SMASHING MAGAZINE

Designing For iPhone

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ABOUT SMASHING MAGAZINE

Smashing Magazine is an online magazine dedicated to Web designers and developers worldwide. Its rigorous quality control and thorough editorial work has gathered a devoted community exceeding half a million subscribers, followers and fans. Each and every published article is carefully prepared, edited, reviewed and curated according to the high quality standards set in Smashing Magazine's own publishing policy. Smashing Magazine publishes articles on a daily basis with topics ranging from business, visual design, typography, front-end as well as back-end development, all the way to usability and user experience design. The magazine is — and always has been — a professional and independent online publication neither controlled nor influenced by any third parties, delivering content in the best interest of its readers. These guidelines are continually revised and updated to assure that the quality of the published content is never compromised.

ABOUT SMASHING MEDIA GMBH

Smashing Media GmbH is one of the world's leading online publishing companies in the field of Web design. Founded in 2009 by Sven Lennartz and Vitaly Friedman, the company's headquarters is situated in southern Germany, in the sunny city of Freiburg im Breisgau. Smashing Media's lead publication, Smashing Magazine, has gained worldwide attention since its emergence back in 2006, and is supported by the vast, global Smashing community and readership. Smashing Magazine had proven to be a trustworthy online source containing high quality articles on progressive design and coding techniques as well as recent developments in the Web design industry.

About this eBook

With almost half of the smartphone market share, the iPhone is a concrete confirmation that it's worth it to be a vanguardist in technology. Designers that have familiarity with the Apple iOS are one step ahead in designing mobile interfaces. If you want do discover trends and special requirements that iPhone applications ask for, this eBook "Designing For iPhone" is a must.

Table of Contents

How To Create Your First iPhone Application

Web Development For The iPhone And iPad: Getting Started

iPhone App Design Trends

iPhone App Designs Reviewed: Critique Board And Lessons Learned

iPhone Apps Design Mistakes: Over-Blown Visuals

iPhone Apps Design Mistakes: Disregard Of Context

Setting Up Photoshop For Web, App and iPhone Development

Designing For iPhone 4 Retina Display: Techniques And Workflow

Showcase Of Designs Optimized For iPhone

About The Authors

How To Create Your First iPhone Application

Jen Gordon

What if you had a nickle for every time you heard: "*I have the perfect idea for a great application!*"? It's the buzz on the street. The iPhone has created unprecedented excitement and innovation from people both inside and outside the software development community. Still for those outside the development world, the process is a bit of a mystery.

This how-to guide is supposed to walk you through the steps to make your idea for an iPhone app a reality. This article presents various ideas, techniques, tips, and resources that may come in handy if you are planning on creating your first iPhone application.

You might be interested in the following related articles:

1. Have An Idea – A Good Idea

How do you know if your idea is a good one? The first step is to *even care* if your idea is solid; and the second step is to answer the question *does it have at least one of the indicators of success?*

Does your app solve a unique problem? Before the light bulb was invented, somebody had to shout out “Man, reading by candlelight sucks!” Figure out what sucks, and how your app can make the life of its user more comfortable.

Does the app serve a specific niche? Though there aren’t any stats on the App Store search, the usage of applications is certainly growing with the explosion of App Store inventory. Find a niche with ardent fans (pet lovers, for example) and create an app that caters to a specific audience.

Does it make people laugh? This is a no-brainer. If you can come up with something funny, you are definitely on the right track and your idea may be the golden one. Heck, I hit a red “do not press” button for 5 minutes yesterday.

Are you building a better wheel? Are there existing successful apps that lack significant feature enhancements? Don’t be satisfied with just a wine list, give sommeliers a way to talk to their fans!

Will the app be highly interactive? Let’s face it, most of us have the attention span of a flea. Successful games and utilities engage the user by requiring action!

Action: Does your app fall in to one of these categories? If yes, it’s just about time to prepare the necessary tools.

2. Tools Checklist

Below is a list of items you’ll need (*starred items are required, the rest are nice-to-have’s):

- join the Apple iPhone Developer Program ($99) *
- get iPhone or iPod Touch *
- get an Intel-based Mac computer with Mac OS X 10.5.5,
- prepare a Non-Disclosure Agreement (here's a sample) *
- download and install the latest version of the iPhone SDK if you don't already have it.
- a spiral bound notebook*

Action: Load up on your required supplies.

3. What Are You Really Good At?

What skills do you bring to the table? Are you a designer whose brain objects to Objective C? A developer who can't design their way out of a paper sack? Or maybe you are neither, but an individual with an idea you'd like to take to the market? Designing a successful iPhone application is a lot like starting a small business. You play the role of Researcher, Project Manager, Accountant, Information Architect, Designer, Developer, Marketer and Advertiser – all rolled into one.

Remember what all good entrepreneurs know – it takes a team to make a product successful. Don't get me wrong, you certainly can do it all. But you can also waste a lot of time, energy and sanity in the process. Don't go crazy, reference the checklist below and ask yourself: What roles are the best fit for you to lead? Then find other talented people to fill in the gaps. The infusion of additional ideas can only enrich the product!

SKILLS CHECKLIST

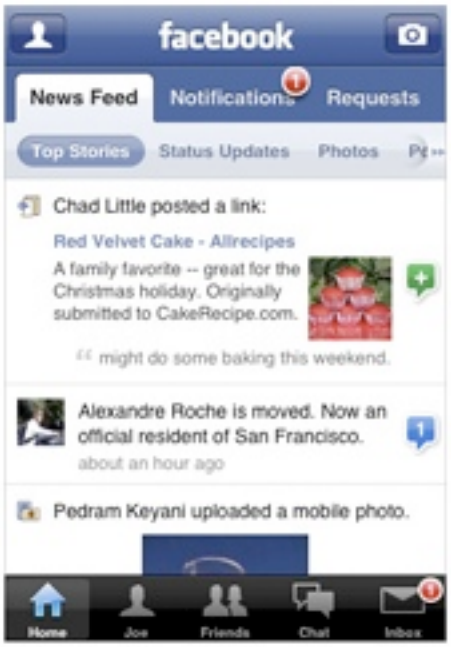
- Ability to Discern what works/doesn't work in existing iPhone Apps
- Market research
- Outlining App Functionality (Sitemap Creation)
- Sketching
- GUI Design
- Programming (Objective C, Cocoa) (we assume here that we are creating a native application)
- App Promotion and Marketing

Remember to have contractors sign your non-disclosure agreement. Having a contract in place tells your contractor “I’m a professional that takes my business and this project seriously. Now don’t go runnin’ off with this idea.”

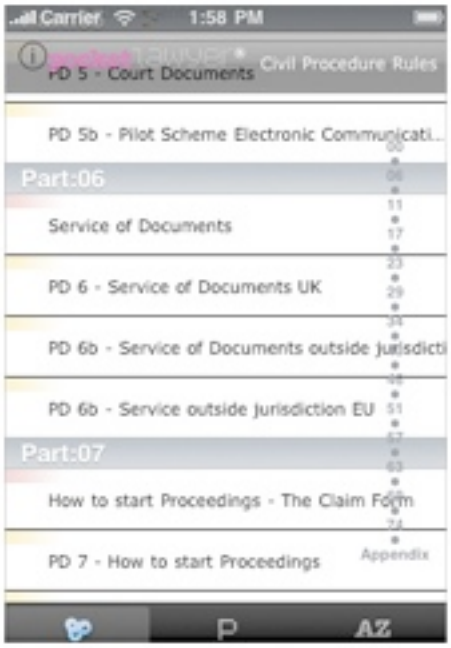
Action: Select skills that are a good fit for you to lead. For those roles where you cannot lead, hire professionals.

4. Do Your Homework: Market Research

Market research is a fancy way of saying *“Look at what other people are doing and don’t make the same mistakes.”* Learn from the good, bad and ugly in the App Store. Coming up with creative solutions in the app concept development and design starts with analyzing other (maybe similar) applications. Even if you encounter a lot of poorly designed apps, your mind will reference these examples of what not to do.



The Good.



The Bad and Ugly.

Action: Answer these questions:

- What problem does your app solve?
- What products have you seen that perform a similar task?
- How do successful apps present information to users?
- How can you build on what works and make it unique?
- What value does your app bring to your audience?

5. Know The iPhone/iPod Touch UI

If you want to create an iPhone app, you need to understand the capabilities of the iPhone and its interface. Can you shoot a .45 caliber bullet out of your iPhone? No. Can you shoot videos? Yes!

The good news is that you don't have to memorize the encyclopedic Apple User Interface Guidelines to get a feel for what works and what doesn't in iPhone Apps. Download and play with as many apps as you can, and think about what functionality you want to include in your product.

Take note of:

- How do well-designed apps navigate from screen to screen?
- How do they organize information?
- How MUCH information do they present to the user?
- How do they take advantage of the iPhone's unique characteristics: the accelerometer, swiping features, pinch, expand and rotate functions?

Action: Download the Top 10 apps in every category and play with all of them. Review the Apple Guidelines for UI design and list at least 5 features you'd like to incorporate into your app.

6. Determine "Who Will Use Your App?"

We assume here that you've already determined that your app will bring value and that you will have a raging audience for your app. Well, fine, they are raging fans, but who are they really? What actions will they take to achieve their goals within the app?

If it's a game, maybe they want to beat their high score. Or perhaps they are a first time player – how will their experience differ from someone who is getting a nice case of brain-rot playing your game all day?

If it's a utility app, and your audience wants to find a coffee shop quickly, what actions will they take within the app to find that coffee shop? Where are they when they're looking for coffee? Usually in the car! Do present an interface that requires multiple taps, reading and referencing a lot? Probably not! This is how thinking about how real-life intersects design.

Action: Line item out the different types of people who will use your app. You can even name them if you want to make the scenarios you draw out as real as possible.

7. Sketch Out Your Idea

And by "sketch" I mean literally sketch. Line out a 9-rectangle grid on an 8.5 x 11 sheet of paper and get to sketching!

Ask yourself:

- What information does each screen need to present?
- How can we take the user from point A to point B to point C?
- How should elements on the screen be proportioned or sized in relation to each other (i.e. is this thing even tap-able?)

Image credit: Cultured Code

Thumbnailing your ideas on paper can push your creativity far beyond where your imagination might stagnate working in an sketching application! You can also buy the iPhone Stencil Kit to quickly sketch out iPhone UI prototypes on paper.

Action: Create at least one thumbnail page of your application per screen. Experiment with various navigational schemes, the text you put on buttons, and how screens connect. If you want to transfer your sketches into digital format, iPlotz is a good tool to check out.

8. Time For Design

If you are a designer, download the iPhone GUI Photoshop template or our iPhone PSD Vector Kit. Both are collections of iPhone GUI elements that will save you a lot of time in getting started. If you've solidified your layout during sketching, drawing up the screens will be less of a layout exercise and more about the actual design of the app.

If you are not a designer, hire one! It's like hiring an electrician to do electrical work. You can go to Home Depot and buy tools to try it yourself, but who wants to risk getting zapped? If you've followed steps 1–3, you'll have everything you need for a designer to get started.

When looking for a designer, try to find someone who has experience designing for mobile devices. They may have some good feedback and suggested improvements for your sketches. A few places to look for designers: Coroflot, Crowdspring, eLance. When posting your job offer, be very specific about your requirements, and also be ready to review a lot of portfolios.

Action: If you are a designer, get started in Photoshop. If you are not a designer, start interviewing designers for your job.

9. Programming

Even though this how-to is sequential, it's a good idea to get a developer on board at the same time when you line up design resources. Talking with a developer sooner than later will help you scope out a project that is technically feasible and within your budget.

If you are a Objective C/Cocoa developer crack, open Xcode and get started! A few forums to join if you haven't already:

- Apple Dev Forum
- iPhoneSDK (moderated by Erica Sadun)
- iPhoneSDKForum
- iPhoneDev Forums
- iPhoneSB

If you are not a developer, you know what to do – find one! Specify the type of app you want to produce – whether it is a game, utility or anything else. Each type usually requires a different coding skill set. A few places to look for developers: Odesk, iPhoneFreelancer, eLance and any of the forums listed above.

10. Submit Your Application To Apple Store

OK, so how do you submit your application to Apple Store now? The process of compiling your application and publishing the binary for iTunes Connect can be difficult for anyone unfamiliar with XCode. If you are working with a developer, ask them to help you:

- Create your Certificates
- Define your App ID's
- Create your Distribution Provisioning Profile
- Compile the application
- Upload to iTunes Connect

Action: If you are a developer, map out a development timeline and get started. If you are not a developer, start interviewing devs for your job.

11. Promote Your App

If a tree falls in the middle of the woods and nobody was around to hear it does it make a sound? Apps can sit in the store unnoticed very easily. Don't let this happen to you. Be ready with a plan to market your app. In fact, be ready with many plans to market your app. Be ready to experiment, some ideas will work, others won't.

STRATEGIES FOR MAINTAINING/BOOSTING APP SALES:

- **Incorporating social media.** If your users make the high score on his or her favorite game, it is a good idea to make it easy for the user to post it to Facebook or Twitter. Think about how your app can incorporate social media and build that functionality into your app. At a minimum, set up a fan page for your app on Facebook and Twitter and use them as platforms to communicate with your users and get feedback on your app.
- **Pre-launch promotion.** Start building buzz about your app before it has launched. E-mail people who write about things that relate to your app and see if they will talk up the upcoming release of your app.
- **Plan for multiple releases.** Don't pack your app with every single feature you want to offer in the very first release. Make your dream list for the app and make sure that the app is designed to incorporate all of the features at some time in the future. Then periodically drop new versions of the app to boost app store sales.

Action: Make a list of 20 promotional strategies that target the audience for your app. **Take action** on them yourself or hire someone who can!

12. Stay Focused & Don't Give Up!

It's easy when you are working on your first app to get all AppHappy, dreaming up a zillion new app-ideas. Dream, but don't get sidetracked by new ideas. Your first app needs to make a big splash and getting involved in too many projects at once can dilute your passion for making your first application a success.

Action: Get out there and go kick some app!

Web Development For The iPhone And iPad: Getting Started

Nick Francis

According to AdMob, the iPhone operating system makes up 50% of the worldwide smartphone market, with the next-highest OS being Android at 24%. Sales projections for the Apple iPad run anywhere from one to four million units in the first year. Like it or not, the iPhone OS, and Safari in particular, have become a force to be reckoned with for Web developers. If you haven't already, it's time to dive in and familiarize yourself with the tools required to optimize websites and Web applications for this OS.

Thankfully, Safari on iPhone OS is a really great browser. Just like Safari 4 for the desktop, it has great CSS3 and HTML5 support. It also has some slick interface elements right out of the box, which sometimes vary between the iPhone and iPad. Lastly, because the iPhone OS has been around for quite some time now, a lot of resources are available.

I know that most discussion about the iPhone OS platform centers on native applications. But you can still create powerful, native-looking applications using HTML, JavaScript and CSS. This article focuses on three phases of building and optimizing your website: design, coding and testing.

Before we get into the three phases, let's look at some of the advantages and disadvantages of building a Web app rather than a native app.

Advantages of building a Web app instead of a native app:

1. No Apple approval process or red tape, which is especially important given the terms of service dispute going on right now.

2. Optimizing your Web app for other popular platforms like Android and Blackberry with the same code is much easier.
3. You don't have to learn Objective-C.
4. If you're charging users, you don't have to share revenue with Apple.
5. You get 100% control over the means of payment, promotion and distribution to users… which could also be a negative, depending on how you look at it.

Disadvantages of building a Web app instead of a native app:

1. No presence in the App Store.
2. Installing the app on a device is a little trickier.
3. No access to some of the features that are native to the iPhone OS, such as push notification and GUI controls.

Design

Designing a Web app for this platform is much like designing a native app, so you'll have access to some really great tools. Whether your wireframing tool of choice is pencil and paper or desktop software, you're covered.

INSPIRATION

Not many people know that Apple has a "Web apps" section on its website, which is dedicated to showcasing optimized websites.

Featured Web app on the Apple website

There are also some galleries elsewhere that showcase the finest in mobile Web design:

- Apple Web Apps Listing
- Mobile Awesomeness Design Gallery
- CSS iPhone Design Gallery
- Well Placed Pixels
- Apple App Store (Even though these are native apps, you can find great visual inspiration here.)

PAPER

Paper prototyping has long been my tool of choice for wireframing new ideas or websites. What I really like about the tools below is that they provide perspective on the size and dimensional constraints that you're dealing with. To successfully optimize a Web app for the iPhone OS, you have to cut things out. I suggest keeping the design minimal by wireframing with a sharpie and one of the tools listed below.

Notepod is great for sketching out rough ideas for the iPhone and iPad.

- Notepod: iPad and iPhone sketchbooks
- App Sketchbook

- PixelPads
- UI Stencils sticky pads
- Apress iPhone Application Sketch Book
- Printable iPhone Wireframe Template (free)

DIGITAL

Once you know exactly how things will lay out in your design, we can move to the desktop and get specific. I really like wireframing with OmniGraffle, but sometimes diving straight into Photoshop makes sense. Either way, these tools are a *huge* help in making it happen.

iPad GUI preview from Teehan + Lax.

- iPhone GUI PSD 3.0 and iPad GUI PSD (Photoshop)

- Layered iPhone GUI elements (Photoshop), from Designer's Toolbox
- PSD Vector Kit (Photoshop), from Smashing Magazine
- iPad and iPhone stencils; see more at Graffletopia (OmniGraffle)
- iPhone and iPad Development GUI Kits, Stencils and Icons

Hungry for more? This article has a good rundown of additional design tools.

Coding

When you start coding for Safari on the iPhone OS, understanding how the browser works is important. Also, there are subtle differences in the iPhone and iPad's browsers, such as how form-select boxes work. Most importantly, Safari has great CSS3 and HTML5 support, so you can use modern code without having to worry about cross-browser compatibility.

EDUCATION

Apple actually does a really good job of documenting Safari for the iPhone OS. The only shortcomings in my opinion are a lack of help with browser detection and window orientation. Read each of the articles below for everything you need to know about coding for this browser.

iPhone Human Interface Guidelines for Web Applications

This is a good overall summary of how Safari for the iPhone OS works. It's certainly worth scanning through, because it has some good advice, although no specific coding examples.

iPad Human Interface Guidelines

This document does a good job of distinguishing iPhone elements and iPad elements. This is also worth scanning through, because it has some great advice on designing for the iPad.

Safari Web Content Guide

This document gets specific about the viewport, webclip icons, unique meta tags and event handling, among many other topics. Code examples are provided. I recommend reading it cover to cover before getting started.

Preparing Your Web Content for the iPad

This document provides tips on testing your website on the iPad, but its discussion on browser detection isn't as detailed as I would like.

Browser Detection

David Walsh provides good examples of proper browser detection for the iPad and for the iPhone on his blog. Options for PHP and Javascript are included.

Detecting iPhone Window Orientation

This iPhone development tutorial from Nettuts provides a good example of how to vary style sheets according to the iPhone's orientation.

Detecting iPad Window Orientation

Detecting iPad's window orientation is *much* easier. Here's what the code looks like (no JavaScript required):

```
<link rel="stylesheet" media="all and (orientation:portrait)"
href="portrait.css">
```

```
<link rel="stylesheet" media="all and (orientation:landscape)"
href="landscape.css">
```

JQTOUCH MOBILE FRAMEWORK

While the iPhone has a few mobile development frameworks, jQTouch is far and away the best. jQTouch gives you all of the tools to make your mobile Web app look and feel like a native one. Visit the website, and go to the demo website from your iPhone to get a feel for it.

My only complaint when building my first website with jQTouch was a lack of documentation and tutorials. I had to figure it out by playing with the demo website's code. Here are some jQTouch articles that proved helpful in coding my first website:

- jQTouch Wiki on Google Code

- Building iPhone Apps with HTML, CSS and JavaScript, Chapter 4: Animation
- PDF slides about getting started with jQTouch, by Philipp Bosch

Testing

A crucial and somewhat tricky part of building a website or Web app for the iPhone OS is testing. It's a little more complicated than testing in a web browser, but familiarizing yourself with a couple of tools should make the process simple.

LIVEVIEW

Liveview is a really clever testing tool for when your app is in the design or initial coding phase. It allows you to broadcast an image from your desktop onto your phone so that you can see what it looks like. This is useful for getting text size and the visual specifics just right, because sometimes visualizing from Photoshop is hard.

USING THE IPHONE SIMULATOR

In my opinion, no good iPhone or iPad emulators are available. The ones that are available are a waste of time. Much better is to download the latest version of the SDK and use Apple's official iPhone OS simulator, which of course supports the iPad as well.

Setting up the SDK and a local testing environment takes a few minutes but is well worth the effort, rather than depending on unofficial and often inaccurate emulators. I've written a step-by-step tutorial about setting up a local testing environment that's worth a read. One great thing about local testing is that it's faster and does not require an Internet connection. I highly recommend going this route until you are ready to launch.

