

Bonus Chapter 1

Ten Illustrative Applications for iOS

In This Chapter

- ▶ Examining some popular iOS applications
 - ▶ Seeing how successful apps leverage iOS capabilities
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With so many apps in the App Store, how do you make sure yours stands out? Although there isn't an exact recipe for success, providing users with an engaging experience will probably go a long way toward getting your app on more devices. To do so, you need to understand the capabilities of the iOS platform and how you can use these capabilities to create an app that people will want to use.

If you've made it to the "Part of Tens" section of this book, you already have a pretty good idea about features the iOS platform makes available to you as a developer. But maybe you're having a more difficult time understanding how to use these features to build a successful app. This chapter will give you a little inspiration. Here, you'll find information about ten widely popular apps that make the most of the operating system and devices they run on.

All of the applications in this chapter are either completely free or have free versions. However, many offer premium versions, subscriptions, or other types of in-app purchases that provide an enhanced user experience. This is a common strategy and certainly worth considering when you deploy your own apps to the App Store.

Candy Crush Saga

The App Store has thousands upon thousands of games, with each one competing to become your number one choice for killing time (after all, that's what games are for, right?). Among this gigantic collection of games, a rare few become so popular that they extend beyond the app store into popular culture. Angry Birds, released in 2009, is one of the best examples. It seems

like everyone has played or at least heard of Angry Birds. After the app became a worldwide phenomenon, books, clothing, and all sorts of other merchandise followed.

However, time at the top of the iOS app mountain is usually short-lived. The next global sensation is always right around the corner. Recently, the crown was finally wrestled away from Angry Birds by a new champion — Candy Crush Saga. At the time of this writing, Candy Crush Saga had more than half a billion downloads and was raking in around \$900,000 per day.

Candy Crush started as a Facebook game in April 2012, but soon afterward debuted an app for iOS. The concept is simple, especially to those familiar with games like Bejeweled. The player is presented with a board full of candy pieces. The goal is to match three or more pieces in order to clear the board. An example board is shown in Figure BC1-1.

The interesting thing about Candy Crush Saga — and the thing that makes it wildly profitable — is that players can buy elements to make the game easier. The app uses the iOS In-App Purchase capabilities to sell users extra lives, moves, and other goodies. A word of warning, though — Candy Crush makes purchasing so simple, many users find that it's easy to spend a wad of cash without realizing it.



Figure BC1-1: Candy Crush Saga is simple to play and surprisingly addictive.

Fandango

The Fandango iOS app allows you to “get the latest showtimes, guarantee tickets, & check-out exclusive Fandango content.” Users can browse movies by genre, rating, and other criteria. They can also find theaters, purchase tickets, and rate movies. Figure BC1-2 shows Fandango in action.

The Fandango app uses GPS to show you theaters in your area along with maps and directions. You can purchase tickets for more than 21,000 screens around the U.S., thanks to Fandango’s use of the In-App Purchase framework. Many theaters support mobile ticketing, so users can simply have their devices scanned at the theater in lieu of printed tickets.

