of the Pocket PC 2002 operating system. Internet Explorer Mobile also represents a large portion of the native mobile browsers available on phones today.
- **BlackBerry Internet Browser**—This browser was created by Research In Motion (RIM) to run exclusively on the BlackBerry operating system on BlackBerry phones, It should be noted however, that not all BlackBerrys run this browser, because in some cases, RIM has allowed carriers to place alternative browser as the native browser on the phone, omitting the BlackBerry Internet Browser. This browser has gone through various editions and upgrades, but historically it has been one of the less powerful mobile browsers. The BlackBerry browsers could originally render only WAP sites, but HTML capability was added with the launch of Symbian 4.0 in 2005. The browser improved with the launch of the BlackBerry Storm, but the browser still lacked sophistication in its mobile Web rendering.

- **Mobile Safari**—Mobile Safari is the primary browser that runs on the Apple operating system on the iPhone. Mobile Safari offers a similar Web browsing experience to the traditional Safari browser. Mobile Safari was the first Web browser that could really claim to provide a true Web browsing experience on a mobile phone.
- **Mobile Chrome**—This is the primary browser for phones that run the Android operating system developed by Google. This browser is similar to the desktop version of Chrome, in which Google pioneered a combined address bar and search bar that could understand whether searchers were trying to find a specific Web page or perform a search. Like mobile Safari, Mobile Chrome is a true Web rendering browser.
- **SkyFire**—SkyFire is a browser developed for the Windows Mobile and Symbian operating systems. SkyFire launched in beta in 2008 and offers much promise, but at the time of this writing, it has not yet been taken out of beta. It is another true Web browser that can run QuickTime and SilverLight, and it was the first software for Windows Mobile phones capable of running Flash.

3

Mobile Targeting and Tracking

In marketing, tracking and targeting are crucial to the success of your campaign. Although these are sometimes discussed separately, the intensely personal nature of the message and the heightened ability to track your customers' interaction demands that the two be considered together in mobile marketing. In the mobile world, targeting refers to both identifying key demographics and psychographics of your intended audience, and adapting your marketing message to meet their needs. Tracking refers to any attempt to capture and evaluate data about the effectiveness of the mobile marketing campaign.

Targeting Your Mobile Customers

As discussed elsewhere in this book, not everyone is an ideal candidate to receive your mobile marketing messages. For the most part, people with smart phones and true Web browsing phones are far more likely to be compelled by any type of mobile marketing message. In terms of age group, that means only about 8% of Baby Boomers, 18% of Millenials, and 10% of Gen-Xers are likely to be compelled by your mobile marketing messages. Table 3.1 shows what types of smart phones each of these demographics tend to use.

Table 3.1 Mobile Phone Usage by Generation[1]

Millenials (18% Own a Smart Phone)	Gen X-ers (10% Own a Smart Phone)	Boomers (8% Own a Smart Phone)
Blackberry: 39%	Blackberry: 40%	Blackberry: 39%
iPhone: 20%	iPhone: 11%	iPhone: 10%
Sidekick: 15%	Sidekick: 5%	Treo: 10%
Treo: 12%	Treo: 8%	Sidekick: 10%
Blackjack: 10%	Blackjack: 3%	LG enV: 3%
LG enV: 9%	LG enV: 3%	T-Mobile Wing: 3%
T-Mobile Wing: 5%	T-Mobile Wing: 3%	Nokia N95: 3%
Nokia N95: 4%	Nokia N95: 3%	Helio Ocean: 4%
Helio Ocean: 4%	Other: 19%	Other: 19%
Other: 14%	Not sure: 13%	Not sure: 10%
Not sure: 7%		

[1] Online survey of 4,000 mobile users in the United States between the ages of 16 and 64, conducted in January 2009 by Frank N. Magid (http://localmobilesearch.net/news/hardware/survey-half-mobile-users-accessing-content-weekly).

These statistics might be slightly disappointing to mobile marketers who assume that the entire world is active on their mobile phones. Unfortunately, although the price of smart phones and mobile data plans continues to drop, many people still either can't afford a smart phone or don't see the value in owning one. A whole other group of people own smart phones but don't use them to access mobile content, as illustrated in Figure 3.1.

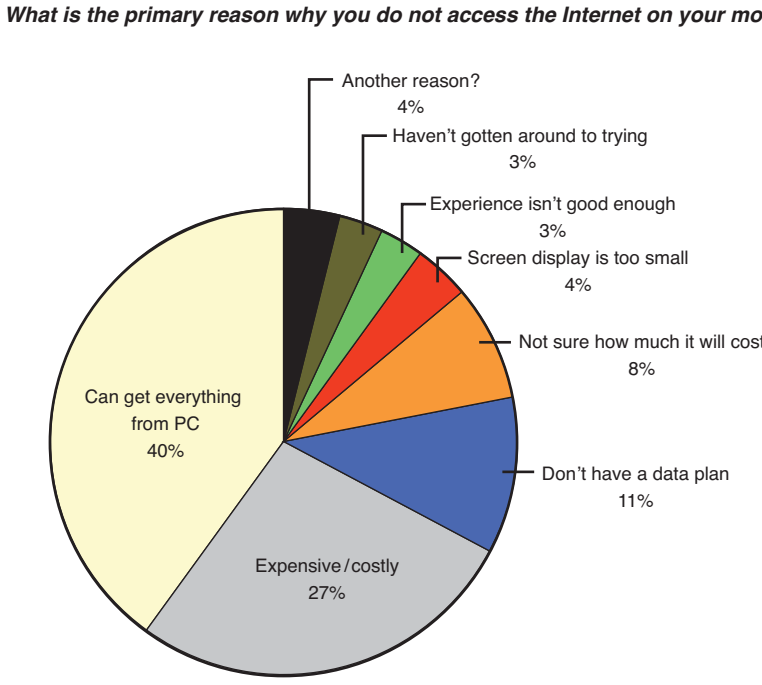

Figure 3.1 *For many reasons, some mobile users don't access the mobile Web on their mobile phones. Chart courtesy of Internet2Go, localmobilesearch.net.*

Age and Gender

According to a 2008 study by m:Metrics, the best demographic you can reach with mobile marketing is men between 18 and 34 years old. This demographic actually had a 9% click-though rate for mobile. Although women in this age group were quite active, they were less likely to click through on an advertisement. A comScore study from 2009 also reports that 70% of iPhone users are male.

Still, women are an important demographic in mobile marketing and should not be ignored. A 2009 study called "Women and Digital Life" reported that females between 12 and 24 named their mobile phone as the most important piece of technology in their life—even more important than a personal computer or laptop. The younger part of this demographic surpassed their older business professional counterparts in terms of mobile Internet usage.

Busy mothers can also be quite a lucrative demographic to target with mobile marketing, partially because they are 43% more likely to download mobile content. A 2009 study by GreyStripe actually renamed part of the "soccer mom" demographic to "iPhone moms." This makes sense, because the report shows that 29% of iPhone

owners are women with children. Because they are often the purchase decision makers for the household, they control the purse strings —and are also frequently out of their homes, away from other types of marketing channels.

Some marketers worry that there is a trade-off between different types of mobile activities; for example, if people begin to get involved with one type of mobile activity, such as applications, they will become less involved with another mobile activity, such as online mobile social networking or mobile shopping. As it turns out, the opposite might be true. In a multiplier effect, more mobile activity might beget more mobile activity. A 2009 study of 2,000 mobile consumers by ExactTarget found a correlation between growth in participants' use of mobile email, instant messaging, text messaging, and mobile social networking activities.

As you might expect, different age groups use their mobile phones differently. According to the Magid study referenced in Table 3.1, 80% of mobile social networking activity is by people under the age of 34. As shown in Figure 3.2, a 2008 study showed that the highest demographic accessing mobile content was between the ages of 20 and 29. The second-largest group was between the ages of 30 and 39. Teenagers between 16 and 19 were the third largest group, beating out only those 40 to 49 and those 50 and above for their use of the mobile Internet.

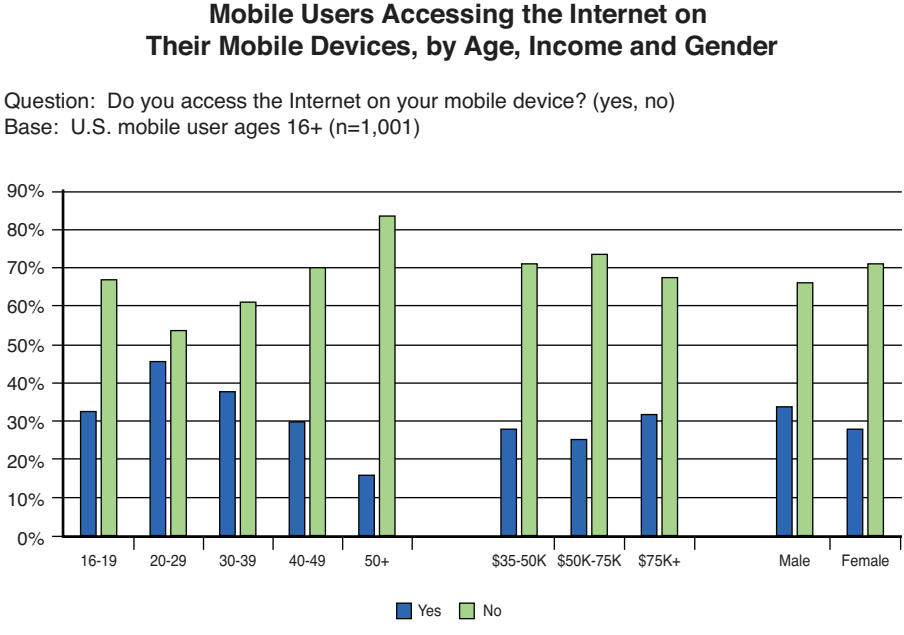

Figure 3.2 *A 2008 study showed that the largest portion of the mobile market that accesses the mobile Internet is between the ages of 20 and 29. Chart courtesy of iCrossing.*

According to GreyStripe—one of the top mobile gaming companies—47% of its mobile gamers are between the ages of 18 and 24, 23% are between 23 and 43, and only 14% are between 13 and 17. Text messaging is the most popular method of communication for people who are ages 13 to 24, and, according to a 2009 post on the Mobile Marketing Blog, their acceptance of this medium is actually growing at a faster rate than email, phone calls, and even social media. A 2008 study by Nielson shows that 35% of those age 13 to 17 actually remember receiving a text message ad, whereas only 10% of those 55 and older do (see Figure 3.3).

Recall of Any Text-Message Advertising Amongst Texters, by Age and Ethnicity (Q2 2008)

	Recall Any Text Ad
All Subs	16%
Ages 13 17	35%
Ages 18 24	18%
Ages 25 34	16%
Ages 35 54	12%
Ages 55+	10%
White	13%
Hispanic	23%
African American	24%
Asian/Pacific Islander	20%

Source: Nielsen Telecom Practice Group

Figure 3.3 *You might have guessed it, but this study proves that mobile users between the ages of 13 and 17 are the most likely to remember your text message advertisement. Image courtesy of Nielson Telecom Practice Group.*

Income

Mobile consumers tend to be more affluent than their nonmobile counterparts, and the more affluent mobile users tend to rely more heavily on mobile content than those lower on the income scale. According to a 2009 comScore study, mobile consumers with an annual household income of more than $100,000 tend to access business information three times more than those with an income of less than $100,000 per year (see Figure 3.4). They are also two times more likely to consume content from mobile news or mobile shopping websites.

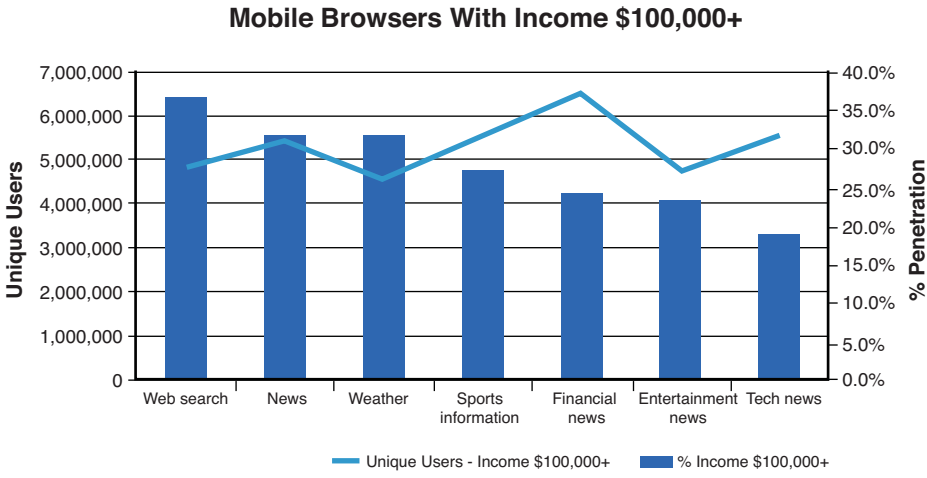

Figure 3.4 *As you might expect, mobile users with annual incomes $100,000 or higher are two times more likely to consume content from mobile news or mobile shopping websites. Chart courtesy of comScore, Inc.*

The same survey found that people who are accessing mobile content spend about 39 minutes per week with some type of mobile content, presumably either mobile Web content or mobile applications. They spend 38 minutes per week on text messaging and 44 minutes per week on mobile phone calls.

Surprising, a 2008 comScore report, "All about iPhone," shows a recent significant increase in the number of people in the lower income brackets (between $25,000 and $50,000 annual income) purchasing iPhones, rising 48% between June and November 2008. Forty-three percent of iPhone users earn more than $100,000 annually, and that demographic is more likely to use mobile search than to participate in any other type of mobile behavior. Forty percent of iPhone and iTouch users actually report using the mobile Internet on their mobile phones more than they do on their traditional computers.

Psychographic Mobile Targeting

Psychographic data is harder to collect than demographic data, but it is important for mobile marketing because it helps the marketer understand the mindset and values of the consumer. Psychographic data describes things such as lifestyle, ideals, and behaviors (sometimes psychographics are also described as IAO variables, for interests, attitudes, and opinions). Because this type of information is more difficult to measure, it is also more difficult to quantify in statistics. Psychographic information is usually elicited from surveys that companies or market research firms give

potential customers. Think of your customers' psychographic profile as a quantitative evaluation of your potential customers' self-concept.

Mobile phones have become so ubiquitous that no specific psychographic groups are associated with ownership of a mobile phone. However, differences do exist in the way various groups think about mobile technology. This can offer insight about potential psychographic qualities of consumers. In 2009, Carol Taylor, director of user experience at Motricity Marketing, identified five types of mobile consumers:

- **Up-to-date**—These people are driven to stay current with news, weather, and events at all times. They like to be informed, and others look to them as beacons of information. They use their mobile phone as a resource to stay them connected with real-time information about the world around them.
- **Social and curious**—These people are sometimes described as connectors because they enjoy bringing others together, networking, and planning events and outings. They use their mobile phones to keep up with their friends' lives and to stay connected to the people they care about.
- **Busy and productive**—This group of people is very concerned with all information related to their own personal efficiency and their ability to cope with a busy schedule. They use mobile phones because they are more portable, accessible, or convenient than using traditional computers. They are interested in anything that can help them manage their multiple priorities and meet the demands of their busy day.
- **Latest and greatest**—These people want to be the first to try something, even if there is no guarantee that they will be satisfied with it. They always want to use the newest technologies and applications, and to be a part of the newest social networks and communities. Friends look to them for reviews and recommendations of new technologies.
- **Just the basics**—This group of people is not really interested in the phone, except for the fact that it makes their life easier. They are not impressed by the newest technology or the marketing appeals of most applications. They are not early adopters, and they look to reviews and recommendations to find the tools and applications that they want to use on their mobile phone.

Using these groups, you might be able to improve your ability to segment and target your messages to your target market. In most cases, you will be able to identify some or all of these groups within your target audience, but if you don't feel that any of these psychographic groups are representative, you might need to conduct your own research to determine what motivates your target market's decisions.

Geographic Mobile Targeting

Different geographic regions have adopted and used the mobile channel at different rates, based on differences in the mobile network infrastructure, network speed, handset availability, laws, billing rates, and cultural norms. Many of these differences were discussed earlier in Chapter 14, "The International Mobile Marketing Landscape."

With mobile marketing, geographic segmentation is very much about the situation the customer's location might indicate. When people are in different geographic locations, they generally have different needs and different motivations. Mobile marketing campaigns will be more effective if you can anticipate with some precision where the recipients will be when they receive your marketing message. With location in mind, you can adapt your message to suit the needs of your potential customer when at work, at home, in the car, when commuting on public transportation, while running errands, or while out for a night on the town.

Understanding and anticipating your customers' physical location also gives you insight into their physical surroundings—you'll know whether it's noisy or crowded, whether they are near a computer, or even whether they're in a location where they might lose their cellphone signal, such as in a subway train. Different cities and regions have different norms. For instance, if you are targeting people during rush hour in Houston, you can expect that they will be in their car, but if you are targeting people during rush hour in London, you can expect that they will be using some form of public transit.

The geographic situation might also provide information about your target markets' social and temporal concerns. Are the mobile users you're trying to reach out with friends? Alone? Just killing time? In a rush? Do they need to get directions? Do they just want coordinate effectively with their families? When you answer these types of questions, you can more easily develop a compelling marketing message that your customers will actually act on.

Device and Carrier Targeting

In some cases, it makes sense to target different carriers or devices. This can be so for several reasons:

- Your content is specifically formatted for particular devices.
- The effort is part of a campaign that is co-branded with a device or carrer.

- You believe different devices or carriers will reach the appropriate demographic or geographic group more effectively.

If you have decided that device or carrier targeting is a good idea for your initiative, it is important to determine which device or which carrier is the best to work with, so you should start with the statistics. Statistics about the iPhone and smart phones in general abound, but not a lot of statistics have been publicly made available about other specific handsets or carriers. For these statistics, it is usually best to go directly to the carriers or handset manufacturers to get information about the demographics that they reach. If you are working with a carrier, you should be able to get the demographic data directly. If you have trouble getting demographic information from the carriers, sometimes you can find media kits online, work directly with the media contact for the carrier, or gather information about the demographics through information intended for potential on-deck advertisers.

Beyond statistics that you can compile from various sources, it might be a good idea to do your own market research, either surveying your existing customer base or working with market research firms to survey potential customers. Whether you are conducting your research in person, online, or on a mobile phone, it is important to keep your questions as short and clear as possible.

You can conduct your research in many ways. In some cases, you will want to conduct simple one- or two-question surveys; in other cases, you will have a long list of questions to include. Remember that people will be more likely to take the survey if you offer some incentive, such as a coupon or a gift. The longer the survey is, the more important the incentive becomes. In some cases, you might need to hire a market research company to help with the surveying, by developing questioners and recruiting sample groups.

In addition to formal surveys, if you or your brand is active in social networks, it might be possible to do crowdsourcing to find out more about who your target market is and what they care about. Crowdsourcing simply refers to the practice of taking casual, nonscientific surveys of your customers by asking them questions on social networks. This is especially valuable if you have done a good job attracting your target market to your social profiles on venues such as Twitter and Facebook.

Figure 3.5 shows a simple survey that the clothing company H&M performed on Facebook just before the Back-to-School shopping season in 2009. Within nine minutes of the question being live on Facebook, 660 people said they liked the question (and presumably responded), and 100 left comments. This type of market research is quite cheap and reaches your most active demographics.

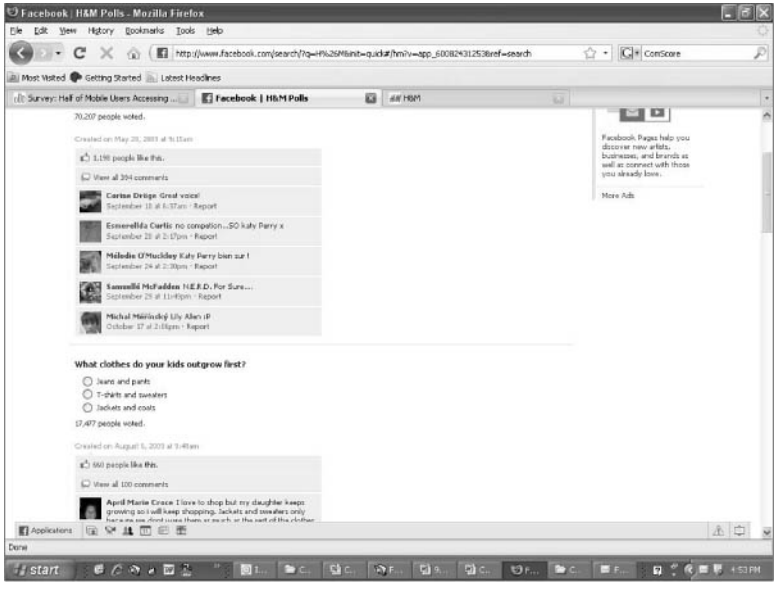

Figure 3.5 *Crowdsourcing is simple and effective on Facebook.*

Tracking Your Mobile Performance

Tracking is one of the most important aspects of any marketing campaign. One of the joys of mobile is the sheer amount of information that you can track, if you set up your campaigns correctly. Tracking, also sometimes referred to as analytics, is the process of capturing and evaluating the performance of your marketing campaigns. Different tracking and analytics platforms can be put in place to capture information about the success of your campaign. Before you get deeply into the discussion of what mobile tacking options are available, here are some points to keep in mind:

- In my opinion, you should never spend more on your analytics platform than you do on your analysts. As a consultant, I have seen many companies spend hundreds of thousands of dollars on expensive analytics platforms, but with no dedicated personnel who are qualified to review or interpret the data. In many cases, these companies simply use the platforms to generate simple automated reports that review very basic success metrics. If you are not diving deeply into your metrics on a regular basis, many of the free solutions should fulfill your needs.
- With mobile marketing, it is very important to understand how the tracking system works and what exactly it is reporting on. Some platforms are much better than others about telling you exactly what

different statistics mean. Never take statistics for granted or assume that you know what they mean or how they were collected.

- Even the best data is slightly "spongy" and inexact. This is simply because a variety of different technological issues or circumstances can cause a reporting suite to interpret data the way it does. I generally recommend that companies use more than one reporting suite whenever possible, because it can help you get a clearer idea of what is actually happening—and it's also good to have a back-up reporting suite, in case something happens to the other one. Generally, one paid service and one free service is fine.
- Begin with the end in mind. When you are shopping for different tracking and analytics platforms, you should already know what type of information you will need available, how you will want to segment it, and what decisions that information will be expected to inform.

Some of the more common methods of mobile tracking are included next. The different methods and metrics are also covered in more depth in each of the chapters dedicated to that particular aspect of mobile marketing. It is important to note that the following suggestions are just some the most common tracking options; feel free to be more creative when developing your tracking scheme.

Text and Picture Message Tracking

Text and picture messaging is one of the most difficult things to track because different mobile carriers track text messaging slightly differently. Most SMS platforms (also known as SMS gateways, SS7 providers, or SMS aggregators) have a tracking system included as part of the service, which can be helpful but still frustrating. By collecting cell IDs and attaching commands to the SMS message, you can get different types of information. However, not all carriers support all commands, so it is a good idea to segment your campaign by carrier first, before any other segmentation.

One of the first things you will want to track in an SMS or MMS campaign is the size of your list and its growth. This statistic is simply represented by the total number of recipients to whom you can send text messages. This number should be constantly updated based on new opt-ins and opt-outs, and you should track this number over time so that you can see the growth in the list.

You should also compare the rate of opt-ins and opt-outs against the average growth rate of the list over time (see Figures 3.6 and 3.7). In many cases, if you are sending too many messages or your messages are not as valuable as subscribers hope, your opt-out rate will increase with every message. Conversely, if you are

doing a good job of offline promotion, you should see a steady growth or even spikes in your opt-ins. This is particularly important if you are tracking the success of mobile coupons, because it enables you to compare the total ROI of a campaign, taking into account the actual in-store redemption rate of the coupon, as it compares to the loss in total subscribers.

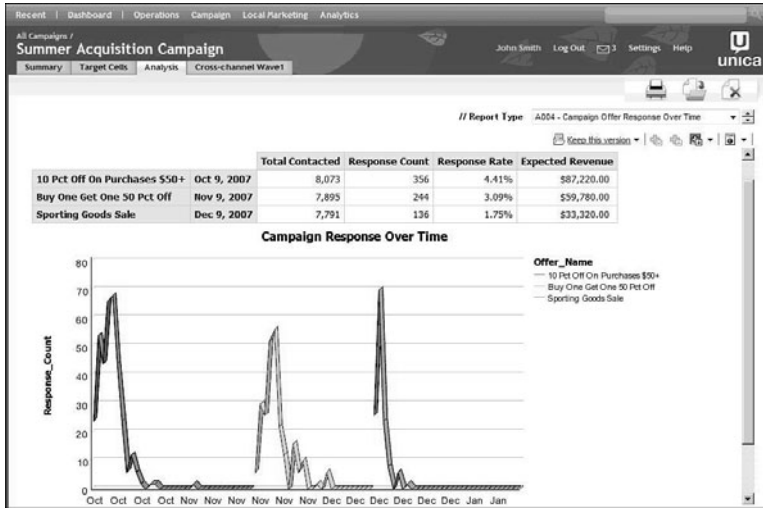

Figure 3.6 *The Unica reporting suite can track and compare the success of multiple promotions over time.*

Figure 3.7 *Here's another example of the reporting available with the Unica reporting site.*

In some ways, tracking the impact of an SMS or MMS campaign is much like tracking an email campaign. In addition to tracking your list growth, you want to track the following information whenever possible:

- Messages sent
- Messages received
- Links clicked (if applicable)
- Conversion from links (if applicable)

Encouraging recipients to click on an HTML link in your text message makes it much more trackable. To track the initial Web response, it is good to send the responses to a unique mobile landing page that can be accessed only from the text message campaign. All subsequent onsite activities should be tracked, including downloads, purchases, enrollments, sign-ups, and subscriptions.

Unfortunately, you generally can't track the open rate of text message campaigns because there is no way to embed JavaScript or HTML that will execute when the message is opened. Without tracking the open rate, you are left tracking the number of messages that are successfully delivered, and then the actual responses.

Unlike text (SMS) messages, the open rate of picture (MMS) messages can be tracked. Whenever the MMS is opened, it references the HTML image. In MMS messages, generally only the HTML part of the message can be used to measure opens because many phones still do not decode HTML in the text part of a MMS.