PhoneGap: Best Of Both Worlds?

PhoneGap is a game-changer for Web developers. If you would rather create your app in HTML, CSS and JavaScript but want it to run natively and have it be available in the App Store, then PhoneGap is the solution. It's an open-source development tool that not only compiles your code for native use on the iPhone OS but also works for Android, Palm, Symbian, Windows Mobile and Blackberry devices.

PhoneGap also steers clear of the recently controversial 3.3.1 clause of Apple's terms of service. In other words, apps compiled with PhoneGap will still be approved. Check out the list of apps that are built with PhoneGap to learn more.

Feeling Overwhelmed?

If you are, then some good hosted services will make it easier to optimize your website for multiple platforms without having to start from scratch. There are various levels of flexibility available, but all the services use a WYSIWYG-like editor to help you create mobile websites on the fly. Depending on your Web app and client, one of the following may be a good fit:

Mobify is a great alternative if you don't care to build from scratch.

- Mobify (which powers Smashing Magazine's mobile website)
- Wapple
- Mofuse
- Mobi10

Conclusion

It's a great day to be a Web developer, because non-desktop platforms like the iPhone OS open up greater possibilities for us to express our creativity and entrepreneurial savvy, while allowing us to adhere to modern Web standards. All of the tools you need to create great a Web experience on the platform that's currently dominating the mobile space are out there. It's up to you to make the most of them!

iPhone App Design Trends

Jen Gordon

For the past two years, the elegant iPhone has housed some of the most poorly designed applications you could imagine. The hype surrounding iPhone has prompted many designers across the globe to try their skills with the new mobile medium. The result are literally thousands of various iPhone-applications that are often hardly usable and counter-intuitive. However, some designers invest a lot of time and efforts into creating usable and original user interfaces (yes, there are usable *and* creative UIs).

This article explores the ways in which designers use graphical elements and screen interactions to create iPhone-applications that are easy on the eyes and mind. The aim of this article is to display common trends and design approaches in iPhone app design – please notice that they are not necessarily optimal ones from the design or usability point of view.

1. Mirroring Native iPhone UI Elements

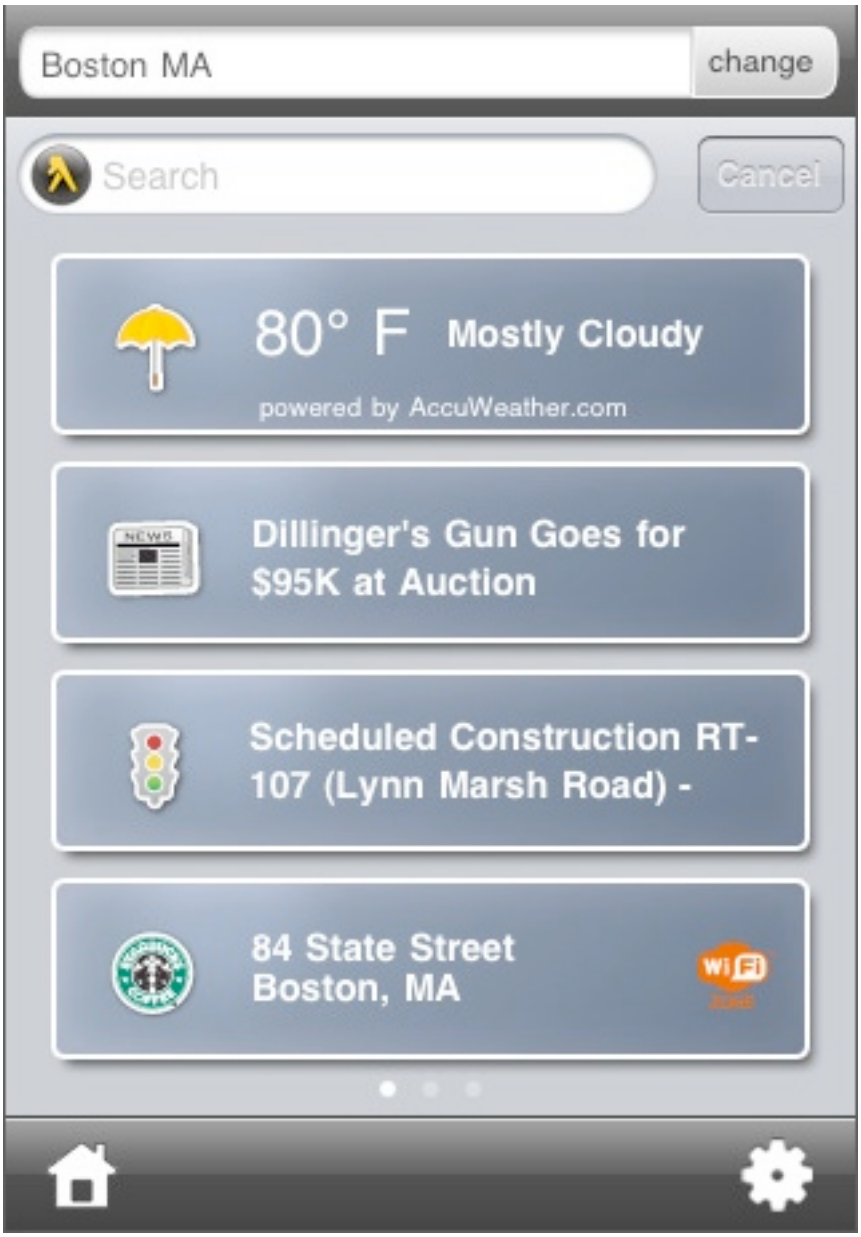
“Tell them what you’re gonna tell them, tell them, and then tell them what you told them.” Creating a whole new OS within your app can be fun, but when you’re dealing with the mobile medium, people just want to get stuff done. Getting stuff done means that the designer has to get into the flow of the OS and create an app that requires zero explanation for the end user to operate. Mirroring the layout and UI elements that the user is already familiar with saves time and energy. So it seems quite convenient to use this approach when designing iPhone-applications.

Facebook (iTunes Link)

In the new Facebook 3.0, you'll find a grid layout that users can swipe left and right to access more categories. Because it mirrors Apple's native UI, users do not have to "learn" how to use it all over again. A similar approach exists in Web design: users expect to see a logo in the top left, navigation along the top, etc. Facebook has taken this concept mobile, using large buttons that are easily distinguishable and tap-able.

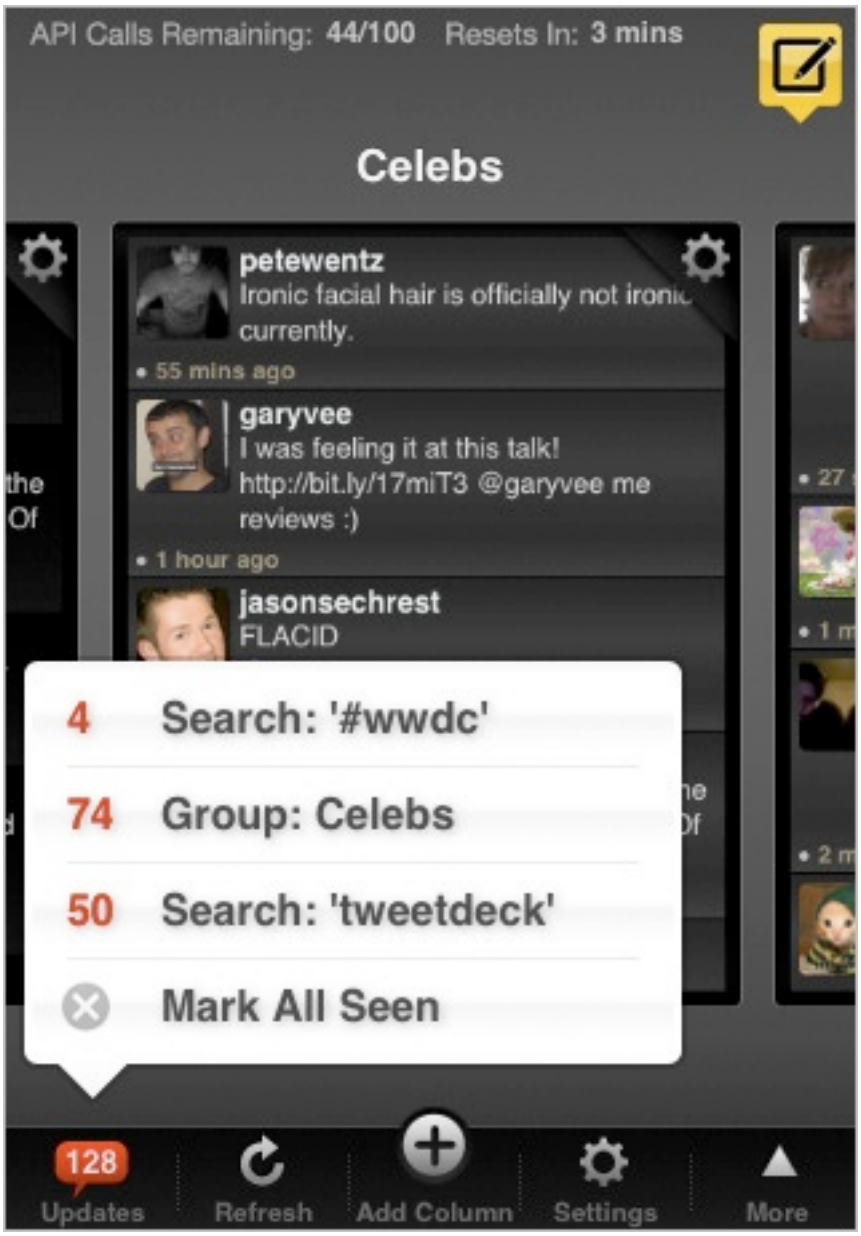
Where (iTunes link)

Where has a similar concept, allowing users to swipe left and right to access more data.



Tweetdeck [iTunes link]

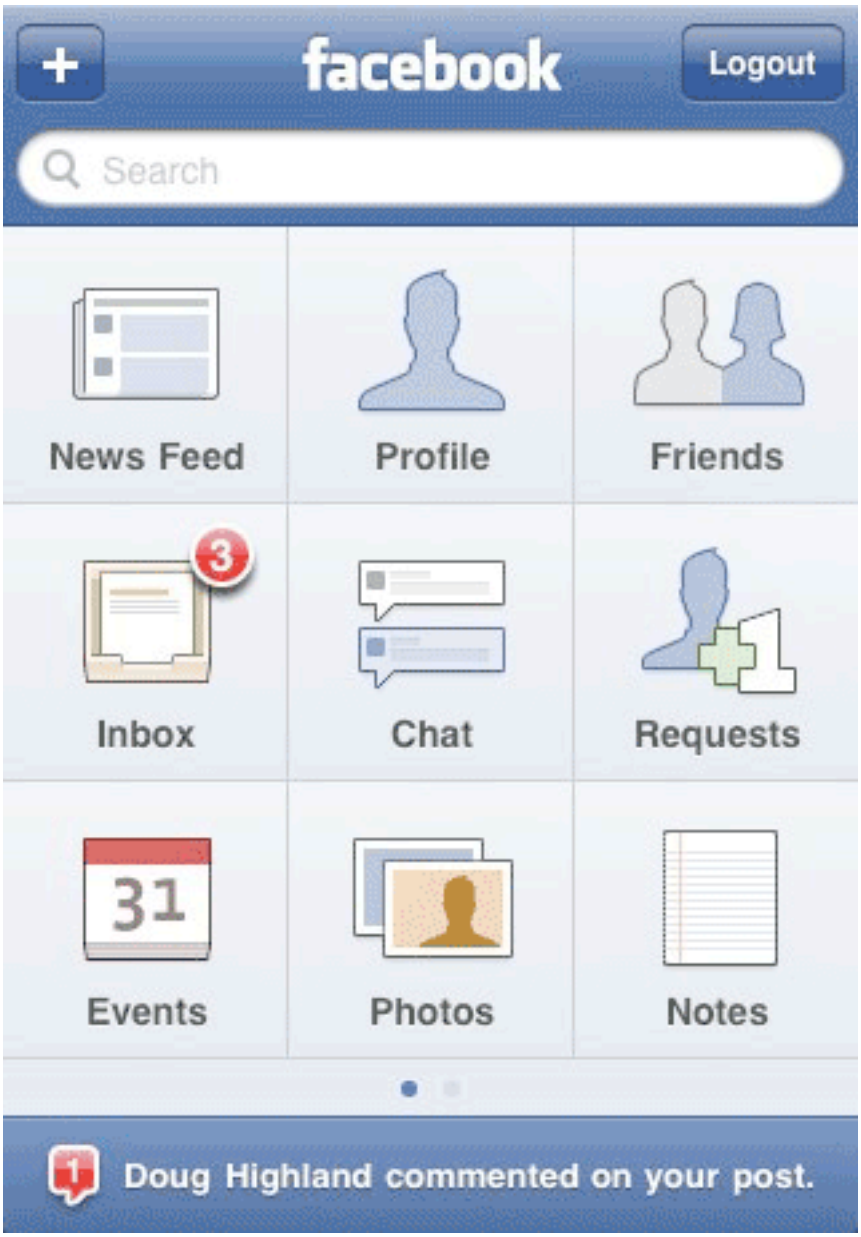
Tweetdeck is a good example of user interface design on many levels. Notice how the design highlights recent updates. The application could display the updates in a new window, with a categorized or tabbed list. But it doesn't. Instead, a more familiar dialogue menu is displayed — it serves as a springboard to jump to a specific category or to clear the messages altogether.



2. Simplifying The Interface

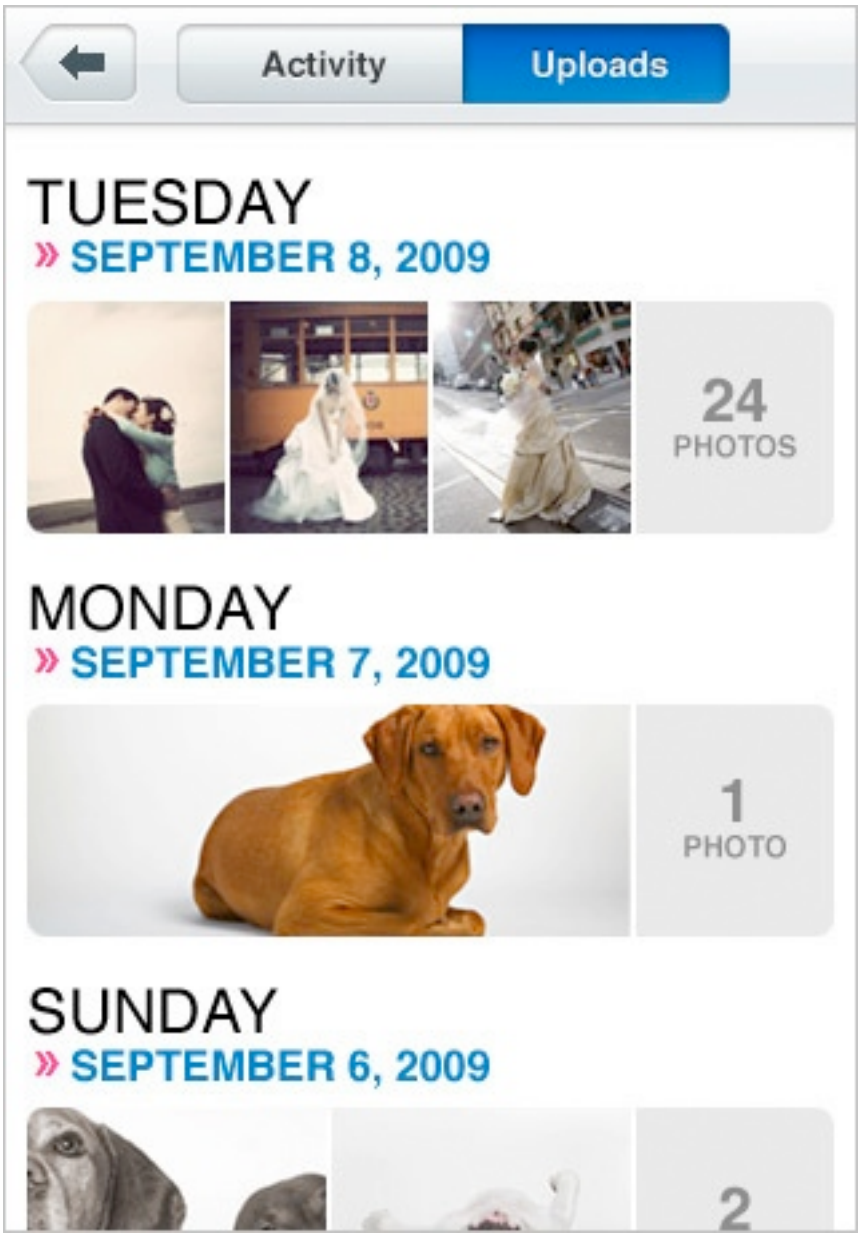
Simplifying user interfaces may sound like a mechanical task, but what lies beneath the surface of user interface design? The answer is simple: users. And what do users want? What makes them all warm and fuzzy? How do you deliver what they want so that they don't even notice how they are consuming information?

Facebook's first release did a great job of fitting a lot of core functionality into a small space. The problem, of course, is in laying out all that data *and* creating an intuitive interface. Compare 3.0 with the first release, and you'll see how they took a "springboard" approach to streamlining the interface, keeping it intuitive and maintaining functionality.


facebook
Logout
Search
News Feed
Profile
Friends
3
Inbox
Chat
Requests
31
Events
Photos
Notes
1
Doug Highland commented on your post.

Flickr [iTunes link]

Flickr is another example of how to achieve a good balance between functionality, visual design and the small display area on mobile devices. Think about it: what is at the core of Flickr? Photos. Its users probably do not want to look at big clunky navigational elements; instead, they are looking for pictures. Flickr has managed to fit all of its core functionality without heading down the highway to navigational hell. In fact, most elements in the navigation are handled by interacting with the photos themselves. Simple and smart.


Activity
Uploads
TUESDAY
» SEPTEMBER 8, 2009
24
PHOTOS
MONDAY
» SEPTEMBER 7, 2009
1
PHOTO
SUNDAY
» SEPTEMBER 6, 2009
2

3. Hardware-ish Look

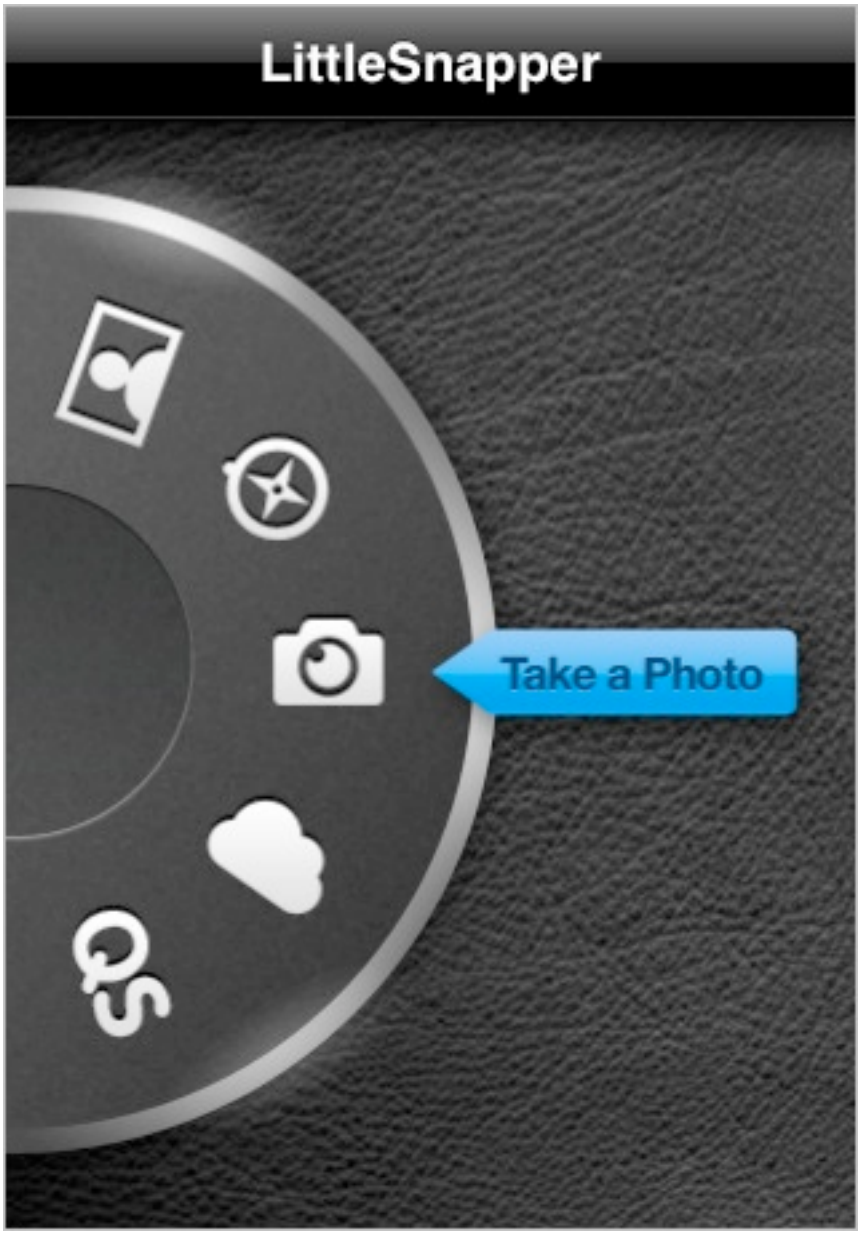
Many utilities are breaking out of the conventional iPhone UI to take advantage of the device's unique ability to respond to finger gestures. Many of these have hardware-ish interfaces that users are familiar with but come with perpetually shiny exteriors and clicks and pops that maintain their newness from the first to one-thousandth click. Next up, though: an app that gets dirtier the more you play with it.