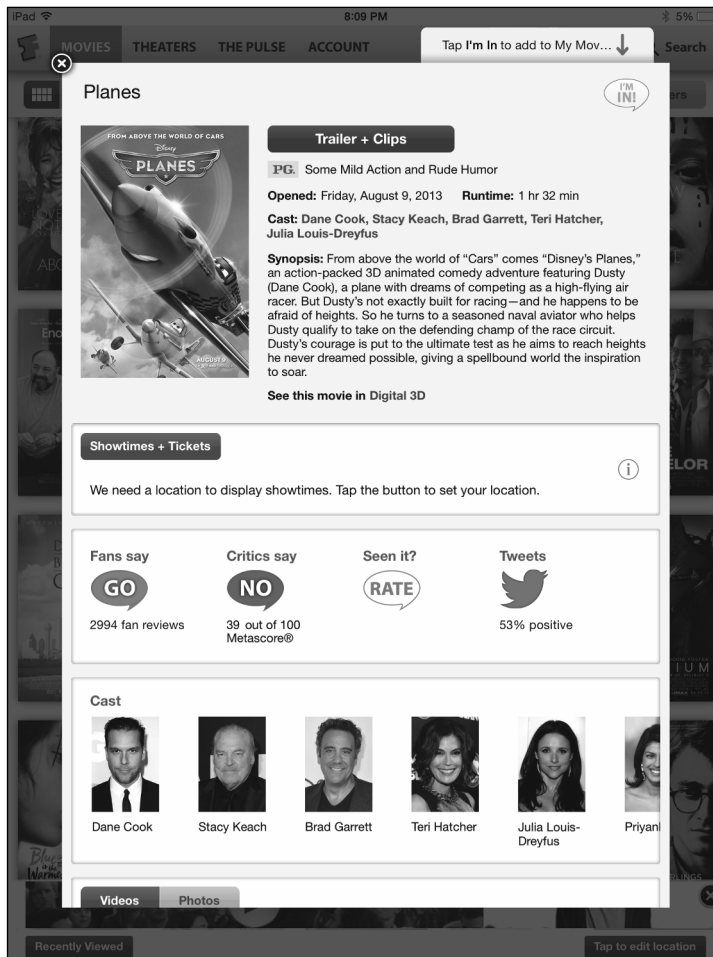


Figure BC1-2:
Fandango
is the most
popular
movie-tick-
eting app on
iOS.

Fandango also supports AirPlay. If you have Apple TV (or want to bogart your friends’), this app lets you stream movie trailers directly to your HD TV.

Fandango integrates with social media services such as Facebook, Google+, and Twitter and was recently updated with a new look for iOS 7.

OpenTable

According to the app’s description in the App Store, “OpenTable is the only app that helps you make reservations at more than 20,000 restaurants in the US, Canada, and Mexico.” Users can browse restaurants based on cuisine, rating, party size, and reservation time. The OpenTable iOS app, which has a refreshed look for iOS 7, is shown in Figure BC1-3.

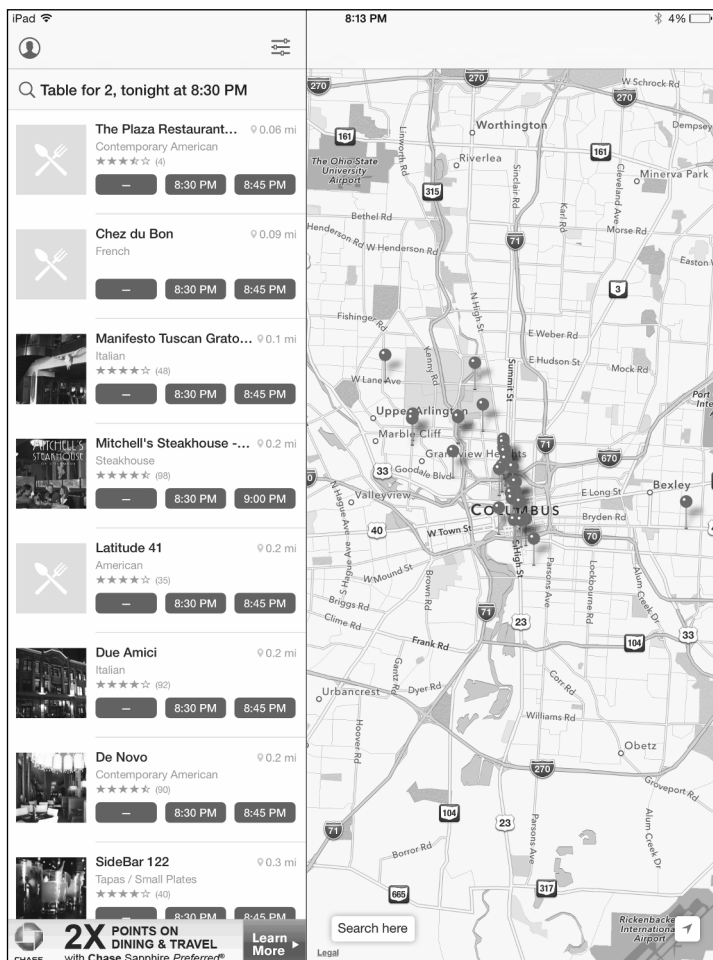


Figure BC1-3:
Use
OpenTable
to make res-
ervations at
your favorite
restaurant.