GPS tracking can be integrated with SMS, and market research firms can use this to gain a deeper understanding of not only how people interact with their mobile device, but also how people interact with others in their real-life activities. The process, called reality mining, can be particularly useful for market research companies that want to understand how the use of the mobile phone relates to location and situation. For instance, what causes people to text-message? Or what causes people to use a mobile application instead of searching the Web?

As GPS technology is more readily integrated into more mobile phones, tracking people via GPS becomes simple enough and cheap enough that it could conceivably be integrated into some marketing campaigns. With this type of tracking, the GPS in the phone is queried on a regular interval and then automatically sends an SMS to a tracking system that analyzes the data. This can be done through a remote request or as part of a downloaded application.

This geographic data collected for each person who is being tracked can later be analyzed to determine things such as the route people took, stores visited, or the duration of their stay in any one location. If you want to integrate GPS tracking into your marketing campaign, you must notify whoever is being tracked and get

two forms of opt-in permission. Because this method of tracking is so invasive, it is a good idea to send the people being tracked periodic messages, reminding them they are being tracked and allowing them to opt out of future tracking.

Systems such as this can also facilitate navigation around an airport, a tourist attraction, or a city. Other types of companies are using this type of tracking to help people keep track of loved ones or locate missing phones.

GPS tracking is probably too invasive for most marketing campaigns, but it could be integrated in creative ways to incorporate the phone with real-life activities such as races or scavenger hunts. To make the tracking more palatable, consider sending people who agree to be tracked coupons or incentives on a regular basis, to ensure that they are adequately rewarded for providing that amount of personal data.

The term *reality mining* is a play off the phrase *data mining*, which is the practice of compiling customer information from a variety of different sources and perspectives to create a summarized vision of your customers' wants and needs. Reality mining takes it a step further, tying in real-life actions instead of online behavior and purchase decisions. It is relatively new in terms of market research. The most notable study so far was conducted at MIT for the 2004–2005 school year and provided contiguous information about the interaction of 100 students. Sadly, the results of this study have not been made widely available, but we can expect more studies like this one to be performed in the future.

To date, reality mining is primarily used for broad market research projects, but in the future, this kind of intensely personal tracking might be integrated into mobile marketing campaigns. Any type of marketing campaign that requires this much access to personal information must ensure that data is highly secure and that participants are well rewarded for their information.

Mobile Web Tracking

A variety of mobile Web analytics programs have recently come on the scene and are now competing with some of the more established mobile analytics platforms. Many of the first mobile analytics services were created by mobile ad serving companies such as AdMob and Bango, who needed to report Web traffic and click-through rates for their advertisers. Now enough independent mobile analytics programs exist that it is no longer necessary to use a mobile ad network to get reliable information about the traffic on your mobile website.

When you are looking at mobile tracking, the first decision you have to make is whether to use a mobile-specific analytics program or adapt your existing Web analytics platform to track mobile customers. In an ideal scenario, you should be using

both and comparing the data to get a deeper insight, but that's not always a workable solution. With two types of Web analytics operating at the same time, you always have a backup if something happens with one of them. The information in the upcoming sections should help you decide how to set up your mobile Web analytics and tracking.

Mobile-Only Web Analytics

Many traditional Web analytics platforms rely on JavaScript tracking code that is embedded on a Web page, or cookies that are stored in the phone memory. Unfortunately, many phones, and even some smart phones, do not execute JavaScript or reliably store cookies, so a mobile-specific tracking solutions is necessary. Also, in some cases, mobile-specific coding languages can cause problems with traditional Web tracking services. So until the new methods of feature phone tracking are developed, mobile-only Web analytics will be important for companies that are targeting less sophisticated phones.

Some of the top mobile-specific Web analytics platforms are described here, along with their services and offerings:

- **AdMob**—AdMob has historically been the gold standard in mobile analytics (see Figure 3.8). The company began as a mobile advertising company and offered comprehensive analytics to help their advertisers understand how well their campaigns were performing. People found the analytics information so valuable that AdMob began offering the platform for free to anyone with a mobile website.

  AdMob will also provide statistics for traditional Web visits when any website is visited, but it is intended specifically for mobile analytics. As you can see in Figure 3.8, the AdMob platform lets you filter information by specific dates and shows information such as visits, pages views, page views per visit, and time spent on the site. It also shows information such as which carrier is sending the most traffic and what the most popular location or activity is on the site.

Figure 3.8 *AdMob is one of the most well-known and respected mobile-specific Web analytic platforms in the world.*

- **Bango**—Bango is one of the most well-known mobile analytics programs because it has been around for longer than most of its competitors (see Figure 3.9). As with most mobile analytics platforms, Bango can track activity on both mobile only and traditional websites. It tracks basic Web statistics, such as visits, new and unique visitors, page views, page views per visit, time on site, and conversions.

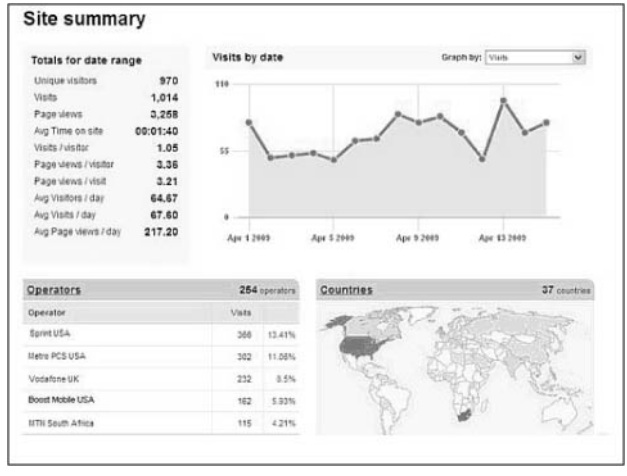

Figure 3.9 *Bango can track both mobile-only and traditional website traffic.*

Bango Analytics considers itself a real-time reporting solution because it can report on any action that happens on your website within the hour. This can be very important if you are in the midst of a short-term or location-specific promotion, because it provides the capability to tailor different aspects of your campaign on the fly and respond to different statistics as they become available.

One of the most important features Bango offers is the capability to track individual users' behaviors, whether they are connecting via a mobile network or WiFi, even if the connection changes during the interaction (see Figure 3.10). Each mobile device is attached a unique ID, which makes it much easier to segment specific users by their behavior, to import information about specific customers into a customer relationship management (CRM) system, or to integrate it with a loyalty campaign.

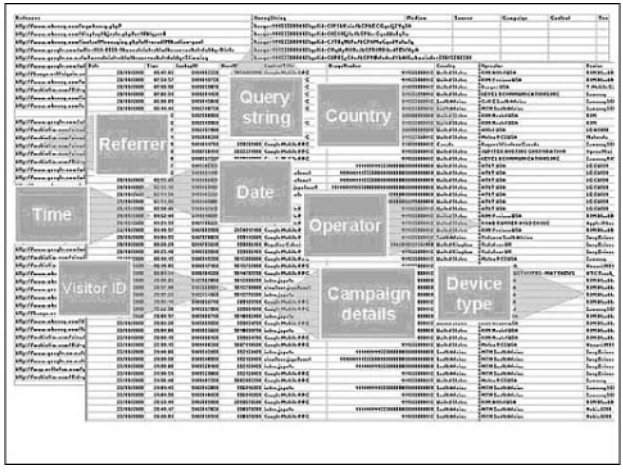

Figure 3.10 *Bango enables you to track the behavior of individual mobile users.*

As with most analytics platforms, Bango enables you to filter your data by page, country, operator, device, time, or date, but it also can monitor and pass URL-based tracking parameters to help supplement native functionality or launch new campaigns quickly.

One of the nice features of Bango is that it warehouses all the raw data that it collects about your website instead of batching it into a one-time report, sending it, and then eliminating it from its server. That means you can continually drill down into historical data, or potentially even create custom metrics from the warehoused information.

Bango's analytics program is quite robust in term of working and integrating with other traditional Web analytics programs though APIs. This is nice because it enables you to consolidate your traditional and mobile data without having to hand-stitch two disparate sets of data together. As shown in Figure 3.11, Bango can use the API to work directly within other reporting suites, such as Omniture, or even proprietary internal tracking systems.

Figure 3.11 *Not only does Bango enable you to track both mobile-only and traditional Web activity, but it also enables you to roll them into combined reports.*

- **Mobilytics**—Mobilytics is a comprehensive mobile tracking suite that includes a lot of the basic features. It includes all the traditional Web metrics, such as visits, unique and new visitors, page views, pages per visit, time on site, and goal and conversion tracking. Mobilytics also has configurable dashboards that enable you to edit how data is presented to you. It also provides the capability to segment traffic based on a variety of different factors, including but not limited to reporting on traffic source, search engine, search term, carriers, countries, phone models, phone manufacturer, and phone capability. The platform can also be used to report on mobile PPC campaigns and mobile ads.

Figure 3.12 *Mobilytics is an all-around tracking suite that enables you to track both mobile and traditional Web campaigns. (Data has been intentionally blurred in this image to protect the privacy of these users.)*

Traditional Web Analytics That Include or Can Be Adapted for Mobile

Now that mobile Web access has become much more common, you can use traditional Web analytics programs such as Google Analytics and Omniture to see how much mobile traffic is making it to your mobile website. The following is a review of the most popular traditional Web analytics suites that can be used or adapted to track mobile Web visitors.

Google Analytics

Google Analytics is a free analytics platform offered by Google. Different from Google Webmaster Tools, it enables you to track and segment Web traffic in a comprehensive, easy-to-use platform. The tracking is easy to set up because it simply involves including the same piece of tracking code in pages throughout the website. This is easily done by adding the tracking code to the header of the website, if it is consistent throughout the website.

If you subscribe to the Enterprise level of Google analytics, you have access to mobile-specific tracking, and that works on phones that don't support JavaScript. The only additional setup is the insertion of a small snippet of code that sits on the server.

In the nonpremium, free version of Google Analytics, you can easily segment out iPhone traffic from other Web analytics. If you need to track other phones, you can also use Custom Segmentation to show you the browser/operating combinations to drill down to find things such as the following:

- How much traffic you are getting on specific phones
- What keywords are driving traffic in mobile searches
- What your mobile bounce rate is
- How many page views per visit your mobile site gets
- What pages are most important to your mobile users

The best option is to set up custom segments for each phone, or each group of phones that you want to track. After segmentation is set up, you can easily move between the results for specific handsets or specific types of phones (see Figure 3.13). (The segmentation rules can get very complicated and, thus, are not included in this example in full.)

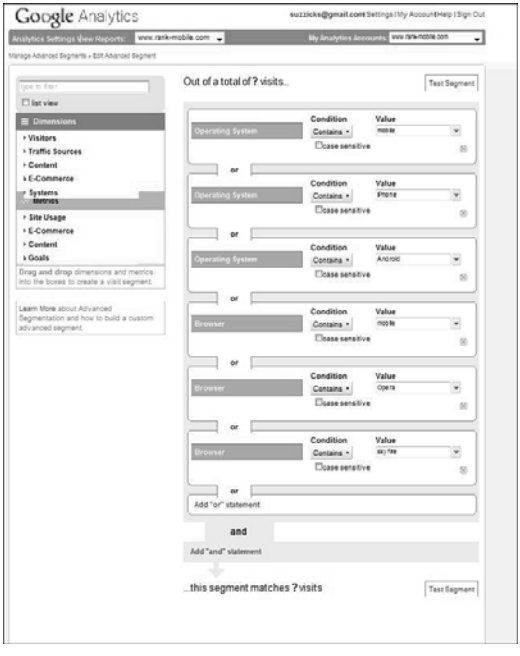

Figure 3.13 *Google Analytics enables you to do custom segmentation so that you can see results for specific handsets or specific types of phones.*

To set up segments that will group all mobile phones so that they can be reported on together, you must set up the Advanced Custom Segments. In this dashboard, include all mobile browsers and operating systems. To set up segments for specific phones, you simply need a list of the top handsets so that you can enter the browser/operating system/screen resolution/color-rendering combinations that each phone has and create them as a custom segment. A full list of mobile phones with these specifications is available at www.phonescoop.com/phones/index_all.php.

The one difficulty with Google Analytics Custom Segmentation is that you cannot set up segments in anticipation of the traffic coming to your website. For instance, if no devices with a 300¥300 screen resolution have ever visited your website, that option will not be available in your custom segmentation options. See Table 3.2.

Table 3.2 Mobile Phone Specifications for Custom Segmentation

Mobile OS	Mobile Browsers	Mobile Screen Resolutions	Mobile Color Rendering
Mac OS X	Opera Mini	300×300	Older Phones:
BlackBerry OS	Skyfire	320×194	1-bit/2 colors, black and white
Symbian OS	Safari	320×204	2-bit/4 colors, grayscale
Google Android	Mozilla's Minimo	320×240	3-bit/8 colors
Windows Mobile	Google Android	320×256	4-bit/16 colors
Mobile Linux	Thunderhawk	320×320	5-bit/32 colors
Palm OS	Microsoft IE for Mobile	320×400	6-bit/64 colors
MXI	Blazer	320×480	
	NetFront Browser	324×352	
	LG Dare	352×416	Most Smart Phones:
	Sprint Instinct	360×120	8-bit/256 colors
		360×480	12-bit/4,096 colors
		360×640	16-bit/65,536 colors
		384×288	18-bit/262,144 colors
		400×240	24-bit/16,777,216 colors
		432×240	
		450×854	
		480×272	
		480×320	
		480×360	
		480×640	
		480×800	
		480×845	
		480×854	
		480×860	
		480×862	
		480×864	
		640×200	

Table 3.2 Mobile Phone Specifications for Custom Segmentation

Mobile OS	Mobile Browsers	Mobile Screen Resolutions	Mobile Color Rendering
		640×240 640×320 640×480 800×352 800×480 854×480 1,600×1,200	

You can also set up a segment that works the opposite way, pulling out traditional computers and leaving everything else in. That gives you less specific data but is a quick way to get mobile information without a lot of setup or hassle with the analytics platform. An example of how you might do that is included in Figure 3.14, although not all the necessary rules are included.

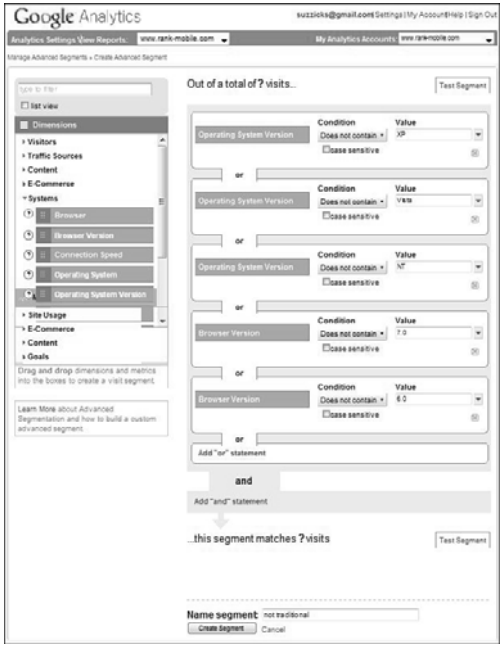

Figure 3.14 *You can also use Google Analytics to pull out data on traditional browsers and operating systems while leaving mobile traffic in.*

Omniture

Omniture is one of the longest-standing and most well-known traditional analytics platforms. In 2008, it added mobile analytics to its SiteCatalyst platform. Omniture also enables you to segment visitors based on device type, device manufacturer, and cookie support, but it adds location, video, and audio formats into its segmentation capability (see Figure 3.15). The mobile portion of SiteCatalyst offers essentially the same reporting and roll-up capabilities for mobile as it does traditional Web traffic. As mentioned earlier, SiteCatalyst can also interface with Bango Analytics to pull in more mobile specific data through the API. See Figure 3.16.

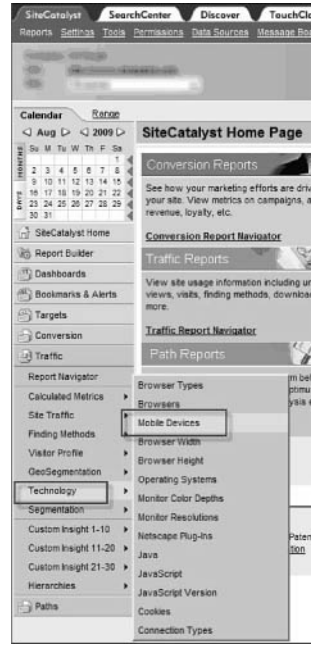

Figure 3.15 *SiteCatalysts enables you to segment visitors based on a variety of factors. (Data has been intentionally blurred in this image to protect the privacy of these users.)*

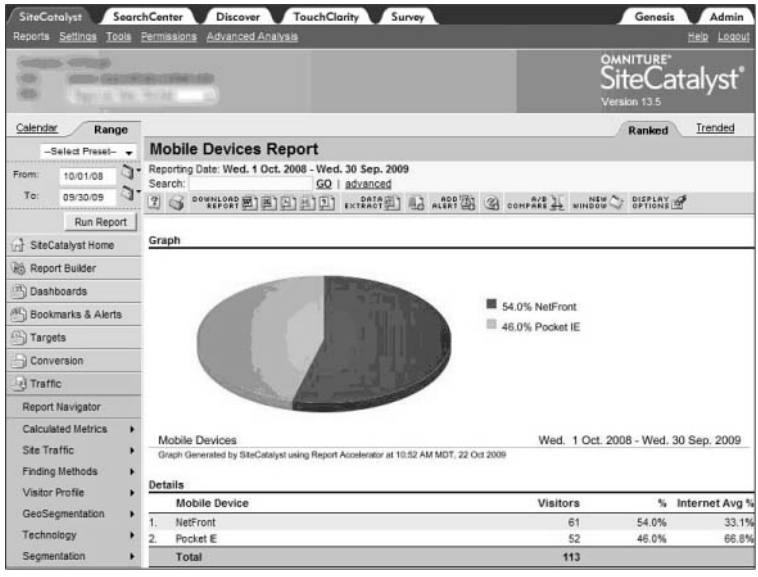

Figure 3.16 *A Omnitures SiteCatalyst graph showing mobile device access to a specific page. (Data has been intentionally blurred in this image to protect the privacy of these users.)*

To provide location information, Omniture works with a platform called WHERE by ULocate. The WHERE platform works with a variety of different systems to deliver location-aware news, weather, events, restaurant reviews, and social networking opportunities to people while they are on the go. It provides information about the users' location while they browse your website from their mobile phone.

WebTrends

WebTrends Analytics 9 is another traditional analytics platform that has begun to offer mobile analytics information. Their platform reports on traffic from mobile browsers, search engine bots, operating systems, and browsers. WebTrends is slightly newer to the mobile analytics game, but it has made public commitments to stay updated so that it provides an easy and reliable source of mobile analytics data. JavaScript is used to track smart phones that support it, and an API is used to collect data from phones that don't support JavaScript.

comScore

comScore is another company that offers a traditional Web analytics platform that includes mobile reporting, although it is actually better known for its publication of reliable industry statistics about the growth of different marketing channels. In 2008, comScore acquired m:Metrics, a company that offered the mobile analytics platform MeterDirect but was also focused on providing comprehensive statistics on the growth and adoption of the mobile marketing channel.

Through m:Metrics, comScore now can provide its subscribers with a variety of mobile research and statistics, as well as some site information through its analytics platform. Since the acquisition, meter direct has been adapted, so the mobile offerings comScore provides now include the following:

- **MobiLens**—This tool draws together content merchandising and consumer behavior with mobile devices to show how different devices respond to your mobile marketing.
- **Mobile Metrix**—This platform provides continuous tracking of your mobile audience's user behavior and compiles information such as gender, age, and income with handset and operator information.
- **Ad Metrix Mobile**—This analytics platform was created specifically for advertisers and publishers to measure mobile display advertising campaigns.
- **Plan Metrix Mobile**—This platform brings together mobile Web analytics and real-life personal characteristics of users. It includes information about device type and carrier information, along with traditional media consumption, lifestyles, interests, and attitudes.

Mobile Email Tracking

Email is very different when it is displayed on a mobile phone instead of a traditional computer, so information about mobile email should be evaluated slightly differently. As it turns out, many people are not acting on commercial emails when they are on their mobile phones. Instead, they are using downtime to scan their emails, delete SPAM, and mentally flag items that require follow-up or seem important. When you review the response rate for mobile emails, it might be low, but the presentation of your email in a mobile device could ensure that it is even seen on a traditional computer at all.

As with any email campaign, you should be tracking the number of emails sent, received, opened, and bounced, as well as the response rate to those emails. Because email cannot be directed to a mobile device in one instance and a traditional computer in the other, the email might be received on a traditional computer, a mobile device, or both places. This can make measurement a bit complicated; the following companies should be able to help with mobile email optimization and tracking.

- **ExactTarget**—ExactTarget is a traditional email platform that was one of the first to begin integrating mobile delivery into its email solution. Its platform enables you to integrate your system with a variety of different platforms, including SalesForce.com, Microsoft Dynamics, WebTrends, CoreMetrics, Google Analytics, and Omniture.

  The ExactTarget system also lets you send different responses based on specific customer behaviors, otherwise known as triggered responses. It also enables you to create content libraries and send content in emails that is dynamically generated, based on different demographics or filters. When they are set up in the system, each different behavior, triggered response, or dynamic email can be tracked and evaluated to determine the relative success of the different segments.

- **mobileStorm**—As with other email platforms, mobileStorm enables you to create and segment subscription lists and monitor the success of your campaign. In addition, mobileStorm specializes in mobile marketing, so it offers a variety of other products and services that companies can use to set up mobile-friendly email campaigns, track their success, and personalize responses. These campaigns can work independently or in tandem with SMS campaigns, and the two can be combined to grow your subscribers' lists.

  mobileStorm can also help you set up autoresponses on email and SMS campaigns, to manage the opt-in and opt-out process seamlessly, and help you track and manage the mobile and traditional coupons that you send. If you are marketing an event, the system also includes a handy RSVP manager.

- **Pivotal Veracity**—Pivotal Veracity is another traditional email provider that can help with mobile email delivery (see Figure 3.17). It focuses on deliverability and rendering, both of which are crucial to the success of mobile email. In terms of tracking, their platform provides advanced analytics and custom weighting, to gain a deeper understanding of how different responses impact your bottom line. The platform focuses on

the capability to preview how your email will look on a variety of different phones. After deployment, it helps track the deliverability and click-through rate for traditional and mobile landing pages.

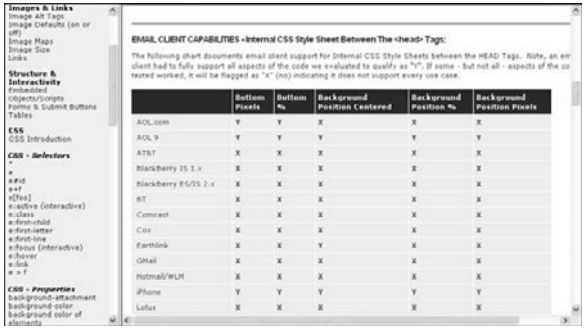

Figure 3.17 *Pivotal Veracity delivers diagnostics, which include information about two Blackberry renderings and the iPhone.*

Application Tracking

As companies begin to spend more money developing interactive applications, it has become more important to track how users are interacting with the applications and what impact the applications are having on branding and engagement. The following companies might be able to help you track the success of your mobile applications.

Flurry

Flurry is an application-only mobile tracking system that was one of the first independent application tracking platforms available. It can monitor applications from a variety of different platforms, including iPhone, Android, BlackBerry, and JavaME (see Figure 3.18). It can both monitor the sequence of actions that people take within an application and use dynamic parameters to evaluate user-generated content and other interactive portions of the application.

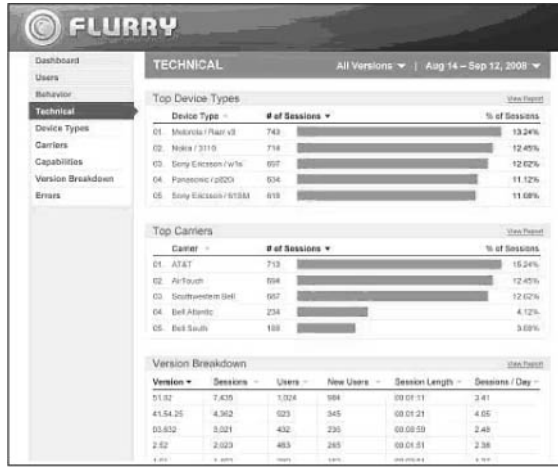

Figure 3.18 *The Flurry mobile reporting suite shows access to the mobile website by top devices and carriers.*

Google Analytics

In addition to tracking mobile Web activity, the same tracking code and platform can be used to track customer behavior within an application. The system currently works with Android and iPhone applications and is reported in much the same way Web traffic is presented.

Omniture

In addition to its Web traffic reporting platform, Omniture offers a tool called Omniture App Measurement that helps companies track the success and behavior of people on their iPhone, Android, and BlackBerry applications. This solution is also part of SiteCatalyst and uses the WHERE platform to determine where users are when they are accessing your mobile applications. This kind of usage information can be critical when determining how and where to promote your applications.

WebTrends

WebTrends also offers analytics for mobile applications, although the company is not very precise about what is included. The project might need further development before it rivals other mobile analytics tracking programs; this service does not appear to be a major push for them yet.

Offline Tracking, Text Message Tracking, and Phone Call Tracking

One of the biggest benefits to mobile marketing is that it enables you to add a direct response to all your traditional media campaigns, making them immediately trackable. Other chapters discuss this kind of tracking in much more depth, but basically this requires a text-messaging prompt in the offline marketing message, as shown in Figure 3.19.

Figure 3.19 *An SMS call to action in traditional media makes it immediately trackable.*

The best way to use mobile marketing to track traditional media marketing efforts is to utilize different response codes in different campaigns. For instance, in the Sponsor A Dog campaign, which was run throughout the London Tube, a poster in one location told people in one place to text "DOG" to the short code, and different posters told people in another location to text something else, such as "DOGS," "PUP," or "LOVE," to the short code. This strategy presegments the data, making it easier to understand where your campaigns are succeeding and where they are not, to prioritize future ad placement.

All the top text message and phone system providers will be able to either provide statistics about your campaign or, ideally, provide an analytics platform that you can use to evaluate and segment the data on your own.