Convertbot (iTunes link)

Convertbot reminds us of the proportion wheel we all used in grade school, except it's more distinctive, original and creative.

Little Snapper (iTunes Link)

Little Snapper mimics the wheel that you turn on a typical digital SLR.



iHandy Level (iTunes Link)

iHandy Level simulates the look and functionality of a real, well-used leveler.

Where To? [iTunes Link]

This application looks like it belongs in a Mercedes. Plush leather, matte-finish tactile buttons: quality craftsmanship. We can just imagine how each button press feels solid, requiring the perfect amount of pressure.

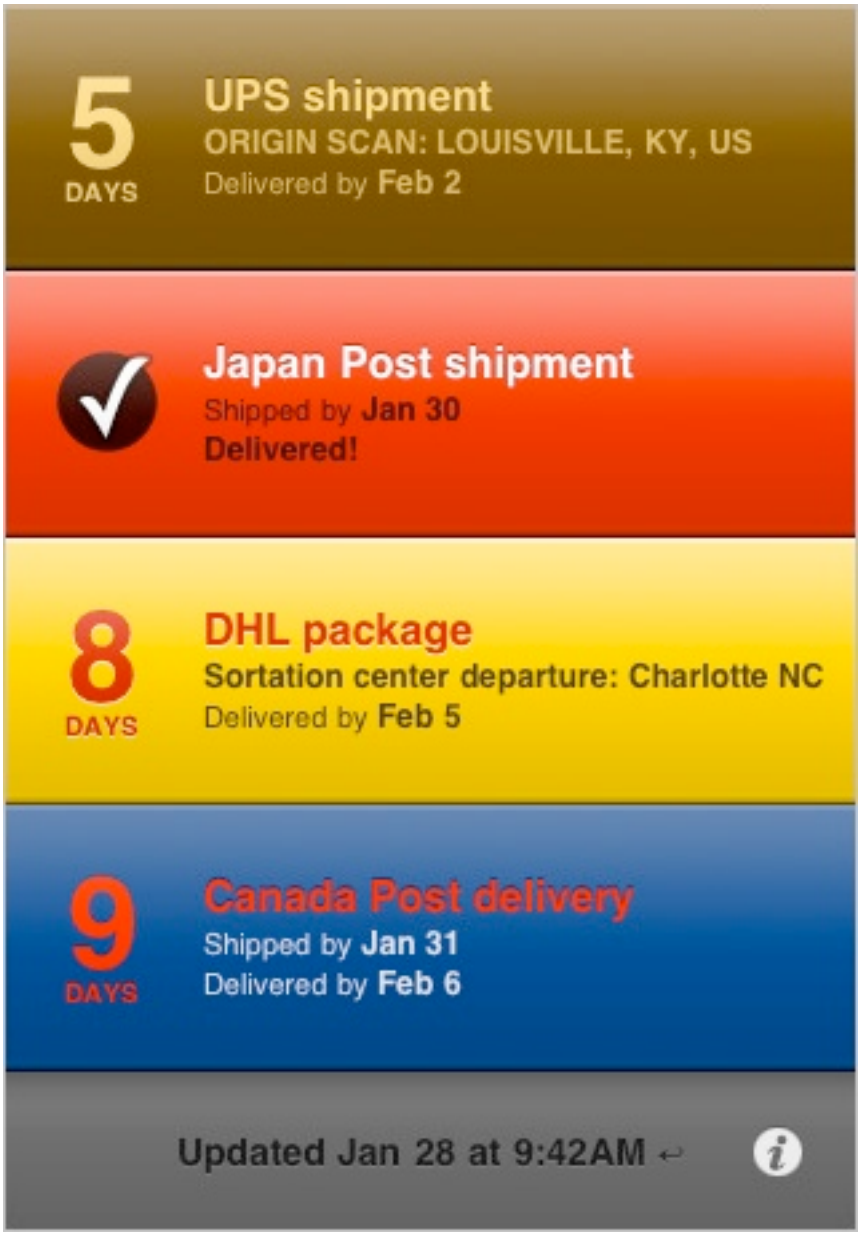
4. Rich, Padded And Pretty List Views

You know that you are a geek designer when you get excited about the latest trends in list view design. And what do people do when they encounter a list view? Of course, they skim. And how do we make it easier for people to decide what interests them? That's right: more visual cues!

Essentially, users are asking for a snapshot of what's next, and then decide if they want more information. One way to do this is with big pretty buttons. Large and in charge, elegantly designed big buttons give the user a lot of information through their color, icons and typography.

Delivery Status Touch (iTunes Link)

Check out how Delivery Status uses appropriate colors on its big buttons to identify each brand. And it uses typography well to establish a hierarchy of information.

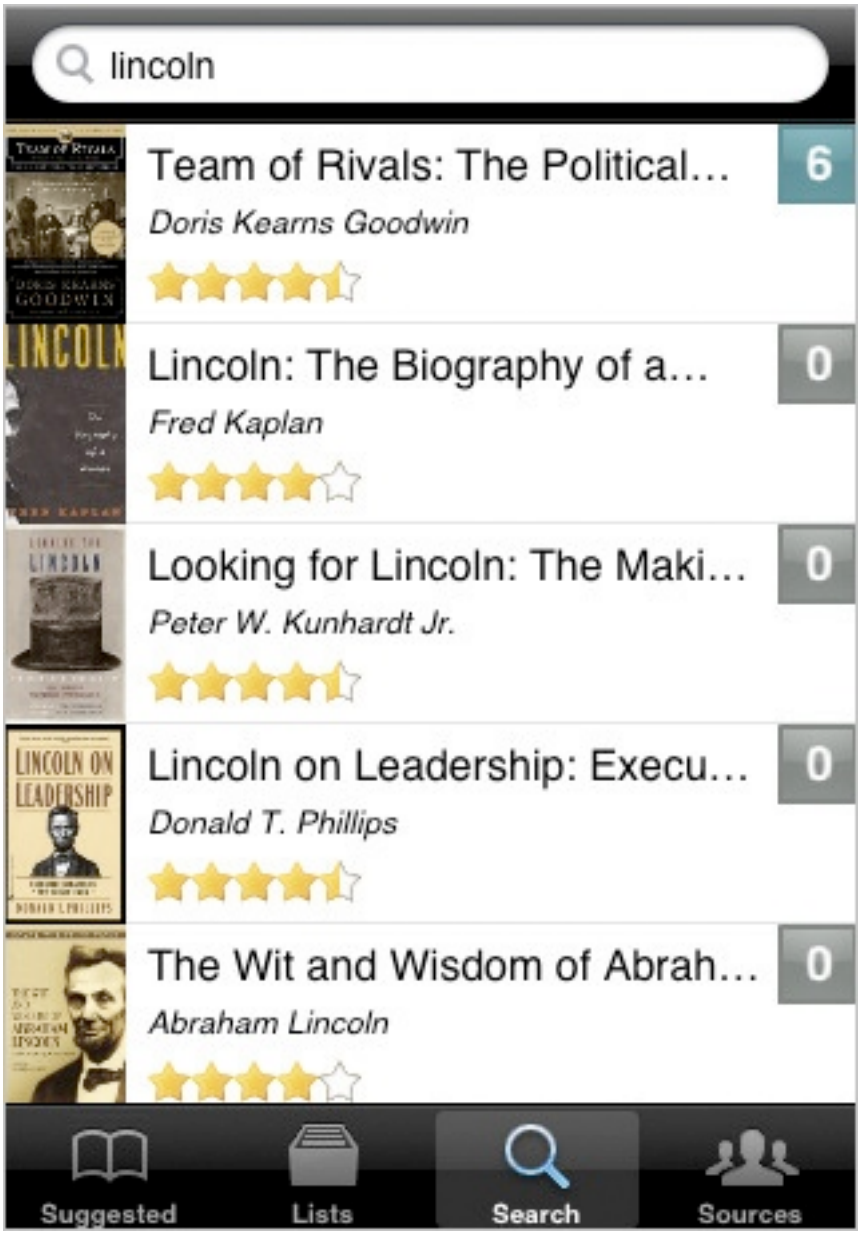


Be Happy Now (iTunes Link)

Be Happy Now's big buttons convey the "be happy" mantra through a mellow color scheme and light, calm and clear typeface.

Next Read [iTunes link]

The Next Read application allows friends to share books. Here all books about a particular topic are presented, including the title, cover image, review rating and number of people who have recommended it. Notice the padding and a lot of white space for each navigation option; this makes the areas easily clickable and easier to navigate.

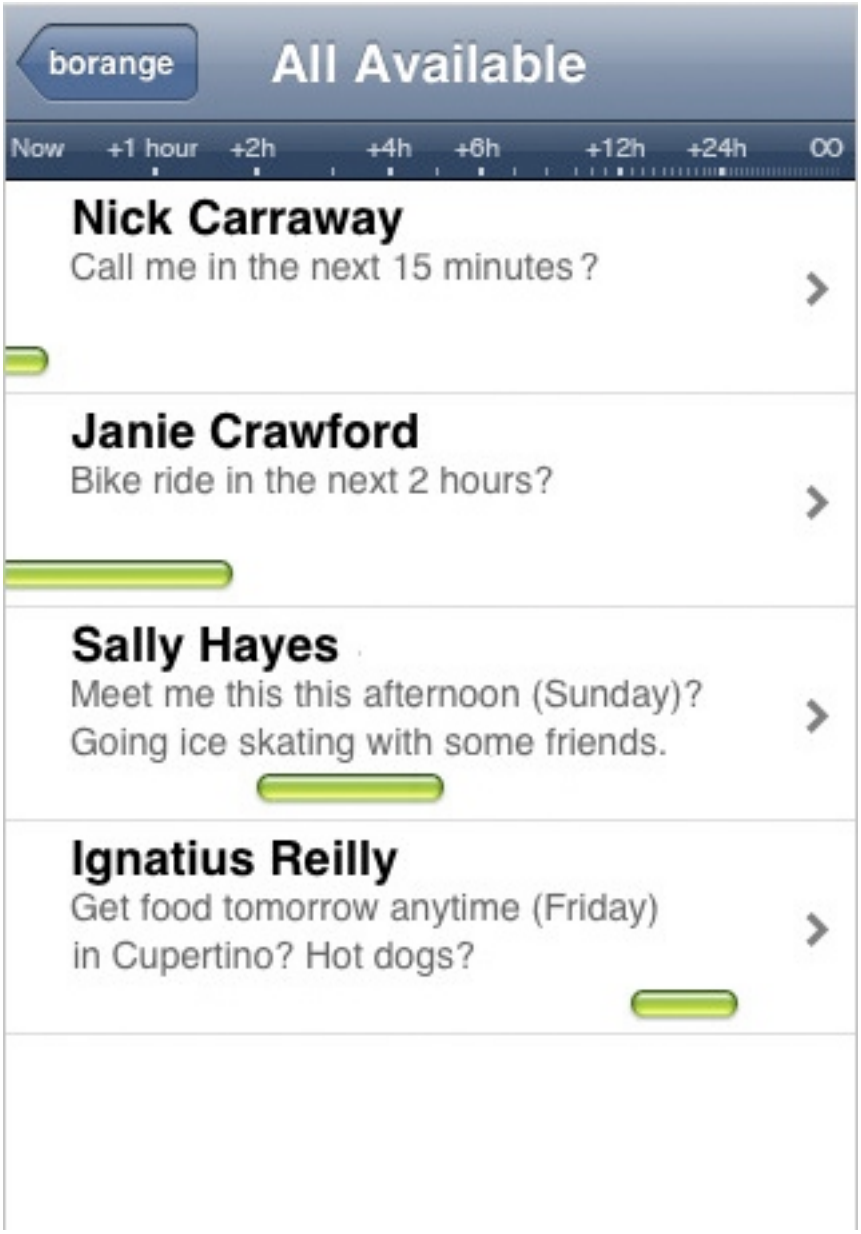


Nike [iTunes link]

Nike's workout application for women includes a nice visual treatment and illustrations that match the brand. It breaks out of the traditional UI just enough to communicate the brand without making it difficult for users to understand the interface and how to use it.

Borange [iTunes link]

Borange is a “social availability” application that helps you coordinate meetings with friends. The list view presents a lot of information: friends you want to hang out with, the meeting location and a nice visualization of friends who are available.



5. Layered Interface

Several applications take advantage of the iPhone's capabilities by layering the interface and making some elements stationary and others vertically or horizontally scrollable. This approach has several benefits:

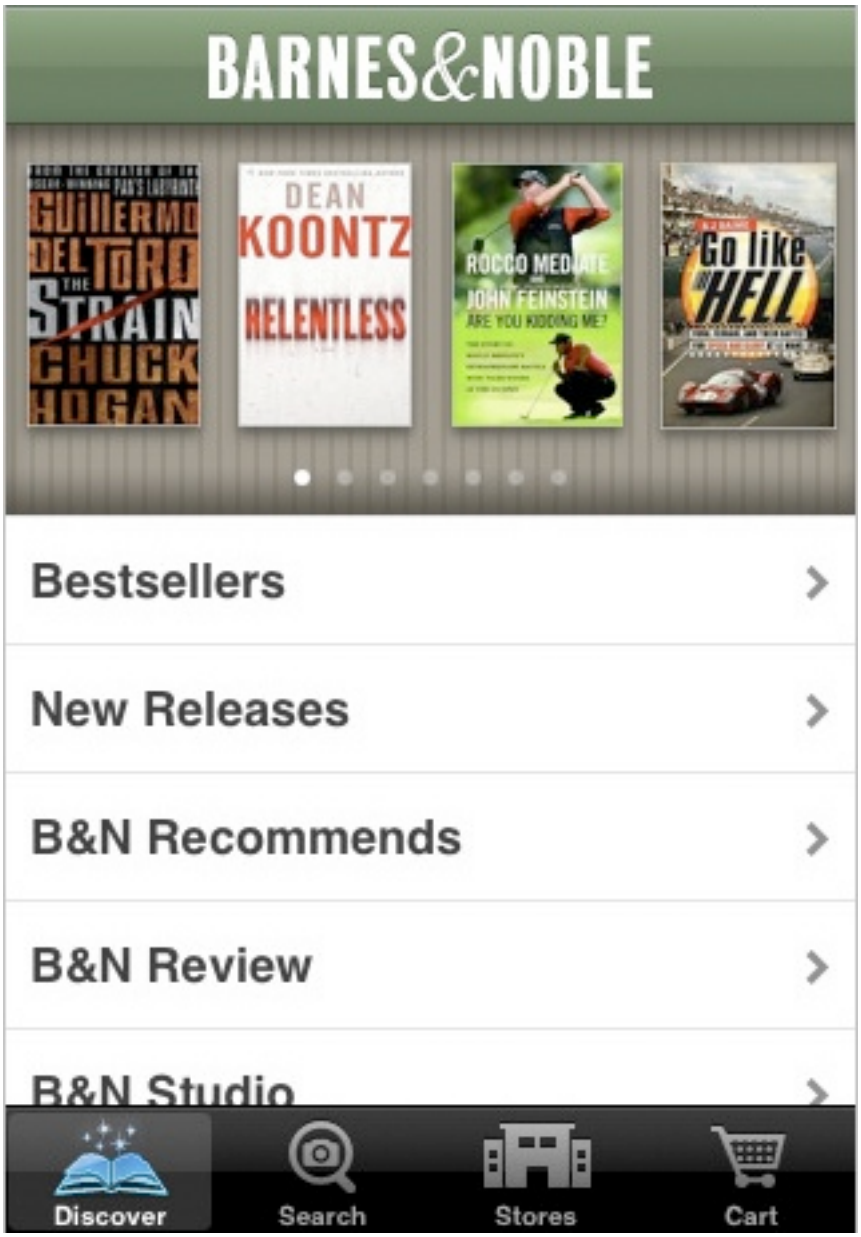
1. It reduces the number of traditional navigation elements that are necessary (i.e. fewer buttons help to avoid a cluttered interface).
2. It gives users a faster route to the information they want.
3. More screen space is available for information.

Tweetie (iTunes Link)

Tweetie uses layers to organize information specific to each of your Twitter friends. Just look at all of the information packed into this one screen!

Barnes & Noble [iTunes link]

Barnes & Noble has a layered interface that allows you to quickly slide through new releases at the top or dive into more categories below.

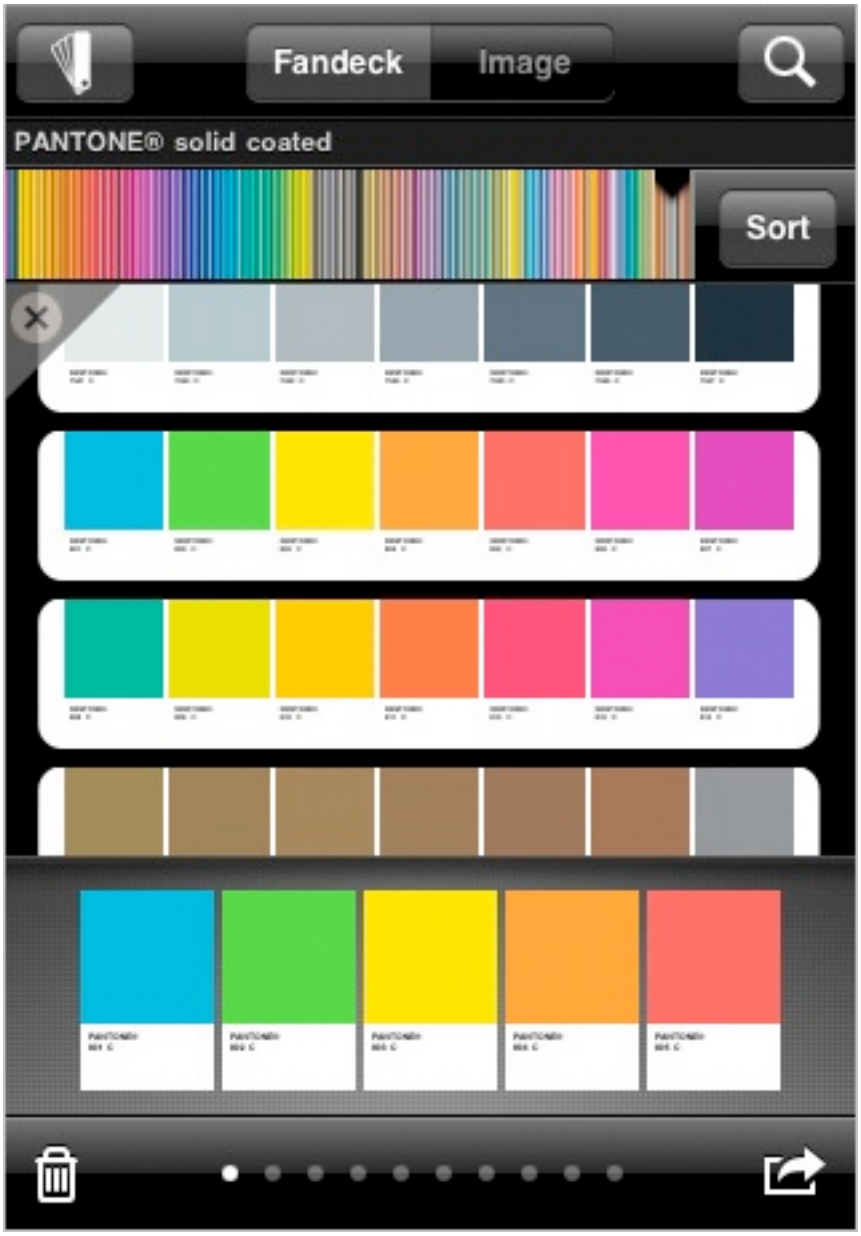


USA Today [iTunes link]

USA Today takes a slightly different approach to layering the interface in its "Pictures" section: it uses sliding panels to display blocks of information. While the interface may look cluttered at the first glance, one can easily get around it. The interesting part is that within each panel you can slide thumbnails left and right to view more images.

myPantone [iTunes link]

Would we expect any less from Pantone? The color picker shown above is a layered interface that lets you pick from a range of colors, sort and scroll as well as open and close detail screens, all without too driving you crazy.