OpenTable makes extensive use of the Core Location framework supplied by the iOS platform. Users can find restaurants near their current location and check availability in real time. The app also allows users to plot nearby restaurants on a map and get directions to each one.

Another cool feature of the OpenTable iOS app is that it allows users to add their reservations to their calendar. This feature likely uses the Event Kit framework, which allows you to tap into a user’s calendar and reminder data.

OpenTable also allows users to snap pictures of their meals. To do so, the app likely employs a UIImagePickerController or uses the AV Foundation framework.

Evernote

If you’re looking for an app to boost productivity, you may be overwhelmed by all the choices available in the App Store. Productivity is a very popular category with hundreds of available apps.

One of the best-known and most frequently downloaded apps of this kind is Evernote. The goal of Evernote is to help you “stay organized, save your ideas, and improve productivity.” Evernote syncs your activity across all your devices so you’ll always be up-to-date no matter where you are. The UI of the app is shown in Figure BC1-4.

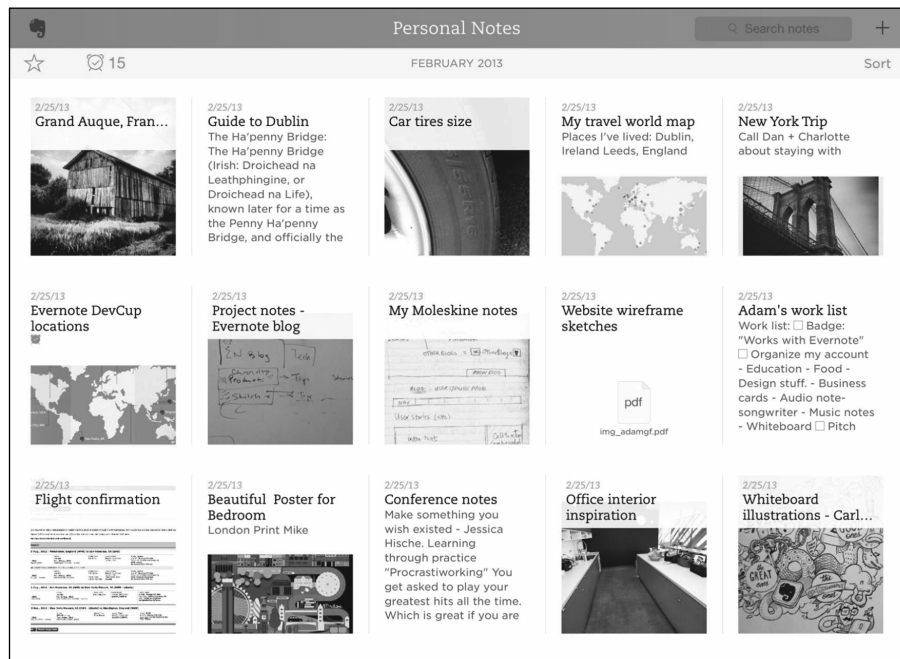


Figure BC1-4: Evernote helps you be more organized and productive.

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Evernote's fundamental purpose is the creation and management of simple notes and to-do lists. In addition to using text, you can take pictures and record audio, features made possible by the AV Foundation framework in iOS.

Notes can also be shared with other devices through use of the iOS AirDrop protocol. Within any note, just click the Share button to see a list of nearby users who have AirDrop enabled.

If you find that Evernote is for you, you can upgrade to Evernote Premium to add password locking, offline viewing, improved searching, and other features. Upgrades are available on a monthly or annual basis and are made possible by the In-App Purchase framework.

zeebox

Have you ever wished that your TV and smartphone could work better together? Suppose you want to invite your friends to watch the big game coming up tonight. Or maybe you're watching the season finale of your favorite show, and you're wondering whether everyone else is loving it as much as you are. zeebox, shown in Figure BC1-5, is here to help.