Within the platform, you can also segment responses by the time of day or the area code associated with the response. If you include clickable phone numbers in any of your marketing efforts or promotions, you can track the response in a similar way, providing different phone numbers with different promotions so that tracking the success of each initiative or each location is simple.

Offline behavior can also track the effectiveness of a mobile marketing campaign. This is especially true in the case of mobile coupons and redemption codes, when a promotion is sent to a mobile device, but the trackable behavior actually happens when the coupon is redeemed in the store. You can segment your users in a variety of ways and then track their response. One of the most common tests is to send recipients in different zip codes different redemption codes, and then systematically evaluate how far your customers drive to redeem the coupon. This kind of analysis can help inform a company's decision to open a new location.

Loyalty Tracking

One of the most important and complex opportunities in mobile tracking is the capability to track a multichannel marketing effort in a unified way. A comprehensive multichannel effort includes a variety of on- and offline media, including print, TV, radio, email, location-based mobile marketing, SMS, MMS, applications, billboards and banners, and Web traffic. The following companies can help you set up and track a multichannel marketing campaign.

Unica

One of the top analytics companies for drawing all types of analytics information together is Unica. Figure 3.20 shows Unica's capability to segment customers by their loyalty status and show the value of each segment.

The system has a variety of different products and unique feature that enable you to anticipate opportunities to cross-sell customers when they will be most interested in your products, based on their previous behavior and see a visual representation of your customer data. The system helps you manage customers' different touchpoints and determine, in real time, which messages will be the most compelling and successful.

Figure 3.20 *The Unica dashboard enables you to segment customers by loyalty.*

mobileStorm

In addition to their email and SMS solution, mobileStorm provides a multichannel product that enables you to track six types of campaigns in the same platform. mobileStorm is slightly less comprehensive than Unica because it doesn't report on Web traffic, but it does allow you to track email, SMS, voice, fax, RSS, and video. Its database management capabilities enable you to create custom Web forms and mobile forms to gather data from your website and integrate the mobileStorm system into your existing CRM through APIs. It can also help you track phone numbers of subscriptions and removals from the lists, or even create suppression lists as you target various segments.

Responsys

Responsys offers another option for tracking cross-channel marketing efforts that include mobile marketing. This multichannel product is called InteractCampaign. When it is coordinated with InteractProgram, you can create a very dynamic tractable campaign, full of multichannel and cross-channel triggered responses. This seamless integration of cross-channel marketing with triggered responses means that if a customer responds to a mobile ad in one way and an online ad in another, the customer could automatically be sent a promotional email that combines the learnings from both the online and mobile responses.

As you develop your mobile marketing campaigns, keep this list of mobile tracking and analytics tactics and platforms in mind. It is important to stay current on the new mobile tracking and analytics services that are available because they change and develop; mobile marketing is still relatively new, and tracking is important, so likely a lot of innovation will arise in this aspect of the game.

4

Everything You Need to Know About the iPhone

The iPhone has done for mobile phones what the iPod did for MP3 players: It has set a new bar and changed the game. The success of the iPhone has been so dramatic that its revenue has actually eclipsed Apple's revenue from the sale of Mac computers and iPods. In the United States, the iPhone has been the first or second most popular single handset (not handset family) since the second quarter of 2008, and with the launch of a new phone in 2009, it is not likely that they will be out of the top three anytime soon. As of February 2008, the iPhone OS was the fourth most popular operating system on the Web (the entire Web, not just the mobile Web), with a 0.30% market share, behind Windows (90.69%), Mac OS (7.84%), and Linux (0.92%). It is now officially available in more than 88 countries around the world, but it is also being shipped and modified to work in other countries where it has not yet officially launched.

The iPhone has undoubtedly become a status symbol, but it is also quickly becoming a necessary utility. The iPhone is making mobile computing and mobile Web access a reality that is not hindered by caveats and special circumstances, as with other mobile Web experiences. Many iPhone loyalists will tell you that they now rely heavily on the iPhone for day-to-day activities that used to require a full-sized computer or laptop. Mobile computing is rapidly becoming necessary for everyday life, as mobile calling did only 10 short years ago. Soon enough, people will not remember how they got by without the mobile Web at their fingertips at all times.

The revolution caused by the iPhone has also done a lot to expand the reach and potential of mobile marketing. This chapter outlines what makes the iPhone different and particularly valuable for mobile marketers, and how it has changed the future trajectory of the mobile marketing landscape as a whole. It also delves into the demographics and psychographics associated with the iPhone and how that information can be used to improve any mobile marketing campaign. The next section reviews what functions are used the most on iPhones and provides tips for tailoring a campaign to leverage those activities for the iPhone audience. This chapter then explores the limitations of the technology will be explored. Finally, we end with case studies about companies that have uniquely integrated the iPhone into their marketing mix.

The iPhone has a lot of features that other mobile phones have, such as the capability to store and play MP3s and videos, the capability to download third-party applications, and the capability to surf the Web. Beyond what many other mobile phones offer, the iPhone has a sleek touchscreen, accelerometers that can respond to motion

and the physical orientation of the device, and a far superior Web browser when compared to anything else on the market. The new features and more usable interface make the iPhone a more robust and compelling marketing channel, and the statistics spell that out.

For the most part, companies are having the most luck reaching the iPhone audience with ads disguised as apps. According to Mobclix, Inc., the average iPhone user has installed 5 to 10 applications on the device, compared with fewer than 2 apps per device for the overall smart phone market. In some cases, companies are even buying existing iPhone apps and retooling them to fit their branding needs instead of creating a new application. For many companies, this can be a great strategy that saves time and money.

The integration of the search, mapping, and calling features is important for marketers who are trying to drive foot traffic to a specific location or store. The iPhone enables users to search for anything and then have results displayed on a map, with the option to click through and call.

iPhone User Demographics

Many misconceptions and assumptions have been made about the iPhone user demographic. According to Nielsen Mobile, as of 2008, only 39% of iPhone users had an annual household income of more than $100,000. The survey included only users who were older than 18, but of those surveyed, the largest age demographic was age 25 to 34, with 33% of the pie, not, as many might have assumed, those age 18 to 24. The next-largest demographic consisted of those age 35 to 44, at 20%. Ages 18 to 24 were actually the third-largest group, making up only 15% of the demographic, closely followed by ages 55 to 64, at 14%. Another 2009 study by ComScore reports that 43% of iPhone users have an annual income of more than $100,000.

The demographic group that is most interested in the iPhone has enough disposable income to afford the phone and enough activities in their life to justify the

expense. iPhone users may have different psychographic values and incentives, but the iPhone is appealing enough to justify the expense for each set of values. According to Nielsen Mobile, 36% of iPhone users pay more than $100 per month for their cellphone bill—but luckily, 15% say that their company pays the bill for them. Twenty-four percent of people surveyed reported using the iPhone for business and personal use and paying the bill themselves, and 61% said they use the phone only for personal use.

Although we have less information about the 18-and-under demographic, it is clear that they are using iPhones, too. For teens, the demographic indicators usually relate more closely to the parent than the child. Teens with iPhones tend to come from households with an annual income of more than $100,000. The parents tend to be working professionals who encourage their children both academically and socially. For these young users, the iPhone is a means of staying connected with their parents and friends, but it is also a study aid and a utility. They use the phone for social networking and entertainment, but they may also be downloading applications that help them prepare for exams or perform well on standardized tests. The iPhone is also useful for scheduling extracurricular activities.

Teen users are impressed with bells and whistles, but they are also interested in productivity and efficiency (like their parents). Applications or messages that help them stay organized and manage multiple deadlines are ideal for them. The 30Boxes calendar application and similar tools appeal to them because they are simple to use and effective at keeping them organized.

iPhone User Psychographics

The iPhone is the newest "it" phone. Its "cool" factor is desirable for a variety of user demographics (age, gender, and so on). The many features and the usability of the device make it appeal to the values and needs of a variety of psychograph groups, which are grouped according to personality, values, attitudes, interests, and lifestyles. Early adopters, Apple enthusiasts, and technophiles were the first group to embrace the iPhone; they were followed by business users, and, lastly, gamers and the college crowd. Similar psychographic sets can be targeted with innovative mobile marketing messages on the iPhone, so we also explore strategies for appealing to each of the psychographic sets.

The First Wave of iPhone Adoption

Early adopters are almost always enthusiastic about new technology, especially when the hype reaches fever pitch, as it did for the iPhone. Early adopters have to know whether the new technology is worth the hype so that they can inform their friends and maintain their reputation as innovators in their social group.

The first wave of iPhone adoption was also pushed by Apple enthusiasts and the technophiles, who are not always in agreement when it comes to technology and values. Apple enthusiasts tend to value usability and form equally, whereas technophiles are generally willing to sacrifice form and user-friendly design if it improves usability. Apple enthusiasts are usually willing to embrace anything Apple, but technophiles are frequently put off by the proprietary policies and technology that Apple generally embraces. Despite their apparent differences, both groups embraced the iPhone and did a good job of evangelizing the product for the second and third waves of adopters.

Appealing to these groups means being edgy and taking risks. You must create something new that the early adopters, technophiles, and Apple enthusiasts will test and evangelize to their friends. The best example of something that would appeal to these early adopters is the Air Mouse application. It translates movements detected by the accelerometers in the Phone and sends them as mouse movements, keyboard strokes, or media controls over a WiFi network to a computer. The application automatically assesses what type of device is being used and updates the buttons that it shows on the iPhone screen. This makes the application great for this psychographic group, whose members are probably interested in turning one of their many computers into a media center that is attached to a TV and sound system, and using a long-distance remote to control everything.

The Second Wave of iPhone Adoption

The second wave of iPhone adoption was led by professionals who realized that the device could be useful for business. The visual voicemail feature appealed to their need for efficiency, as did the capability to sync their "push" email activities from their phones to their computers (and vice versa), (which wasn't part of the original release but was quickly added). Businesspeople also liked true Web browsing on the handset because it helped them make the most of their down time or daily commute: A truly usable mobile Web expanded their day and allowed them to accomplish more in less time. Businesspeople were willing to pay the higher cost for the phone for its additional functionality and efficiency.

Appealing to this demographic with your marketing message is simple: You must focus on efficiency. How does your product or service improve their ability to do their work, meet their deadlines, and still be social? The iPhone appealed to both the need to be an efficient businessperson and the need to have a life outside of work. An example of something else that would appeal to this crowd is the UrbanSpoon application. A simple restaurant locator, it also creates efficiency by allowing users to set their location, the type of food they want, and the price they want to pay. Users can choose to set all or none of those three options; the application then gives them restaurant suggestions, complete with reviews, addresses,

maps, and phone numbers. This appeals to the efficiency needs of the businessperson, while the design and implementation offer some whimsy and the promise of down time away from work.

The Third Wave of iPhone Adoption

The last major groups to embrace the iPhone were college students and video game enthusiasts, or "gamers." This group really valued the entertainment potential for the iPhone, as well as the capability to engage in social networking and connect with friends through text and picture messaging. They wanted the device because it was cool and entertaining, and could play music. In some cases, it also allowed students to postpone the purchase of a laptop, instead relying on the iPhone and a desktop computer or a computer lab for more time-intensive computing. The iPhone was functional and fun, and for most, it was a status symbol.

Gamers are similar but are much more interested in the capability to test games and applications on the iPhone. They are impressed with the clarity and screen resolution and the capability to incorporate motion and sound into game play, as well as the ability to play games against friends over WiFi networks. Gamers are also interested in the true Web browsing because it allows them to access more games, interact on gaming forums, and read game reviews.

Interactivity is key for reaching these psychographic groups with your marketing message. One-dimensional mobile marketing campaigns will not make the impact that interactive ones will. This group knows the capability of the iPhone and likes to see it used to the full extent. To them, that is a sign that the brand or company "gets it." This group probably grew up with computers and the Internet as a part of day-to-day life, both at home and at school, so they are not easily impressed. They value messages and technologies that provide entertainment, ensure their position in the social hierarchy, and help them stay connected.

The best avenue for reaching these psychographic groups might be an application such as Shazam, which can use the microphone on the phone to listen to a song and then identify the song; the viewer can learn more about the song or the band, recommend the song to a friend, forward it to a social network, or buy the song. This application does a great job of innovatively using the native technology of the phone to provide an interactive, viral, and cool experience on the iPhone.

How Are iPhones Used?

iPhone users are much more willing to engage mobile media than users of any other handset, which makes them a perfect target market for mobile marketing. The most important characteristic that makes iPhones different for mobile marketers is how they are used (see Figure 4.1). People use their iPhones dramatically

differently than most other smart phones. According to Nielsen Mobile, an iPhone user is 10 times more likely to watch video on their phone, nine times more likely to play games on their phone, seven times more likely to stream music on their phone, five times more likely to access the Internet, and three times more likely to use an instant messaging service.

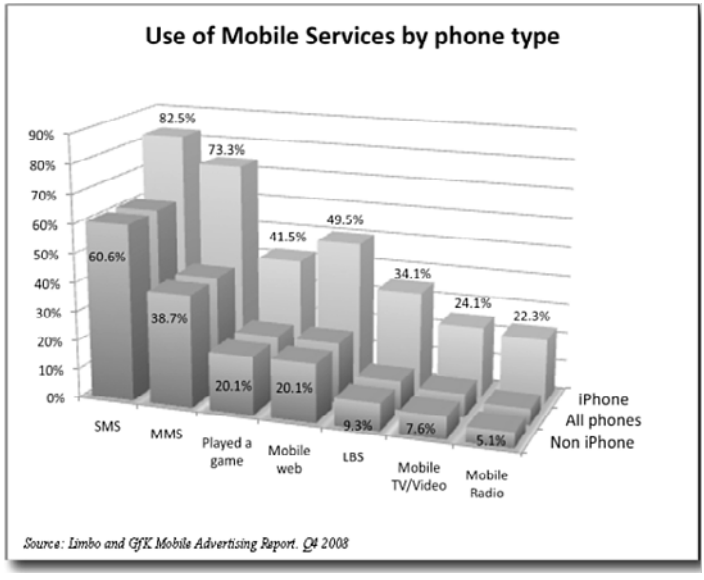

Figure 4.1 *iPhone usage compared to usage of all other mobile phones. Chart courtesy of Marketing Charts (www.marketingcharts.com).*

The iPhone has brought mobile Web access and mobile search to the masses. The fact that 95% percent of iPhone owners regularly surf the Web, even though 30% had never done so before acquiring the device, is quite telling. The iPhone represents only 8% of the mobile handsets but roughly 75% of the mobile search, and iPhones now account for one out of every 333 Web hits worldwide. The desire for Web access and Web search was always there—it was just being slowed by the bad user experience that other mobile phones provided.

iPhone users are more engaged with the full range of capabilities in the phone than other smart phone users. Research conducted by iSuppli Corp in 2007 indicates that they spend about 72% of their time on the iPhone doing things other than making phone calls. The cleaner, simpler interface results in 76% of iPhone users using the device to access their email, compared to only 35% of other smart phone users.

The demand for the non-phone features of the iPhone is so strong that Apple actually sustains a non-phone handset option, otherwise known as an iTouch. This is another way that the iPhone has been totally revolutionary—Apple realized that the

non-calling features (apps, music, video, and so on) are more important to some users. In fact, phone capability can be totally absent if the non-calling features are compelling enough to the users. Since non-phone based mobile handsets have many of the same capabilities of more traditional smart phones, these types of devices must also now be taken into account in mobile maketing efforts.

This level of engagement makes iPhone users much more likely to see, recall, and even respond to ads (see Figure 4.2). In the same study, iSppli found that half of iPhone users had responded to a mobile add. After seeing a mobile ad, iPhone users also are twice as likely as non–iPhone users to "click to call" and are 25% more likely to click a link to a mobile website. A surprising 25% of the iPhone respondents surveyed said that they had purchased a product or visited a store as a result of a mobile advertisement.

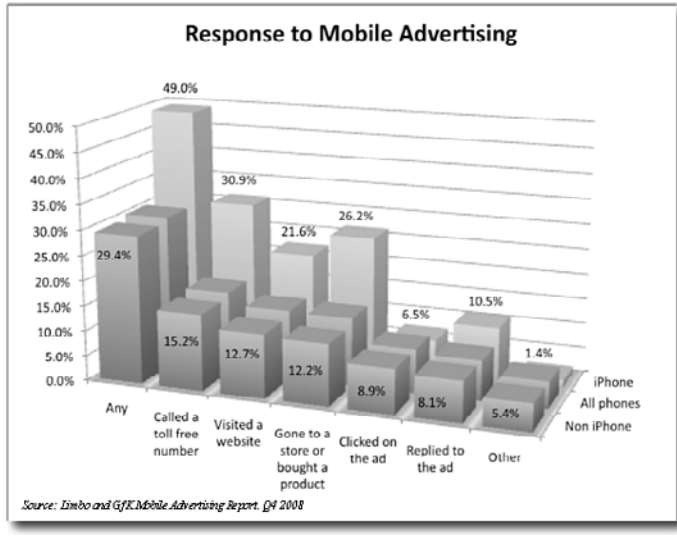

Figure 4.2 *Response to mobile marketing—iPhone users versus all other smart phone users. Chart courtesy of Marketing Charts (www.marketingcharts.com).*

Tips for iPhone-Specific Marketing

Many tips and tricks are associated with using the unique features of the iPhone to make your marketing campaign stand out from others. A successful iPhone campaign will naturally be viral if you really can make the most of the device.

SMS Messaging

Text message marketing on iPhones is essentially the same as text message marketing campaigns with any other types of phones. It is important to note that iPhones

cannot send or receive picture messages. Any images that you want to send to someone's iPhone must be sent over WiFi, as an attachment or via a text message link, where the user can download the image from the Web to the phone. This can be particularly problematic for mobile couponing that leverages MMS, but I expect Apple's oversight to be remedied in future generations of the iPhone.

Accelerometers

These are the motion sensors in the phone that can determine the orientation of the phone and how quickly it is moving. Motion sensitivity can be incorporated into a variety of different iPhone marketing campaigns to make the experience more interactive. Whenever you incorporate motion into your marketing campaign, the best practice is to also include a button that will achieve the same goal as the accelerometers without the motion, in case the accelerometers are broken or the viewer doesn't feel comfortable making the motion necessary to execute the command.

Touchscreen

Although many phones are beginning to incorporate touchscreens, the iPhone touchscreen is slightly different. It responds to extended touch and movement, where many other phones respond to only simple taps. This makes it possible for applications to incorporate the capability to drag and drop items to different parts of the screen easily, as if the user were using a mouse. For marketers, the touch screen on the iPhone opens up lots of possibilities when creating applications and games, making them more interactive and engaging.

GPS

Second-generation iPhones are equipped with GPS capabilities. Both the first- and second-generation phones have a business search feature that will plot businesses on a map and give the user turn-by-turn directions. The key difference is that, with the first-generation iPhone, users may have to input the desired address; with the second-generation iPhone, they don't.

The key to leveraging the GPS feature is really in leveraging local search engines, especially Google Local. Your business must be listed correctly in as many local search results as possible, with as much information as possible. In addition to the basic information, such as your address and phone number, be sure to include your hours of operation, major cross streets, simple driving directions, and even a picture of the front of your building, as users would see it from the street. These will help people who are using the GPS search on the iPhone find your brick-and-mortar store more easily.

Submitting your business to local search engines other than Google Local is also crucial. Many iPhone applications interface with the GPS capability of the phone, but they pull search results from other local search engines, such as Yahoo! Local or Yelp. A good example of this is UrbanSpoon. One of the most recognizable mobile search applications, UrbanSpoon helps people find a restaurant. It searches a database of restaurants and reviews from a mixture of Yelp and Yahoo! Local, so to be listed in UrbanSpoon, a business either must be listed in one of those two local search engines or must work with UrbanSpoon directly (there's a submission form on their site, too.)

WiFi

In general, iPhones are much more suited for receiving location-based mobile marketing messages that are sent through WiFi than are other phones. The most important consideration for attracting the attention of iPhone owners with broadcast WiFi marketing is to ensure that iPhone users have enabled WiFi on their phones. This can be a simple process, but many subscribers keep their WiFi turned off unless they have a specific use in mind, because it drains the battery. In some cases, it may be enough to incorporate reminders into billboards and displays in and around your location, but in other cases, it may be more important to give specific instructions about how to change the settings on the phone to receive the message.

Voice Recognition

Many phones incorporate voice-recognition programs to help subscribers place phone calls to people in their address book without having to dial the phone number or find the contact in their address book.. The iPhone, however, takes voice recognition to the next level, by allowing applications to tap into that voice recognition software as well . Applications that can interact with voice and audio recordings expand the interactivity of the device, and can be used in mobile marketing to create a more engaging experience. Having users say a brand name or make a specific sound while they are interacting with a branded application can add an element of whimsy to any iPhone application.

Bluetooth

Unfortunately, the Bluetooth capabilities of the iPhone are a bit more limited than those on other handsets. Many mobile phones can send files, including pictures and text to other phones or to computers via Bluetooth, but the iPhone cannot. The iPhone is set up only to receive and transmit audio, so it can send voice and music;

it is also limited there, because the iPhone Bluetooth cannot transmit in stereo. In terms of location-based marketing, WiFi is more appropriate for the iPhone audience.

QR Codes

QR Codes are small square dot matrices, sometimes called 2D bar codes. These codes can be included on billboards, packaging, print media, or even on computer screens. Users with QR enabled phones can captured the bar code by taking a picture of it with their digital camera. Once that is done, the QR code can actually cause the phone to perform different actions, such as opening a web page, displaying a branded message or adding a contact to your address book.

iPhones don't currently come with a QR code reader natively installed, but it is expected that the next-generation iPhone will. If you think QR codes might be a good way to reach your iPhone demographic, especially if you are in a region that hasn't fully embraced the technology, it is important to give viewers instructions about how to scan the QR code. The instructions should include a recommendation for a good QR code–reading application, an explanation of how the application should be used, and what happens when the QR code is scanned. Explaining the value of the scan is important in driving adoption of the technology.

iPhone Meta Tag for Page Width and Zoom

Some developers are adding a specific meta tag to the header section of their website code of iPhone-specific websites or to make their traditional websites more iPhone friendly. The meta tag tells the site to display at a certain width and zoom level by default when it is displayed on a iPhone. Debate about this meta tag is circulating in the development community because different developers recommend different widths. If you are developing Web content specifically for an iPhone, include this meta tag and try it at different widths.

```
<meta name="viewport" content="width=480" />
```

Innate problems arise when setting that specific width, the most obvious being that when you turn the phone back from landscape to portrait, it must display at a different pixel width. If you want the screen to automatically be set by the width of the phone, you can add the following meta tag:

```
<meta name="viewport" content="width=device-width; user-scalable=no"/>
```

You can also use the meta tag to change the scale that the website displays in, to show at less than full screen but still more zoomed than the iPhone default . By changing the `initial-scale` part of the meta tag from `1.0` to `0.5`, you are telling

the site to display at half the size of the phone screen, so you ensure that if users are scrolling right to left, they will have to scroll only a maximum of double the size of the original screen. This is particularly good if you have a site that has two columns of even width. If you have a three-column site and the columns are evenly sized, you can set the `initial-scale` to `0.33`, so that they when they open the site, they see only the first column.

```
<meta name="viewport" content="width=device-width; initial-scale=1.0;
➥maximum-scale=1.0;">
```

iPhone Meta Tag for Double Tap and Pinch

If you have built content specifically for an iPhone, there may be no need for the "double tap" and "pinch" features used on the iPhone to zoom in and out. You can add code to the meta tag after the width to disable these features.

```
user-scalable=no
```

The full meta tag would look like this:

```
<meta name="viewport" content="width=580; user-scalable="no"/>
```

iPhone Meta Tag for Launching Your Site as a Standalone Application

Another meta tag enables users to launch your website as a standalone application, without using the Mobile Safari Browser. This essentially mimics the look of an app, so it is most valuable if you have application-like content on your website but you don't want to bother with selling or submitting the app. If you use this strategy, it is especially important to somehow encourage users to add your site or app to their home screens and then use it like an application. These types of applications may run a bit slower than traditional applications from the App Store because the resources are being downloaded in real time over the Internet instead of being pre-loaded on the phone. Still, they can be quite impressive.

```
<meta name="apple-mobile-Web-app-capable" content="yes" />
```

Limitations of the iPhone

Although the iPhone has done a lot to improve the technology available to receive mobile marketing messages, it still has some limitations.

Slow Connection Speeds and Jailbroken Phones

The most notable exception to all the hype is slow connections. Despite the promises of 3G connectivity, not all areas where the iPhone is sold have universal 3G

coverage—in fact, many don't. This can also be a problem when users are connecting to a network that is not with the intended carrier, as with "jailbroken" phones (phones that have been unlocked, thus allowing the phone to work on any carrier network). The number of jailbroken phones is growing, and they generally rely on an EDGE network to connect. When you are testing your marketing campaign, it is best to test it at both 2G and 3G rates; unless people are around a WiFi signal, they may still be downloading your content over an EDGE or GPRS network.

Buttonless Design

The sleek, buttonless design is nice, but it has a direct disadvantage to text communication. Many users report trouble typing and resent not being able to copy and paste or even effectively move the cursor back without deleting. If you are developing an application or an interaction that relies on text responses to be typed quickly, you will only frustrate your users. This can be a problem for text-in contests and polls that include a time element to the participation. If you are targeting the iPhone demographic, it might be better to require shorter responses. Prompt people with multiple-choice questions instead of open-ended ones so that they can just press one letter and send the message, or send people to a Web page where responses are already typed and users only needs to click on a radio button to participate.

Limited Battery Life

For all its capabilities, the iPhone has a limited battery life, which can be problematic for both users and mobile marketers. If you are marketing with mobile games, video, or anything that will be transmitted over a WiFi signal, this will make the battery in the iPhone drain more quickly. Be conscious of this when you are developing applications, videos, and any other rich media content. If the interaction takes a long time, you should allow users to save what they are doing and consider integrating some kind of low battery warning system that will let viewers know that they should plug in their phone to continue the experience.

Inability to Forward Text Messages and Contacts

The iPhone has no good way to forward text messages or contacts to other people, which can be limiting if you are initiating a viral campaign. If this is the case and it is important that text messages or contact information be forwarded to friends, many viable workarounds exist. If your audience is on Twitter or Facebook, you can encourage them to post the message there instead of forwarding it to a friend on the phone. You can also leverage services such as Facebook, Linked In, and Plaxo to help participants send contact information or spread your viral message on social networks.