6. Icons For The List View

Icons aren't just for springboard-loving folks. On small screens, icons can give a huge boost to an application's usability and navigation. Let's now take a look at some examples of applications that use icons to their advantage.

iStudiez (iTunes Link)
This application uses various educational metaphors as icons to clearly communicate the purpose of the application. Excellent visual cues tell the student what's happening today at a glance.

Today
Now:
Lecture
Biology 1
D. Higgins, 145 Hearst
1 assignment
00:49 left
Next:
Lab
Biology 1
12A Biology
1 assignment
10:00 AM
Class
English Composition
R. Dodson, 245 Main
2 assignments
1:30 PM
TUE
9
Today
Calendar
Assignments
Courses

Top Floor (iTunes Link)

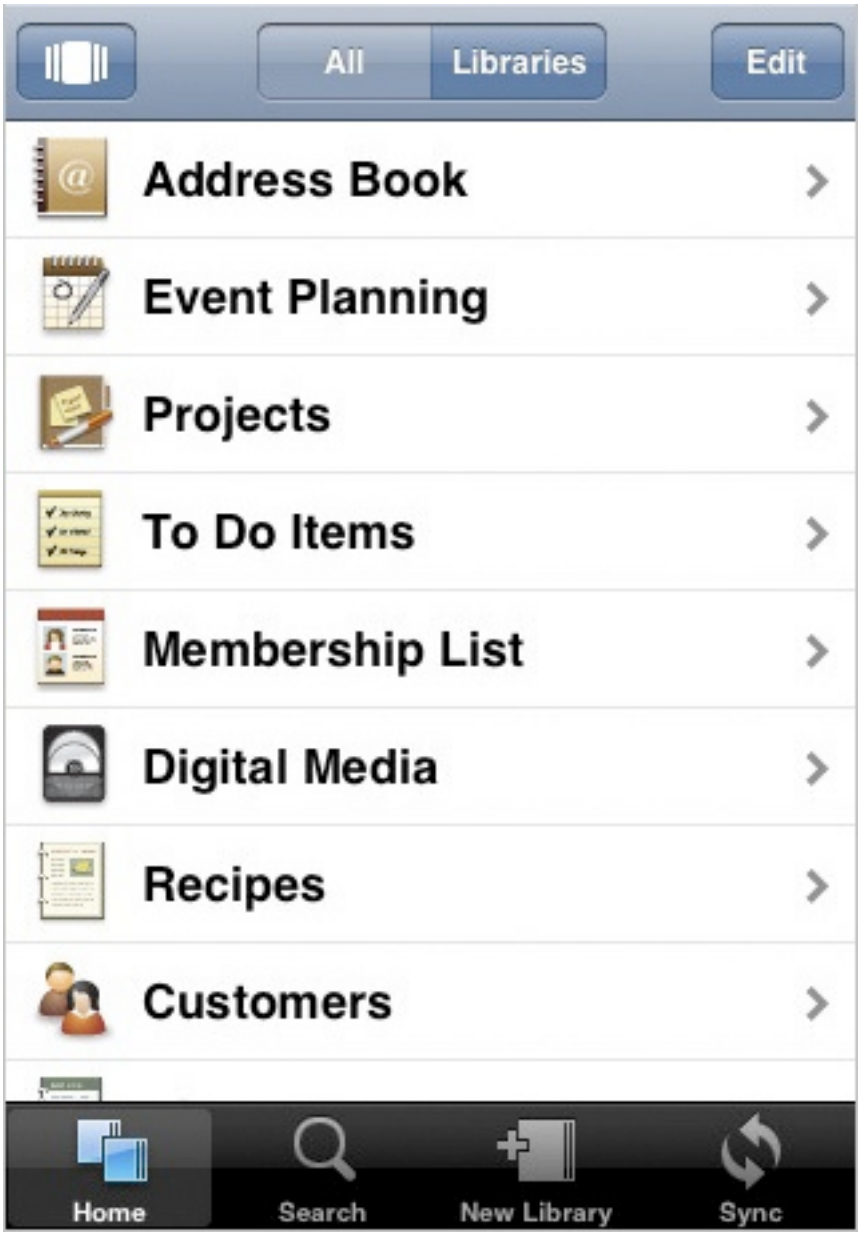
Top Floor uses simple and easily recognizable icons to quickly guide users to their category of choice.

New York Times

Isn't it great when applications just let you do whatever you want to do? For an app with as much information as the New York Times', users are bound to have their favorite sections. Well, guess what? The New York Times cares: it lets you customize the tab bar's navigation to include only your favorite sections of the paper. Drag an icon down the tab bar and you are set. The downside of the design is, of course, its lack of visual appeal.

Filemaker [iTunes link]

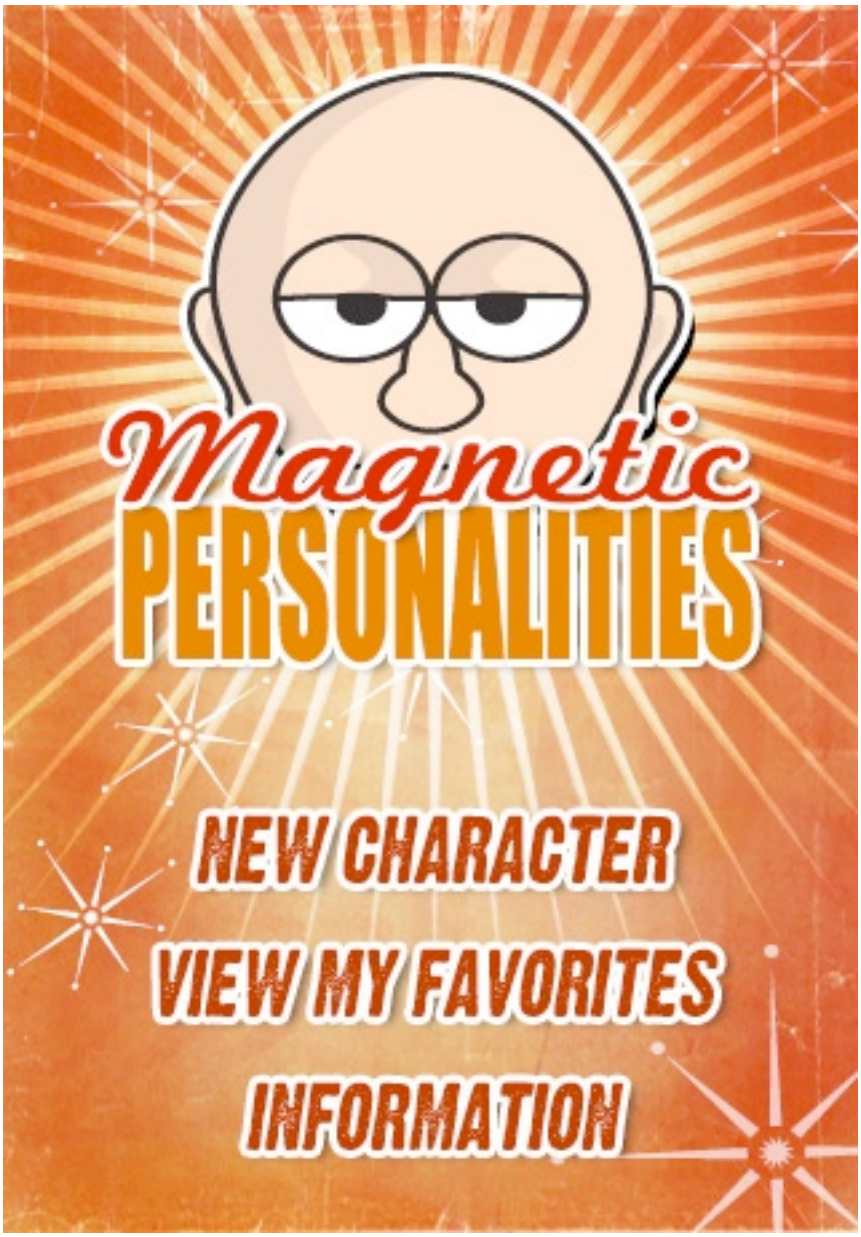
Here is another example of beautiful icons that aren't obscure or confusing. Designers should never use icons just for the sake of having icons. As designers, we want icons that illustrate what users are actually going to get when they choose a particular path. Nicely done, Filemaker.



7. Illustrations in use

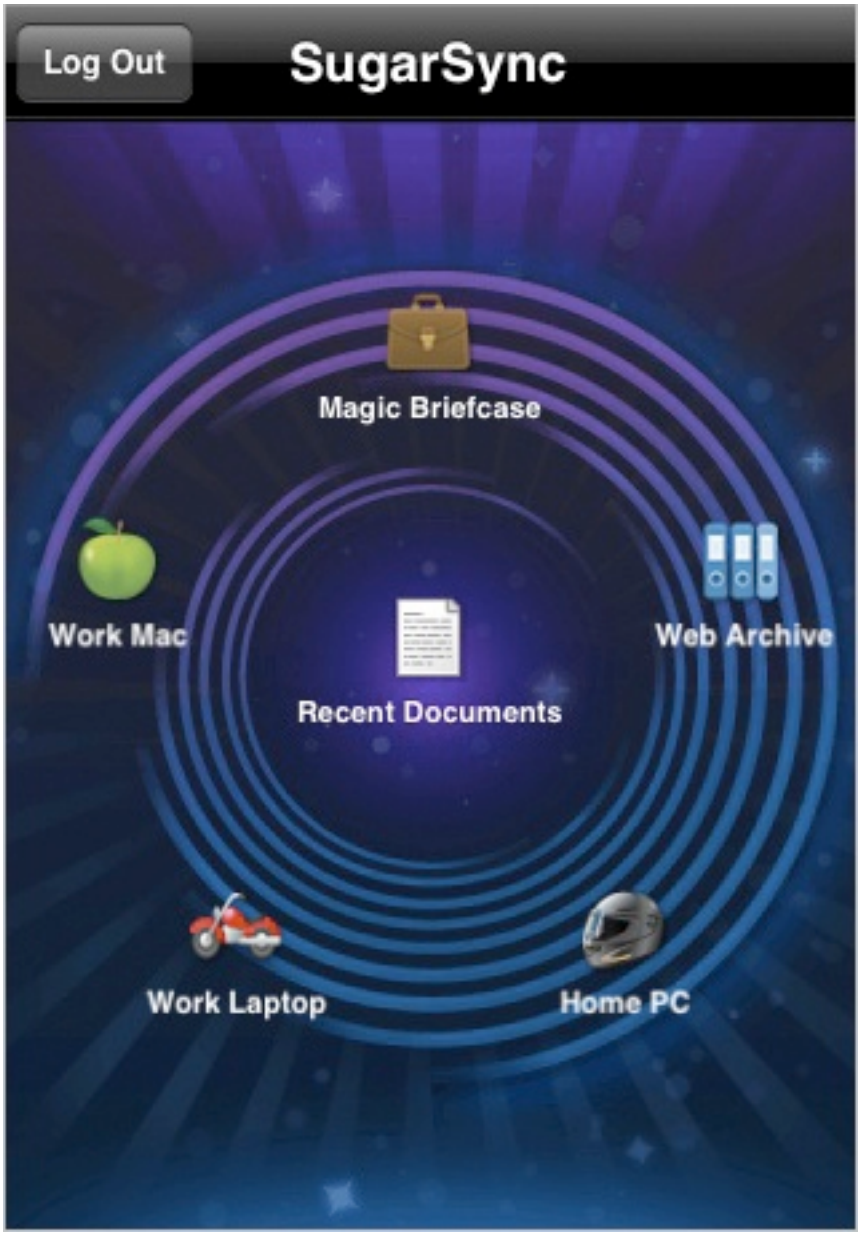
Applications that rely on graphics not found in the standard user interfaces are increasing in popularity, as developers try to set their apps apart from the crowd. Sometimes it works, but often it doesn't. The more unconventional a design is, the more likely it is to have usability problems. Please always conduct usability testing before releasing a product with a "creative" user interface.

Magnetic Personalities (iTunes link)
An excellent example of how buttons don't have to look like standard buttons.



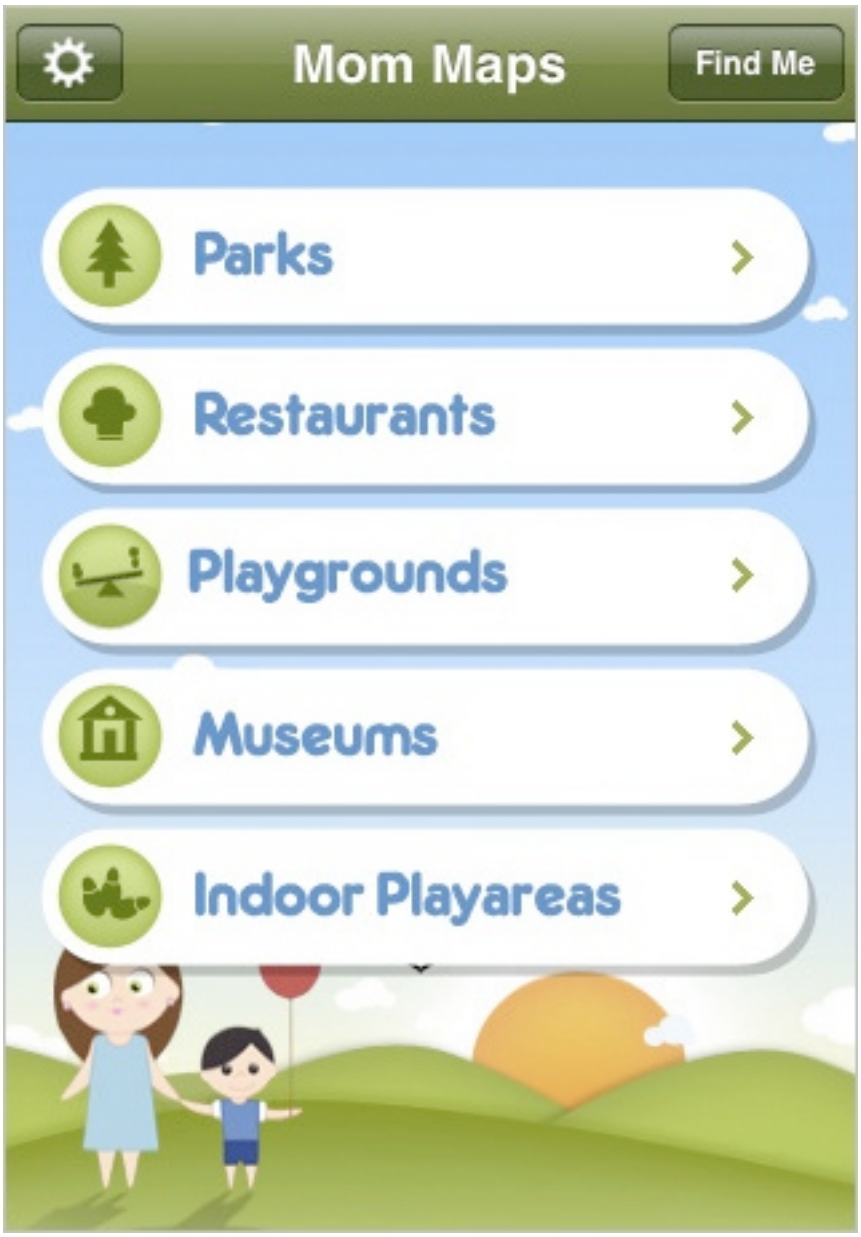
SugarSync [iTunes link]

This interface could have easily followed the traditional list-view route. Instead, the designers played with the concept of “connectivity” to create a visual treatment that communicates the purpose of the app. It is unusual and requires some time to get used to.



Mom Maps [iTunes link]

Another example of how illustrations do a great job of pulling together the whole concept of an application.



8. Using Gestures

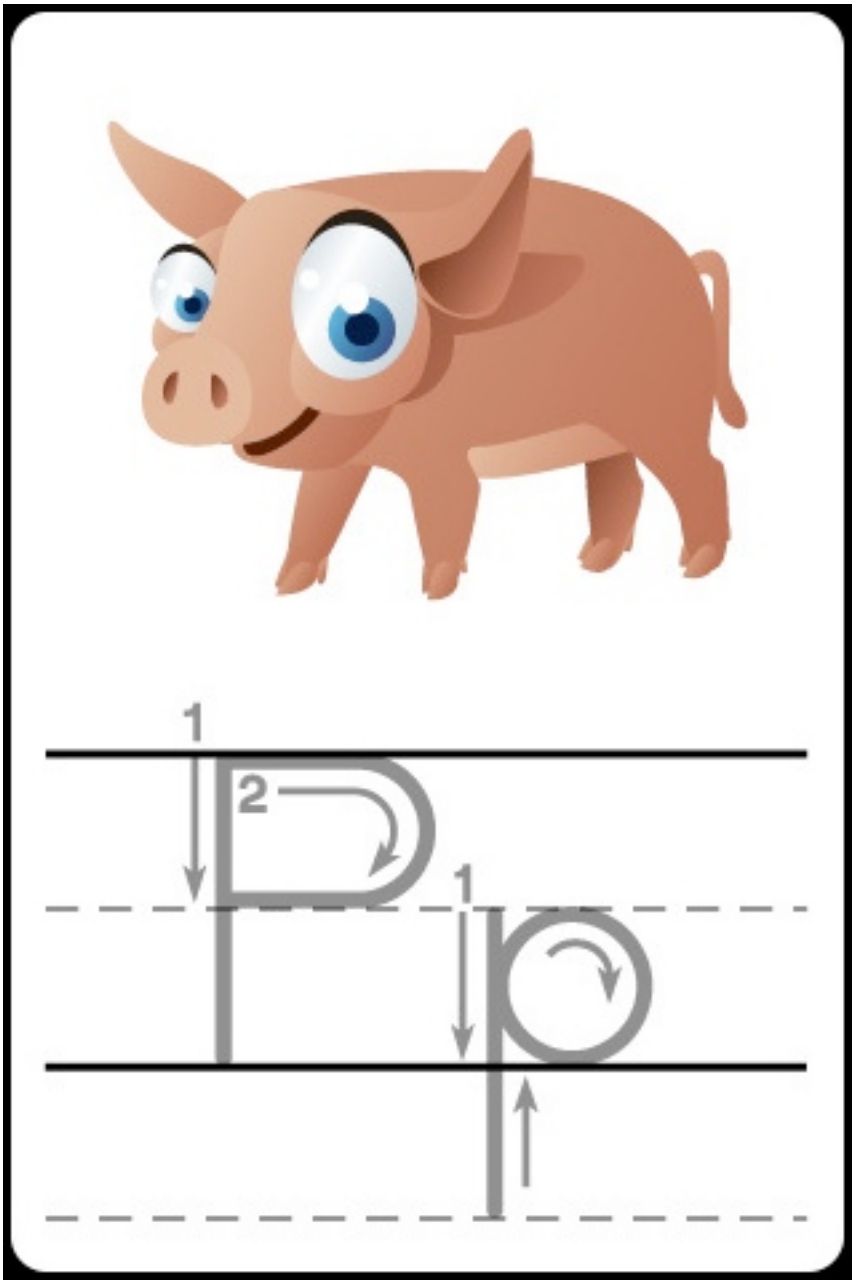
Classic linear navigation may look boring: a button that links to other buttons, which leads you to a list of something, which leads you to such-and-such an interaction. Not really spectacular. The possibilities for creative interaction in utility apps are huge and largely untapped (no pun intended).

Mover (iTunes link)

Mover exemplifies how to use gestures for sharing contacts, photos and bookmarks. Open two devices, and flick the shared files from one handset to the other.