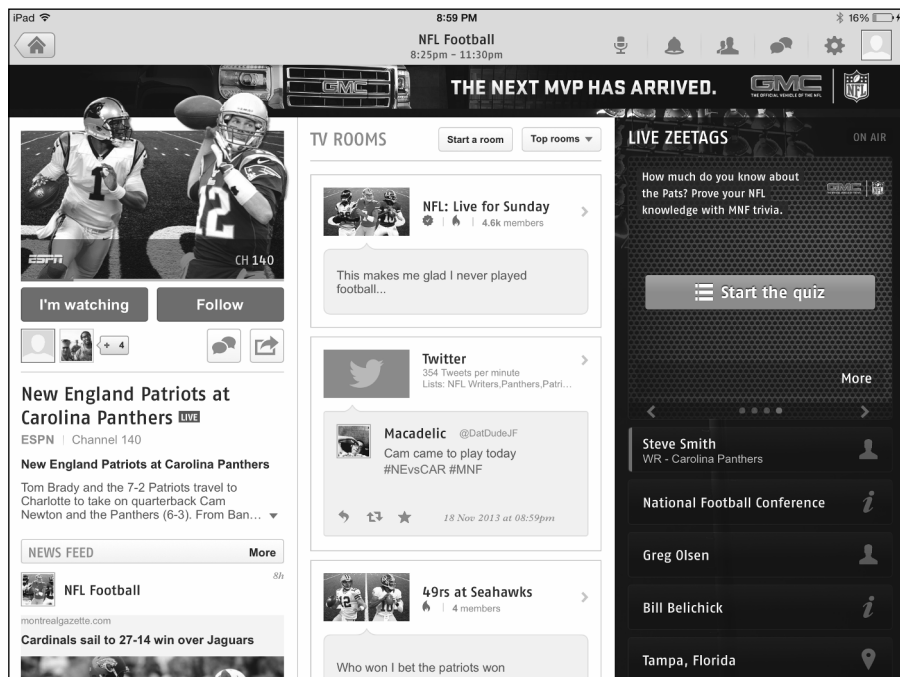


Figure BC1-5:
zeebox
wants
to make
watching TV
more fun.

According to the company's website, "zeebox is your TV sidekick — an interactive second screen that makes TV more social, clever, and fun." zeebox helps you figure out which shows are hot by analyzing Twitter and determining what people are talking about. It also keeps track of what zeebox users are watching to give you an idea of the size of each show's audience. The most-watched show is given a rating of 100, and every other show is scored relative to that. All these numbers are updated constantly, so you can see in real time whether people loved or hated that latest plot twist.

zeebox also has the concept of *rooms* where viewers of the same show can get together and chat about what's going on. Like shows, rooms are rated based on their popularity. Shows even have the option to designate official rooms on zeebox.

One of the most interesting features of zeebox is the way it uses your device's microphone. If you're flipping through channels and don't know exactly what you're watching, zeebox can listen to the show and direct you right to the show's page. The AV Foundation framework is likely used here to capture audio for show identification.

Instagram

Instagram is a social networking service focused on sharing pictures and videos. The concept is simple: Users take pictures or short videos, apply one of Instagram's custom filters to get the look they want, and then share the results with friends. Users can "like" images and post comments similar to other social networking services. Figure BC1-6 shows the process of applying filters in Instagram.

Since its launch in 2010, Instagram has become wildly popular. As of October 2013, Instagram had 150 million monthly users and was responsible for sharing more than six billion images over the life of the service.

Instagram likely leverages the AV Foundation framework for image and video capturing. Although the app's custom filters are probably proprietary solutions, iOS does provide the Core Image API that allows you to achieve similar results by creating their own image filters.

The Instagram app for iOS is currently available in more than 20 languages, so it's clear that the app uses the iOS internationalization and localization support effectively.

