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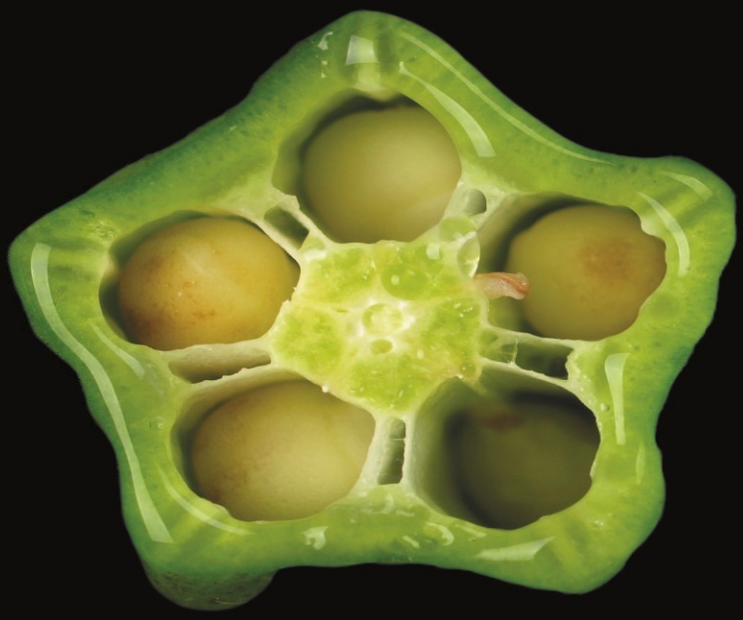

iOS Wow Factor

Apps and UX Design Techniques for iPhone and iPad

Timothy Wood

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About the Author

Tim Wood is currently Director of User Experience at EffectiveUI, where he leads an award winning design team specializing in the creation of custom applications for the web, mobile, and desktop environments.

For more than a decade, Tim has persistently focused on the radical transformation of business through user experience. From next-generation consumer electronics to highly specialized mobile applications, his passion for design has fueled an inherent desire to innovate and promote progressive methods of interaction design. Tim holds an MFA in Computer Graphics and Interactive Media Development from the Rochester Institute of Technology and is an internationally recognized speaker on the topics of user experience design, user interface design and interaction design.

Tim lives in upstate New York with his partner Lynne, their cat Elysium and a random assortment feral cats and other urban wildlife. When not designing, Tim can usually be found bounding quickly and quietly through the forests of the northeast on his mountain bike… only getting out of hand and crashing some of the time.

About the Technical Reviewer

Adam Smith is a Rochester Institute of Technology Associate Professor and chairs its New Media Design program in the College of Imaging Arts and Sciences (CIAS). He has led key efforts to incorporate industry collaboration in the department's undergraduate design education. Graphics Live Magazine, Graphic Design USA, STC conferences, and Adobe.com have all featured this focus and the interactive design, user experience, and cross-device-development educational processes he initiated at RIT. The New Media Program has helped create an award winning and internationally recognized design program at RIT.

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Introduction

It's a tough market out there, and as I'm sure you know, it can be very difficult for your application to get noticed in the App Store. There are literally hundreds of thousands of both interesting and not so interesting applications available for download now. Just having a highly functional and stable application from a development perspective isn't enough to get your app the recognition it needs to go mainstream. Users expect to be 'Wowed' with their iOS apps, this is probably something that you have experienced yourself. As you probably know, it's the 'Wow Factor' of that initial app experience that sets the hook and gets users engaged with the features and functions that you or your development team have been working so hard to create. It's 'Wow Factor' that gets you world of mouth recommendations between friends and great reviews in the app store. It's 'Wow Factor' that can drive the viral adoption of the application that ends up funding your early retirement! The big question is, what is Wow Factor, and how do you get it?

Those are not easy questions to answer, but the good news is that there are answers, and I certainly will address those later in this book - but you need to know that you can get to 'Wow' if you are willing to start paying close attention to the details of your application experience. There's no doubt about it, critical thinking, excellent problem solving skills, and solid design methods are behind any great user experience. Elevating your design practice to a higher level is absolutely necessary to get that 'Wow' that you are looking for, and that's at the heart of what this book is about. But 'Wow' takes more than good design practice. It's also rooted in how you think about, or frame up your design problems and that requires a greater understanding of the wider context for the design decisions you are going to make.