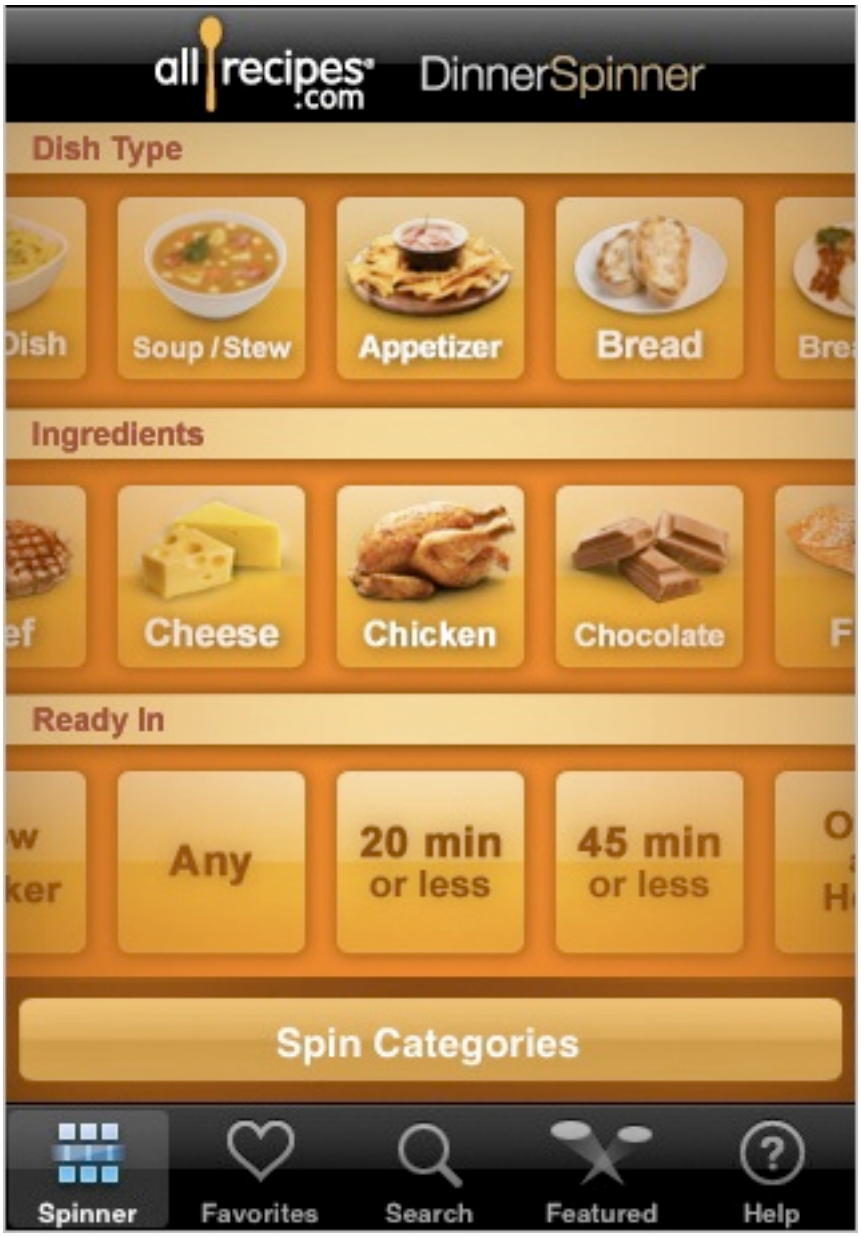
ABC Animals [iTunes link]

This application teaches while it entertains. Being able to trace a letter with your finger is another example of how the iPhone responds to touch and movement.



All Recipes [iTunes link]

This applications allows you to mix in various elements to create your next meal using gestures.



iPhone App Designs Reviewed: Critique Board And Lessons Learned

Alex Komarov

Some time ago I started a mobile app design review section on our company's website. The idea behind this "Crit Board" was simple: if mobile developers want to create apps that people want to buy, they'll need help with design and usability. But most of the time they can't afford it. On our Crit Board, developers can send us their mobile apps (iPhone apps, Android apps, Blackberry apps) along with questions and problems, and we (free of charge) will pick apart key usability issues, illustrate our design recommendations and post our findings.

The only condition to get free criticism from us is that you agree for it to be made public, which is why I am able to share several case studies with Smashing's readers right now. It's hard to imagine something more relevant: these are real problems facing real developers. I hope these problems and the proposed solutions will benefit others who have similar issues and will be generally relevant to those working in the field.

1. Foobi

"Alex,
I am the lead designer and developer of Foobi. Foobi was designed to track your diet in a different way; instead of tracking calories and tapping on many drilled-down lists, it works by simply tracking servings per food group and providing an overview of your food intake balance.
Although I have tried really hard not to over-design it by tracing Apple's footsteps while building custom UI control elements, I would love to hear from you about this subject.
— Remy"

Monday
10
Vegie
Fruit
Grain
2/4
2/2
1/1
Settings
Done
Enabled
OFF
Category Name
Grain
Daily Servings Limit
4
Details
New Category
"...the most beautiful diet tracking app"
—SmokingApples.com

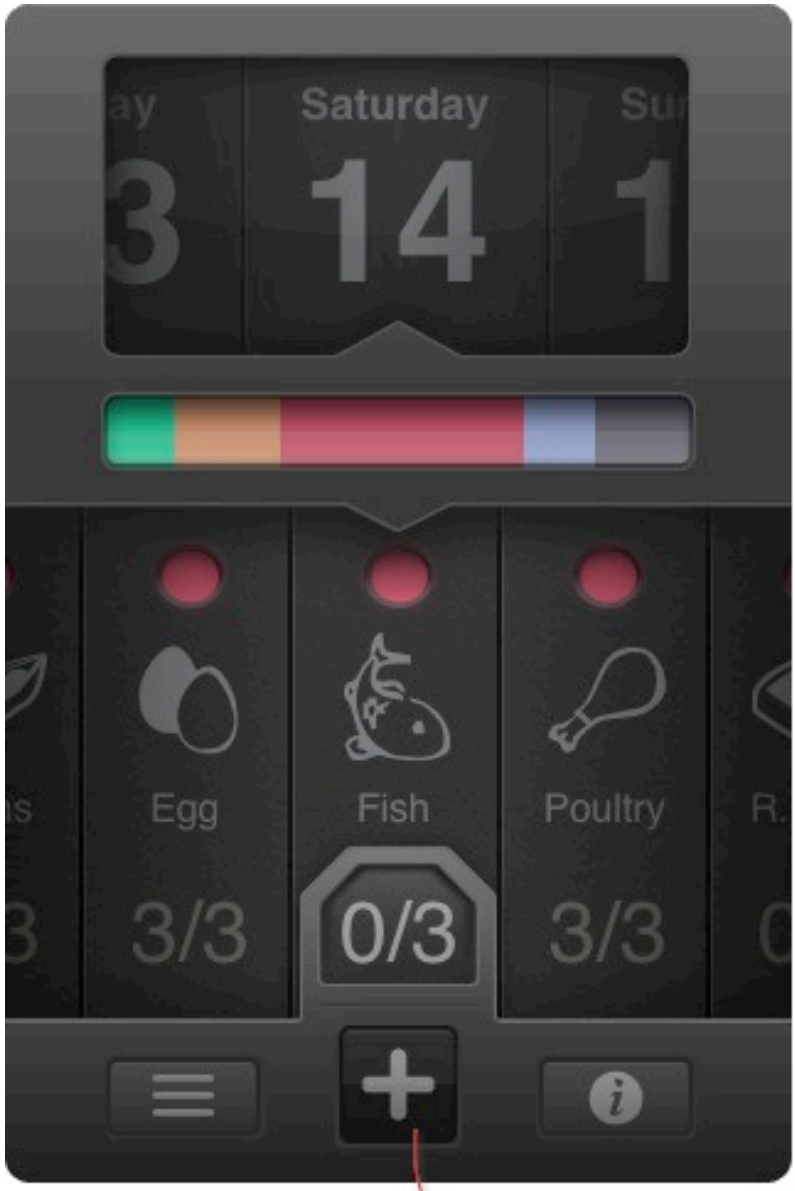
Cancel
Details
Save
Delete Category
Log
Aug / 02 / 2009
Done
W.Grain x 1 3:08 PM
Vegie x 2 3:04 PM
Fruit x 1 3:01 PM
Beans x 1 11:10 AM
Fish x 1
Delete
W.Grain x 1 11:05 AM
Fruit x 1 7:14 AM
"Not only does Foobi look absolutely gorgeous, it is extremely easy to use."
—SUBERAPPS.com

Your app is beautiful indeed. And it is also usable and easy, exactly as you describe it: if user knows how to flick, he is already an expert. An expert in what, though?

As stated in the iTunes description, the purpose of this app is to “track and balance your diet.” I understand the two main user goals as follows:

1. To record what food they consume,
2. To make sure they stay on the right path with their nutrition, and to have a clear guide to balancing their diet if they veer off that path.

Your app does a good job of fulfilling the first goal: users can easily record what they eat just by selecting the right food group and adding the amount of “servings” consumed.



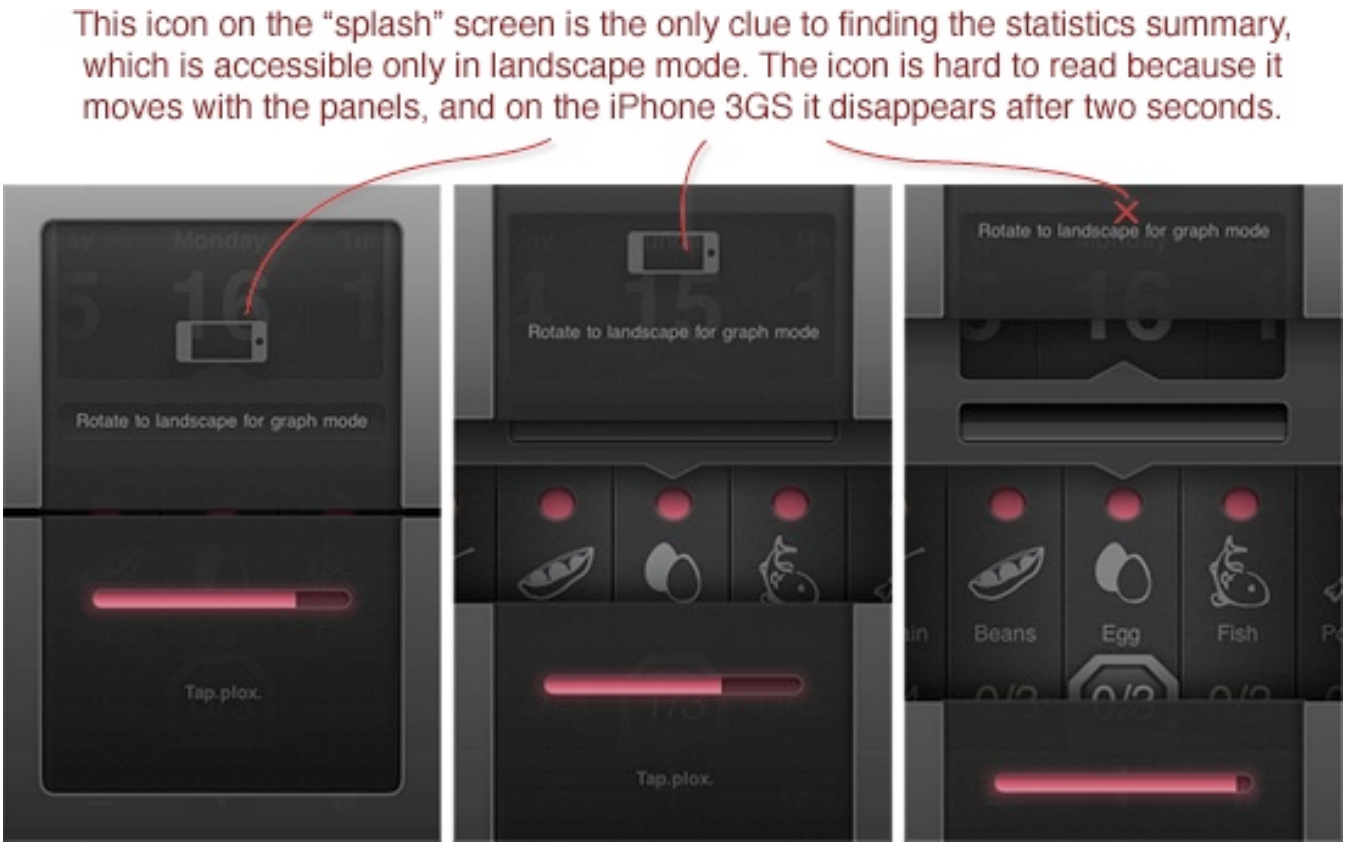
To make the app simpler, you could remove the “+” button. It's not really necessary and merely allows users to tap on the actual food group element to record a serving.

But what about the second more important goal of tracking progress and adjusting one's diet? Does the app help customers achieve this goal? Not very well. There is room for big improvement.

There are two main problems with this part of the app.

SUMMARY INFORMATION IS HIDDEN

To access the summary chart, you have to flip the iPhone to the side and view it in landscape mode. But this feature is not communicated through the app's design, so a user will discover it only by accident. When we talk about fulfilling a major user goal, it is important never to rely on accidents to communicate functionality.



SUMMARY INFORMATION IS NOT WELL DESIGNED

Additionally, the summary is not informative enough.

The summary chart doesn't offer too much to the viewer. Here are the main problems:

- It's not clear what the different colors mean, and there is no legend to help.
- The scale is not flexible. You can view the information only by week, which does not allow users to easily see their big-picture eating habits. (Tip: consider incorporating the pinch gesture to allow users to scale in and out.)
- Tracking consumption of a particular food group is not possible with this chart but would be valuable to users.

You could show additional info
(for example, a legend) when the user taps on a bar.

Information design is a vast topic. There are a million ways to address the problems that I've highlighted and to increase the visibility of useful information for your audience. I recommend reading Edward Tufte's books, particularly *The Visual Display of Qualitative Information*.

And here's an inspiring display of a lot of information. Of course, it's not tailored to mobile use, but it has a few great ideas:

From Google Finance.

ONE MORE THING

When I purchased and downloaded your app, I didn't quite understand why it was taking so long to download… until I realized that it had already downloaded. I was fooled by the app icon, which makes it look like it is still downloading:

The app icon while it is downloading.

The app icon.

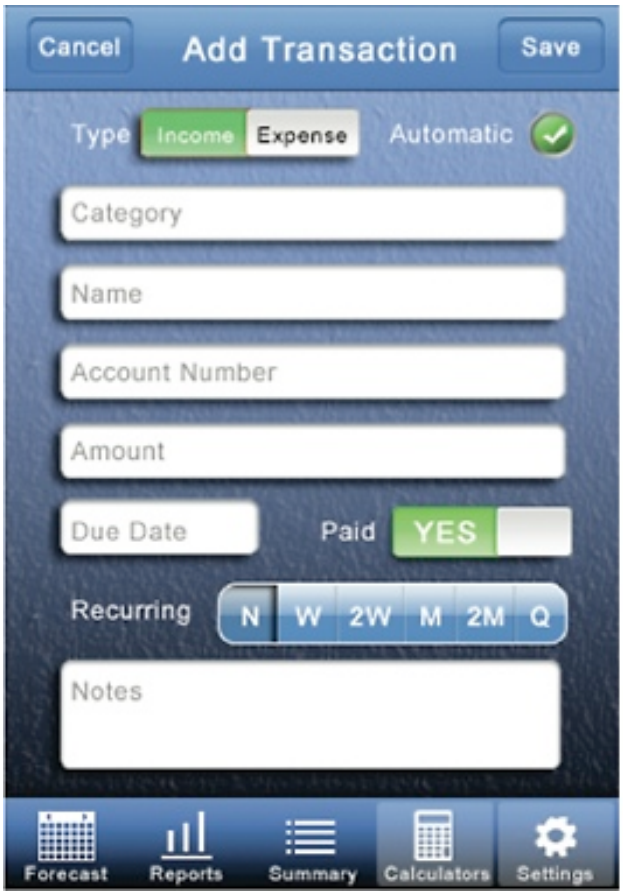
2. Budget Planner

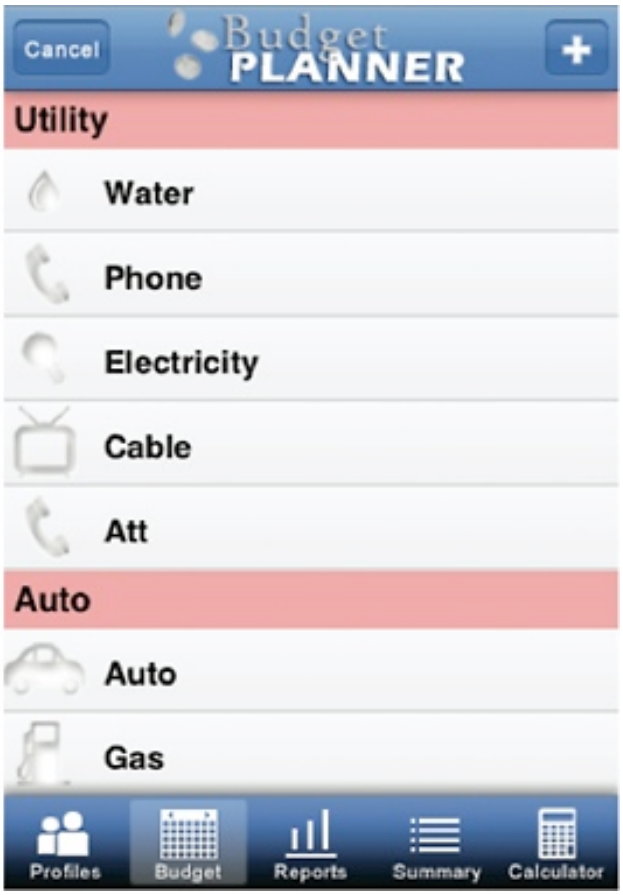
"Alex, please take a look at my app Budget Planner. I have tried everything, and it keeps going up and down. The major issues that people complain about are intuitiveness and slowness. People don't understand what the software does. But people who do learn it love it.
— Alex Sabonge"

The basic idea of this app is very good, and the App Store description shows off its functionality well:”Budget Planner tracks your bills, budget, calendar and transactions by displaying your balance in a calendar view, letting you know how much money you will actually have on any particular day. Like a balance forecaster.”

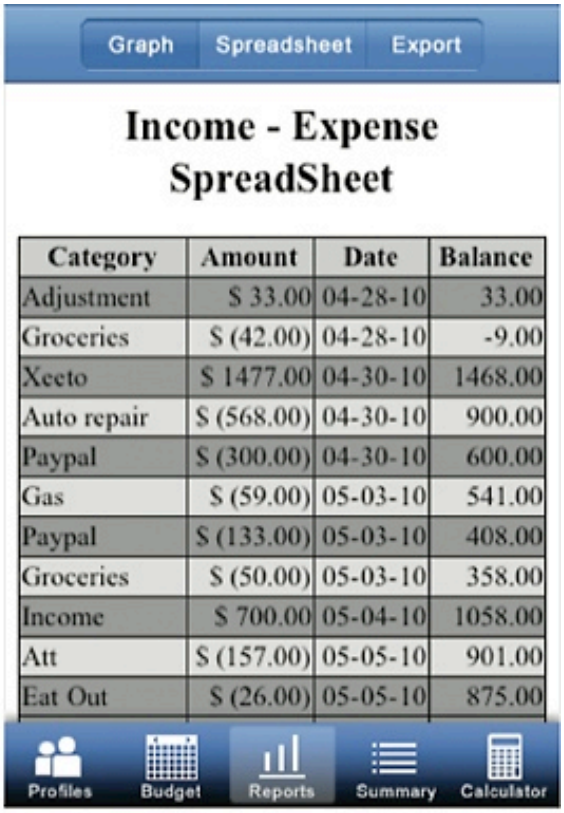
Here’s an overview of how Budget Planner works:

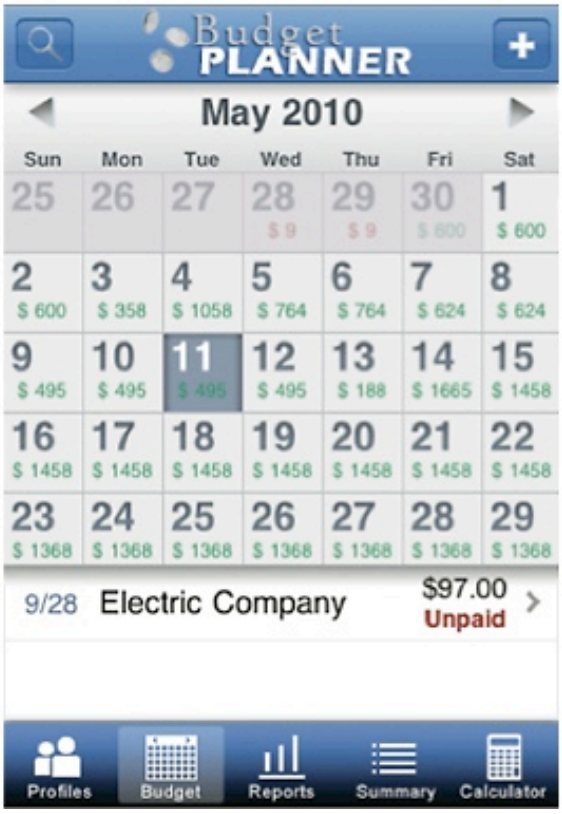
Users input their monthly salary info and plug in their fixed monthly expenses (utilities, phone, car payment, etc).