No Custom Ringtones

Custom ringtones cannot be added to the iPhone. This is probably one of the biggest oversights, because ringtones are popular with the iPhone demographic and are a big driver of revenue for many carriers and mobile marketers. If you are promoting music or a brand with a jingle, it would be nice if you could offer your customers custom ringtones for their iPhone, but it simply can't be done at the moment. The speaker on the handset is good for playing music, but its performance as a speaker phone is lacking. Looping in the phone functionality might be a clever way to incorporate music into your campaign, but the volume of the speaker system could hinder the experience.

GPS Battery Drain

Active use of the GPS can also drain the battery quickly. This can be particularly cumbersome if you are working with an application or initiative that uses the GPS in the phone for a long period of time, such as one that gives turn-by-turn walking instructions. If this is the case, you should always give users an option that allows them to conserve battery life. For instance, if you are providing directions to your location, you could provide all the directions at once instead of generating them on the fly, as most navigation systems do.

Case Studies

The following case studies show how several companies have targeted marketing efforts at iPhone users.

Nationwide Insurance

In 2009, Nationwide Insurance launched a great interactive mobile campaign aimed at building goodwill with its iPhone-using customer base and attracting new customers to the service. The campaign focused on a mobile application called Accident Toolkit that the company developed to help customers submit an auto claim and expedite the repair process after an accident. Nationwide believed that this application would help them stay true to their tagline and prove, in a new way, that "'Nationwide is on your side.'"

The application pulled together a number of the iPhone functions to make submitting a claim and responding to an accident much less stressful (see Figure 4.3). It used GPS position to automatically record the location of the accident, and it then provided contact information to help users notify local authorities or request emergency services, if necessary. It encouraged users to collect all the pertinent information about the accident, including the other party's name, address, phone number,

license plate, and insurance company, and store that in the phone. Users could even use the iPhone to take and store pictures of the accident with the other accident records on the phone. After all the records had been taken, the application again used the GPS to help the user contact local towing services or approved body shops, to get the car off the road and into repair.

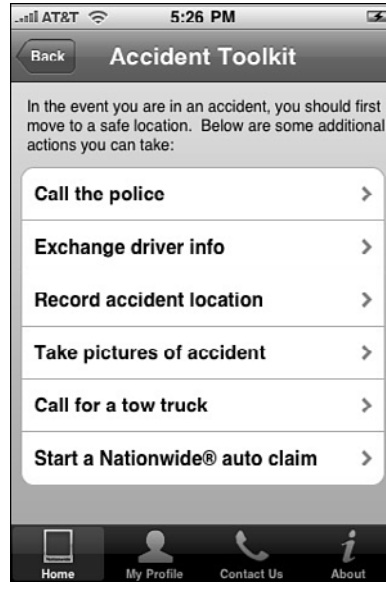

Figure 4.3 *Nationwide's Accident Toolkit is a prime example of a successful mobile marketing campaign aimed at iPhone users.*

Nationwide did a great job of promoting this application, by including it on national and local TV commercials and direct mail, encouraging customers to add the application. They also used display advertising to promote the application on top websites such as Facebook, Web MD, and Weather.com. Nationwide also used social media sites such as Facebook and Twitter to disseminate information about the application. On the viral side of things, it helped that the application was not limited only to Nationwide customers, and it did everything but submit the claim for people who had different insurance providers. This was a great way to expand their reach and brand awareness, and some users likely switched from a different insurance provider to Nationwide.

Reebok Shoes

Reebok wanted to tap into the mass personalization phenomenon that has taken over the younger demographics, so they created an iPhone application to let users create a custom pair of sneakers. Users could choose from three different classic

Reebok sneakers to customize, and then choose the material and the color of different aspects of the shoes. They then had the opportunity to send the designs to friends or share them with the entire world by putting them in the marketplace.

The application also incorporated the iPhone mapping feature. All public designs were geotagged and placed on a map (see Figure 4.4). Subsequent users could see the designs that were popular in their area and either buy them or further customize them to their own taste. The app also incorporated the touch sensors and the accelerometers, requiring the user to touch the part of the shoe that they wanted to modify and shake the phone to add color.

Figure 4.4 *Reebok's mobile marketing campaign allowed users to create custom shoe designs and then geotag them on a map.*

Dockers

Dockers was one of the first companies to use the accelerometers of the iPhone to interact with people who viewed their mobile Web display ads. The ad was launched on an iPhone-only display network that places ads within free iPhone applications. The interactive banners were deliberately placed in game applications that men between 30 and 39—their key demographic—would be interested in playing. The idea was that if they were already interested in playing a game for entertainment, they might also be interested in interacting with an advertisement for entertainment.

The ad featured Dufon, a well-known freestyle dancer, wearing Dockers clothing. In between levels of play, viewers were encouraged to shake the phone to make Dufon dance (see Figure 4.5). The experience looped in music with the dancing and encouraged the viewer to shake the phone again for an encore. The beauty of the campaign was that the ad was interactive if the viewer wanted it to be, but did not force interaction. The banner was a successful standalone advertisement that could

be clicked on for more information, just like any other banner. The music and dancing simply added to the level of engagement, displayed different views of the clothing line, and solidified the brand message that you must "Dress to Live."

Figure 4.5 *Dockers created a fun mobile app that encouraged users to shake the iPhone and make Dufon dance.*

WebMD

WebMD created an application for doctors that included a free drug reference database and drug interaction checker (see Figure 4.6). It also allowed doctors to specify a specialty so that they could receive news and alerts based on their specialty. This was an effort to build a mobile community of medical professionals around the application, to help WebMD create brand awareness and affinity among doctors and expand their professional network. The campaign was part of a joint effort between WebMD and Medscape CME (Continuing Medical Education). Medscape provided the targeted news feeds, as well as opportunities for doctors to participate in CME training and accumulate credits that were all tracked as part of the Medscape system.

Note

A similar effort called ReachMD launched a competing application, pulling in on-demand XM radio content to an iPhone application that also provided CME testing and engagement.

Figure 4.6 *WebMD created Medscape, an iPhone app that provides a drug interaction and reference database for physicians.*

5

Mobile Advertising

Mobile advertising is the subset of mobile marketing that involves promoting your product or service with text or graphical marketing messages displayed on sites other than your own. Some believe that mobile advertising is "the next big thing" because it can improve the experience for the user and create a badly needed source of revenue for mobile carriers. Only time will tell, but if we look back at the traditional Internet, it certainly is easy to see that various types of ad serving and ad networks have played a crucial role in the evolution of the channel. Mobile advertising is still in its infancy, but it does show a lot of promise.

Mobile advertising has some unique advantages over traditional Web advertising. The improved capability to track and target mobile advertising should create more profitable and actionable mobile advertising campaigns for marketers. The advertising environment on a mobile phone is also much less crowded, because mobile pages frequently have room to show only one or two advertisements; this should further improve the impact of those ads.

The biggest benefit to mobile advertising, however, is the strikingly high click-through and conversion rates that are possible. Traditional online banners perform at an average of .02% to .05% click-though, whereas Bango, one of the top mobile analytics platforms, claims that mobile banners get an average of 1% to 3% click-through. After click-through, the conversion rates average almost 5 times higher than their nonmobile counterparts.

A Glossary of Mobile Advertising Lingo

If you are familiar with online advertising campaigns and campaign management, you are probably reasonably familiar with the lingo and specific language to describe different elements of an online or mobile advertising campaign. If not, a list of common online advertising lingo and acronyms is included below:

- **PPC**—Pay-per-click marketing, a business model in which advertisers are charged for their advertisement only when someone actually clicks on it. Ads are usually shown alongside search results in a search engine. This model is described in more detail later in this chapter.
- **CPM**—Cost per thousand (CPM), the amount that an advertiser pays per thousand impressions.
- **eCPM**—Effective cost per thousand (eCPM), how advertisers refer to the cost of getting 1,000 impressions.
- **Impression**—One instance in which an advertisement is shown online. The number of impressions can be used to evaluate the branding effect that an advertisement might have. It is important to note, however, that an impression is a measure of exposure, not engagement.
- **Click**—A statistic that describes how many time users actually clicked on an advertisement. This is a measure of engagement, not exposure.
- **CTR**—Click-through rate, a relative measure of engagement based on the number of clicks per impression. A high CTR is valuable because it indicates that viewers are finding your advertisement compelling. In other words, viewers are seeing your ads and clicking on them.

- **Conversion**—A visitor to your mobile content takes an action that you want him to take—whether it's buying your product, downloading your product, or signing up for information or services that you offer. When this happens, the visitor is said to have "converted."
- **Acquisition**—A visitor signs up for alerts or emails, or in some way indicates that he or she wants to receive messages from you in the future. Also known as customer acquisition.
- **CPC and CPA**—Cost per conversion and cost per acquisition. These ratios measure the number of conversions or customer acquisitions that you received as a result of the advertising campaign, compared to the amount that you spend to place an advertisement. These are important statistics for understanding how much you are spending on each conversion or acquisition. These statistics can be figured individually, for each conversion event, or can be aggregated, for all the possible conversions in the campaign.
- **ROI**—Return on investment. This is a measurement that is similar to CPC and CPA, but incorporates all the costs associated with running the advertising campaign, including any agency management fees, design fees, and the cost of the time your staff has spent managing the campaign. ROI is discussed later in this chapter.

Different Types of Mobile Advertising

Mobile advertising can take a lot of different forms, but it is usually consumed when viewers are on the mobile Web, are using mobile applications, or are playing mobile games. When an advertisement is clicked, you generally have the option of driving the click to your website, to a mobile specific landing page, or to a download page. The click might also place a call through the mobile phone. Essentially four types of mobile advertising models are used:

- **Mobile banners and display**—As with traditional banners, mobile banners are graphics placed on a Web page. After clicking one, the visitor is linked to a specific offer or full-page advertisement. Mobile banners are usually sold on a CPM (cost per thousand impressions) basis. Mobile site owners agree to show the advertisement on their sites in return for payment from the mobile ad network. Mobile display ads can also be included in games and downloadable mobile applications for additional targeted exposure. In the mobile market, a fair average CPM is between $25 and $75, but this varies widely based on the market in which you are working. See Figure 5.1.

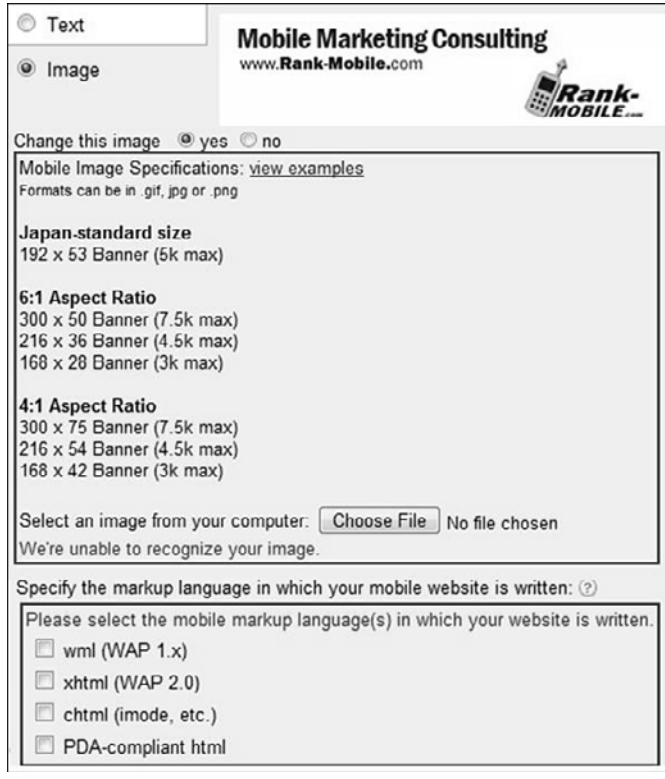

Figure 5.1 *Mobile banner ads.*

- **Mobile pay per click**—Similar to traditional pay-per-click advertising (PPC), mobile PPC ads are text and image advertisements offered by search engines and, usually served alongside organic mobile search results. PPC advertising is displayed when the ad is relevant to the searcher's query. Mobile PPC ads cost the advertiser money only when they are clicked. Advertisers choose a set of keywords that are relevant to searches for their products. Then text ads are served based on an advertiser's bid on a search query and the calculated relevance of the landing page to the search query. In addition to being targeted based on a user's search query, mobile PPC advertising can be targeted by location and carrier.
- **Contextual mobile ads**—Contextual mobile advertising is similar to mobile PPC. Advertisements are offered by the mobile search engine through a bidding model that combines the advertisers' willingness to

pay for position with the relevance of the ad to a search query. Contextual mobile ads can be in the form of text or images, and are displayed on a mobile website instead of in mobile search results. In this model, mobile site owners consent for relevant advertisements to be shown on their websites in return for a portion of the profits that the ad network receives from those particular ads. See Figure 5.2.

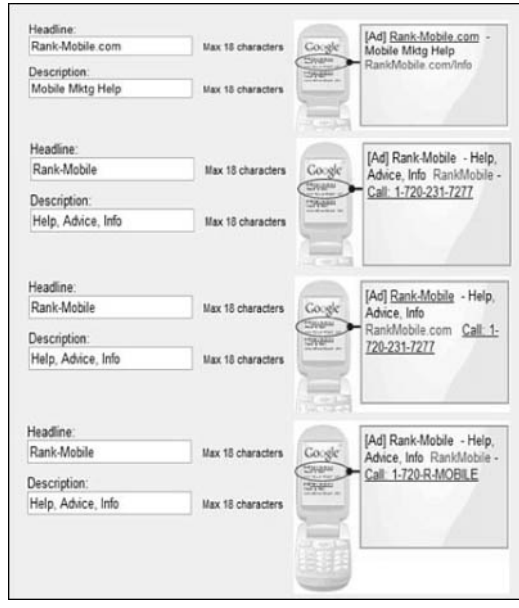

Figure 5.2 *Google AdWords mobile text ad options.*

- **Idle screen advertising**—Mobile advertisements are served while the user is waiting on a page or application to download or some other process to finish.

Although ads can be included on any mobile site, mobile advertisements are most commonly included on mobile news and information portals, social networks, and gaming sites. These types of companies invest heavily in the development of their mobile websites, whether they are news portals, social networks, or online game sites. They anticipate that their mobile websites will be generating high amounts of mobile traffic that they can monetize by selling advertising on the website. Frequently, these companies are giving away their mobile content for free, so their only way to make money is to sell advertising.

A BRIEF HISTORY OF MOBILE ADVERTISING

In the year 2000, D2 Communications, a Japanese mobile-marketing company, began delivering mobile banner ads, but most mobile advertising companies in the United States began delivering graphical banner ads only around the year 2005.

In the United States, mobile advertising was first pioneered by mobile carriers on their carrier decks, when they began offering text-based sponsorship on their portals. The ads were sold predominantly by carriers, were usually based on a CPM model, and were sold to companies and brands that had mobile-specific websites. Carriers did not push this type of marketing because they preferred long-standing content syndication agreements and didn't have the technology to deploy, target, and manage large-scale advertising networks.

Around the year 2000, third-party mobile advertising companies such as AdMob, JumpTap Millennial Media, Rhythm NewMedia, Third Screen Media, and Medio began creating ad networks that served mobile text and banner advertisements on third-party sites, in Europe and the United States. As phones became more sophisticated, the medium flipped from being mostly text based to mostly image based; now, in 2009, more than 97% of mobile ads are images.

On-Deck Versus Off-Deck Web Advertising

The experience between on- and off-deck Web access is becoming very similar, but on- and off-deck mobile Web access are still fundamentally different. As discussed in previous chapters, on-deck Web access is Web access that the carrier provides though a branded portal, sometimes called a WAP deck. Marguerite Reardon, a staff writer at CNET News, explains the unique business model for on-deck Web access quite well:

> Most mobile operators offer subscribers a menu or "deck" filled with the carriers' own content that has been supplied through deals they have made with news organizations, record labels, TV networks and other content producers. Carriers generate revenue by charging for subscriptions to packages or premium content. They also get a cut of revenue when users download content from their decks.

Off-deck Web access is access to the Web-at-large through a mobile browser that the carriers do not control. To be included on a carrier deck, you have to work with

a carrier or one of its agencies; to be included in the off-deck mobile Web, all you need is a website that a mobile browser can access.

Carrier decks are limited versions of the mobile Web that the carriers have created for their subscribers. In the on-deck world, each carrier has different advertising guidelines and brokers deals with individual content providers. The content or proceedings of these agreements are rarely made public. That being said, it is nearly impossible to summarize or even postulate what strategies would be most effective to become syndicated in the various carrier decks.

Even though studies show that more mobile Web traffic is moving off-deck, being listed well on a carrier deck can be an important way for mobile marketers to drive traffic to their mobile offerings. Nisheeth Mohan, product manager for mobile solutions and technology at Keynote Systems, wrote this in 2009:

> Nielsen Mobile did a study several years ago in which it reported that "mobile games promoted on a carrier's New, Featured or Best Seller decks saw 90 percent more downloads than when those same games were not promoted. Furthermore, titles that got top shelf placement on the first page of the carrier's deck achieved 53 percent more downloads than when those titles appeared on subsequent pages of the deck." The revenue impact to a content provider is huge.
>
> Note that in 2008, ring tone revenues were projected to be more than $500 million by BMI and mobile gaming was expected to hit $5.4 billion in 2008, according to Jupiter Research.
>
> Clearly, it is worth some time and effort to monitor your carrier deck placement. You also probably know that this isn't easy.
>
> Early knowledge of changes in placement in the deck— both of your content and that of your competitors—can help you with revenue projections, product planning and quality control strategies.
>
> Unfortunately, most monitoring strategies today are pretty rudimentary.
>
> Someone—and probably several people—in your company have to manually go through carrier decks on different phones to check your placement; the process is slow and tedious.
>
> I talked to one deck provider who related a company strategy of mandatory weekend sessions where employees sat with a variety of cell phones and a checklist to confirm their content positions.
>
> Worse, you can't just do it once. Ongoing vigilance is critical to make sure that you are on top of your visibility—and monitoring those games or ringtones that outrank you on a deck.

The methods for ranking products or advertisements in the carrier decks vary from carrier to carrier and have never been made particularly transparent. In some cases, it is mainly a function of the syndication agreement that was created with the content provider. In some other cases, it is based on popularity and social ranking systems, such as star ratings.

Content syndication agreements can also be confusing because, in some cases, content providers make deals directly with the handset manufacturers (instead of carriers) to ensure that their content is accessible to subscribers in all the networks where a particular phone is sold. As an example, Nokia created a service called Media Center on all of the N95 phones. The service included direct links to Sony, News Corp., and CNN for mobile video distribution. This agreement ensured that access to the Media Center was available on any N95 handset, regardless of what carrier sold it.

On-deck advertising has been successful in the past but has a limited life moving into the future, at least in the United States. Few people have deep access or understanding of how best to work with the multiple carriers. On-deck advertising is frequently a complex trial-and-error process that is laden with long negotiations and content exclusivity rights. In the long run, on-deck carrier solutions do not appear to be particularly scalable or desirable. As marketers, it is important to understand that the target demographic ford mobile marketingis alreadyfamiliar with traditional Web access. In the Long term, they will see little value in accessing a limited or filtered version of the Internet that is provided by the carrier deck. In the consumers mind, carriers simply don't have enough resources or expertise to re-create the Internet-at-large on their branded portals.

The content syndication and licensing that is crucial in the on-deck business model blurs the lines for mobile advertising. Some say that advertising includes only text and image ads that are delivered on a CMP or PPC basis; others argue that the syndication and licensing agreements are simply permits to promote or advertise branded content on the carrier deck. The rankings of on-deck mobile content can be seen as advertisings for your mobile products and services, in the same way that traditional search engine listings can be considered advertisements for Web products or services.

Frequently, carriers are reticent to work directly with advertisers because in many cases, it would require them to share statistics about their network that they would rather keep quiet. Generally, carriers and handset manufacturers do not create and maintain their own ad networks or technologies. Instead, they work with existing mobile ad networks EndPocket, AdMob, or ThirdScreen to leverage their ad-serving platforms and inventory. Nokia is the most notable exception, offering advertising through a company called Nokia Media network.

In mobile advertising, carriers have a unique advantage over third-party advertising partners because they can serve ads based on specific demographic information about their users, pulled directly from their customer database. As a response to this, in 2008, many of the third-party advertising partners began offering sophisticated analytics programs to track the success of advertisements on their networks and provide advertisers with as much information as possible about their advertising campaign. Carriers also can offer incentives for viewing advertisements on the mobile phone, such as free minutes or free downloads. Brands that want to do this have to work directly with the carriers.

When determining what ad network you want to work with and what carrier deck you want to show your ads, you should evaluate the traffic and demographic information associated with the carrier. The most recent Web traffic data can be accessed from mobile Web reporting agencies, such as ComScores' m:Metrics or Nielsen Mobile. Table 5.1 shows a 2009 mobile carrier report card for the top seven U.S. mobile carriers. Information such as the number of subscribers or the percent of revenue that data service represents for the carrier should also be available directly from the carriers themselves. However, third-party reporting services should always be used when they are available. Additionally, both carriers and ad-serving networks should be able to provide demographic information about their audience, including age, gender, income, and location.

Table 5.1 2009 Mobile Carrier Report Card

Carrier	Subscriber Base	Net Adds	Avg Monthly Churn	Service Revenue	Data as a % of Service Revenue	Avg Revenue Per User
Verizon Wireless	86.7 million	1.3 million	1.5%	$13.1 billion	27.9%	$50.74
AT&T	78.2 million	1.2 million	1.6%	$11.7 billion	27.2%	$50.11
Sprint Nextel	48.1 million	(261,000)	2.7%	$6.4 billion	28.0%	$53.52
T-Mobile USA	33.2 million	415,000	3.1%	$4.8 billion	19.5%	$48.29
US Cellular	6.2 million	47,000	1.9%	$982 million	16.0%	$52.54
MetroPCS	6.1 million	684,000	5.0%	$727 million	N/A	$40.40
Leap Wireless	4.3 million	493,000	3.3%	$514 million	N/A	$42.21

Data courtesy of Strategy Analytics, Inc.

With the popularity of the Apple AppStore, many American carriers, including T-Mobile and Verizon, have begun to rebrand their WAP decks as "app stores" in an attempt to drive more traffic and sales through their on-deck portals (see Table 5.2). For the most part, the rebranded carrier portals still follow the same

complicated content syndication systems, which still presents a huge barrier to development and entry into this market, but you can expect to see more similar moves from the carriers in the future. The success of the AppStore and the Android Marketplace can largely be credited to the accessibility that they presented for application developers to submit and promote their own applications.

Table 5.2 On- and Off-Deck Carriers for Top 7 U.S. Mobile Carriers

Carrier	Mobile Carrier Deck	On-Deck Mobile Ad Network	Native Off-Deck Search Engine
Verizon Wireless	Mobile Web Games and Apps Store	ThirdScreen Media	Google
AT&T (Except iPhone)	AT&T MEdia Net	Yahoo!	Yahoo! oneSearch
AT&T (Just iPhone)	The AppStore	N/A	Google
Sprint-Nextel	—	EndPocket	Google
T-Mobile USA	Web2Go (App Store) Web'n'walk (UK)	Yahoo!	Yahoo! oneSearch
US Cellular	—	JumpTap	JumpTap
Metro PCS	—	—	—
Leap Wireless	Cricket's Mobile Web Portal	—	—

Data courtesy of Strategy Analytics, Inc.

For more information about the difference between on- and off-deck mobile environments, please reference Chapter 2, "The Brief History of Mobile Marketing."

Combined On- and Off-Deck Solutions

The difficulty of working with carriers and advertising on carrier decks has driven many mobile advertisers off-deck, and unless the carriers' business models change, this trend is likely to continue. Just as the lines between on- and off-deck Web access have become blurred, so have the lines between off- and on-deck mobile advertising. In many cases now, mobile ad-serving networks provide access to audiences that are both on- and off-deck. This is especially true of the search engine ad networks, such as Google, Yahoo!, and JumpTap. The trend has also been pushed by ad networks that sell advertising within free downloadable applications; when viewing the ad, the subscriber is neither on-deck or off-deck.

The lines between on- and off-deck Web access are further blurring, as many carriers have opened up their carrier decks, sometimes referred to as a "walled garden" WAP decks to the rest of the Internet. Some carriers are working with top search engines to provide both on- and off-deck search for their subscribers; sometimes it is unclear whether subscribers are searching for or requesting on- or off-deck information. This confusion and obfuscation should be taken as an indication that the carriers do not have a clear plan regarding how their carrier decks and on-deck content will compete in the long-run.

Working with mobile ad aggregators is the best way to bridge the gap and get your advertisements seen both on- and off-deck. According to Deepa Karthikeyan, a data analyst at Wireless Data Services, the top aggregators in the United States in 2009 were AdMob, Google (AdSense), Yahoo! Mobile, ThirdScreen Media, and Amobee. (Ms. Karthikeyan's methodical research also contributed to some of the vendor descriptions at the end of this chapter.) Many of these mobile ad aggregators have networks that span both on- and off-deck, and allow advertisers to include the carrier as a targeting or segmenting feature on their platform.

Creating Effective Mobile Advertising Campaigns

There are four key elements to creating an effective mobile advertising campaign:

- the creative
- the landing page
- the targeting
- the evaluation of success

Mastering each of these tasks will ensure that you create a valuable campaign, and that you are able to learn from your successes and failures, in order to improve the performance of the campaign.

Authoring Effective Mobile Ads

Users first see the content, or "creative," for a mobile advertisement, which entices them to click through to visit your mobile website and download your mobile application or sign up for your mobile alerts. The creative can be text or display advertising, video, or animation. Regardless of the medium, the creative's only goal is to get people to click on the advertisement.

In mobile advertising, you have a limited amount of space in which to convey your marketing message. In addition, the ads are being displayed on very small screens,

so complicated graphics or calls to action could make ads less effective. Creative for mobile advertising should almost always be different than the content or creative for traditional Web advertising.

If you are authoring text for a text-only creative, it is a good idea to use common SMS and Web abbreviations, otherwise know as txt spk, to convey your message. This form of shorthand includes words such as DK for "don't know," Gr8 for "great," and <3 for "love," and will help you get across more in less space. Using txt spk could also make your target audience feel like your brand speaks their language, if they are part of a demographic that is highly fluent in text spk. A more complete list of these abbreviations is included in the back of this book.