It's my firm belief that you can't truly know where you are going without a good understanding of where you have been. The iPhone isn't the first

smartphone to appear in the market, although it is one of the most successful and influential. As an application designer, or developer, you understand at some level the huge opportunity this new platform presents and obviously you'd like to take advantage of it. By looking into the past we can understand why the iPhone is the way it is and why it is held up as a shining beacon of great user experience.

As you think about your application, you may need to build upon some of the fundamental concepts behind that experience the core experience of iOS, but on the other hand, you may just want to toss them aside. The idea behind this book is fairly simple, to give you, designer and developer, practical insights into the nature of the iOS user experience, while empowering you with information to create your own exceptional applications. For many people, Apple's Human Interface Guidelines is the starting point for understanding the possibilities that iOS enables for users. But what do you do if you need to go beyond those rudimentary guidelines? Because they are just that, rudimentary - and that's just not going to cut it for you! This book intends to help push you beyond the basic assumptions you may have about iOS applications provide you with the ideas and techniques that will help you build upon your own insights and free your personal creativity.

Creating a successful iOS application isn't easy, but it's my hope that this book will help you take your application to the next level and help it get the attention that it deserves.

CHAPTER

1

Putting the iOS Human Interface Guidelines in Context

Apple's iOS Human Interface Guidelines (HIG) aim to be the definitive starting point for designers and developers new to the platform. The company's approach to the guide is simple—provide a critical mass of information, techniques, and basic methods to get an individual or development team building applications as quickly as possible.

The guidelines set out to make the reader aware of the radically new interaction model that the platform presents. The initial challenge for Apple, when the device was opened up for third-party application development, was to get the platform adopted as a viable vehicle for the distribution and deployment of applications.

At the time of Apple's App Store launch in the summer of 2008, there was a well-established community of specialized teams focused on mobile devices and consumer electronics that were well-positioned to migrate to this plat-

form and to begin creating software for it. However, the skills and expertise required for success were still considered a relatively niche domain. Apple needed a much broader base of development teams populating the App Store with great software in order for their strategy to succeed.

Looking Back

Before 2008, mobile applications were a somewhat primitive affair—at least by today's standards. This was not due to any lack of trying on the part of developers; it was because of the technological limitations imposed by devices. "Feature phones" of the era were known for their portability, with small size being among the top criteria for success. Subsequently, these devices had very small displays with both low bit-depth color support and low resolution for their scale. Processor capability and memory availability were other significant constraints. This meant that the design of a mobile application was an exercise in minimalism and restraint. In that environment, the expectations for what a mobile application could be, how it would work, and what it looked like were not very high. Market fragmentation presented its own set of challenges as well, driving designers and developers to target a lowest common denominator of input and display to ensure success across a large variety of devices. This approach contributed significantly to a suboptimal user experience for applications running on those devices.

"Smartphones" presented a different set of challenges. They usually had larger, higher-quality screens and much greater computational capacity. However, these devices often had unique input characteristics that varied significantly from manufacturer to manufacturer. Some of the more prevalent forms of input included

- Jog dials
- Four- and five-way controllers
- Dedicated buttons or hard keys
- Variable buttons or soft keys
- Stylus input
- Touch input

A given device incorporated any combination of these controls as a part of its design. In many cases the nature of the input was considered a "signature in-

teraction" from which a device's particular brand could be identified. Much of this was due to the fact that most early smartphones were a direct evolution from the popular PDAs (personal digital assistants) that preceded them. So naturally, these new types of phones inherited those interaction characteristics in order to leverage the value and recognition of the signature interaction.

With the maturation of the feature phone and smartphone markets, there was a high degree of specialization and focus surrounding the design and development of software for those devices. Fragmentation of the smartphone market and the idiosyncrasies of each platform pushed that knowledge into increasingly esoteric enclaves of design practice.