Using this data, the app allows users to track their cash flow and predict the amount they'll have in the bank on any given day.





Most folks would find this extremely useful. So, why are people complaining about the app? Why does it have an average rating of 2.5 out of 5 stars, and why are sales lower than you had hoped?

Let's look at the main sources of the problem. For now, we'll set aside lesser (though important) usability factors, such as not following the iPhone UI guidelines and using the standard controls improperly. Let's start at the beginning. Humans invented money to buy things, right? Your core audience's main goal is to know what they can afford and when they can afford it, whether it's a new pair of shoes, a new car or a solid retirement plan.

People don't prepare a budget just for fun. They make the effort because they hope it will help them make better purchasing decisions (read: buy more stuff that they like), without their rent check bouncing. Your app is getting there. But several key factors are getting in the way of a great user experience. Let's take a closer look at the app's "landing screen," the calendar, the main element that differentiates this app from other budget apps.

First of all, I think the calendar is a great idea. It's much better than the categorized lists that many other apps have. The calendar is all about how much money you have or will have in future. A list only shows how much you've spent. Knowing that your money is gone doesn't really help achieve a financial goal (purchasing a shiny new laptop, for example).

Here are some downsides to the calendar view:

Hidden Information

The most interesting information about changes to your cash flow is hidden between dates. I can see that on May 3rd my balance was $358, and on the next day it was $1058, but I can't see what events caused this change.

Discontinuity

The calendar is displayed by month, with an arrow to move back and forth. This is not ideal. Time is continuous (setting aside relativity and quantum mechanics for now); we should be able to easily view timeframes that overlap two consecutive months. For example, the user should be able to view the last two weeks of May and the first two weeks of June on one screen.

No Big Picture

Calendar views do a great job of fitting information onto limited screen space. But this tabular format is less than ideal in this case because it obscures important information. There are better ways to show users the big picture of their finances. Redundancy Repetition clutters the screen, creating visual noise and obscuring the big picture.

Redundancy

Repeated information clutters the screen, creating visual noise and obscuring the big picture from the user.

I believe there's a way to visualize information in the current design so that users are able to uncover "invisible" patterns. Uncovering the details and patterns behind their spending habits enables users to get new ideas, make informed decisions and achieve their financial goals (and praise your app in the process). Users will better understand their bad habits and be able to take steps to correct them.

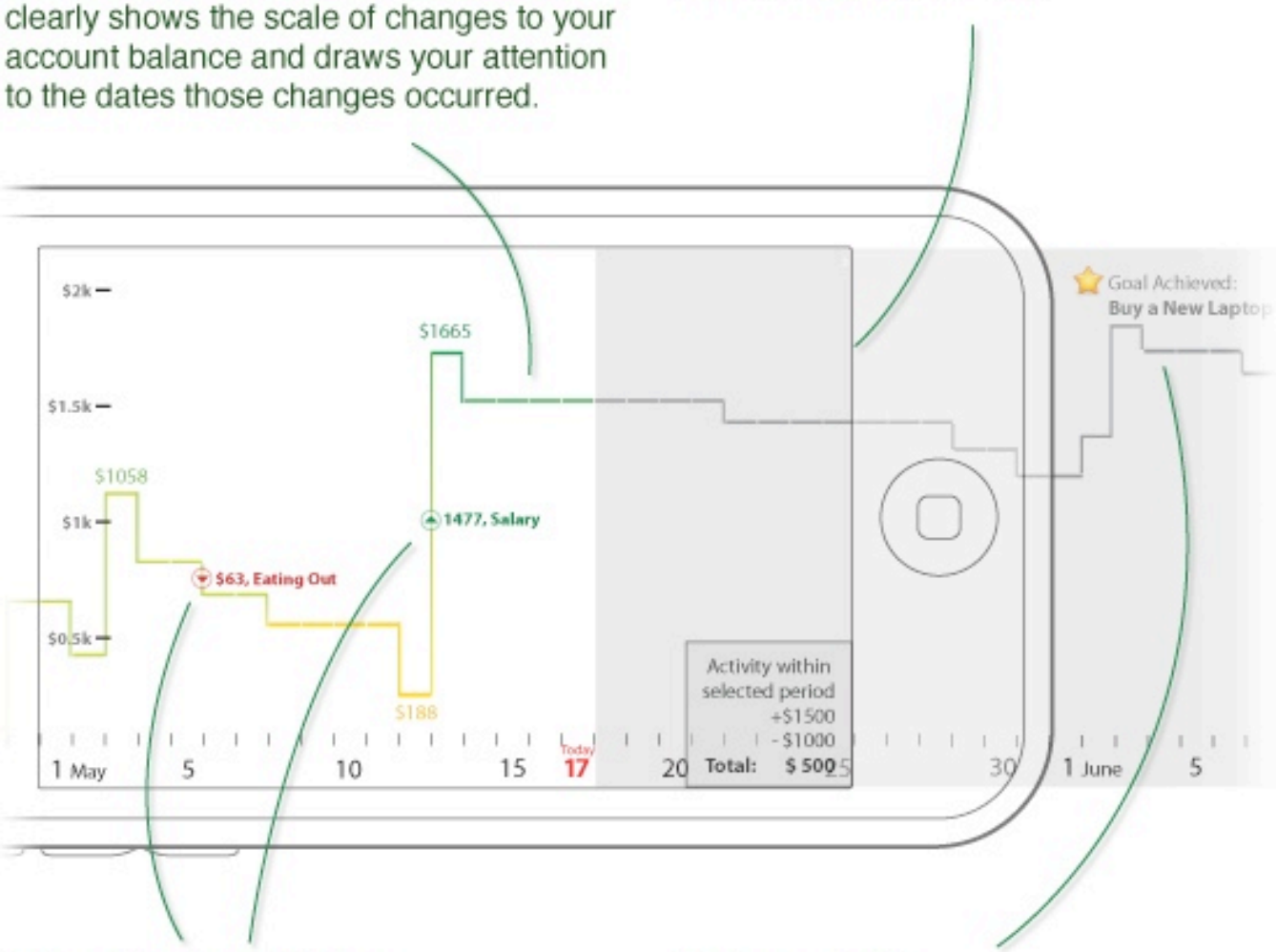
A graph could provide richer possibilities for visualizing financial information. It's much more flexible and scalable then a calendar. Using a graph for the landing screen could dramatically increase the density of meaningful data, while reducing visual noise. Here are some ideas we came up with; this is merely a draft we put together to illustrate our points and to get your ideas flowing—it is not a proposal for a final design:

Redundancy is eliminated

What if your balance is the same for an entire week? In the calendar view, the value is repeated on every day, cluttering the screen. In a graph view, the value is represented by a single line. This graph clearly shows the scale of changes to your account balance and draws your attention to the dates those changes occurred.

No Discontinuity

Here we have no artificial boundaries between months. You can seamlessly scroll the graph with your finger and pinch to zoom in and out. We able to focus on the meaning, not the form.



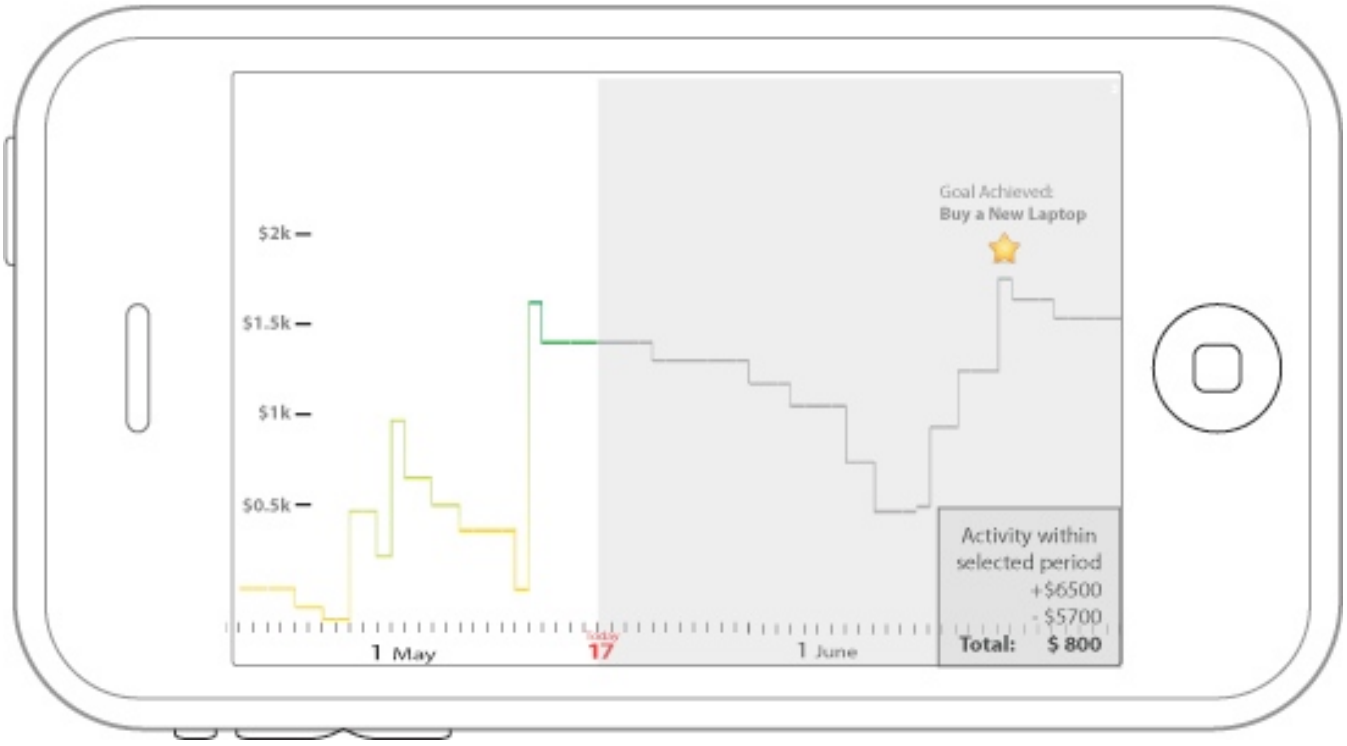
Information is unhidden

Users can pinch to zoom in to get more detail on their transactions.

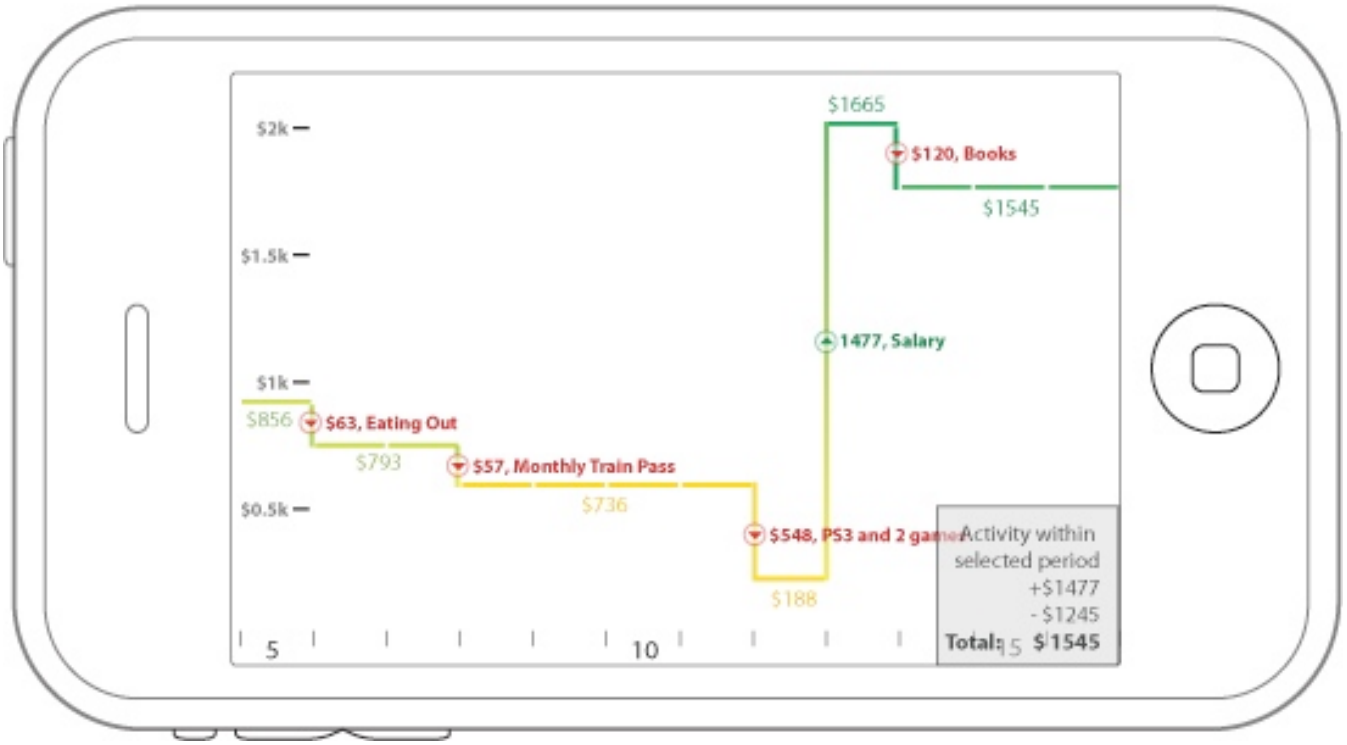
Goals are visible

Allow users to set specific milestones and to see how close they are to them.

Zoom out to view the big picture.



Zoom in to see detailed information.



NEXT STEPS

People love apps that help them achieve their goals. What if your app allowed users to input and compare different financial scenarios, shown through several overlaid graphs?

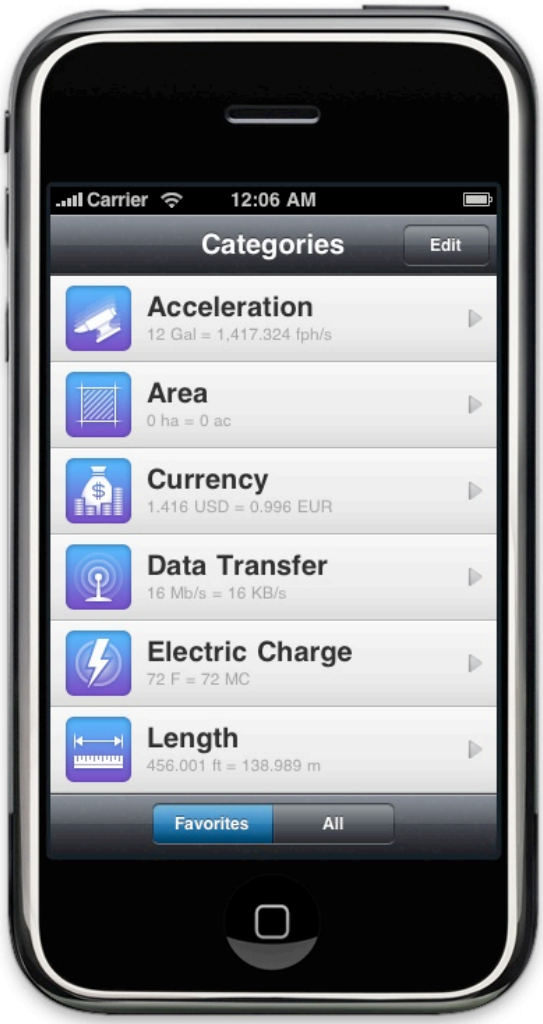
This capability could help users think through their options:

- If I put my child through this private school, would I still be able to afford the Beemer I've always dreamed of?
- How many hours of overtime would I need to work to be able to afford both?

These are few examples of questions that people ask themselves. If your app can help them get the answers, I think it'll really catch on, and you'll soon be driving a shiny new Beemer yourself.

3. UNITS UNITED

"Unit conversion app, Units United. Yep, yet another one... ;) Can you please review it?
— Meils Dühnforth"


Carrier
12:06 AM
Categories
Edit
Acceleration
12 Gal = 1,417.324 fph/s
Area
0 ha = 0 ac
Currency
1.416 USD = 0.996 EUR
Data Transfer
16 Mb/s = 16 KB/s
Electric Charge
72 F = 72 MC
Length
456.001 ft = 138.989 m
Favorites
All

Carrier
12:06 AM
Categories
Length
ft
Foot
456.001
138.989
m
Meter
7
8
9
4
5
6
1
2
3
0
.

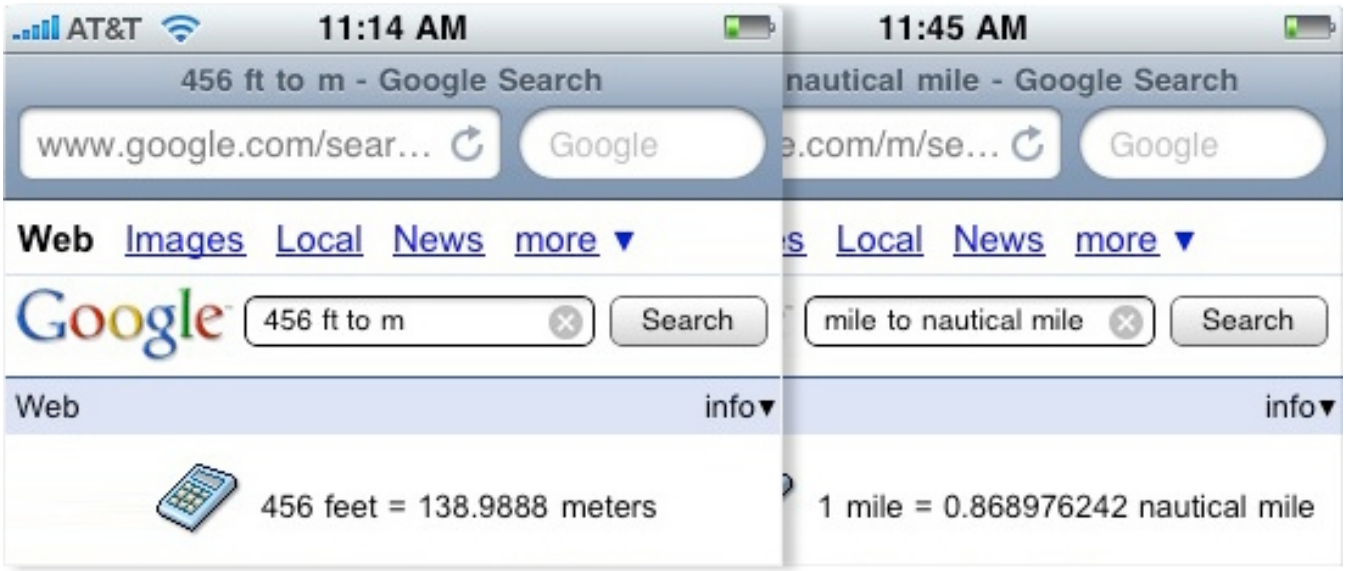
Carrier
12:06 AM
Converter
m → ...
Edit
cm
Centimeter
ft
Foot
in
Inch
km
Kilometer
m
Meter
mi
Mile
mm
Millimeter
nmi
Nautical Mile
Favorites
All

The biggest problem with almost every unit converter I have seen is that they require users to submit their query in a format that the computer (or iPhone in this case) can understand. Most unit converters force people to make double the effort to get what they want.