If you are building banners or other mobile display advertisements, it is important to focus the graphic on your call to action. Mobile advertising is still new enough that many viewers could be easily confused by seeing a brand message from a company when they are on a different brand's website, so clarity is key to generating a good click-through rate (CTR).

Constructing Effective Mobile Landing Pages

After you have crafted the appropriate message, you need to determine where the ad will link to on your website. If you are doing a basic branding campaign, you can send users directly to the home page of your site. If you are promoting a specific product, service, or application, the click should take the user directly to the page where they can purchase or interact with the offer.

In some cases, it may be advantageous to create separate landing pages for your ads instead of simply landing the visitors on existing pages on your site. This allows you to tailor the message specifically to the ad that the user was interested in. Your landing page should further promote the offer and explain how it can be redeemed. Landing pages should also be linked back to your mobile site so users can become more familiar with your mobile content after they take advantage of the offer.

Tests should be run before and after a campaign launches to ensure that the ads are being displayed correctly and tracked appropriately. It is also important to test your landing pages. As with testing a mobile website, it can be quite complicated to ensure that your advertisement will work perfectly on every browser, handset, and carrier combination. Tools are available to help you do this; Chapter 10, "Mobile Website Development," covers them more completely. If you determine that your ads or landing pages are not rendering well on a certain handset or across a certain carrier network, you can usually use ad network tools to block the ads from being shown in those places until the landing pages or downloads have been fixed.

Effectively Targeting Your Mobile Advertising Campaigns

The most important thing you can do to ensure the success of your mobile advertising campaign is to target your ads appropriately. Mobile advertisements should be as relevant, clear, and actionable as possible. Most ad-serving platforms offer a number of ways to target advertisements, to prevent your ad from being shown on sites or to users that will not likely click through or convert. It is up to you to test and determine the most powerful combination of the following criteria for your brand and your advertisement: demographic segmentation, time segmentation, handset groups, carrier groups, and location segmentation.

Demographic Segmentation

Almost every ad platform allows you to segment your mobile advertising based on demographic factors such as age, gender, and income level. The segmentation works based on the information that the ad network has about the website, application, or game that will be running the advertisement. If you use a platform to target women, your ad will appear on websites that also target women. If you use a platform to target a lower-income demographic, the ad network will put your ad on websites that target lower-income buyers. If you are working directly with carriers or advertising on a mobile social network, it is easier to get specific demographic data because targeting is done based on information that members of the social network supplied voluntarily or from information about members that the carrier requires.

Time Segmentation (Day Parting)

Segmenting your advertisements by time of day, otherwise known as day parting, can be especially powerful for mobile advertising. Some ads and products will be more effective at driving clicks and conversion at specific times of day. In a CPM model, it is particularly important to show ads when they are most relevant to the viewer. This is important because, unlike PPC, in a CPM model, you pay for the ad impression, even if it does not successfully generate any click-through.

Day parting can be especially valuable in mobile advertising campaigns for brick-and-mortar stores. A mobile marketing message for a brick-and-mortar store is intrinsically more actionable because it is being displayed on a portable device. Adding a temporal awareness gets the message even closer to the real-time, as-needed marketing messages that we strive for in mobile marketing. For example, advertisements promoting a lunch special should run when people are planning their lunch, but should not run all day or into the night. Similarly, if you are promoting a TV show or movie that will be on at night, it is best to day-part ads to show during the evening commute, when people are planning their evening.

If you are promoting mobile content or entertainment, day parting is less crucial but can still be valuable. Use your Web analytics to determine when your website is getting the most traffic; then segment your advertising campaigns based on that information. It might be acceptable to keep some ads running around the clock, but focus most the impressions you are getting on the times that your website appears to be most relevant to existing users.

Handset Groups

In some cases, your mobile offering, your advertisement, or your landing page will be built to work on a specific cell phone or mobile handset. This is particularly common if you are working directly on a carrier deck, or if you are promoting a mobile game or application that has been built for a carrier-specific platform. In some mobile ad platforms, you will be able to target specific handset models, such as the BlackBerry Curve 8350i. In other cases, you will be able to segment your targeting only by handset groups, such as all BlackBerry or all Razr handsets.

Carrier Groups

In other cases, you might want to segment your advertising campaign by carrier. This happens naturally if you are advertising on a carrier deck, but it can also be valuable for off-deck mobile advertising. If you are a mobile telecom company trying to get people to switch carriers, you would want to send one message to people who are accessing the mobile Web from other carrier networks, and another message for customers who are already on your network, to encourage them to add new products and services to their plan.

Location Segmentation

Some ad networks also allow you to segment your ads based on the location of the recipient. Most ad networks cannot actually detect a person's location, so they have to be more creative to provide location-based ad targeting. In most cases, when you select to segment your ad serving by location, the ad networks simply set it up to show on websites that are targeted at a specific location. For instance, if you are targeting customers in Chicago, the ad will show on a page that is explicitly about Chicago-based events, locations or activities. In other cases, if you are working with a carrier or a mobile social network, you can get more information about Web visitors and where they live, but you still will probably not be able to tell specifically where they are at any given time.

Evaluating Success

If your mobile advertising is for brand awareness only, your success can be evaluated by the total number of impressions and the click-through rate of your ads. If you want users to take an action or make a purchase while on your mobile site, success should be measured in terms of return on investment (ROI).

ROI = (Gain from Investment – Cost of Investment)/Cost of Investment

ROI is the success metric for mobile advertising because it allows advertisers to determine whether each dollar spent on advertising earns more than a dollar back in value or return. The best ROI is driven by a combination of effective targeting, messaging, and landing pages. In many cases, it is a good idea to set up a test budget so that you can try various types of messaging, creative, and targeting to see what is most effective for your campaign.

Often your call to action for mobile users receiving your advertising is to sign up for news and updates or to download an app instead to make a purchase. To determine the ROI for these types of initiatives, each action that you want users to take from their mobile phone should be assigned a monetary value. In most cases, users can take more than one desirable action on your mobile site, so each of these actions should be given a different value. These values should represent the financial reward that each action provides.

If you are having a hard time determining the relative value of each conversion, you can start by ordering the conversion from most valuable to least valuable. Then determine whether there are multipliers between the different levels of conversion. For example, is conversion #1 three times more valuable than conversion #3, or is it ten times more valuable than conversion #3? After you set up these relationships, you need only determine the actual monetary value of one conversion to assign the values to the rest of the conversions.

Many elements of mobile marketing can be very subjective, but ROI gives everyone in your group a clear idea of how the campaign is performing. When you begin a mobile advertising initiative, it is a good idea to set ROI goals that you and your marketing team can work toward, and make them widely known to everyone on the project. If you are launching your first mobile advertising campaign, it is fine to set the ROI goals low, or even at a break-even level, because you are still learning the medium. After you have launched a couple mobile advertising initiatives, you should begin to set the ROI goals a bit higher, to ensure that your campaigns are constantly improving and that your team is actively engaged in the success of your ad campaign.

Case Studies

The following case studies illustrate successful and creative use of mobile advertising campaigns. You will see that each of the examples features compelling advertising creative and landing pages that are combined with a good understanding of their target market and desired conversion goals.

Land Rover

To reach an affluent male demographic between ages 34 and 54, Land Rover launched a mobile advertising campaign to promote the Range Rover Sport, Land Rover LR2, and Land Rover LR3 (see Figure 5.3). They wanted to create awareness and excitement about these SUVs, to ensure that men in the target demographic considered them when researching their next car purchase. Land Rover worked with AdMob to run targeted text and image ads on premium mobile sites such as CBS and AccWeather. They targeted the ads based on gender and age. Land Rover also decided to send ads only to the most sophisticated smart phones, assuming that this would ensure they were hitting the right income bracket. Those mobile ads took consumers to a mobile site where users could look up dealers and click to call the dealer of their choice. Consumers also could watch videos, view images, download wallpapers, or submit their email address to be mailed a digital brochure.

AdMob was able to drive 73% of traffic to Land Rover's mobile site. In this campaign, Land Rover had 45,000 views of their video, 128,000 views of their image gallery, 7,400 wallpaper downloads, 5,000 dealer look-ups, 1,100 click-to-calls, and 800 brochure requests.

AirAsia

To take advantage of the mass penetration of mobile Web access in Asia, and to increase awareness of their brand and their promotions, AirAsia launched a campaign with Yahoo! Mobile. In a short period of time, their mobile advertising campaign achieved a high click-through rate and drove a considerable amount of traffic to the AirAsia mobile site. In one month, the click-through rate from mobile advertising was 1.78%, and the average cost per conversion was only 56¢.

Adidas

In an attempt to extend its "Basketball Is a Brotherhood" campaign, Adidas worked with AdMob to create an integrated mobile campaign that leveraged AdMob's ad-serving network. In it, graphical ads were deployed to encourage viewers to click on

the ad to call Kevin Garnett, a prominent basketball player that was featured in their TV ads. When viewers clicked to call, they could receive a custom voicemail message from Kevin Garnett, view mobile videos, or see images of top players' shoes. The campaign was well received, and a high percentage of users clicked to call more than once. The mobile advertising campaign drove sign-ups more efficiently than the TV, traditional Web advertising, and even in-store efforts.

Figure 5.3 *A Land Rover mobile advertising campaign. Photos courtesy of AdMob.*

Visa

During the Olympic games in 2008 in Beijing, Visa participated by sponsoring coverage of the games on Yahoo!'s website. They also launched mobile banners on the Yahoo! Mobile network to drive traffic to their mobile website. Once on Visa's mobile site, viewers could learn more about the Olympic athletes, read news stories and expert analysis, view images, and see the TX broadcast schedule for the games. The campaign received an above-average mobile click-through rate.

Mobile Advertising Networks

The following is a list of mobile advertising networks. The services, policies, and so on are different for each, so check them out thoroughly before making a choice for your business.

- AdMob—www.adMob.com
- BuzzCity—www.BuzzCity.com
- Itsmy.biz—www.itsMy.biz
- Third Screen Media—www.ThirdScreenMedia.com
- ZestADZ—www.zestadz.com
- 4th Screen Advertising—www.4th-screen.com
- AditOn—www.aditon.com
- Amobee—www.amobee.com
- Celltick—www.celltick.com
- Digital SIDEBAR—www.digitalsidebar.com
- Frog2Frog—www.frog2frog.com
- Ad Infuse—www.adinfuse.com
- Admoda—www.adModa.com
- Decktrade—www.deckTrade.com
- Google AdSense and AdWords—www.adWords.Google.com and www.adSense.Google.com
- Medio MobileNow—www.Medio.com
- Mojiva—www.Mojiva.com
- JumpTap—www.JumpTap.com
- Yahoo! Mobile—www.SearchMarketing.Yahoo.com
- Add2Phone—www.add2phone.com
- GoldSpot Media—www.goldspotmedia.com
- Microsoft Mobile Advertising—http://advertising.microsoft.com/uk/Mobile
- Utarget.FOX—www.utarget.co.uk
- Unanimis—www.unanimis.co.uk

6

Mobile Promotions and Location-Based Marketing

One of the best opportunities in mobile marketing is the capability to build brand awareness and goodwill with your target market. Mobile promotions help customers feel appreciated and, thus, feel more loyal to your brand. With the appropriate customer-tracking systems, loyalty programs can be layered in to create an even closer connection between your customers and your brand. This kind of deep connection can help drive sales, but it will also help create brand evangelists who will endorse your brand to all their friends, which is quite powerful. Mobile promotion is also an ingenious way for companies to reach out to their customers and create a mobile presence without creating and maintaining a mobile website.

The most common mobile promotions begin with SMS, MMS, and proximity marketing messages. These can be followed by coupons, discounts, or promotions that are sent directly to the customers' mobile phones. The coupons or discounts can then be redeemed in a variety of ways. After customers have opted in to your mobile communication, loyalty programs can be developed to optimize your customer interaction at the most granular and personal level. This chapter focuses on using SMS, MMS, and location-based marketing to build a list of potential customers who are interested in receiving marketing messages from you. It then details how to drive sales with mobile coupons and promotions, and finally, how to leverage loyalty programs to create a custom communication strategy to reach your most loyal customers.

Introduction to Mobile Promotions

A 2008 study by Jupiter Research estimated that retailers send out nearly three billion mobile coupons per year worldwide. Mobile couponing, or mCoupons, have yet to be widely adopted in the United States, but they have seen much more success in Europe and Asia. In the United States, problems with delivery and redemption are still being worked out. Despite the complications, mobile couponing is a great way to drive foot traffic to brick-and-mortar stores.

The goal of mCoupons is basically the same as that of traditional coupons: They should drive revenue by encouraging higher volume and repeat sales. They can also help increase product awareness and move overstocked inventory to make room for new, more valuable products. Mobile couponing can be much more tailored to the needs of the specific consumer and less costly than traditional print coupons. For the user, they are also nice because mobile coupons don't have to be clipped and carried around to be redeemed.

The most important consideration when you are developing mobile couponing strategy is the ease of use for the consumers. If the process for sign-up, delivery, and redemption of a coupon is too complicated or time consuming, users will not

participate. To develop an effective mobile couponing strategy you must understand the three elements of mobile couponing: coupon messaging, coupon targeting, and coupon delivery and redemption.

What Products Are Right for Mobile Couponing?

Before you get started with mobile couponing, you must assess your goals and expectations. Some products and services are more appropriate for mobile promotions than others. Mobile promotions provided by retailers are much more intuitive than promotions provided by manufacturers. This is because when you are working with a specific retailer, you can ensure that they will have the necessary equipment and training to redeem mobile coupons or discounts at their counters. Because coupons offered by manufacturers can be redeemed at any location that sells the product (for instance a 50¢ off coupon for Velveeta Cheese), there is no way of ensuring a problem-free redemption of the coupon.

Some companies have tried to surmount this obstacle, but their efforts have seen varying success. CellFire, Hothand Wireless, and SingleTouch Interactive have three different models whereby participants can interact with a database of manufacturer coupons (online or through a downloadable application), to choose the manufacturer coupons that they would like from their mobile phone. After coupons are selected, the information is sent to their loyalty account, and redemption happens automatically when the user scans his or her loyalty card at the register.

Mobile coupons from retailers are much simpler. Besides knowing that the retailer will be able to redeem the coupon, there is a lower likelihood that your customers will have more than one or two coupons to redeem during any one transaction. This makes the redemption of the coupon a simpler process and, thus, more rewarding for the consumer and the retailer.

Mobile Coupon Messaging

The most effective and easily redeemable mobile coupons are sent via SMS or MMS. Although it is not yet required by law, the Mobile Marketing Association stringently suggests that users must opt-in to this kind of marketing because their carrier may charge them for the receipt of your text or picture message. This charge must be taken into account when you are crafting your messaging, because the offer must provide enough value to justify the charge to their bill. In the case of text messages, the charge can be around 10¢–15¢ but for picture or multimedia messages (MMS), the charge can be as high as 50¢.

Most mobile coupons are sent via text message, which creates a number of constraints for the marketer. You have only 160 characters (or 70 non-Latin characters), including spaces, to convey your message. Coupons should always provide a clear offer and expiration date. Simple offers with quick expiration periods will promote a faster response, but longer expiration periods will provide a better rate of redemption. Ideally, you should also provide a mechanism for recipients to opt out of future coupons and messages from your company.

Mobile Coupon Targeting

One of the first challenges with mobile couponing in the United States is that there is no consensus regarding the best way to encourage potential customers to opt-in to your marketing messages, thereby ensuring that you are marketing to a targeted list of recipients. Many of the options are still too complicated or intrusive, but there is a clear incentive for companies to find the right balance, and that will probably happen soon. In general, companies can use numerous methods to encourage potential customers to opt-in to your mobile communications and mobile coupons, and a combination of all the methods is usually desirable.

- **Text message opt-in**—The consumer initiates the opt-in process by texting a keyword to a short code after being presented with the option through some other form of marketing.
- **Invitation opt-in**—If you already have a database of customer phone numbers, it is generally acceptable to send them one message, requesting that they opt-in to your mobile couponing program. This message should include your company name and instructions for responding to the text message to opt-in. If recipients do not explicitly opt-in they should not be sent further marketing messages. If they do opt-in, a follow-up message should be sent with an initial coupon thanking them for signing up. You should also be sure to include information about how they should respond if they want to stop receiving text communications, as well as a link to view your terms and conditions.
- **Online opt-ins**—With this method of targeting, people interested in your product or services simply sign up to receive your mobile marketing messages and coupons through your website. They submit their phone number, and then messages and coupons can be sent to them directly from your database. This is just like sending coupons by email, except that the coupons are sent to the user's phone via SMS or MMS. The best practice is to send a text message immediately after the online form has been submitted, thanking users for signing up, verifying that you have permission to send coupons, and including other marketing

messages via text messages. If users are signing up for both email and text messages, you will need to send an email confirmation, to complete the opt-in for the email program, and a text message confirmation, to complete the opt-in for the text message program.

- **Point of sale opt-in**—Billboards and displays in stores can be used to encourage users to opt-in to a mobile couponing program. These messages usually have instructions that tell the shopper to text-message a specific word to a short code that is provided on the signage. Alternately, retailers can collect mobile phone numbers through a specialized device at the purchase counter, or a clerk can input them directly into the company's system at the register.
- **Phone call opt-in**—A quick and frequently overlooked method of building a targeted list of mobile coupon recipients is to integrate the opt-in process with your phone system. When potential customers call in and are put on hold, you can include a message that encourages them to opt-in to your mobile couponing program while they are on hold, simply by pushing a button on their phone. Although this works only if the caller is calling from a cellphone, it is quite easy to implement because the phone system can automatically detect the caller's mobile phone number and store it to a database. The hold message would simply say something like, "Press 1 to get mobile coupons sent directly to your cellphone." Again, the first message sent to the phone number should be a coupon thanking customers for opting in and giving instructions about how to opt out if they want to stop receiving the messages.
- **Email opt-in**—If you are doing email marketing, you should also include information about your mobile couponing program in each of the emails that you send, encouraging the recipients either to go to the website to opt-in (include a link to the opt-in page) or to opt-in via text message immediately.
- **Microblogging opt-in**—Microblogging platforms such as Twitter and Pounce are another way to send mobile coupons and promotions to your clients with minimal overhead or complications. Brands can simply create accounts with the microblogging platform of their choice (Twitter is the most popular in the United States). Users can then opt-in to messages from your company by "following" your brand on the platform. Short messages are then broadcast via the platform to all your followers, and they have opted in to your mobile marketing messages via their default agreement with the microblogging platform.

Users can opt-in to receiving your messages via the Web or directly to their mobile phones as text messages. After a brand account has been set up, you can build your list of followers by searching for people who are interested in your product or service. When you friend someone on these networks, many follow you in turn. Automated responses can also be set up using programs such as Twitter-Hawk, and they can be tied to the use of specific key phrases or specific actions taken on the platform. It is advisable to include a personal appeal to your messaging instead of simply relying on automated responses or only including marketing messages in your Twitter feed.

Mobile Coupon Delivery

Mobile coupons can be sent using a variety of technologies. The most common method of mobile coupon delivery is through SMS or MMS based on a list of contracts you already have. Mobile coupons can also be delivered via location-based technology, described in more detail later in the chapter. Regardless of the method of delivery, any mobile couponing delivery should be directed through a database or preference center that identifies potential customers and whether they have opted in to mobile communication. This is also discussed later in this chapter.

Coupon Delivery via Text Messaging (SMS)

In 1991, a Finish company called Radiolinja (now known as Elisa) offered the first mobile data service; the first text message was sent in 1993. Text messaging, otherwise known as Short Message Service (SMS), wasn't used much for marketing in North America until after 2000.

SMS messages can be sent from phone to phone or from computer to phone, or they can be sent from a phone to a "common short code," usually abbreviated to simply "short code." See Figure 6.1 and 6.2. A short code is a five- or six-digit phone number that can be dialed as a destination for a text message. Text messages are then sent to a computer communication system instead of a phone. Short codes can be shared or owned privately by a company.

If a short code is shared, certain keywords are set up to trigger the parsing activity of the computer system for the short code. The computer communication system that controls the short code is tasked with sending and parsing all the information for the short code. Shared short codes are easy and cheap to get, but can be risky or complicated depending on the types of text responses you expect to get, and how well the computer system is able to parse them.

Figure 6.1 *Short codes, such as the one shown here, are becoming more common in mobile marketing.*

Figure 6.2 *Another example of a short code used in advertising.*

Dedicated short codes are ideal, especially for big bands, because they allow you to control the branding and capture all the information that is sent to the short code. The disadvantage is that they can be expensive, and the process to acquire them can be time consuming and cumbersome. Common short codes are generally registered or leased, for a period of time, much like a domain name. The body that controls common short codes in the United States is called the CSC Registry and they have a website at www.USShortcodes.com. Once a short code is leased, you must send applications to each of the carriers in the region that your text messaging campaigns targeted, so that your campaign can be reviewed, provisioned and approved by the carrier. Your application must also pass review from the CTIA Monitoring Agent, who evaluates the campaigns adherence to the Consumer Best Practices.

Initially, SMS was used as a way for carriers to communicate with their subscribers. Later, SMS began to take off as a means of person-to-person communication. It offered a significant cost savings over traditional voice calling and allowed recipients to view and respond to the text message at their discretion. In North America, the first cross-carrier SMS marketing campaign was run by Labatt Brewing Company in 2002. Now, in 2009, it is estimated that more than 74% of mobile subscribers are active users of SMS, and more than 90% of the mobile marketing revenue comes from SMS messaging.

Coupon Delivery via Picture Messaging (MMS)

The late 1990s also saw the development of picture messaging, otherwise known as Multimedia Message Service (MMS). MMS is an extension of the SMS messaging standard but uses the WAP coding language to display multimedia content. Picture messages are sent in much the same way as text messages, but they can contain images, timed slideshows, audio, video, and text. The first group to launch an MMS campaign was a carrier out of Europe called Telenor, in 2002.

Picture message marketing has not been widely adopted in North America, partly because mobile carriers charge for both sending and receiving picture messages. The cost is usually 5 to 10 times higher than it would be for a text message, which creates a substantial disincentive for people to remain opted in to that kind of messaging.

The lack of mass adoption of this type of marketing could also be because no sufficient platform can efficiently send bulk MMS messages. Complications caused by discrepancies in the different networks' MMS messaging standards, and different phone-rendering capabilities make deploying a successful picture messaging campaign time-consuming and difficult.

As with email, concerns arise about unwanted SMS and MMS marketing, otherwise known as spam. This is more prolific in countries where carriers are allowed to sell

the phone numbers of their subscribers to third-party advertisers. Many mobile carriers in the United States and Europe now police their own networks, to prevent SMS and MMS SPAM from reaching their subscribers. In December 2005, the Mobile Marketing Association (MMA) outlined Consumer Best Practices Guidelines, which included instructions for SMS marketers. This document is updated twice a year, and is considered the best set of guidelines available in the United States. Be sure to review these guidelines before launching any SMS or MMS marketing campaign. You can find the guidelines here: http://mmaglobal.com/bestpractices.pdf

Mobile spam is covered in more depth in Chapter 13, "Mobile Marketing Privacy, Spam, and Viruses."

Location-Based Couponing

Mobile coupons can also be delivered directly to your device when you respond to a location-based prompt that is part of a Bluetooth or WiFi broadcast, or is embedded in a billboard or display as a QR code or infrared beam. LBS is discussed later in this chapter.

Mobile Coupon Redemption

Mobile coupon redemption is another aspect of mobile couponing for which there has yet to be a consensus. The two basic methods of mobile coupon redemption are through the use of alphanumeric redemption codes and barcode scanners.

- **Alphanumeric codes**—Redemption codes can be used for both manufacturer and retailer coupons. In this scenario, a redemption code is sent to potential customers via SMS. The message should include information about the coupon and when it expires. When the recipient goes to redeem the coupon, he simply gives the code to the clerk at the register. If your company has an online presence, the recipient should also be able to redeem the coupon when shopping online. The difficulty with this method of redemption is mostly seen if manufacturers have not worked directly with their retailers to ensure consumers' ability to redeem the coupon at their registers.
- **Barcode scanners**—In Asia, many retailers are equipped with scanners that can read barcodes, known as QR codes, directly from a mobile handset. These are not prevalent in the United States, but that may change as mobile marketing becomes a more powerful force in the industry (see Figure 6.3). In this scenario, coupons are sent as a text message, with a link to the mobile coupon and barcode that can be

scanned at the register. Alternately, coupons can be sent as an MMS message that includes the barcode directly in the message.

If you are a retailer and you can ensure that all your retail locations have the equipment required to scan barcodes off phones, then this can be a good strategy. However, if you are a manufacturer, ensuring quick redemption of these coupons becomes more difficult. Mobile marketers who are launching campaigns in a region where mobile barcode scanners are not ubiquitous should include an alphanumeric code with the barcode message, to ensure that recipients will be able to redeem the coupon.

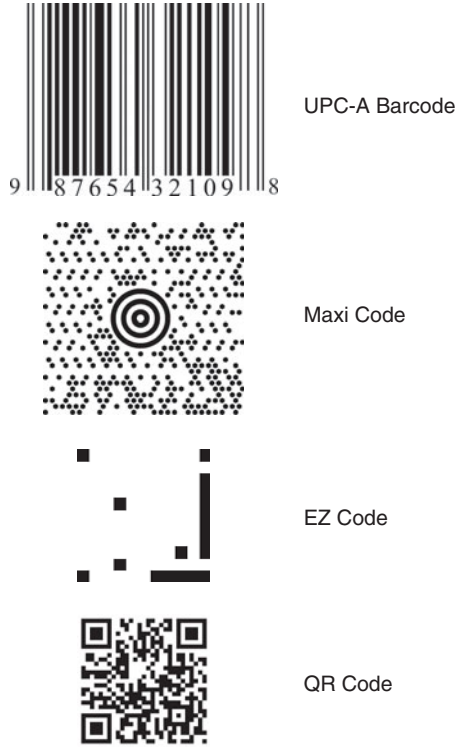

Figure 6.3 *QR codes are more common outside the United States, but that could change soon. Photos courtesy of Maly LOLek, Darko, Ajenbo and Brdall, via Wikimedia Creative Commons License 3.0, a freely licensed media repository and Share Alike 2.0, also a Wikipedia freely licensed media repository.*

In either redemption scenario, you can choose to send the same message to everyone or you can choose to segment your message to learn more about your customers. In some cases, you might want to run an A/B test to see what offers

recipients find more compelling. To do that, you write two different promotional messages that are each linked to different redemption codes. When coupons are redeemed, you can quickly and easily see which marketing message was more compelling and then use that information to guide future marketing messages.