Apple's iPhone challenged those expectations. Previously held beliefs about what a mobile phone was, what it could do, and how it could operate needed to change radically, so individuals with previous domain expertise needed to be prompted to change their mindsets.

We take devices like the iPad and iPhone for granted now, but we have to remember that when the iPhone was originally released there was some controversy about the Home button and the phone's general form factor. The simplicity of the device, its large screen (at the time), and lack of dedicated hard controls were in stark contrast to virtually all other smartphones of the day. People immediately questioned the functionality and usability of the Home button. Some even thought that the success of the product hinged on that single control. The migration of many controls from dedicated hard buttons to pixels displayed on the touch screen were also a significant point of contention.

It's through that lens that we begin to understand the nature of the HIG. We can see that history reflected in two main themes that emerge when reviewing the documentation:

- Understanding the platform implications, particularly around input and control, including the passive sensing capabilities
- Awareness and sensitivity to well-executed user experience in the context of the platform's technical capabilities and physical attributes

Essentially, this is the purpose of the "Platform Characteristics" section of the HIG, which makes a number of points intended to ease teams into under-

standing how different this platform is from what they may have worked on in the past.

This was necessary because without eliminating the preconceived notions of the industry at that time, it would not have been possible to achieve the level of execution the device required. This was a sensible approach for Apple, as it reinforced the strategy of establishing the device as a mainstream platform with mass-market appeal.

Limitations

However, the HIG has its drawbacks and limitations. While Apple is careful to delineate Human Interface Principles and User Experience Guidelines, both of these areas are somewhat limited in scope. Interaction designers may not find much value in these sections owing to the concrete nature of the statements made there; the lack of abstraction or underlying rationale behind the recommendations provides little on which interaction designers can build. The design content of the document is thus too general, lacking the depth to empower sophisticated user experience design activities.

The HIG also makes some perfunctory statements about process that are clearly targeted toward less-experienced teams, and while the process statements are valid for certain scenarios, they don't provide a clear understanding of a comprehensive design methodology that can be adapted to many needs and situations.

The limitations are not necessarily problematic for a first attempt at creating a good or even great iOS application, given the nature of the target audience. The fact that Apple has prioritized display size, display orientation, and the dynamics of capacitive touch screen interface input tells us that they are intent on democratizing mobile application (and mobile web) expertise by having design and development teams focus on input and output as the most important factors for understanding a user interface solution.

We can't expect Apple to provide an all-inclusive resource for creating great software. The HIG is an excellent starting point, but if we take a step back we can see that it is really about addressing the risks of opening up the device to third-party developers—protecting Apple's brand image and perception of iOS devices within the market to ensure their continuing success. Apple is completely justified in having ulterior motives since the success of any given third-party application becomes a success for their organization. By outward

appearances it seems that Apple is trying to democratize good design, but the HIG also aims to preserve and perpetuate the brand through the following strategy:

- Creating a sense of exclusivity and cultural cachet for consumers
- Maintaining the aspirational aura associated with iOS devices and the brand itself
- Justifying premium pricing within a market known for its razor-thin margins
- Of course, this should not be a surprise to anyone, but we should recognize that these are some of the fundamental driving factors of the iOS Human Interface Guidelines.

Beyond the HIG

Successful mobile applications require more than a basic understanding of user experience and design-related issues. Now that a few generations of iOS applications have cycled through the market, it is important to define and document concrete information related to the development of compelling device interaction and how that can work to establish the right level of competitive differentiation for a particular software product. And beyond the basic "Aesthetic Integrity" outlined by the HIG, how can creating impactful visual experiences contribute to the compelling device interaction and the differentiation you may be striving for? These are issues that are not fully addressed—at least not at a level that is easy to understand.

This book intends to dive a bit deeper into the mechanics of iOS to help you understand the methods and techniques that can be employed to move beyond a basic application. I will bypass any argument for or against custom controls and show you the tools and tactics required to design an amazing application from scratch, or undertake the wholesale reinvention of an existing application.

The topics covered in depth later in this book are more concerned with the mechanics of compelling interaction that will ultimately make people love your software. Classic or more typical usability themes will be approached from this perspective as well. However, you should understand that while classic usability concepts are fundamental to successful software, in some