Consider the following scenario: you're from the US, and you are recounting yesterday's baseball game to your Icelandic friend. During their last at bat, the Phillies hit a 456-foot home run. Amazing! You punch the value into your unit converter app, but to get an answer you must translate the query into a format that the application understands:

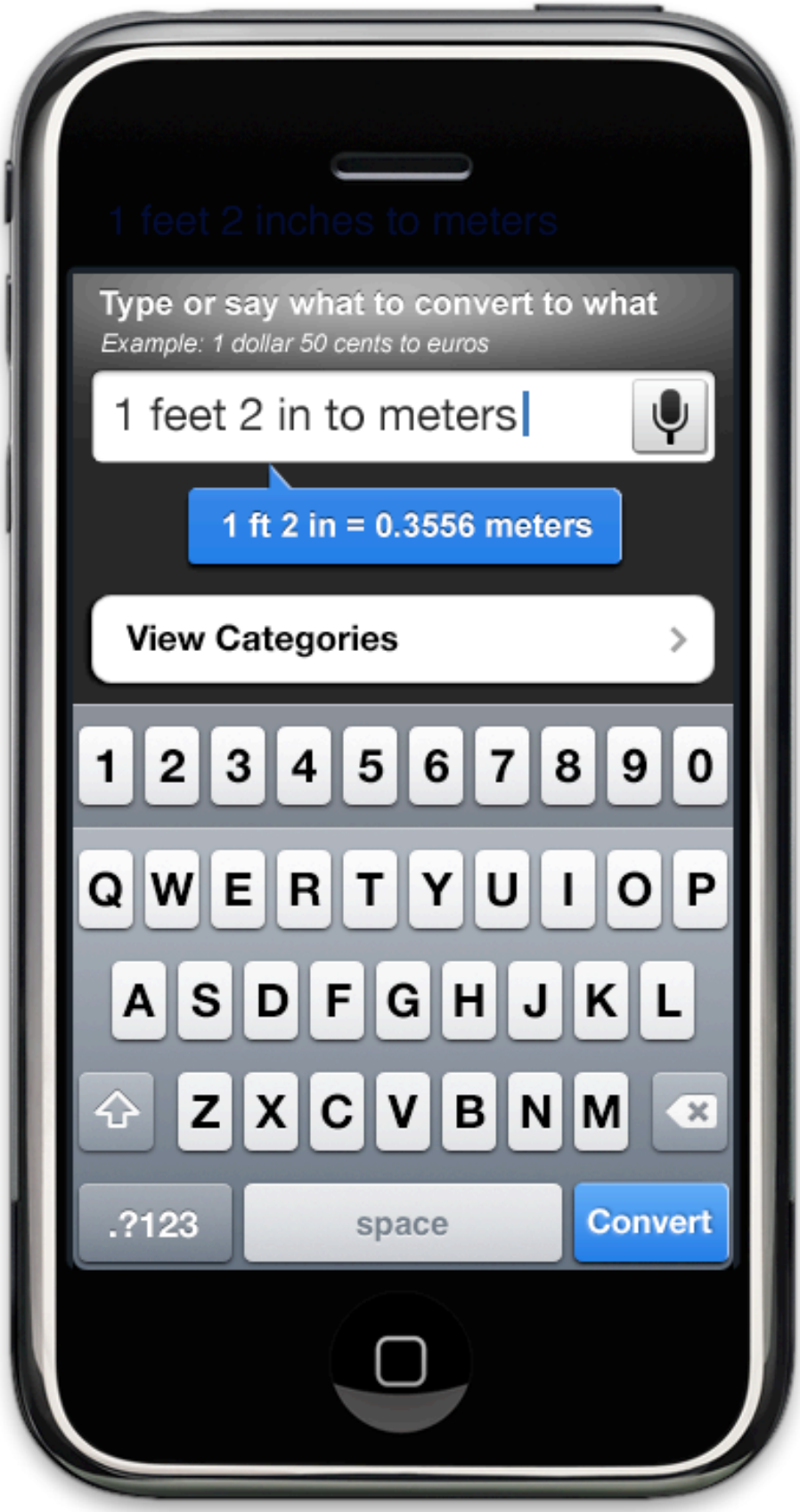
1. Go to "Categories,"
2. Select meters for the "To" unit,
3. Select feet for the "From" unit,
4. Type in 456 on the number pad,
5. Double-check that you are converting 456 feet into meters and not vice versa.

Are all these steps necessary? You just wanted to know “What is 456 feet in meters?” But you had to ask the question in robo-speak. You had to select options from a list to be understood. Good software speaks your language. Among the innumerable unit converters, only Google does it right, allowing you to ask your question in plain English:



Using speech recognition technology is another good idea. Sometimes your hands aren’t free when you need to convert a unit. Say your Icelandic friend is driving on a US highway and needs to convert the 55 miles-per-hour speed limit into kilometers.

Implementing everything described above, your app might look something like this (this quick draft is meant to illustrate the point and is not a design proposal):


1 feet 2 inches to meters
Type or say what to convert to what
Example: 1 dollar 50 cents to euros
1 feet 2 in to meters
1 ft 2 in = 0.3556 meters
View Categories
1 2 3 4 5 6 7 8 9 0
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
.?123
space
Convert

This application is much easier to use because there's no more robo-talk: it doesn't force users to browse categories and sub-categories, and it accepts questions in everyday language.

Send Your App For A Free Review!

Mobile developers are always welcome to send me their apps for a free review. Just use this form. Please remember that your content will be featured on our Crit Board, allowing developers, designers and users worldwide to join the conversation. If you prefer to speak privately about your design, please feel free to contact us directly.

iPhone Apps Design Mistakes: Over-Blown Visuals

Alex Komarov

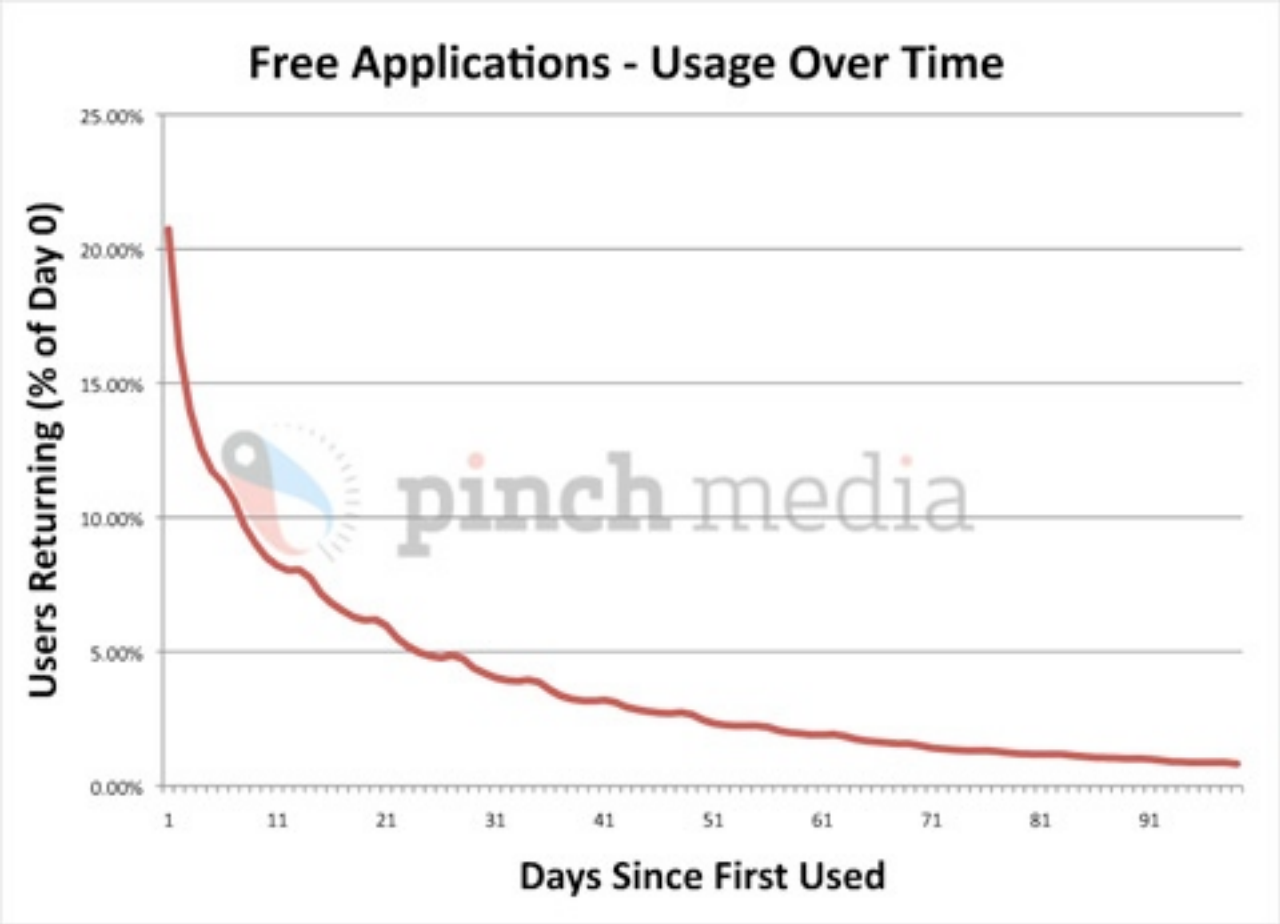
The development of iPhone applications has recently become a hot topic in the design community; everybody tries to come up with some creative idea, port it into a stylish iPhone-alike application and sell it to thousands of users through the iPhone app store. However, many of these applications are poorly designed and therefore miss the chance of providing users with a truly useful product that users would find worth recommending to friends and colleagues.

We want to take a closer look at the design of iPhone applications and showcase some good and bad examples, best practices as well as useful ideas and recommendations for your next iPhone app design. This article is a first of a new series related to the design of iPhone applications. Are iPhone apps really not good enough?

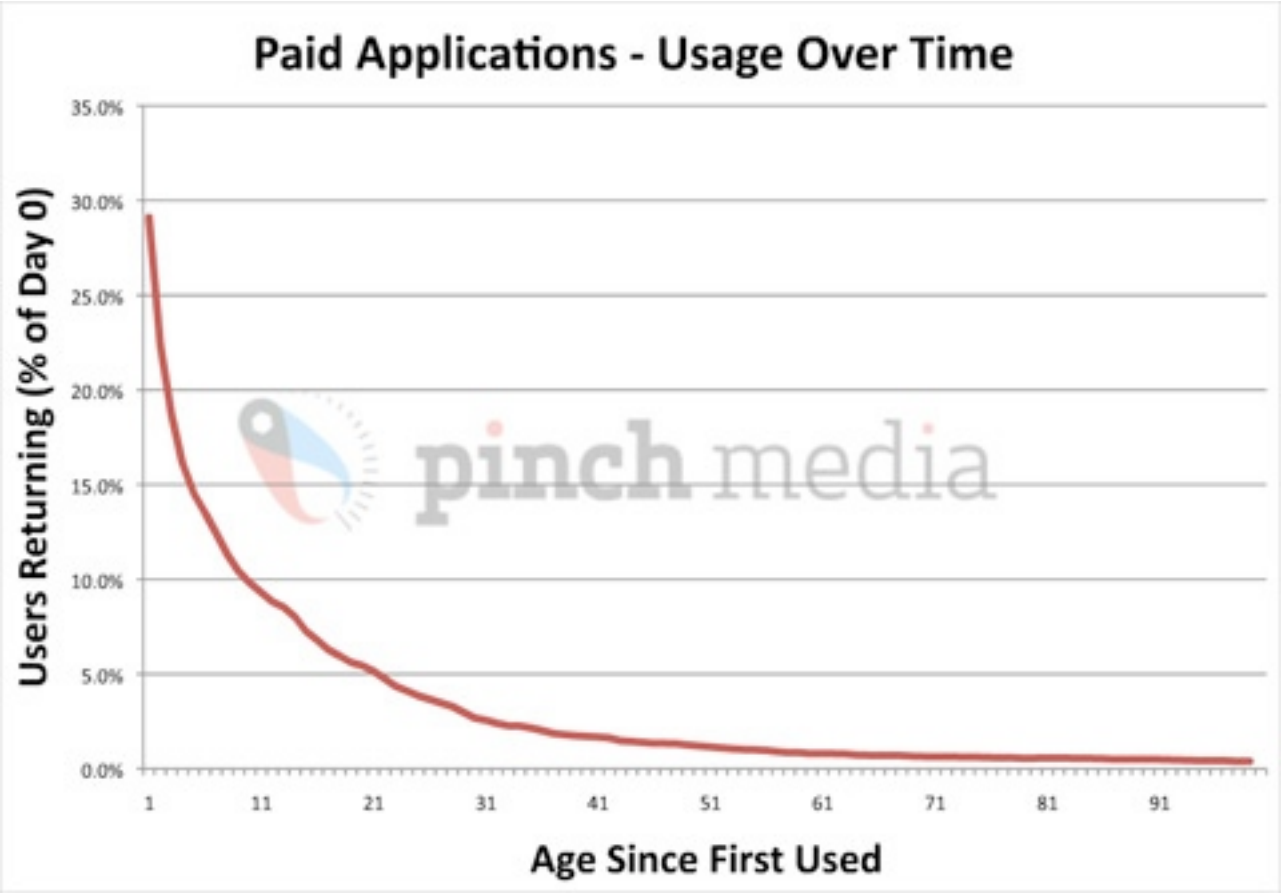
“It’s only 99 cents. Who cares if it sucks? I’m still trying it.” How many times have you said something like that to yourself before downloading the next promising iPhone app? How many screen-fulls of those apps do you have on your iPhone? 4? 6? 10? And how many of them do you actually use?

On average, only 3% of people who have downloaded an app use it after 30 days. Why? Because the majority of iPhone apps don’t make any sense to users. The situation is similar to that of PC software a couple of decades ago. Have we not learned from our mistakes?

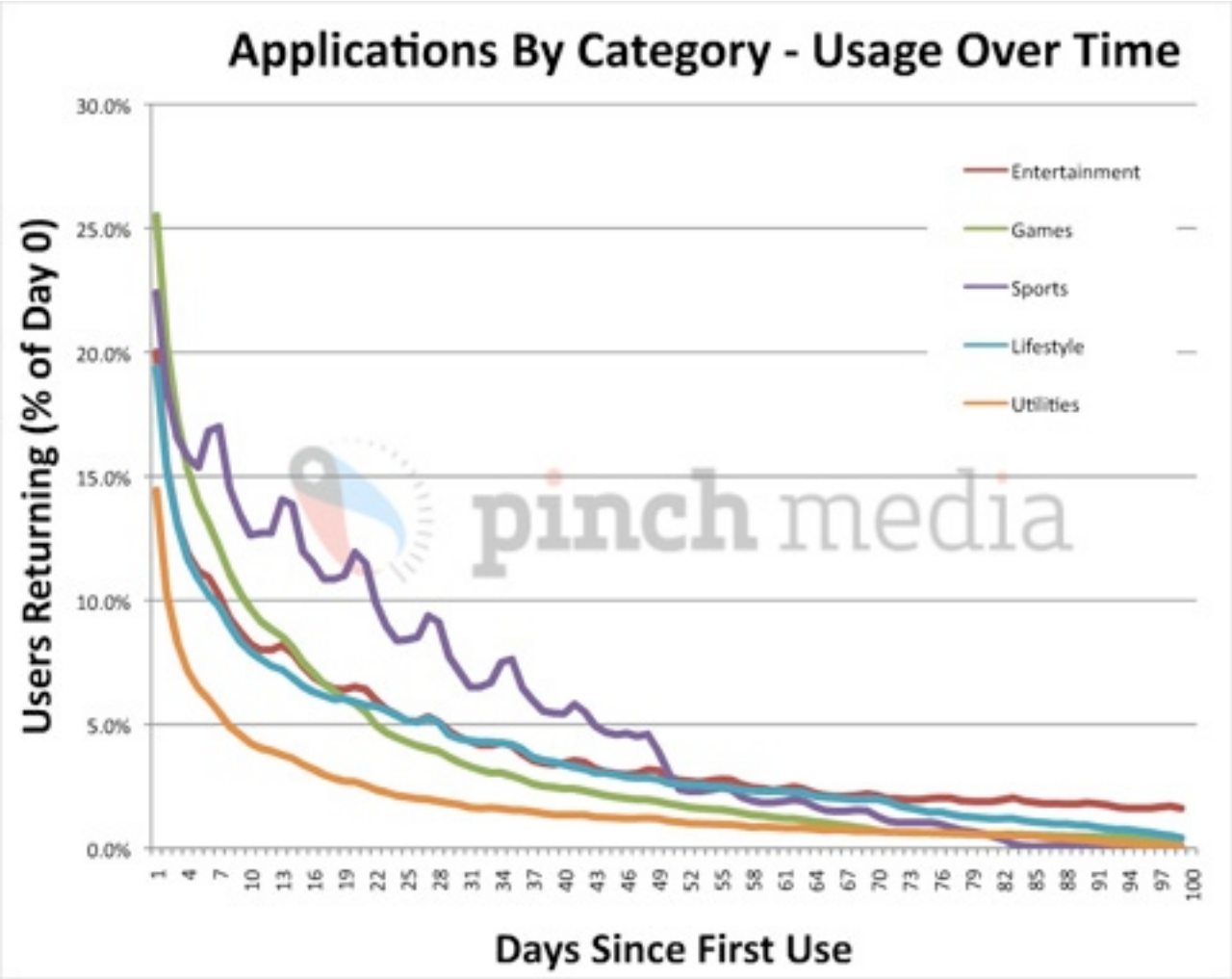
iPhone applications nowadays are designed by developers who seem to care only about their app's implementation. When an app goes live, its beautiful code or visual design often fail to address real customers' needs. The result: thousands of useless applications in the App Store that people download and use once and then never again. These applications often don't make sense to customers because of a poor interaction design.



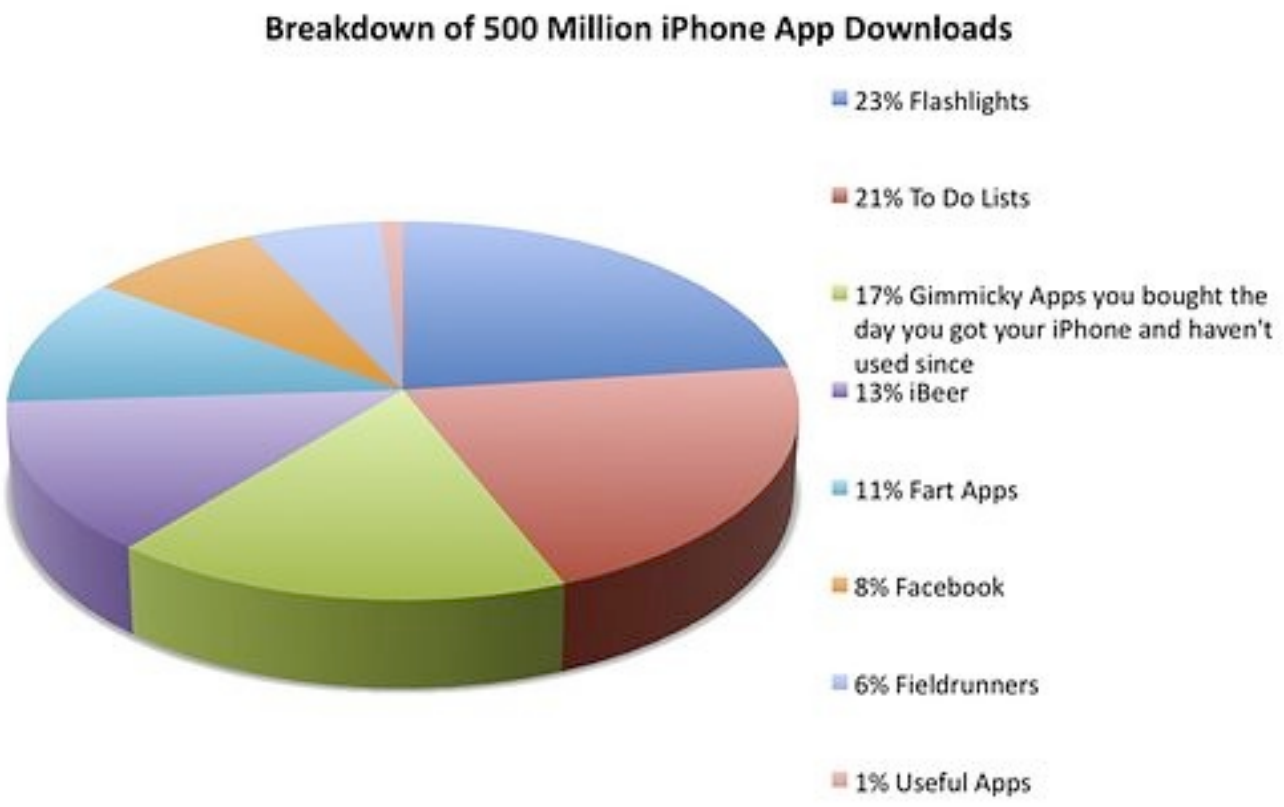
Free applications usage over time: Percentage of users returning versus number of days since first used. On second day, 20% returning users; on the 30th day, only 3%. By Pinch Media. Larger image.



Paid applications usage over time: Percentage of users returning versus number of days since first used. It's not really different from the graph above. Paid applications generally retain their users longer than free applications, although the drop-off is still pretty steep. By Pinch Media. Larger image.



Users stop using the average applications pretty quickly. Long-term audiences are generally 1% of total downloads. By Pinch Media. Larger image.



Hilarious 500 million downloads breakdown, by Gizmodo. Larger version
(Copyright: Gizmodo)

It shouldn't be this way. Developers should be writing applications that people love so much that they would pay $9.99 or even $99.99 for each of them. There's no programming technique that teaches you how to do this. But there is something else, and it's called interactive design.

Five Most Frequent iPhone Design Mistakes

Many applications share the same design problems that prevent customers from fully enjoying them. Recently, I conducted a **review of 100 apps** from the App Store and identified the five most frequent iPhone design and usability mistakes, which are:

1. Over-blown visuals.
2. Neglecting technological limitations, such as slow Internet connection, slow processors and single-threaded OS architectures.
3. Confusing navigation (flow, layout and taxonomy).
4. Confusing the iPhone with a computer. Neglecting to use new iPhone interactions (fingers instead of the mouse; multi-touch gestures; turn, tilt and rotate) and technological features such as phone functions, built-in GPS and accelerometer.
5. Disregard of context. A lack of understanding of how, when, where and why the mobile device is being used.