If you have a loyalty program in place, you can also use information from your loyalty program to send the same message to different types of customers. The catch is that messages sent to different customer types contain different redemption codes. This allows you to track the individual segment's response to the same marketing message. If you segment your customers based on their average annual spending, gender, or zip code, and give each group a different redemption code, you can learn which groups are more responsive to your marketing message.

You can also segment messages to determine which method of delivery is most effective for your customer base by sending one group an alphanumeric promotion code and the other a link to a mobile Web coupon or a scannable bar code.

Digital Proximity and Location-Based Marketing

Obviously, one of the most valuable aspects of mobile marketing is that the phone is with its owner all the time. Many brick-and-mortar stores may have had a hard time using the traditional Internet to drive foot traffic, but location-based marketing turns the tables and gives them an incredible opportunity to get people into stores (evaluated in the industry as cost per pair of feet, or CPPoF). Mobile promotions reach potential customers when they are most likely to make a purchase. Location-based services (LBS, sometimes also called near LBS, or NLBS) are digital systems that broadcast digital messages to enabled devices within a specific radius or proximity. According to Robert McCourtney, from Metamend, the following advantages can be seen from location and proximity marketing (paraphrased here):

- **A captured target**—The consumer is already in or near your place of business. A customer is much more likely to come through your door if a competitor's store is a 20-minute drive away but your store happens to be right around the corner from where they are standing (and you have what they are looking for).
- **Increased impulse buying**—Real-time delivery of advertising can prompt benefits of immediate response—for example, "Come in within the next 30 minutes and receive 20% off your meal."
- **Development of one-to-one relationship marketing**—Consumer purchasing history can be examined, thereby enhancing future marketing messages.

- **Direct marketing spending effectiveness**—True targeting of promotional materials, meaning materials are delivered electronically and on demand, as required. There's no hard copy waste or excess printing inventory.
- **Psychological nurturing**—The consumer feels like a somebody, building brand recognition and loyalty.
- **Increased return on investment (ROI)**—Repeat or additional consumer purchases during a visit. Time-based incentives or promotions can be sent to increase the total value of the sale.

Proximity and Location-Based Marketing Technology

For retailers, marketers, and independent advertisers, proximity and location-based marketing efforts generally leverage one of five technologies described in detail in upcoming sections of this chapter—Bluetooth, WiFi, infrared (IR), near field communication (NFC), and ultra-wide band signals (UWB).

Note

Location-based marketing can also be done in coordination with carriers. Mobile phone carriers can determine where their subscribers are based on GPS data from the phone, or based on the triangulation of radio signals sent to and from the phone. In this model, advertisers work directly with the carrier to determine what locations they want to target with location-based messages. The carrier then works with the advertiser to determine pricing, the duration of the campaign, and what the message will say. These types of campaigns generally use text or picture messaging, because the carrier has the ability to send their subscribers text messages, without the cost of the text message appearing on their subscribers' bills, which is very important to the subscribers.

Bluetooth

Bluetooth technology uses radio bands to transmit signals to Bluetooth-enabled devices, including mobile phones, handheld computers, and laptops. With this technology, a small server can be placed in any location and set to send out coupons, barcodes, applications, vCards, vCal, video, MP3, MP4, and text messages (also known as BlueCasting). It generally works in a circular 100m radius, but like all signals, it can be hindered by thick concrete walls or other obstacles. Bluetooth marketing is generally used to simultaneously target shoppers in a retail location, as well as passersby outside the retail location (see Figure 6.4).

Figure 6.4 *Small Bluetooth beacons can be placed just about anywhere—signs, posters, or kiosks, for example—and can broadcast coupons, barcodes, and more.*

Bluetooth broadcasting systems can also be set up in posters or worn by promoters, to encourage passersby to enable their Bluetooth devices and download promotional information about a product or event. Some brands are even placing Bluetooth broadcasting systems in bars and clubs, and even at the beach or at music festivals to engage the local audience with mobile media and promotions. When the server is set up, it can be programmed either to broadcast the same message throughout the day or to broadcast different messages at different times of day.

All Bluetooth devices have specific numbers associated with them that never change. When a Bluetooth-enabled handset enters the range of the server, the server captures that number and information about the handset. It then queries a database to ascertain what, if any, communications have been sent to that device previously. The server then sends back content that has been optimized for that particular handset or particular user. Specific protocols and dependencies can be programmed into the system to determine what communication should be sent, and different messages can automatically be sent based on those dependencies.

The European chapter of the Mobile Marketing Association (MMA) has set a list of Bluetooth marketing guidelines for the United States and Europe. These focus mostly on the opt-in process and how to ensure user privacy. The full set of guidelines is available here: http://bloo2.bluetooth-zone.info/files/Proximity-Marketing-Guidelines-V1.0_082808.pdf.

WiFi

WiFi technology basically broadcasts and receives a short-range radio signal to provide Internet access for Web-and WiFi-enabled devices. Companies can use WiFi marketing in a couple different ways to create brand awareness.

You can broadcast a signal to send a message to potential customers in a particular radius, as described earlier with Bluetooth marketing. You can also take a more passive approach and send marketing messages over the WiFi signal while your potential customers access the Internet on their mobile phones or laptops. The simplest of these methods involves including marketing messages in the name of your WiFi network so that when potential customers select your network from the list of available networks, they see your marketing message. This is especially valuable if you suspect that customers are coming to your establishment to take advantage of the WiFi but are not purchasing items or driving any revenue for your company.

CoffeeCompany, a Holland-based chain of coffee shops, used WiFi router names such as OrderAnotherCoffeeAlready, BuyAnotherCupYouCheapskate, BuyaLargeLatteGetBrownieForFree, or TodaysSpecialEspresso1.60Euro. Although they have not yet reported any statistics, they believe that it was a good way to ensure that patrons understood that the WiFi was really not free, and they were expected to buy something.

Another way to use WiFi for your marketing efforts is to create a sponsored WiFi system in which people who login are presented with an advertisement that they must watch before they are given full access to the Internet. The WiFi network operator can also set time limits on the use of the WiFi so that people who use the Internet are prompted to watch another advertisement after they have been online for a certain amount of time. This type of marketing is commonly used in airports and business parks, which have a captive audience of people who want to access the Web.

Radio Frequency Identification (RFID)

RFID technology allows items to be "tagged" to or tracked using radio waves. The tags are very small and require no batteries, so they are frequently used for product tracking and asset management. RFID chips can also be used to store and send information from static displays or posters to phones that are capable of reading an RFID signal. For marketing purposes, RFID is usually used with devices that send a radio frequency to the chip, activating it so that it may pass a message, much like in a Bluetooth transmission. The message can be a URL, phone number, email address or a promotion code.

Near Field Communication (NFC)

Near field communication relies on high-frequency messages to be sent and received from two enabled devices, each sending its own signal. Near field–enabled devices can be used like smart cards that are waved over a reader, but in a marketing scenario, the mobile device is waved over a poster or other off-line marketing

material. This type of smart card technology is already widely used in cards that allow people to access locked buildings or garages, in many public transportation systems, and as a form of payment at some stores.

The main way mobile marketers are using this technology is by embedding chips into billboards and displays (see Figure 6.5). The range of NFC is much shorter than Bluetooth, reaching only about an inch and a half, so the person receiving the marketing message must swipe their phone over the sending technology to receive the message. NFC is already being used widely in Japan, where users can pay for goods by swiping their phones over a receiver at a register. Many anticipate that this technology will be widely used for mobile ticketing, mobile payment, personal identification and even used to turn a mobile phone into a building or garage access key.

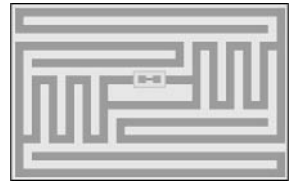

Figure 6.5 *An RFID tag used at Walmart. Image under the terms of the GNU Free Documentation License, Version 1.2.*

Ultra-Wide Band (UWB)

Ultra-wide band communication uses a large portion of the radio spectrum to transmit broadband communication at a short range, requiring very little radio energy. Ultra-wide band transmissions can share a variety of different narrow band radio signals without interfering with those transmissions. Its uses are very similar to those of Bluetooth technology, but it is less widely adopted.

InfraRed (IR)

Infrared is one of the oldest and most limited forms of broadcasting mobile messages. It was tested in the early 1990s but has limited range, reaching only about a foot from the broadcasting beacon. Some laptops and phones are equipped with infrared technology, but it has not been universally adopted by handset manufacturers. These limitations make infrared less desirable than other more universally accepted technologies available.

Creating Mobile Loyalty Programs

Whenever a potential customer interacts with your company via cellphone, you can track those interactions. To do a really great job with mobile promotion, it is vital to create a robust back-end preference center that can be tied to a loyalty program.

Mobile couponing can help you gain a lot of insight about your customers' preferences, and those preferences should drive future messaging. You can track which promotions are most effective at driving purchases from each of your customers, but you can also track what kind of phone they are using, what method of delivery they prefer, where they are redeeming the coupons, and how long they waited before redeeming the coupon.

With a robust preference center and loyalty program, you can ascertain which coupons drove sales for that customer and which ones did not. Then you can begin to replace coupons that have never driven sales from that customer with coupons that he or she has historically redeemed. If a customer always redeems her coupons at one particular store, you can send her notifications when that store is having a sale. If she always shops when a particular sale is going on, you can send her reminders that "the sale is going on now and will end soon," encouraging her to make it into the store more quickly.

The information in your preference center should be used to send messages that are customized to the recipients' redemption and purchase history. When your mobile couponing strategy is tied to specific users, the users' purchase history can be backtracked. This kind of personalization will help you really understand your customers' needs and provide a higher level of service, which will improve the lifetime value of your customer base.

Case Studies

The following six case studies show how major brands have used mobile promotion and location based marketing to reach their target audience.

PSC "Sí" Political Initiative in Catalan, Spain

This was an ingenious and simple use of mobile marketing to bolster a political campaign within a region in Spain. The regional social-democratic party in Catalan, called the PSC, was forwarding an initiative that would give their government more autonomy from Spain. Before the referendum was voted on, the PSC hosted four political rallies where, among other things, they hosted a Bluetooth booth where party members could download videos, images, and ringtones to their mobile phones to help the cause. They could then share these downloads with

others, creating a viral effect for the campaign. Whether because of the political beliefs of the voters or the mobile marketing, the initiative for more autonomy passed with 73.9% of the votes.

Whistler Ski Resort

In 2006, Whistler Ski Resort placed Bluetooth- and infrared-enabled posters throughout the London Tube to encourage London commuters to enter a sweepstakes to win a free ski trip to Whistler (see Figure 6.6). The posters did a great job of explaining how to take advantage of the offer using a Bluetooth- or IR-enabled mobile phone. After commuters opted in to receive messaging from the poster, they were sent an animated GIF telling them whether they had won the trip and encouraging them to visit the website. Although the program had some usability problems and probably was an immediate letdown for many participants, Whistler was an early adopter of location-based mobile marketing and did a good job getting visitors' attention and explaining how the technology should be used.

Figure 6.6 *Bluetooth-enabled posters in the London Tube for Whistler Ski Resort in Canada.*

Corona Beer

A company called HyperTag worked with Corona to help adjust the perception of the brand in Spain, to show that it was still "hip." Corona deployed a team of promoters to bars and clubs around the country, equipped with wearable Bluetooth transmitters that could send bar patrons cool, free branded images. They also were able to send reminders about the 5 p.m. happy hour ("It's Corona time!"). The effort helped shift the brand image, and the calendar reminder helped keep the brand top-of-mind when people were likely to be most receptive to the message.

CNN

In 2007, when CNN wanted to raise awareness for their mobile website, they created Bluetooth- and infrared-enabled posters to be distributed throughout the London City Airport and also the Barcelona 3GSM mobile phone trade fair. When passersby interacted with the poster, they were sent an SMS message that included a link to the mobile site. If passersby preferred, they were able to send a text message to a short code instead of using their Bluetooth technology to get the link sent to their phone. The effort was considered a success, driving much-needed international traffic to the mobile website and positioning CNN as a tech-savvy and mobiley engaged news service. This effort is also a good example of how companies should leverage multiple technologies and methods of digital communication to have the most effective reach with their marketing message.

Nike

In 2009, Nike used an MMS 2D bar-coding campaign to drive awareness for their sponsorship of the "Dew Tour," whose primary sponsor was the Mountain Dew soft drink. The target audience was extreme sports enthusiasts between the ages of 13 and 18, and Nike wanted to make attendees feel more connected with the athletes. To achieve that goal, event attendees were encouraged to take pictures of 2D barcodes and send them as an MMS to a short code that would respond by sending back videos and information about the athlete featured in the billboard or poster that hosted the 2D code. All the content was automatically optimized for the handset that had sent the MMS, which made it a very good user experience.

This strategy was similar to a QR coding strategy, but QR code readers are not common features of American mobile phones; instead, they processed the codes after they were sent in as an MMS. This method prevented attendees from having to download a QR code reader before interacting with the media. The campaign was so successful that Nike is looking at integrating similar initiatives into all aspects of the marketing mix in 2010.

Northwest Airlines

Northwest Airlines is the largest foreign airline in Japan. They wanted to reach out to their Japanese demographic to show them that they were tech-savvy and understood the Japanese culture, so they created a QR code campaign to collect email addresses of their passengers. Billboards with QR codes were positioned throughout urban Tokyo. The campaign did a lot to create the brand association that Northwest was looking for and also generated a lot of positive PR and buzz about the campaign. The mobile website visits were 35% above the target for the initiative, and the campaign was extended as a result.

7

Micro-Sites, Mobile Affiliate Marketing, and Web Directories

In some cases, the best mobile marketing you can do might not be on your main website or even your mobile website. As is true on the traditional Web, you can frequently take advantage of sites other than your own to promote your products or drive revenue for your company. This chapter focuses on how to use micro-sites, mobile affiliate marketing, and mobile Web directories to help drive revenue. These methods of monetization are quite new in the mobile realm but follow paths that are well worn on the traditional Web.

Mobile Micro-Sites

Micro-site is a term used on the traditional Web to describe websites that are created to achieve a very specific goal that represents only a small portion of the company's or brand's overall marketing goals. Frequently, websites that represent a large company or brand are not nimble enough to adjust to specific marketing initiatives or are not specific enough to rank well in search engines for very niche keyword searches. Instead of adjusting or adding to the main website, companies create micro-sites on separate websites.

Hotels and real estate agencies frequently use systems of micro-sites to target location-specific information and Web searches. The goal of these sites is to drive targeted traffic to specific micro-sites that provide very specific information related to the searchers interest. A good example is a site on the domain www.DenverHolidayInn.com. This site features information about all the Holiday Inns in Denver and allows visitors to book through the site, even though it is not actually the main Holiday Inn website. The main website might not rank as well for searches that include "Denver," because the main site is large and does not exclusively focus on Denver.

A good example of a system of mobile micro-sites is the City.Mobi company. They have created city guides for a majority of the large cities in the world. The brand is City.Mobi, but the sites are all hosted on their own city-specific domain, such as Chicago.mobi or London.mobi. The location-specific domain name and Web content ensure that the websites rank well in location-specific Web searches from mobile phones.

In the traditional Web, micro-sites have also commonly been used to create campaign-specific Web experiences. Instead of changing the main brand website to fit a campaign, they can create a different site to venture further away from traditional brand guidelines, be edgier, and offer a more custom experience. A prime example of this is the Subservient Chicken campaign that Burger King ran to promote new chicken sandwiches to 13- to 27–year-old men and women. The micro-site featured a man dressed as a chicken, wearing women's lingerie. TV and radio campaigns created awareness for the site, and the humorously odd content ensured that it was also quickly promoted on social networks and by news pundits.

The desire to centralize Web content and build up a primary site for search engine rankings has decreased the traditional online marketing communities reliance on micro-sites, but they can still be very valuable in the mobile world. Creating micro-sites that have a local focus and creating websites that have a controlled experience are both strategies that can be important in the mobile marketing world.

Campaign-specific micro-sites are actually quite common in the mobile world, because many of the mobile campaigns are much edgier than the brand would traditionally be. This tactic has worked quite well for many companies. A large part of the success with edgier campaigns can be attributed to the viral nature of the campaigns. Frequently, the edgier campaigns target a younger demographic that is more plugged in to social networking and more likely to spread a viral message. Mobile phones are particularly good at spreading viral messages quickly because they are always on hand and have more messaging options than traditional computers. Viral messages can be spread on social networks; by SMS, MMS, or chat; or with a phone call.

Axe Body Spray has done a good job using mobile micro-sites to drive campaign-specific initiatives. In 2009, they ran commercials and co-branded creative on MTV, Comedy Central, VH1, and the Spike networks, all promoting the "Axe Hair Crisis Relief" campaign. Commercials prompted viewers to text in so they could be sent links to the mobile micro-site. The micro-site was built around the idea that Axe hair products could prevent a "hair crisis" for men, who usually were unaware there was a "crisis" in the first place. The micro-site hosted funny videos of "hair interventions" and allowed visitors to download ringtones and wallpapers. It also featured various Axe products and explained how they could be used to help stave off a hair crisis. Visitors could also submit friends who they suspected were in crisis, or become part of a "Hair Crisis Solution" for their friends.

Mobile Affiliate Marketing

Affiliate marketing is a unique form of marketing in which other companies agree to help you sell your product or drive traffic to your website, in return for a portion of the profits from each sale they send (see Figure 7.1). Commissions can be paid based on clicks, sales, or leads/acquisitions. In some cases, affiliates are referred to as "partners" because they are acting in the best interest of both parties. If you are on a website and are interested to see if they have an affiliate marketing program, links to the programs are usually included in the footer at the bottom of the site.

Affiliate marketing follows this cycle:

1. A customer visits an affiliate website.
2. The affiliate website directs the customer to the brand/seller, where the actual transaction takes place.
3. The brand/seller compensates the affiliate with a portion of the profit.

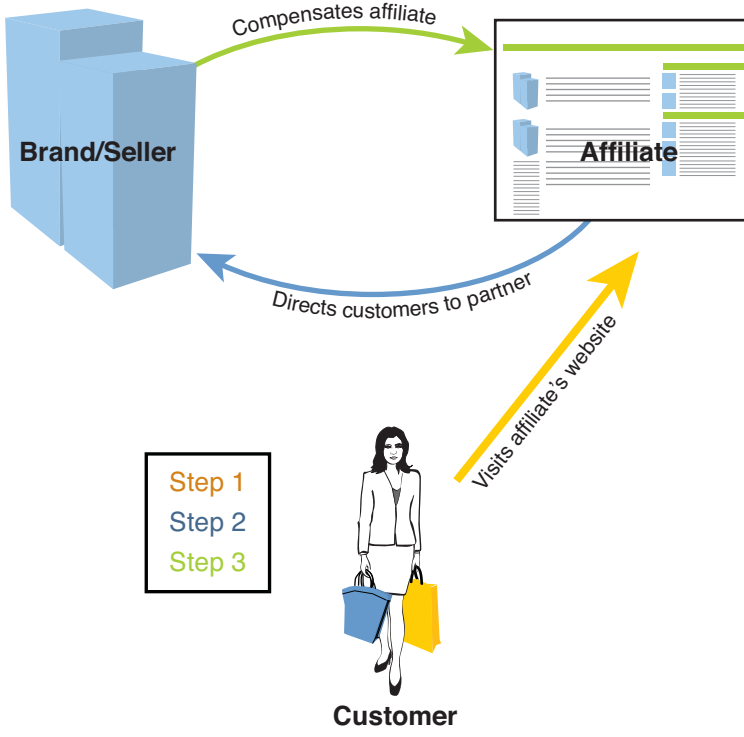

Figure 7.1 *Mobile affiliate marketing helps the buyer find the brand/seller and helps the affiliate and brand/seller earn money. It's a win-win-win. Public domain image.*

In the traditional model, affiliates create websites or sometimes micro-sites to help promote a brand or product for another company. Affiliates use traditional online marketing strategies to promote the website, such as SEO, PPC, email marketing, and online display advertising. Generally, because affiliates are not a direct agent of the brand, but instead are recommenders of the brand, they have license to be more aggressive with their marketing tactics.

One of the easiest ways to begin an affiliate program is to work with one of the major affiliate networks, such as Commission Junction or LinkShare. When you decide to work with an affiliate network you go in as either an advertiser or a publisher. Advertisers are the affiliates; they work to promote products and brands. Publishers or merchants are the companies with the products or websites that they want to promote. Publishers/merchants sign up with affiliate networks so that the network will help them find affiliates to market their goods or services.

As with the traditional Web, the original affiliate programs were launched by the adult industry and were quickly followed by the casino industry and then travel. In the traditional world, Amazon was the first major retailer to create a mainstream affiliate program. All the traditional affiliate programs should work on true Web-browsing phones that are capable of passing cookies, but since not all mobile phones are capable of passing cookies, it can be a risky proposition. If you believe that you may be passing a lot of affiliate traffic from visitors on mobile phones, it might be a good idea to set up an alternate form of tracking, such as passing a variable in the URL, to ensure that you are getting full credit for all of the mobile traffic. No major mobile-only retail affiliate programs have been developed or aggressively marketed yet but this will no doubt change as mobile tracking improves.

One of the benefits of being an affiliate is that you can use one website to drive traffic to multiple affiliate programs. For example, if your company/brand were a part of multiple travel affiliate programs, you could create city- or state-specific sites—or micro-sites—and link from those sites to a variety of different affiliate programs, making money on every click from your site and still providing value to the user.

Currently, most of the mobile affiliate marketing is to help promote mobile Web content, specifically ringtones, wallpapers, and games. These are an obvious fit for mobile marketing because they can be downloaded straight to the phone. Cellphone accessories such as clips and covers are also commonly marketed through mobile affiliate marketing, but these are more difficult to work with because the purchase must be made over the handset. If users find what they are looking for and then transfer to a traditional computer to make the final purchase, the affiliate tracking code is lost and the affiliate will not get its commission.

The most likely avenue for more mainstream affiliate marketing will be as a part of a mobile comparison-shopping or product engine such as Amazon or eBay. There's also a chance that mobile affiliate marketing will not take off beyond ringtones, games, adult, casino, and travel categories, but that remains to be seen.

In some cases, it might make sense for your company to start its own mobile affiliate program. An affiliate program is a good way to fill in the gaps in your existing marketing strategy and can be a boon for many companies. A mobile affiliate program creates the potential for an army of marketers working to promote your products, who are paid only when they successfully pass traffic or sales to your site (much like being paid on a 100% commission basis). The commissions you pay your affiliates will never cost as much as it might cost to hire employees to do the job that your affiliates have done for you.

An affiliate network can also help drive natural search traffic because it ensures that your competitors' websites are pushed lower in the search results by your affiliate websites that rank for your key terms and point back to your site for the final sale. The one thing you have to be careful about here is to make sure your affiliates are not doing a better job of ranking for top key terms than you are. If they are, you will be paying out more commission than necessary. Similarly, if you are bidding on brand-related terms in PPC, it might be a good idea to create a list of keywords that your affiliates are not allowed to bid on, because the increased competition will only make all the PPC clicks more expensive.

The most important element of creating a successful mobile affiliate program to promote mobile content is ensuring that tracking codes are set up properly so that each affiliate gets credit for all the sales and traffic it produces. Affiliate sales are generally tracked though unique affiliate codes that are created for each affiliate and passed in the URL as a parameter rather than in a cookie, because some mobile browsers have trouble with cookies. In some cases (this is becoming much more rare), mobile browsers have trouble passing parameters, so the tracking is lost, but this is generally a more mobile friendly method of tracking than using JavaScript or cookies.

The next problem is that some phones are better equipped for mobile e-commerce than others. If your affiliate program is paying out for click-throughs, but visitors are having trouble completing a transaction when they are on your website, the cost of the click-throughs will start to add up. When this happens, the return on investment (ROI) will be low or negative because no sales are being made.

The same is true of acquisition sites that are seeking only to collect email addresses or phone numbers so that people can be marketed to later (that is, the affiliate isn't selling a product or service, per se; the affiliate is simply collecting information for your company to use later for marketing purposes). If people have problems filling out the form on their mobile phones, the acquisition and the commission are both lost. If these two hurdles are affecting your mobile affiliate program, consider paying only for effective and complete conversions and don't include click-throughs as a commissioned conversion.

Mobile Web Portals

Because the mobile demographic is very interested in accessing information quickly and easily, mobile Web portals tend to be quite successful. A portal is simply an entry page that gives viewers immediate access to information and news without having to search for it or visit multiple websites. Portals bring in news, weather, and information from other sites, to aggregate it and make it easily accessible for their users.

Although creating mobile portals is not exclusively an act of marketing, it could be a good way to create and maintain relationships with your customers. If you have the right product, and have the resources to create and maintain a portal, it might be worth your time and effort to promote it in other channels to drive traffic. (If you are not interested in creating a portal, existing portals are always a good place to advertise.) Table 7.1 lists some of the top mobile portals.

Table 7.1 Top Mobile Web Portals

MSN	http://home.mobile.msn.com
Live Search	http://m.live.com
Yahoo!	http://new.m.mobile.com
AOL	http://iphone.aol.com, http://wap.aol.com
Dir.Mobi	http//dir.mobi
Mobinks	http://mobinks.com
SitiosWAP	http://english.sitioswap.com
Feed2Mobile	http://feed2mobile.kaywa.com
Mowser	http://mowser.com
FeedM8	http://feedm8.com
Winksite	http://winksite.com
ZeroRubbish.com	www.zerorubbish.com
In Your	http://inyour.mobi
M4u	http://m4u.mobi
Keytoss	http://m.Keytoss.com

Figures 7.2 and 7.2 show examples of Web portals for MSN and Yahoo!.