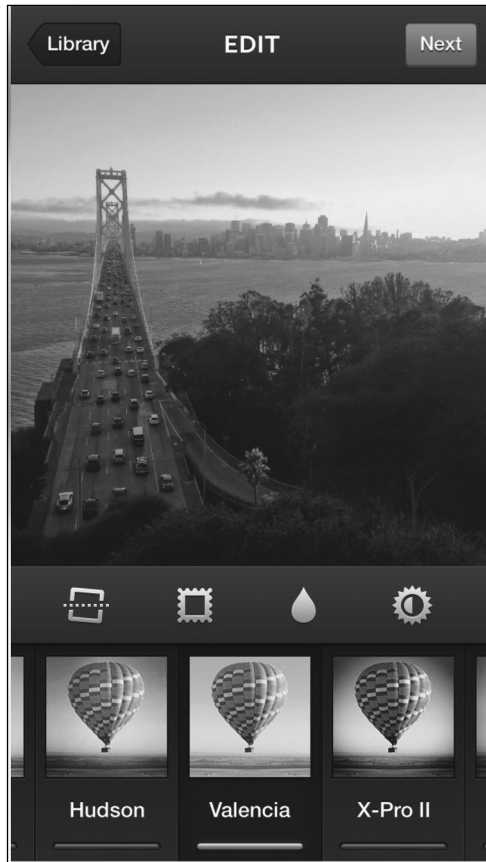


Figure BC1-6: Instagram's filters allow you to get exactly the look you want.

GoSkyWatch Planetarium

GoSkyWatch is an astronomy app that identifies and explains almost everything that you can see in the night sky. A database of visible stars helps you figure out what you're seeing, and more than 200 images of deep space give you a clue about what's beyond your view. To supplement these images, time lapse animations show you how celestial bodies move throughout space.

Probably the best feature of GoSkyWatch is how easy it is to use. Simply point your device up at the night sky, and the app explains exactly what all those bright dots are. No pinching, scrolling, or tapping is required. GoSkyWatch's interface is shown in Figure BC1-7.

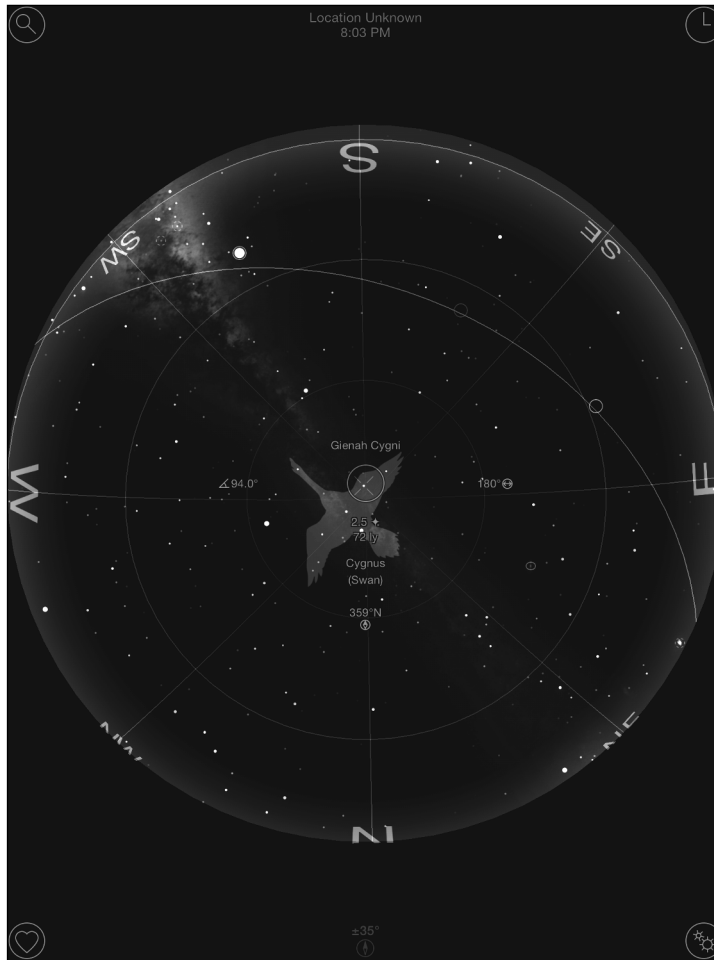


Figure BC1-7:
GoSkyWatch
is your map
of the night
sky.

