I think it’s safe to state that the mobile and tablet market rushed the emergence of HTML5 onto the scene. With Apple’s release of the iPhone and iPad paired with the sole reason that both of them would never support a Flash player, made HTML5 something of a household name and the required technology that would fuel the mobile landscape. This chapter will focus on HTML5 advertising as it relates to the constantly growing, ever changing, and slightly fragmented mobile landscape. As I write, the mobile market is chock full of various browsers, devices, and operating systems, let alone several versions of each browser and operating system with varying HTML5 support. The market’s actually pretty fragmented, to say the least but fear not, I’ll be sure to navigate you through it all.

So far the focus has been on HTML5 features as they pertain more or less to desktops, but the features of mobile devices allow HTML5’s strengths to stand out more fully. Through use of APIs, you can leverage native device features like touch, orientation, compass, accelerometer, and battery status, not to mention all of the new features HTML5 brought to desktop browsers that filter down into the mobile realm as well. Let’s face it, we live in a mobile world now. Because of smart devices with web access, people can use a phone for boarding passes on flights, to make payments electronically, even, with a service like Uber, to hail a cab. So let’s talk about how mobile development takes HTML5 a step further and talk specifically about device features, how they’re used, what is supported currently, and what will be available very soon. Since mobile devices and desktop browsers use HTML5 much differently, this chapter will outline current device features that HTML5 can access, as well as focus on how to use those features to create really amazing advertisements for our clients. If advertisers are looking to reach their audience on phones and tablets, they’ll most certainly need to rely on HTML5 going forward. The mobile market gives entry to many innovative things; so let’s dig in and find out exactly what.

The Mobile World

Let’s get one thing straight: mobile is here and, trust me, it’s here to stay! More and more people are equipped with smart phones and tablets with network connections. The hardware is cheaper than ever to make, and with Apple, Samsung, LG, and other OEMs (original equipment manufacturers) creating very sophisticated and connected devices with a relatively small price tag, the barrier of entry has been lowered for everyday consumers, which makes it a highly profitable channel for advertising. These devices are sophisticated in many ways, but one to focus on is modern browsers’ support for HTML5. Because it’s easier than ever to socialize, work, e-mail, or just play a game on the go and with so many eyeballs shifting from the traditional desktop and television to the smaller screen, advertisers, having taken notice of the trend and are hungry to be in this emerging market. Many analysts predict that the mobile market will pass the standard desktop market in the next two or three years. Look, for instance, at Figure 8–1 from Morgan Stanley Research.

J. Percival, *HTML5 Advertising* 
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As you can see, for anyone in the mobile space, this is an exciting trend with an opportunity for a long and prosperous future. One thing is for certain: HTML5 will be very prominent in this market, as it's currently the only ubiquitous technology that can span all the mobile platforms. No other technology can deploy to all the browsers and devices natively—not Flash or Silverlight. You certainly can’t build applications for major mobile operating systems unless you know Objective-C or Java or use Adobe AIR for iOS or a similar packager. Not only does HTML5 allow you to build amazing web apps; it even enables the creation of native mobile apps with the help of a framework like PhoneGap (http://phonegap.com) built on Apache Cordova (http://incubator.apache.org/cordova). Using the same tools and syntax that work in the modern web browser, can now be used across devices, browsers, and various operating systems to ensure compatibility when compiling to a native app. This is the main reason that HTML5 is becoming so attractive on mobile devices. You build have the ability to build once and deploy everywhere-(well everywhere its currently supported for now). Now that you know why HTML5 is so important, let’s look at the various devices on the market before digging into the code and practice of each.

**Mobile Devices, Browsers, and OSs**

Desktop browsers are fragmented in their HTML5 support, and mobile devices are no different. There are many different device manufacturers, each with its own variation and adoption of the HTML5 specification in its browser. There are so many different devices in the space currently that it’s nearly impossible to keep track of what is supported where and what the latest features of the device are that we have access to.

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**Note** For very good information around the fragmented mobile ecosystem, I strongly suggest checking out http://www.quirksmode.org/mobile/.