Figure 7.2 *Yahoo!'s portal.*

Figure 7.3 *MSN's portal.*

A lot of well-seasoned competitors operate in the mobile portal business, so one of the best opportunities for success is to create a portal for a niche whose needs are not being met. Many groups of users are interested in different types of news than the rest of the world. Some examples of niche portals include these:

- **SmartPhone and Pocket PC** (http://mobile.smartphonemag.com)—A portal dedicated to news and information about smart phones and pocket PCs.
- **Nickelodeon** (http://wap.nick.com)—A children's mobile portal, based on the children's TV network Nickelodeon.
- **FreeMob** (www.freomob.mobi/)—A fun mobile portal that pulls in jokes, quizzes, a txt spk dictionary, tarot cards, and horoscopes.
- **NetVibes2Go** (http://m.netvibes.com)—A personalized home page that allows you to customize the content that is pulled into your personal mobile portal page.
- **Optimum Online** (m.optimum.net)—A mobile version of a New York cable TV station website that pulls in national and New York–specific news and weather.

Mobile Directories

Many of these portals offer directories of mobile websites to help users navigate the mobile Web. If you think back to before search engines were as good as they are today, many people used directories to navigate the Web, much like you would use a phone book to find a local business. In a directory, different mobile websites are organized by categories and subcategories so that mobile users can find what that they are looking for quickly and easily.

Mobile directories are particularly valuable on the mobile Web if the sites that are listed have been editorially reviewed to ensure that they offer valuable content and will render correctly on mobile phones. Until mobile Web rendering improves, mobile directives can be used in place of search engines if users are having a hard time finding what they are seeking.

Mobile directories are also a good way to promote micro-sites, affiliate sites, and traditional mobile content. In addition to helping mobile viewers find your content, links from mobile directories can help create search engine relevance and improve rankings for your mobile content, as long as the anchor text on the link is keyword rich. Chapter 10, "Mobile Search Engine Optimization," covers this more deeply.

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8

Mobile Applications

Smart phones come preinstalled with an operating system and a stock set of programs or applications. These applications usually include an email client, an address book, a calendar, a program for taking notes or saving text, a Web browser, and a couple simple games. When users need more than these preinstalled programs offer, they might need to add software to their phone. The multitude of small programs that can be installed after market on phones are grouped and called mobile applications, or apps for short.

Mobile applications have changed how we conceive of our mobile phones. They have moved the collective unconscious from believing that mobile phones are preloaded with all the software and functionality that we could ever need, to believing that mobile phones, like computers, will always need additional functionality to achieve our specific needs. Mobile applications can be developed and sold as independent revenue-generating programs, or they can be developed as marketing tools to help promote a specific brand, product, or service. The

marketing power of mobile applications is mostly in the repeated exposure to the brand and brand message.

Although they've been made famous by Apple's App Store, downloadable mobile applications have been around since Palm and Treo launched the first PDA's and smart phones. The first mobile applications were almost universally aimed at improving personal productivity, with text-editing programs, calculators, alarms, reminders, and simple accounting programs. Now, thanks to the surge in demand for more capable smart phones, and third-party developers, the variety and quality of mobile applications has improved quite a bit.

Today users can choose from a vast array of apps to make their mobile phone more personal and to customize it to their needs. The largest segment of mobile applications is mobile games, which can be very powerful for marketing.

Mobile Game Applications

Good or bad, no one can deny that video games have made their mark on our society. Some of the first auxiliary programs that were added to mobile phones were simple games such as Brick Breaker and Mine Sweep. But as mobile phones have become more sophisticated, so have the mobile video games.

Until third-party applications became widely available, all the mobile games were preloaded on the phone within the operating system. Now, roughly one-third of the downloadable mobile applications available are games, and more are being developed every day. Although it is not universally true, most mobile games are downloaded as applications rather than preloaded on the phone or run live from the Web. Mobile games provide marketers a unique opportunity for branded game development, product placement, and game sponsorship.

Branded Game Development

The most obvious way to market using mobile games is to actually create a game for your company and your brand. The idea here is to extend your brand or brand

experience to the mobile phone while providing entertainment. Branded games that are not engaging or are too overtly meant as advertisement will not be well received, but users will tolerate subtle marketing cues if the game is fun.

If you do decide to go this route, here are a few tips for developing a game application that will be popular and well received by your audience:

- Review other games available and make sure that your game has something significantly different and valuable over the competition.
- Find the balance between marketing and creating a fun gaming experience. The more heavily branded and simple your game is, the less you will be able to charge for it. If users can tell that your game is pushing a specific product or brand, they might be less willing to pay to download the application.
- Think of mobile gaming applications as a brand awareness and reinforcement campaign. The price you charge users to download your game should help cover some of the development costs, but it likely will not cover them all. Ideally, the return you get will be an overall lift in sales, as a result of the increased brand awareness.
- Always provide clear instructions and help options. Playing games on mobile phones might still be a new experience for many people, so they might need help.
- If you are developing a game application exclusively for the iPhone, try to have some aspect of the game work with the motion sensors known as accelerometers, but always provide a button alternative for users who prefer not to use the motion sensors. This will add to the interactivity of the game but also leave it opened to be adapted for other operating systems later.
- Consider creating a multiplayer mode that uses WiFi or Bluetooth to join multiple users in one game.
- Be conscious of the amount of memory the application will take up when it is downloaded to the phone. Users might be hesitant to download games that take up too much memory space on their phone.
- Consider providing upgrades or additional levels as separate downloads for users who have mastered the game.
- Follow the application promotion instructions offered later in the chapter and promote your mobile game everywhere you can.

Mobile Game Success Stories

Before launching a mobile game, take some cues from existing mobile games that have been well received:

- **FooPets**—A co-promotion for the movie *Marley & Me* and Purina Dog Food. The user is able to interact with Marley the puppy, petting, playing fetch, and feeding it. When the user chooses to feed Marley, a bag of Purina Dog Food passes in front of the screen.
- **Hell's Kitchen**—A cooking game that allows you to progressively unlock 35 different recipes, all while Gordon Ramsay watches and scores you. This downloadable app helps reinforce the Hell's Kitchen brand, increasing the viewership of the show, not to mention helping sell the PC and game console versions of the game.
- **Monopoly**—Allows the players to have a full board-game experience, including using Chance and Community Chest cards, chatting with other players, and saving and resuming games. This game is a top seller and has probably recouped the development costs on its own, but it also helps promote Monopoly and other Hasbro board games and mobile applications.
- **Mobile Guitar Hero III**—An application on the Verizon network that approximates the experience of the popular console game. Players press buttons on the phone in time with a song as it is playing, and are scored based on their accuracy and rhythm. This is another good example of brand awareness marketing that enables fans to take their favorite console game with them on their mobile phone and hopefully share it with friends. This effort also encourages more purchases of the console game and the mobile application.
- **Spin the Coke**—A simple branded game that allows users to re-create the adolescents' game Spin the Bottle. This is a great example of a heavily branded free game. It is very simple and likely took minimal development time. This game application is simply meant to provide short-term entertainment and amusement, unlike other complex multi-level games.
- **iBeer**—This is another simple branded game—or, more accurately, a visual gag meant for short-term entertainment. iBeer, owned by Coors Brewing Company, allows users to make their iPhone look like an actual glass of beer that they can tilt, sip, and shake; they can even pour the beer from one iPhone to another. Players can choose from a variety of different beers, but this mobile game is currently the topic of major

litigation regarding the original owner and creator of the game (claims have been made by a U.K. company with an app called iPint), so the branding has been noticeably lifted.

- **Audi**—This game allows users to become virtual owner of the new Q5. Clearly promotional but undoubtedly fun, this game is the best of both worlds. The game allows users to customize their experience, even working with the camera to superimpose a picture of their ideal Audi Q5 in a picture of their own driveway. This type of interactivity creates a deep affinity between the user and the brand. It also has a viral bonus: Users can send photo compilations and race their Audi against a friend's Audi.

Product Placement

As Digital Video Recorders (DVRs) and subscription-based satellite radio have become more prevalent, traditional advertisers are turning more to product placement as a means of getting eyes on their product offerings. Although product placement is a much softer sell, it can be an effective way to use mobile marketing to keep your brand top-of-mind and to create or reinforce your brand image.

Historically, strategic product placement has been included in TV shows and movies. Advertisers pay for the right to have a product, logo, or advertisement featured in a movie or popular TV show. The best example of this is BMW's long-standing relationship with James Bond films. The elaborately equipped cars that Agent 007 drives in his films are always BMWs, and BMW pays for that privilege. As video games grow in importance and trade off with people's consumption of other media, product placement has spread into this channel as well.

When done correctly, product placement in mobile game applications can be a win-win-win situation for the user, the game publisher, and the advertiser.

- For the user, the product placement creates more realism in the game.
- For the game publisher, it increases the margin on the game.
- For the marketer, there is an increase in brand awareness and affinity.

Again, the immediacy and interactivity of the mobile channel is key to this type of promotion. Within mobile gaming product placement is the opportunity for clickable product placement and linking, otherwise known as plinking. As an example, if a user is playing a driving game, he might pass a billboard that you have sponsored in the game. If the user is interested in finding out more about your product, he can click on the billboard to find out more information. Similarly, a user playing a

"single-man-shooter" game might pass a storefront that you have sponsored in the game. If the user wants to find out more, he can simply click on the storefront.

Caution

Before you begin marketing in this channel, you must research and understand both the game you will be placing your product in and the audience that the game will attract. It is crucial that your product and message be as targeted and relevant as possible. If you don't approach this avenue with caution, you run the risk of a negative branding effect because some users might resent your marketing message being a part of their gaming experience.

Game Sponsorship

The final option for mobile marketing in video game applications is through game sponsorship. In this model, a product or brand pays for the right to run short advertisements or promotions before or after the game is played. These short ads are called pre-roll or post-roll promotions, and advertisers can choose to sponsor entire games or share sponsorship with other advertisers. These advertisements can be still or animated, depending on the game, and usually last between 10 and 30 seconds. Mobile games or applications with sponsorship are usually offered as a free download because the game-development costs are subsidized by the advertising.

The allure of mobile game sponsorship is the massive targeting capability and the interactivity and immediacy of the mobile channel. If gamers are interested or want to find out more information about your product, they can click on the ad to visit your website, register for emails, or purchase the product without having to go to the computer. This type of immediate interactivity is simply not available on more traditional gaming consoles.

Most gamers will understand that the advertisements they see before and after playing a game are a necessary evil to endure because they drive down the price they have to pay to download the game. That being said, they are usually prepared to ignore your advertisement, unless it is particularly engaging, funny, or compelling. Instead of playing it safe, this is an opportunity to be outrageous or a bit flamboyant to get players' attention and overcome the "banner blindness." Pay attention to the game's target demographics, and create something that will catch their eyes. Mobile display advertising companies such as AdMob, GreyStripe, and AdWhirl offer services that embed rotating advertisements within mobile applications, including mobile games.

Mobile Utility Applications

Mobile applications are by no means limited to games. You can create many types of applications to help promote your brand. In many cases, providing a valuable service can do more to engender trust and brand affiliation for your brand than providing entertainment. Here are some examples of highly valuable and regularly downloaded utility applications:

- **Phone utilities**—Flashlights, carpenter levels, additional security and memory, phone usage statistics, password keepers, unit conversion charts, and so on
- **Educational**—World maps, foreign languages, poetry, books, math tutorials, flash cards, graphing calculators, periodic tables, chemistry calculators, dictionaries, thesaurus, and so on
- **Financial**—Stock reports and tickers, banking and personal finance, budgeting, bill reminders, mortgage calculators, and so on
- **News and entertainment**—TV and print newsfeeds, celebrity gossip, sports scores, game highlights, and so on
- **Weather**—Current condition, alerts, weather maps, moon phases, allergy and ozone reports, and so on
- **Business productivity**—Checklists, spreadsheet programs, PDF reader, voice recording, expense tracking, remote meetings, time tracking, and so on
- **Navigation and travel**—Road and traffic maps; flight, bus, and subway delays; currency exchange; alternate route finders; and so on
- **Shopping**—eBay, Amazon, comparison-shopping tools, grocery lists, and so on
- **Multimedia**—Music, white noise, photography tools, photo-editing programs, radio, musical instruments, and so on
- **Lifestyle**—Snow reports, golf cards, recopies, drink mixing, nutritional facts, gym assistants, calorie counters, and so on
- **Social networking**—Facebook and MySpace applications, Twitter feeds, social shopping tools, and so on

Where Do You Get Apps?

Apple's App Store has been touted as the place to go to get mobile applications, but it is not the only place you can download or purchase an app. Applications

downloaded from Apple's App Store are usable only on devices running the iPhone operating system, but mobile apps are available for a variety of different mobile operating systems. Google and Windows Mobile both offer apps that are tied to their operating systems—Android and Windows Mobile, respectively. Figure 8.1 shows the Windows Mobile Marketplace. Applications can also be developed for other mobile operating systems, including BlackBerry OS, Java, Mobile Linux, Palm and Palm Pre OS, Qualcomm BREW, and Symbian OS.

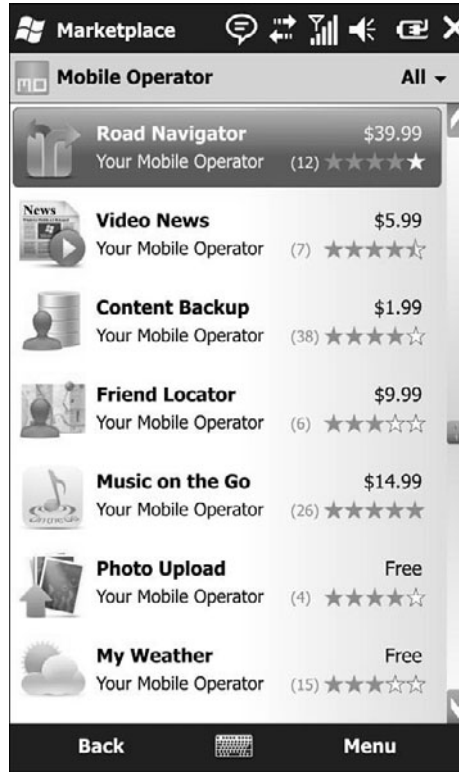

Figure 8.1 *The Windows Mobile Marketplace offers many mobile applications.*

There's also a growing list of mobile app vendors such as Handango, Pocketland, and MobiHand. Users can find mobile app aggregators that gather different databases of mobile applications and allow them to search from one portal, such as iMobile.us and VilleMobile.com.

Google offers Android Market, where users can upload applications and comment on other applications. Eric Chu, Android Program Manager, says:

> Similar to YouTube, content can debut in the marketplace after only three simple steps: register as a merchant, upload and describe your content, and publish it. We also intend to provide developers with a useful dashboard and analytics to help drive their business and ultimately improve their offerings.

This could be marketing gold for some companies as they try to establish what applications their audience really finds engaging.

The Windows Mobile Catalog also allows users to search for and download apps for smart phones that are running Windows Mobile. Other than the Windows Mobile Catalog, more than 18,000 Windows Mobile applications are spread all over the Web with no central repository or store. Luckily, Microsoft is taking cues from Google and Apple, and plans to launch its own app store, called Skymarket, with the launch of Windows Mobile 7.

Do I Need My Own App?

With the success of the App Store, a rush of companies has been clamoring to create mobile applications. Mobile apps can be a good way to grow a client base, spread brand awareness, create goodwill with existing clients, and monetize the mobile channel. However, not every company with a mobile presence needs a mobile application.

Developing mobile applications can be quite an undertaking. Different versions of the application must be created for each mobile operating system it will be marketed to, and each mobile app store has different requirements for submission and upkeep of the application. If you are considering developing a mobile application, it is imperative that you plan where and how the app will be marketed and have a good understanding of how you will recoup your development costs.

Developing an App

If you decide there's a good business case for developing your own mobile application, you must first consider the demographic for which you are developing an application. Do this before you decide where and how your application should be marketed, and even what the application will do.

The iPhone is broad reaching, targeting higher-end consumers quite well. In the long run, however, Android phones might be more appealing to the more tech-savvy power users. Consumer-based applications are generally being developed for

Apple and Android phones, but enterprise applications have focused on Windows Mobile, BlackBerry, and Palm devices. How heavily the iPhone and Android phones will play in the enterprise market remains to be seen, but this is an important distinction to make when developing a mobile application.

Your developer should use a software development kit (SDK) from the mobile operating system in which you want to deploy the application. The two newest and most-viewed app catalogs are on the iPhone and Android platforms. Researchers in Motion (RIM), creators of the BlackBerry, have also launched an SDK to drive third-party development for their application store, called the Application Center (see Figure 8.2). Windows Mobile also offers SDKs for each of the operating systems they have released, but they will likely promote the SDK for Windows Mobile 7 to dovetail with the launch of Skymarket.

Figure 8.2 *The Application Center is one location where you can find apps for your BlackBerry.*

Although more users have iPhones, it is generally easier to develop for the Android platform and it's usually easier to publish apps for the Android. The iPhone SDK is more comprehensive, but the Android SDK allows developers to leverage all the native functionality of the Android operating system. This is a key difference if you are interested in using capabilities such as VoIP or P2P file sharing, which might be blocked by the iPhone SDK or not permitted in the App Store.

Since games are not a primary focus for the Palm Pre, the SDK for developing games and other applications is not very sophisticated, and has left a lot of developers wishing for more. The availability to render high-quality graphics in games and use of the accelerometers are both much more limited in the Palm Pre than in the other mobile application development platforms.

Google tends to be easiest to work with during the application development process. Google is more responsive to queries and requests regarding the SDK, and offers clear communication regarding the publishing and launch of your application. In contrast, Apple does not provide clear criteria for approving or rejecting apps that are submitted, and is not generally as responsive to questions about the

SDK, the approval process, or the applications launch, unless you are very well-known brand.

In terms of payment, mobile application stores work on a percentage of revenue model. Some apps are free, but many cost $1–$15. The various application stores market your applications directly to the consumers and split the resulting revenues with the company or developer who submitted the application. Both Google and Apple return 70% of the revenue to the developers, while RIM promises to return 80% upon the launch of its application store.

You also should consider an app store's return policy when you are trying to decide which of the mobile platforms for which you want to develop. In some cases, as is the case with the AppStore, if a customer returns an application, they are credited 100% of the cost of the application. The app store then charges back 100% of the cost to the developer, but the AppStore will still keep the 30% commission from the original sale, leaving the developer at a loss.

Promoting Your App

In most cases, it's not enough to just create an app—you must promote it, too. All the mobile applications stores are flooded with new applications every day. Many of these apps offer the same or similar functionality to applications already available. You can do much to improve your chances of being noticed in the crowd of competing applications, but you must appeal to both the user and the App Store search engine.

Make It Viral

The simplest method of mobile application promotion is to leverage the friends and acquaintances of the people who download your application. You should always include a function within your app that allows people to recommend it to their friends.

Another great way to build a viral element within your application is to create some benefit to interaction with others as part of the application. If your application is a game, you would obviously allow people who download the game to play against their friends. If the application is for something other than entertainment, integrating a viral element is more difficult. Consider how group interaction would add to the experience through things such as voting, picture sharing, or status updates. If none of those are an option, you can try to integrate your application with other existing networks and applications, such as Twitter, Facebook, or LinkedIn.

Facebook, in particular, offers something called Facebook Connect that allows application developers to loop Facebook into the initial development of the

application. It allows people who download your application to port their personal information from Facebook. The information that can be imported includes basic information, a profile picture, a friends list, groups, and photos. This is useful for people who don't want to enter or upload all that information twice, and it helps make the application more prominent and viral in Facebook.

Do Something New

In most cases, this goes without saying, but something that is creative and new always gets more attention than something that has already been done. If you are just creating a new Blackjack game, it will be hard to create any buzz or draw crowds away from Blackjack applications they have already downloaded. If you do something that has never been done, there is a much higher chance that it will get written about, downloaded, and passed on.

It can be difficult to think of something new to do, but the first place to start is existing applications. Keep your eye on the top applications lists provided by some app stores, to get an idea of what people are really downloading.

If you have some idea of what type of application you would like to build, but you don't know how to make it new and exciting, start by reviewing the competition. Once you have a good idea of what is available, evaluate the strengths and weaknesses of each competing application. Try to figure out key elements that could make the application more functional, more interactive, or more fun. If you are building an iPhone application, think about how you can leverage the accelerometers and Bluetooth to make the application more useful or even more amusing.

If you are still at a loss for how you will improve on the applications that are already out there, begin looking at the top applications in a totally different category. If you are creating a business application, look at games; if you are creating a search application, look at business tools; and so on. This will help open your mind so that you can think more creatively about your project. Can you incorporate images, audio recordings, or GPS? Think about why the top applications that you are looking at are so popular, and then think about your project in similar terms.

Get Rated and Reviewed in the Store

Reviews within the application stores are important for two reasons. First, they can obviously help convince people who are considering downloading the application. Second, they play a role in how well you rank in the application search feature that the stores provide. The application stores have a vested interest in presenting the most successful and liked applications before the others. Those app stores will always rank the top applications above the applications that are not reviewed.

No one wants to be the first to review a product, so the best way to get reviews is to initiate the process yourself. Have people you know try the application, and encourage them to submit honest reviews to the application store. Once the first couple of reviews are in place, people will be less hesitant to submit their own reviews. Also, if the existing reviews are overwhelmingly good, detractors will think twice before submitting negative reviews.

Have a Good Name

Again, this may sound obvious, but many application developers go wrong simply by getting too creative or abstract with their application names and logos. Describe your application in as clear and compelling terms as possible.

Always include the keyword that you want to rank for in the title of your game. For instance, a dancing application called The Right Foot Forward might sound snappy and compelling, but doesn't include the word *dance.* Instead, you might call the application iBallroom Dance and use "The Right Foot Forward" as part of your tag line or other marketing copy.

Bryson Meunier, Associate Director of SEO at Resolution Media, gives a great description of the importance of your application name in his article, "How to SEO for Apple's App Store" (the article also references the image shown in Figure 8.3).

> Users entering the keyword "fun" in the app store search box will find a tip calculator listed prominently among the other apps that are apparently fun. Is this because the tip calculator is inherently more fun than Bejeweled 2, Catcha Mouse, or the other popular game apps that are listed below it? It's more likely that the tip calculator is listed because it included the keyword "fun" in the name of the app. If developers think their application is also fun, they can alert the search engine to this fact by placing the keyword in the name of the app, and help themselves appear higher in the search results for informational queries.

Have a Good Logo or Icon

When creating the logo that will be added to the user's phone, be sure that it is well designed, aesthetically appealing, and not too cluttered. It should be a good representation of what the application does, without crowding too many thoughts or ideas onto the small icon. Again, it is important to find out what the top applications in the category look like. Although it is not advisable to copy any of the competitions' logos, you can get ideas from the imagery and layout they have chosen.

Figure 8.3 *Using the right name for your app can make it appear more frequently in user searches.*

Write a Compelling Description

As with application names and reviews, descriptions are valuable because they can help drive downloads once visitors find your application. However, descriptions also can help searchers find your application in the first place, by making it appear better to the application store search results.

Think about your description as a TV commercial or value statement for your application. Use language that highlights what makes your application different and valuable to your target market. Use bulleted lists, headings, and text formatting to make your description easy to read. As with most Web copy, it is also a good idea to write in brief, direct sentences instead of complex sentences. This makes your descriptions easier for people to scan. Avoid using pronouns such as *it* or *we* because those don't help create relevance with the search engines. Instead, replace them with specific descriptive phrases such as "this dance tutorial" or "the iBallroom Dance development team."

It's also a good idea to mention popular or related applications in the description of your application. This help readers connect with your application and understand what it does. Mentioning other popular or related apps also can provide some additional exposure if you rank well for the name of the popular and related application names, too. You can also include a keyword in the "Name of the Developer" section

on your website. To do this without appearing manipulative or spammy, you can just add a title with the name, so it might read "Cindy Krum, Dance Application Development."

Price It Right

The most commonly searched single term at app stores is "free," obviously because people don't want to pay for applications when they might be able to get a similar application for free. Figure 8.4 shows iPhone apps and the prices paid (or not paid) by what percentage of the buyers. Even if you can't offer your entire application for free, it is a good idea to offer a lite version of the application for free. Despite having limited functionality, the lite version should do enough so that users are understand how the application works and are enticed to download the paid version of the application later.

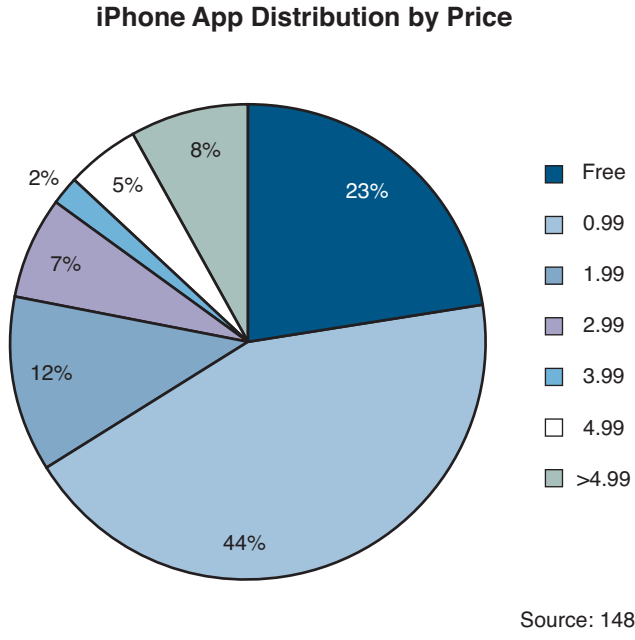

Figure 8.4 *As you can see, 67% of iPhone app buyers spent a dollar or less on purchased apps.*

Including the word *free* or *lite* in the title should do a lot to improve the number of downloads right away. This is also a good way to be listed twice within a search result, because both the full version and the lite or free version of the application will rank. A dual ranking is valuable because it pushes competing applications farther down the search results page, making them harder to find.

Promote the Application on Your Website

Make sure that you mention your application on the home page of your website. If possible, include a page or a subdomain dedicated to promoting the application. Include links to marketplaces and other locations where the application can be downloaded, or allow the application to be downloaded directly from your site.

Again, use compelling text and screen shots that will help readers understand the value that your application will provide and help those pages rank well in search engines such as Google and Yahoo!. This is your chance to really use the search engines to create awareness for you application. If you can get the listing in the App Store and a listing on your website to both rank in Google search results, you will be doing a lot to drive traffic to your application, while also decreasing the traffic to competing applications. All the traditional search engine optimization strategies will help the promotional page on your site rank in search engines, so include the name of the application and top keywords in the title tag on the page and throughout the text description on the page.