Two iOS features make this interface possible. First, the app uses data from the accelerometer to pick up movement and determine how the device is oriented. You can use the Core Motion framework to access this functionality. Second, you can use the data from the magnetometer (not available on iPod Touch or early iPhones) to figure out which direction the device is pointing. A magnetometer measures the direction of the Earth's magnetic field in order to determine the heading of the device. Magnetometer data is exposed via the Core Location framework.

Note that the educational iPad version of GoSkyWatch is free, but the iPhone version is \$3.99.

ShopWell

ShopWell is a must-have app for anyone with dietary restrictions (or really anyone who wants to eat healthy). Simply input your nutritional goals — like reducing sodium or eating Kosher — and ShopWell finds foods that meet your specific needs. It's like a “personal nutrition expert in your pocket.” Figure BC1-8 shows the app.

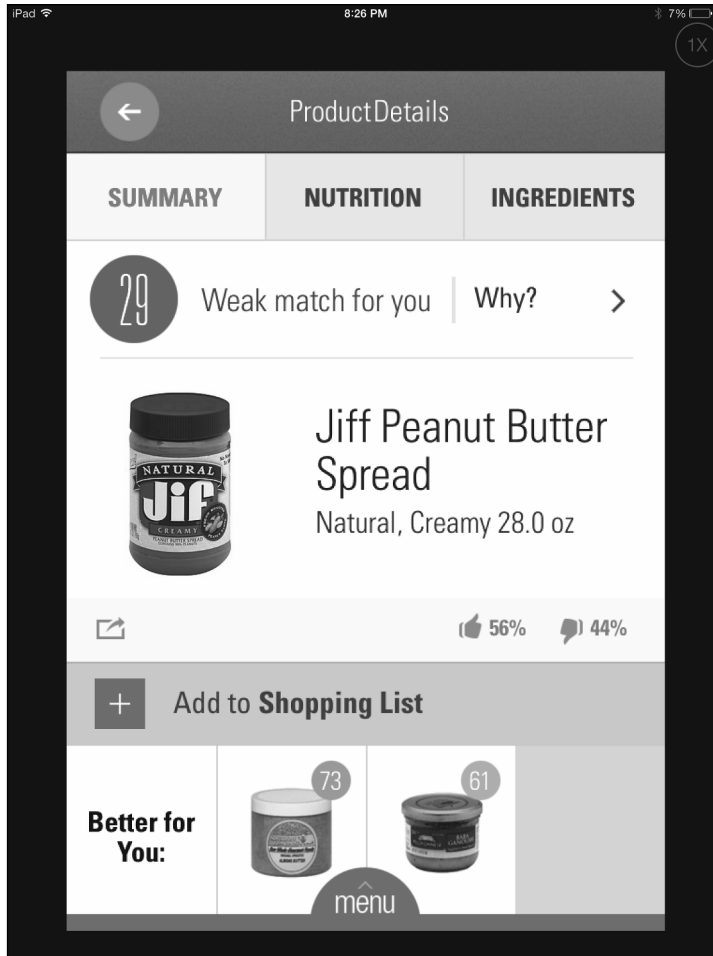


Figure BC1-8: ShopWell helps you make healthier decisions when buying groceries.

Browse foods on ShopWell to create shopping lists that help you achieve your health goals. Or look up some of your favorites and see if ShopWell can suggest a healthier alternative.

But ShopWell isn't useful only for planning your shopping trip. If you're already at the grocery store, use the app to scan an item you're considering, and ShopWell will show you its pros and cons, its score on a 0–100 scale, and whether you should swap it for something else. If you're at home, use this same feature to grade your existing pantry.

Because ShopWell uses your device's camera to scan bar codes, it likely taps into the AV Foundation framework. Although iOS doesn't currently provide native support for bar code scanning, some open-source libraries — such as ZBar — provide this capability.