Promote It with the Bloggers

A very effective but frequently overlooked method of driving lots of traffic to your application is to reach out to the blogging community. You should reach out to at least two groups of bloggers—the application bloggers, who review and discuss applications, and the bloggers in your business niche.

- **Application bloggers**—Application bloggers love applications but are frequently flooded with requests to review their applications. Be creative in your approach so that you will get noticed amid all the other requests. In some cases, it is a good idea to contact bloggers with a "sneak preview" or "free trial" before the application is available online. If the application is already available for download, provide a link and an offer code so that they can download the application for free. Some great resources for finding application bloggers are the iPhoneApplicationsList, Apple iPhoneSchool, and WhatsoniPhone.

  It is crucial that you do as much footwork as you can for the bloggers, to make their review almost write itself. Include great screen shots of the application in all its various states, offer a brief company history, give a link to your website, and provide a clear description of game play and rules. Because bloggers are probably not very familiar with your industry, you might need to give a deeper explanation of the value your application provides people within your industry. Be sure to avoid industry jargon or references that outsiders might not understand.

- **Bloggers within your business niche**—Your strategy when reaching out to bloggers within the niche that your application serves is much the same, but your message can be more targeted. If you are creating a business application, reach out to known business bloggers. If you are creating a cooking application, learn who the top cooking bloggers are, and so on. Focus on blogs that get a lot of traffic—traffic from people you think would be interested in your application. If similar applications are available, you can also search for people who have already blogged about the competing applications, and contact them to write a follow-up post about your application. However, be sure to highlight what makes your app different and better.

When contacting bloggers, regardless of what camp they fit into, include as much contact information as possible, in case the blogger has questions or needs a quote from you for the post. This obviously includes your Web address, email address, and phone number, but if you have them, it might also be a good idea to include instant messenger and/or Twitter screen names.

Promote Your App via Mailing Lists and Twitter Followers

It's also a great idea to promote the application within email lists and to your Twitter followers, because popularity is such an important factor in the natural rankings of the application store search engines. Any traffic that you can send to the App Store listing should have a positive impact on your applications search rankings.

Promote the Application in Pay-Per-Click and Display Advertising

If it makes business sense, you can also promote your application by paying for traffic in pay-per-click (PPC) and display advertising. Include compelling images and text in your advertisements, with a call to action such as "download today" or "play now," to create a sense of urgency and to improve your conversion rate. There are also application exchange programs—such as the one offered by Admob called the iPhone Download Exchange. This app allows you to trade ad-space on your application for adspace on another developer's applications. This helps both developers get their ads in front of more potential buyers.

Submit Your Application

Plenty of application directories and lists exist, so make sure the application is listed with links to where people can download it. These lists and directories are

frequently updated, so make sure you keep a list of all the websites that are linking to your application, and check back periodically to ensure that the listing is still there. In some cases, lists and forums allow readers to rate or comment on your application, so monitor that, too. Again, never leave a listing without a rating or review, and don't rely on others to start the conversation about your application. As soon as you are listed, submit an unbiased review of your application, or have someone you know who has downloaded the application rate and review it on the site.

What If You Don't Want to Develop an App?

In many cases, companies don't have to create their own application to benefit from the popularity of the technology. You can also become a part of mobile search applications simply by being listed in the results. Mobile search applications are downloaded to the phone just like other applications, and they allow users to search certain industries or certain types of information to find what they are looking for without searching the Web-at-large.

If your company fits neatly into a specific vertical, such as travel or dining, it may be more cost-effective for you to identify the top mobile search applications for your industry, and do what it takes to ensure that you are well listed and ranked in those mobile applications, instead of developing your own application. Table 8.1 lists some of the top mobile search applications. Figure 8.5 shows a few interestesting iPhone apps.

Table 8.1 Top Mobile Applications by Vertical

Local Dining
Urban Spoon
Open Table
MetroMix

Local Business
Around Me
Yelp
YPMobile
Slifter

Jobs
Job Compass
iJobs
Now Hiring

Recipes
AllRecipies.com
BigOven
iFoodAssistant

Real Estate
Trulia
For Sale by Owner

Videos
Truveo
YouTube

Images
JuiceCaster
PhotoBucket
Flickr
Picas

Friends
Facebook
MySpace
WPMobile
Loopt
WhosHere

Products
eBay
Amazon
Near By Me Now
Is it Me

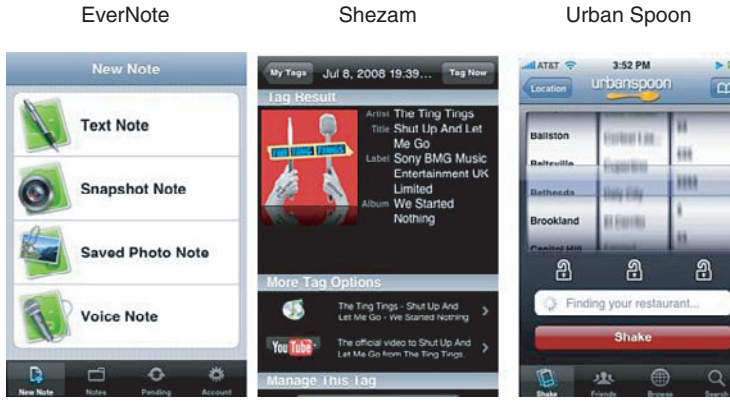

Figure 8.5 *Find a wide variety of apps at the Apple Apps Store.*

Mobile Application Development Companies

Following is a partial list of mobile application development companies.

- **Air2Web**—www.air2Web.com
- **Gateway Mobitech Research & Development**—www.gatewaytechnolabs.com/
- **Macronimous.com**— www.macronimous.com/
- **Plazmic Inc.**— www.plazmic.com
- **Endeavour**— www.techendeavour.com/
- **ValueLabs**— www.valuelabs.com
- **724 Solutions**— www.724solutions.com

Mobile Application Bloggers and Communities

Following is a partial list of application bloggers and communities where you can learn more about applications for mobile devices.

- iPhone Application List: http://iphoneapplicationlist.com
- iPhone AppPreview: www.iphoneappreviews.net
- AppleiPhoneStore: www.appleiphoneschool.com
- WhatsOniPhone: www.whatsoniphone.com
- iUseThis: http://iphone.iusethis.com

- ViewPoints: www.viewpoints.com
- AppVee: www.appvee.com
- AppStoreApps: www.appstoreapps.com
- Mobile Phones and Mobile Games: www.blogcatalog.com/blogs/mobile-phones-and-mobile-games
- CNet: www.cnet.com/topic/mobile-application.html
- SpotLight: www.spotlightm.com/
- ReviewStream: www.reviewstream.com
- Frengo: www.frengo.com/

Mobile Application Aggregators, Directories, and Stores

- America Online Mobile Applications: www.Mobile1.AOL.com
- Google Mobile Applications: www.Google.com/mobile
- Yahoo! Go Mobile Multi-Application: www.Mobile.Yahoo.com/go
- The App Store: www.apple.com/iphone/appstore
- Windows Mobile Catalog: www.microsoft.com/windowsmobile/catalog/cataloghome.aspx
- Android Market: www.android.com/market/
- BlackBerry App World: www.BlackBerry.com/AppWorld
- Palm Software Store: http://software.palm.com
- Handango: www.handango.com
- PocketGear: www.pocketgear.com
- Jamba/Jamster: www.jamster.com/
- FlyCast: www.flycast.fm
- MobiHand: www.mobihand.com/
- Electronic Arts: www.ea.com/
- Motricity: www.motricity.com/
- iMobile.us: http://imobile.us/
- VilleMobile: www.villemobile.com/

9

Mobile Website Development

As with any Web development, mobile website development is an ever-changing art. As the technologies improve, new coding languages are developed, and new coding standards are set, developers must adjust their skill set. In the mobile world, the changes can happen at a much more rapid pace and frequently are a bit disjointed. It can be hard to say what kind of technologies, software and standards will stick and which ones won't. What you will see is that there are a variety of possible solutions you can choose from, based on the requirements of your particular project requirements, budget and objectives.

Note

If you are building or rearchitecting a website to make it more mobile friendly, it is crucial that you read this chapter along with Chapter 10, "Mobile Search Engine Optimization." Development and SEO work hand in hand to create top mobile search engine rankings, and it is much easier and more efficient to build SEO into the initial design than to try to fit it in later.

The support of HTML5 standards is sure to have a dramatic effect on the mobile world, but it is still hard to tell when and how. The standards have not been fully ratified or endorsed yet, but they will be revolutionary in the way website s are developed, and some important industry groups are already embracing them.

HTML5 standards will change how the Web works, especially in terms of plug-ins such as Adobe Flash, Adobe Reader, and Microsoft Silverlight. HTML5 includes semantic replacements such as <nav>, <article>, <section>, <aside>, and <footer> that will make mobile rendering more intuitive and clear for the browsers. Also, specifications such as <audio> and <video> have been added to standardize the coding calls for specific media types. Some inline styling attributes such as <font>, <frameset>, and have been eliminated, putting further emphasis on the style sheet presentation. HTML5 standards also provide a geolocation API that can be used to programmatically determine the location of the user.

The platform that has embraced HTML5 standards the most is a popular open source layout engine called Webkit. Webkit was first developed by Apple and is now used in the iPhone operating system, Symbian operating system (Nokia), Google's Android operating system, and the Palm Pre. This chapter does not focus on HTML5 because it is not yet mainstream, but it helps demystify some of the other more basic requirements for mobile coding and website development.

Although it is quite exciting, the full adoption of HTML5 is still too far in the future to make it an ideal coding language now. Instead, this chapter focuses more on XHTML and XHTML-MP, which are the most current and broadly accepted mobile programming languages today. This chapter also references CSS and WCSS—two methods of controlling the style and design of the content on your mobile website.

Mobile Web and WAP

In the United States, carriers first began offering mobile Internet access in the mid-1990s, but it not until the later 1990s did the first real mobile marketing campaigns began to take form. The Internet that was available on mobile phones was mostly

limited to Wireless Action Protocol (WAP) sites on carrier decks. WAP was developed and released in 1998, and it allowed mobile phones that had WAP browsers to view simplified versions of websites. Separate websites had to be developed in Wireless Mark-Up Language (WML) to be viewed by the WAP browsers. At the time, most mobile phones displayed information only in black-and-white and could not render complex images.

Development of WAP sites was difficult because there were no good, mainstream WAP authoring tools to help content creators develop their WAP content. Later versions of WAP were developed in 2002 to allow XHTML rendering of more complex websites, which improved the user experience quite a bit.

U.S.-based carriers began creating branded "WAP decks," which were essentially a limited version of the mobile Internet that customers could access from their mobile WAP browsers. These decks were designed much like portals and used to sell downloadable mobile content, such as ringtones, wallpapers, and simple games such as Brick-Breaker and Mine Sweep.

Carriers took a "walled garden" approach that prevented users from accessing the Web-at-large, which is otherwise known as going "off-deck." There was more opportunity to sell to their customers if the customers stayed "on-deck" viewing only the monetized content. In some cases, carriers even disabled the address bar in the mobile browser to prevent their visitors from going off-deck. Many mobile carriers who allowed subscribers to go "off-deck" filtered access to the Web-at-large, to make navigation of the mobile Web more difficult and further encourage users to stay on their WAP deck.

With the introduction of WAP2.0, users of the mobile Web began to expect their phone to do more than render simplified WAP versions of their websites. They wanted color, images, and interactivity. Now coding languages have evolved further, and most mobile browsers can render sites that are built to a strict XHTML standard. In addition to coding sites in XHTML, top Web designers build in elements with "progressive enhancement" or "selective degradation" that will offer sophisticated Web content when displayed on a traditional computer, but provide visitors on less capable Web rendering devices with less sophisticated content, as the more sophisticated content silently and seamlessly fails. This is described in more detail later in the chapter.

dotMobi Domains

dotMobi, or .mobi, is a top-level domain that was created to indicate that a website was developed specifically for mobile access. dotMobi domain names were first made available for purchase in 1996. They were originally designed to help distinguish mobile websites from traditional websites. Although notable companies such

as Microsoft, Google, Nokia, Samsung, and Vodaphone originally backed the dotMobi domain extension, it was also criticized for violating the notion of device independence.

Device independence is the idea that the Web should always work, regardless of what type of device is accessing it. The theory is that the device and the browser should adapt to the Web content rather than forcing Webmasters to create content that is specifically designed for a certain set of devices. Tim Berners-Lee, who is credited with inventing the World Wide Web and the HTTP protocol, has always been staunchly against the dotMobi domain extension. In an article he wrote called "New Top Level Domains .mobi and .xxx Considered Harmful," Berners-Lee expressed the following concerns:

> Dividing the Web into information destined for different devices, or different classes of user, or different classes of information, breaks the Web in a fundamental way.
>
> This domain will have a drastically detrimental effect on the Web. By partitioning the HTTP information space into parts designed for access from mobile access and parts designed (presumably) not for such access, an essential property of the Web is destroyed.

In my opinion, he is quite right. The idea of creating device-specific domains could easily become a slippery slope where new domain extensions and standards are developed each time a new Web-enabled device is developed. This would be an absolute nightmare for developers and consumers alike.

Effectively Organizing and Architecting a Mobile Site

One very important aspect of mobile website strategy is the architecture of the mobile site. In this case, "architecture" simply refers to where and how the pages of the site will be organized and stored on the Internet. There are three basic mobile site architecture options to choose from:

- A separate mobile site, on a different domain than the main site
- A mobile subdomain or subdirectory on the main site
- Mobile-traditional hybrid pages on your main site

The architecture option that you choose will affect your ability to control the mobile user experience, the content that you are providing to your mobile users, and your site's ability to rank in search engines. The following sections outline the

pros and cons of each of the three options. Different architecture options and configurations will be appropriate, depending on other elements and requirements of the project.

Separate Mobile Site

Separate mobile sites are hosted on a different domain than your main site and work completely independent of your main site. Frequently, marketers choose to put their separate mobile sites on dotMobi domains or shortened versions of their main domain. For example, the mobile version of BusinessWeek.com is hosted on BusinessWeek.mobi, but if the domain were available, *BusinessWeek* could have also opted to host its mobile site on a shortened version of the domain, such as BW.com or BW.mobi. The goal of this strategy is simply to save users from having to type a longer domain on small phone keypads.

Separate mobile sites can be good when they are used in tandem with offline marketing channels that drive mobile traffic to the domain, or if they set up agreements with carriers to promote the mobile site on-deck. Relying on users to find your mobile content on a new mobile-specific site can be challenging if you are not promoting it through other channels. New mobile sites do not benefit from any of the traffic, links, or rankings from the primary website. New mobile sites must build up rankings in mobile search engines, and they must compete with other mobile and traditional sites that are already in good favor with the search engines.

One of the main arguments against having a separate mobile site is that they can be confusing to users. Many users will have a hard time remembering one domain, but a separate mobile site forces them to remember two domain names, and possibly even two sets of Web content and navigation. Creating a separate mobile site also doubles the amount of website maintenance you have to do. When important updates are made to the main site, they must be made to the mobile site, too. In general, the cost of creating and maintaining a separate mobile website tends to be higher than other architecture options. It is also important to note that as mobile browsers improve, other architecture options will fall more into favor because the need for separate mobile websites will fade.

Mobile Subdomain or Subdirectory

Many popular websites choose to put a mobile version of their site in a subdomain or subdirectory on their primary domain. This prevents users from having to remember a new domain and allows the mobile pages to benefit from the traffic, links, history, and keyword rankings that the main site has with search engines. This is beneficial because it means that the mobile website does not have to start from scratch and can begin attracting traffic from mobile search engines much faster.

Mobile subdomains and subdirectories are relatively easy to create, and the content on the mobile pages can be easily tailored to fit smaller mobile screens. There is no consensus in the mobile SEO community on whether a subdomain or subdirectory is more desirable, and this is discussed more later. Other than SEO value, little difference exists between mobile subdomains and mobile subdirectories, except for their expression in the URL.

You can essentially copy your site and put it in the subdomain or subdirectory, and then start formatting the content for the smaller screens of mobile phones. You can name the subdomain or subdirectory any way you like, but the most common mobile designations are mobile, m, mobi, wap, and mob.

Subdomains

Subdomains are subsections of your website that are represented in the URL with the name of the subdirectory, then a dot (.), and then the full domain name. For example, www.Ruters.com has its mobile site on a subdirectory called `mobile`, so the URL to access the mobile content is www.mobile.Reuters.com. All mobile content on the site is hosted in the mobile subdomain. Many SEOs believe that mobile subdomains are likely preferred over mobile subdirectories in search results because they are a more intuitive break or differentiation in the site.

Subdirectories

Subdirectories are sometimes called folders or subfolders. They operate in much the same way subdomains do, but they are represented differently in the URL. The BizJournals.com website has a mobile subdirectory called `mobile`, so the URL for the mobile content is www.BizJournals.com/mobile. All the mobile content on the site is hosted in the `mobile` subdirectory. Many SEOs believe that mobile subdirectories are better than subdomains because they allow more of the search engine value that is given to the domain to pass down to the content in the subfolder.

One of the benefits of this approach is the capability to tailor content that eliminates unnecessary components and controls the mobile user experience. In many cases, you might want to eliminate elements from the traditional site that would take a long time to download on a mobile phone or might create rendering problems. You can also simplify the page layout by organizing everything in one column with well-marked headings.

The main drawback of this approach is that creates a duplicate content risk with the search engines, which is discussed more in Chapter 10. The other substantial disadvantage to this strategy is the duplication of overhead and effort required to maintain the site. Each time a change is made to the traditional website, it likely has to

be made again on the mobile site; with sites that have rapidly changing Web content, this can be quite cumbersome.

Mobile/Traditional Hybrid Pages

A less-known but very logical option for many website s is to use multiple Cascading Style Sheets (CSS) to make all the existing pages on your existing site work on mobile phones, too. Cascading Style Sheets are the rendering instructions that control how the content of your site is displayed. When a page is displayed, the browsers pull the style sheet to see how the page should be laid out and what fonts and colors to use when rendering it. (This differs from older HTML coding standards, where font attributes were included in-line with the code.)

Style sheets can be internal, meaning that the code is actually part of each page, or external, meaning that the code that controls the page is housed in a separate file on the server. External style sheets are text documents that control how every page (or just a group of pages) on the site renders. This makes it easy to update your entire site simply by updating a single CSS file. Style sheets are also great for mobile because they enable you to streamline the code that the phone has to interpret to render the page. This minimizes the time it takes your page to render on a mobile handset. Also, because the style sheet has to be downloaded only once, subsequent pages on the site will download to the phone even quicker. Originally, not all mobile phones supported CSS, but now most phones that honor WAP2.0 or above have at least some support for CSS.

If your traditional website is cleanly coded (XHTML is preferable) and style sheets have been employed to control the rendering of the site, you can simply create a new "handheld" style sheet that will direct how the content of your existing site is rendered when it is on a mobile phone. All you have to do is add a link to the mobile style sheet in each page, after the link to the traditional style sheet (as shown in the following example). Mobile browsers will automatically pull the handheld style sheet if it is available.

```
<link rel="stylesheet" type="text/css" media="screen"
href="screen.css"/>
<link rel="stylesheet" type="text/css" media="handheld" href="hand-
held.css"/>
```

In some cases, this can be a great way to save time and money on mobile site development, and it is actually an elegant solution. It enables you to leverage all the existing links and search engine rankings of your existing site in mobile search, and it prevents you from having to make updates in two places whenever your site needs to be updated. This option is also ideal because it eliminates the risk of duplicate content being indexed in the search engines, which, again, is discussed more in

Chapter 10. (Mobile style sheets should also be used on mobile-specific pages that are hosted on subdomains or subdirectories, but they don't benefit as much from the search engine rankings of the primary pages.)

You can even use the "display=none" attribute in your style sheets to have things show on the mobile site and not the traditional site, or vice versa. This can be a bit tricky if you are not skilled in CSS, but overall it is a very simple solution. The biggest caveat is that hybrid pages are not a great option for sites that have a lot of images or things like Flash that would bog down a mobile browser. In most cases, you want to eliminate those large elements from the mobile rendering. Remember that even if the style sheet is used to make these items not display, they still have to be downloaded, which drastically slows the load time of your mobile page.

In some cases, browsers might have a hard time pulling the appropriate external style sheet. This is especially true of Mobile Internet Explorer, which is known for pulling the traditional "screen" style sheet instead, and also true of the NetFront browser, found on PlayStation, which renders only style sheets that are embedded in the page. The following code, courtesy of Johann Burkahrd at JohannaBurkard.de, embeds a style sheet for the handheld media type (for NetFront/PlayStation) and hides the screen style sheet from IEMobile and NetFront (see http://johannburkard.de/blog/www/mobile/Linking-CSS-for-handheld-devices-revisited.html):

```
<link rel="stylesheet" type="text/css"
    href="handheld.css" media="handheld"/>

<script type="text/javascript">
if (/(NetFront¦PlayStation)/i.test(navigator.userAgent))
    document.write(unescape('%3C') +
    'link rel="stylesheet" href="handheld.css"\/' + unescape('%3E'));
if (/(hiptop¦IEMobile¦Smartphone¦Windows CE¦NetFront¦PlayStation¦Opera
Mini)/i
    .test(navigator.userAgent))
    document.write(unescape('%3C%21--'));
</script>

<style type="text/css">
@import URL("handheld.css") handheld
</style>

<link rel="stylesheet" type="text/css"
    href="screen.css" media="screen,tv,projection,print"/>

<!-- -->
```

HTTP Header Review

The HTTP headers on a website help clarify the characteristics of data that is being sent or received from the Web. A variety of headers that can be included in a Web page, but the following headers are more relevant for mobile development than others.

User Agent Profiles (UAProf)

User agent profiles are stored in an XML document on a server called the profile repository, which frequently is maintained by the device manufacturer. The UAProf is stored in the header of the mobile phone and is received by the website when the first request is sent. The header contains a link to the server and sends back information from the server about the screen size and other important elements on the phone. This enables the phone manufacturer to update the user agent profile information so that it can be updated independent of the websites or handsets.

User-Agent Header

The User-Agent header is stored on the phone and the mobile browser your Web patron is using. Your website can request and check this header to determine what type of content should be served. This is discussed more in "Directing Traffic with User Agent Detection," later in this chapter, but it should also be mentioned here.

Checking this header is especially important if you have pages or content that has been created for specific user agents, or if you are serving content dynamically based on user agent detection and device specifications. One of the main difficulties of User-Agent headers is that the format of the header is different among phones and phone manufacturers. Because this can be confusing and time-consuming, lists of mobile user agents are available online. They can also usually be accessed directly from the phone manufacturer's website. Wikipedia has a good list of the popular user agents available at http://en.wikipedia.org/wiki/List_of_user_agents_for_mobile_phones.

Cache-Control

The Cache-Control header is used to specify whether the elements of the page should be casced by the phone or the server. When working with mobile devices, it is important to minimize the amount of content that mobile phones must download, whenever possible. Allowing servers to cache the style sheet, logo, or template images will prevent the user from having to download them independently each time, which minimizes the bandwidth necessary to view the website. When it is

necessary, the Cache-Control headers can also prevent the reuse of content that has been adapted for one device but should not be used on others, or prevent caching all together. The following directives can also be useful for mobile content.

"Cache-Control: public" Allows content to be cached and shared among different devices

"Cache-Control: private" Allows cached content to be reused, but only by the originally requesting device

"Cache-Control: no-cache" Prevents all caching of the website on the phone and the server

Content-Type

The Content-Type HTTP response header describes various aspects of the content that is being sent, including the character set, encoding, and MIME type. For most mobile content, the content type header looks like this:

```
Content-Type: text/xhtml; charset=utf-8
```

The first aspect of the Content-Type header is the Multipurpose Internet Mail Extensions (MIME) type. A MIME type is a media designation included in the header of a Web page that tells the mobile browser how to interpret the code that it is sending, and it is the value returned in the Content-Type request. MIME types also help the mobile browser determine when a file is supposed to be launched in the browser and when it should be launched as an application or in a separate program.

The MIME designation always includes a main type and a subtype, which are separated by a forward slash; thus, the MIME type for an image might be `image/GIF`. Eight primary MIME types exist: application, audio, image, message, model, multipart, text, and video. Table 9.1 shows some of the more common mobile MIME types (excluding some media MIME types, which are covered later).

Table 9.1 Common Mobile MIME Types

MIME Type	File Extension	Remark
application/java-archive	Binary	Java archive
application/java-archive	.jar	Java archive
application/mtf	.mtf	Motorola theme
application/vnd.alcatel.animation	.ani	Alcatel animation (converted animated GIF file)
application/vnd.alcatel.colorpalette	.pco	Alcatel image (256-color picture)

MIME Type	File Extension	Remark
application/vnd.alcatel.picture	.pic	Alcatel icon
application/vnd.alcatel.seq	.seq	Alcatel polytone (converted MIDI file)
application/vnd.alcatel.vox	.vox	Alcatel sound format (converted WAV file)
application/vnd.eri.thm	.thm	Sony Ericsson theme
application/vnd.mophun.application	.mpn	Sony Ericsson mophun game file; this file runs only on a mophun runtime environment
application/vnd.nokia.gamedata	.nqd	Nokia game data
application/vnd.Nokie.ringing-tone	.rng	Nokia ringtone
application/vnd.nok-s40theme	.nth	Nokia theme
application/vnd.rn-realmedia	.rm	RealMedia video format
application/vnd.siemens-mp.skin	.scs	Siemens color scheme; compressed file containing several files
application/vnd.siemens-mp.theme	.sdt	Siemens theme file; compressed file containing several files
application/vnd.symbian.install	.sis	Symbian installation
application/vnd.symbian.install	.sis	Symbian installer
application/vnd.wap.mms-message	.mms	Binary MMS in MMS Encapsulation Protocol format
application/vnd.wap.xhtml+xml	.xhtml	XHTML-MP markup
application/xhtml+xml	.xhtml	XHTML-MP markup
application/x-nokiagamedata	.ngd	Nokia game data
application/x-pmd	.pmd	Polyphonic ringtone format
application/x-smaf	.mmf	Samsung truetone format
audio/adpcm	.adp	LG truetone format
audio/midi	.mid	MIDI audio format (ringtones)
audio/midi	.midi	MIDI audio format (ringtones)
audio/vnd.qcelp	.qcp	QCELP audio file
audio/x-aac	.aac	Nokia audio format
image/gif	.gif	GIF format
image/jpeg	.jpeg	JPEG format