RunKeeper

RunKeeper, as you may have guessed from the name, lets you keep track of your runs (as well as walks, hikes, and bike rides). You can get detailed statistics for your workouts, view them on maps, and share them with your friends. Figure BC1-9 shows RunKeeper.

Three of RunKeeper's features highlight its use of the iOS SDK. First, and probably the most obvious one, is its use of GPS to calculate how far you've run and to plot routes on maps. Also, once you establish a favorite or two, you can share them with other RunKeeper users in your area.

Second, RunKeeper provides real-time coaching by sending audio cues to you throughout your workout. These cues let you know how far you've gone, how long you've been running, and whether you're staying on your desired pace or interval. RunKeeper clearly makes use of the AV Foundation framework to provide these cues.

Finally, RunKeeper allows owners of compatible heart rate monitors to pair the devices with the app. This pairing takes advantage of the iOS Bluetooth support.

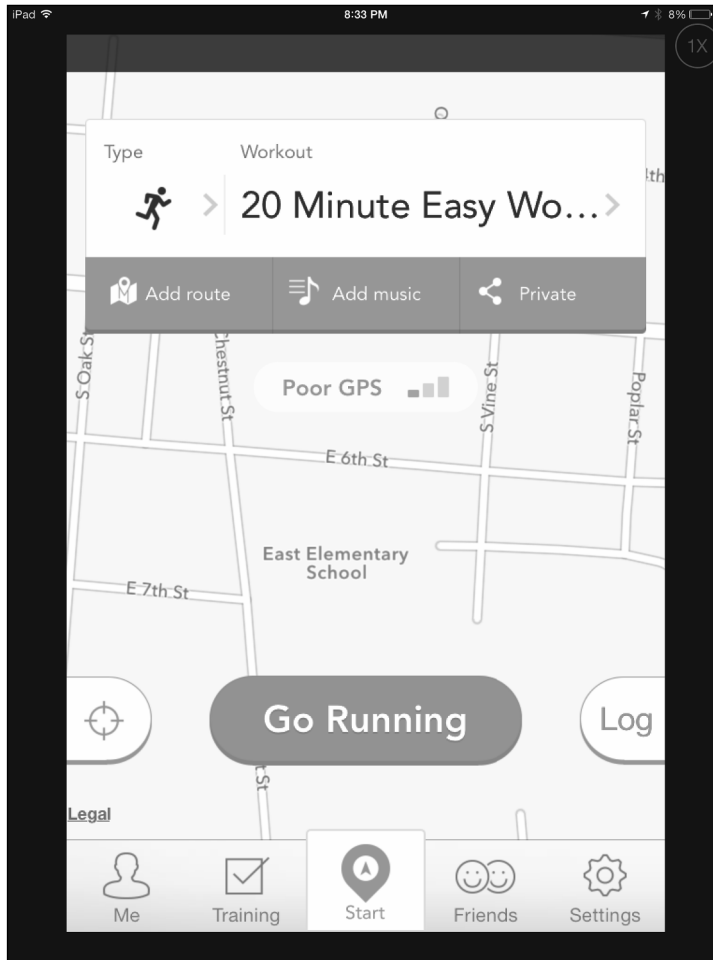


Figure BC1-9: RunKeeper helps you keep track of your workouts.

Instant Heart Rate

Did you know that the camera on your iPhone or iPad can be used for more than just posting pictures of your cat to Facebook? The Instant Heart Rate app, shown in Figure BC1-10, uses the camera and its flash (if present) to calculate your heart rate.

Just place the tip of your finger over your device's camera, and in a few seconds, your pulse will appear on the screen. The app shows a real-time chart of your heart beat and will beep along with it. If you feel the need, you can even post the results to Facebook (along with your cat photos).



Figure BC1-10: Instant Heart Rate uses your device's camera to calculate your pulse.

The app works by measuring subtle color differences in your skin as your heart beats. Research has shown that smartphone apps can be surprisingly accurate using this method. But Instant Heart Rate does point out that the app is for “recreational and fitness use only.”

Instant Heart Rate is a good example of how you can use the AV Foundation library in untraditional ways to provide innovative capabilities.