Let's start with the first one in this article and proceed with the next ones in the follow-ups to this article.

Mistake #1. Over-Blown Visuals

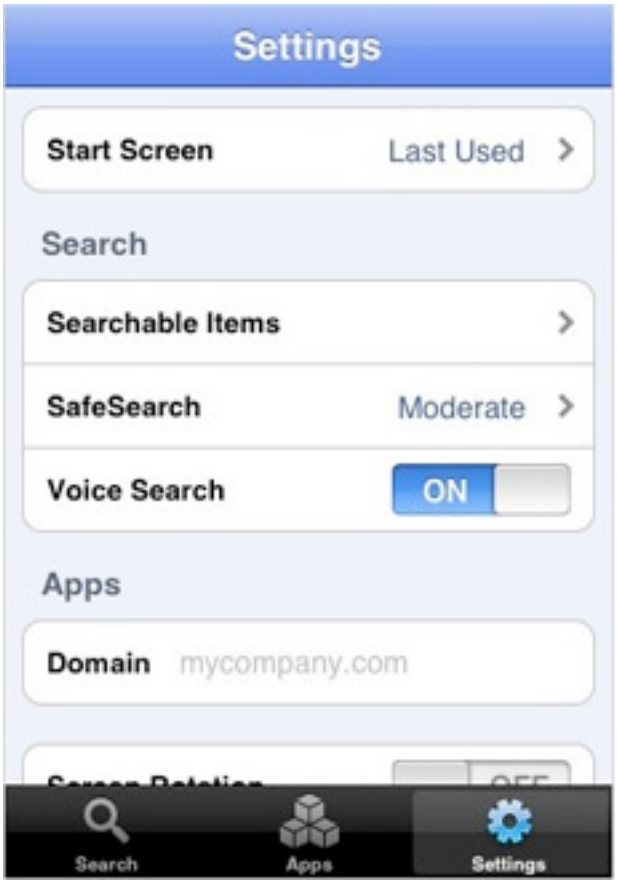
Probably the oldest, yet extremely popular design problem is overdesign. Designers of iPhone applications often tend to disregard common design and usability conventions by offering users slick and shiny user interface designs that go way beyond their standard look and also way beyond their claimed functionality.

Why make things look, feel and work complicated and why do designers like to re-invent the wheel? The answer is simple: they want the application to be different; look different and stand out from the crowd. Unfortunately, a different look isn't necessarily helpful for application's usability and functionality.

So how does an over-design in iPhone applications look like? To better understand it, let's look at an example:

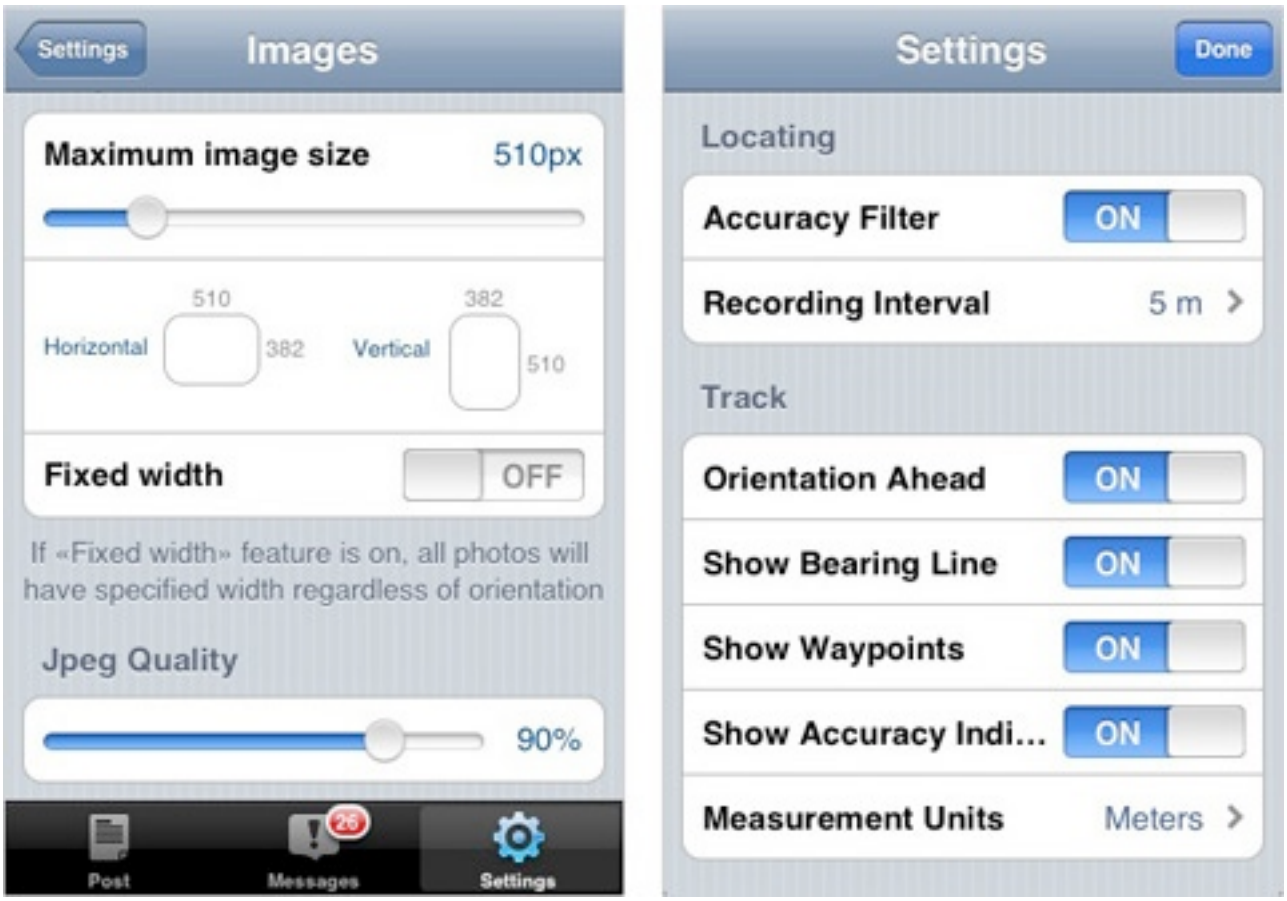
Motion X GPS settings.

What do you think is wrong with the design in this first screenshot? Some of you may say, “Well, nothing is really wrong with it. It’s beautiful.” I agree, it’s pretty slick. But, there’s a catch: while beautiful, it is also inconsistent with other apps. It’s different. Let’s compare this screen to the settings screens of other iPhone applications:



Settings
Now Playing
Account
Sign out lopanism@mail.ru
Cell Network Audio Quality
Higher quality audio
OFF
When turned on, music will sound better but may contain more skips and hesitations.
Power Management
Auto-Lock
ON
When turned off, screen will remain lit but battery life will be shorter if not plugged in.
Stations
New Station
Bookmarks
Settings

Weak Signal, ac
ON
Sounds
ON
Accelerometrics Assisted GPS
OFF
Accuracy Filter
Display Units
Metric
Imperial
Nautical
Speed Display Format
Speed
Pace
Coordinate Display Format
DMS
DM
D
UTM
Back



Motion X GPS settings screen, compared to the settings screens of other apps. (Click to enlarge.)

Noticed the difference? Being inconsistent with other products makes yours worse for two reasons:

1. Going against convention makes your application less intuitive. Over-styled controls look different and require users to re-learn how they work.
2. It's a waste of time and money. The resources you have spent to make your app look different, but not necessarily *better*, could have been used much more effectively.

BREAKING CONVENTION MAKES YOUR APP LESS INTUITIVE

The more familiar the parts of your app are, the more intuitive the app will be for whoever uses it. If we recognize the parts, we will be able to learn how to use the whole faster. It's like reading: knowing the alphabet and meanings of words allows us to "decode" books we haven't seen before.

Here's an example from the real world. Try to make the stop sign more "beautiful" and people will inevitably start dying:

"Sign B, 2, 'STOP,' shall be used to notify drivers that, at the intersection where the sign is placed, they shall stop before entering the intersection and give way to vehicles on the road they are approaching." Article 10 of 2006 road signs convention.

In his paper Intuitive Equals Familiar (Communications of the ACM. 37:9, September 1994, page 17), Jeff Raskin, an American human-computer interface expert best known for starting the Macintosh project for Apple Computer in the late 1970s, writes:

"The impression that the phrase 'this interface feature is intuitive' leaves is that the interface works the way the user does, that normal human 'intuition' suffices to use it, that neither training nor rational thought is necessary, and that it will feel 'natural.'"

However,

"... it is clear that a user interface feature is 'intuitive' insofar as it resembles or is identical to something the user has already learned. In short, "intuitive" in this context is an almost exact synonym of 'familiar.'"

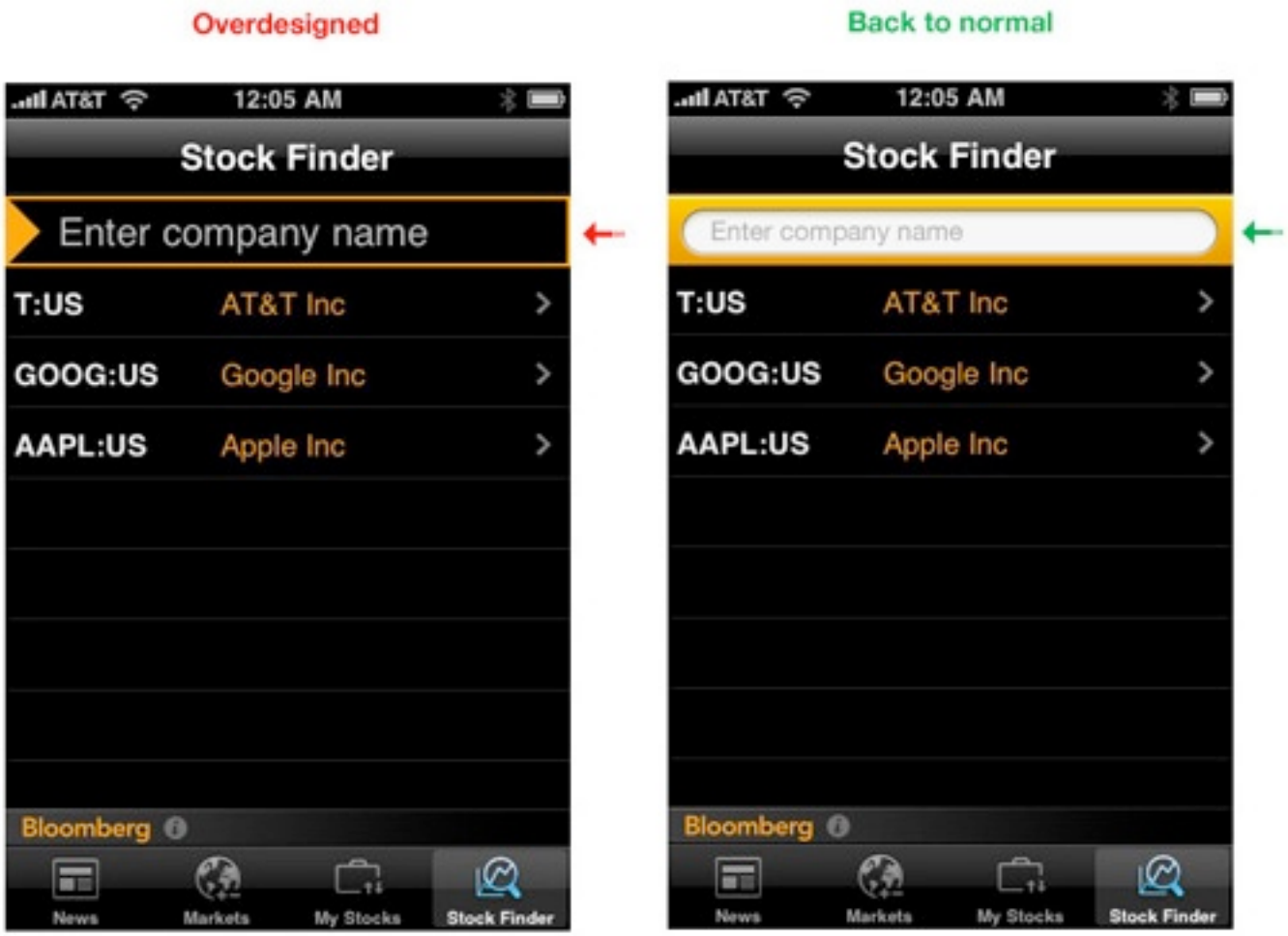
Drastically re-designing every user interface element will make your application less intuitive, which will lead to more user mistakes and a longer learning curve. Eventually, you will lose customers because of it.

WHAT ABOUT BRANDING?

Is there place for branding in applications that are strictly following general design guidelines and usability conventions? Definitely! It is possible to strike a balance between having a unique look but not over-designing. Here's one example:

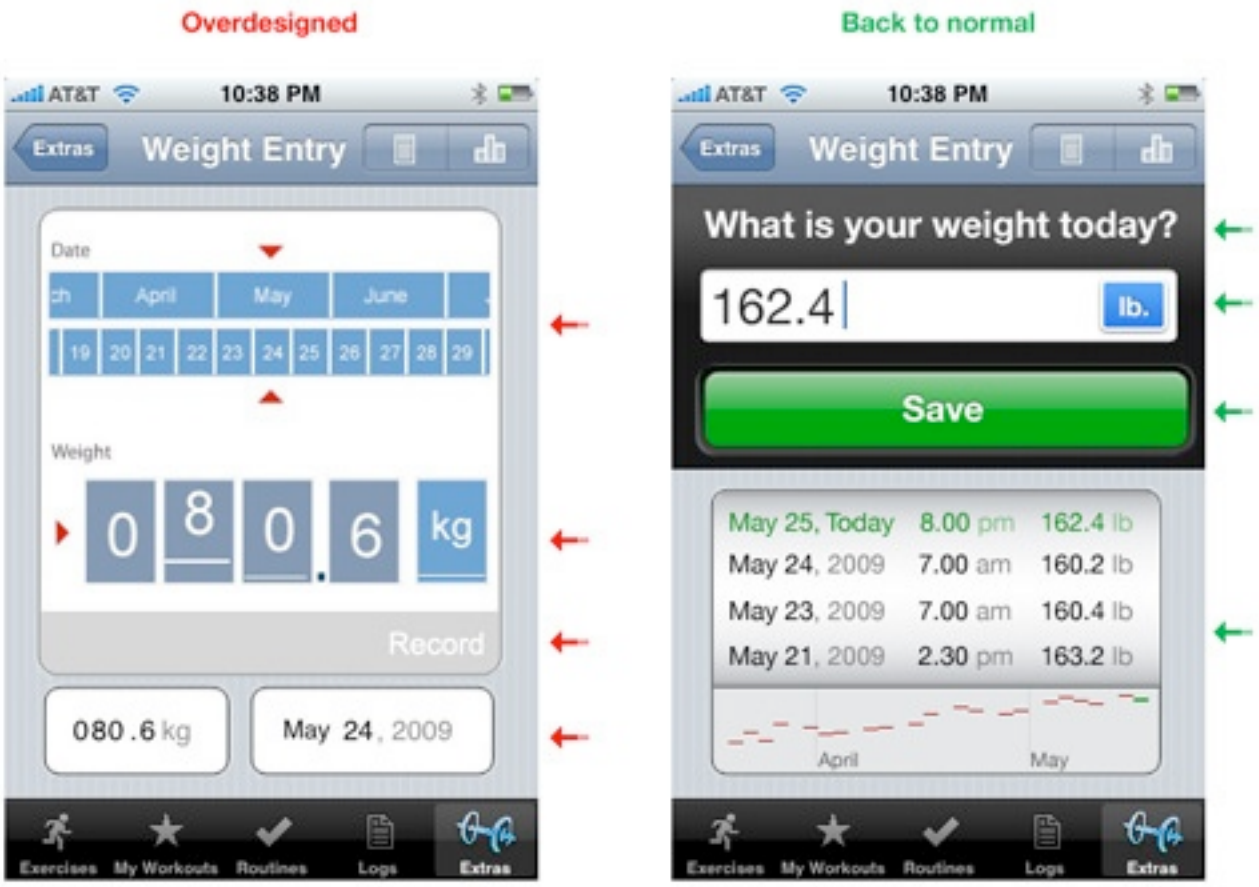
This application has its own unique look. Controls, however, are standard and thus familiar.

Let's take a look at an example of overdesigning by Bloomberg. Here, we have an over-designed text input field at the top. You can barely recognize this as a field when you first look at it. The version on the right hand side is much better. A standard input field makes the screen's purpose much clearer, while remaining consistent with the application's style and branding.



Larger version.

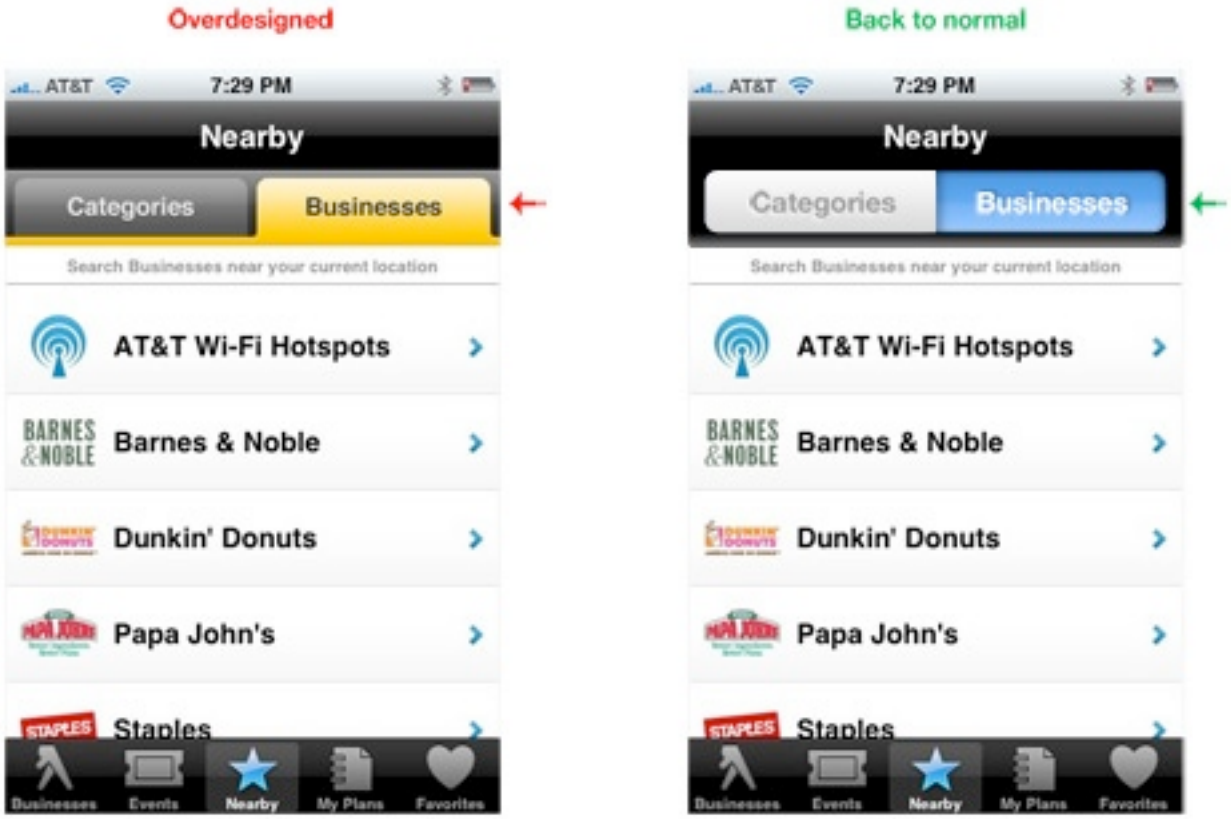
Here is another example by iFitness. Users are supposed to enter their weight day by day on this screen. But you have to flip through the months and days with a horizontal swipe to find the right one, and then you have to enter your weight digit by digit using five separate scroll fields. And then you have to press the very modest “Record” button, which you miss at first anyway and only find the hard way: after you have lost data. Much better:



Larger version.

99.9% of users will want to enter *today's* weight. This redesigned interface has one-quarter of the controls. The screen space that has been saved can now be used to present useful information, such as weight statistics. Date and time can be recorded automatically, and the selection of the metric or imperial system of measurement, which is not terribly important, has been demoted to a settings screen.

The Yellow Pages app uses tabs, which work well on the Web, but standard toggle controls are more familiar to iPhone users.



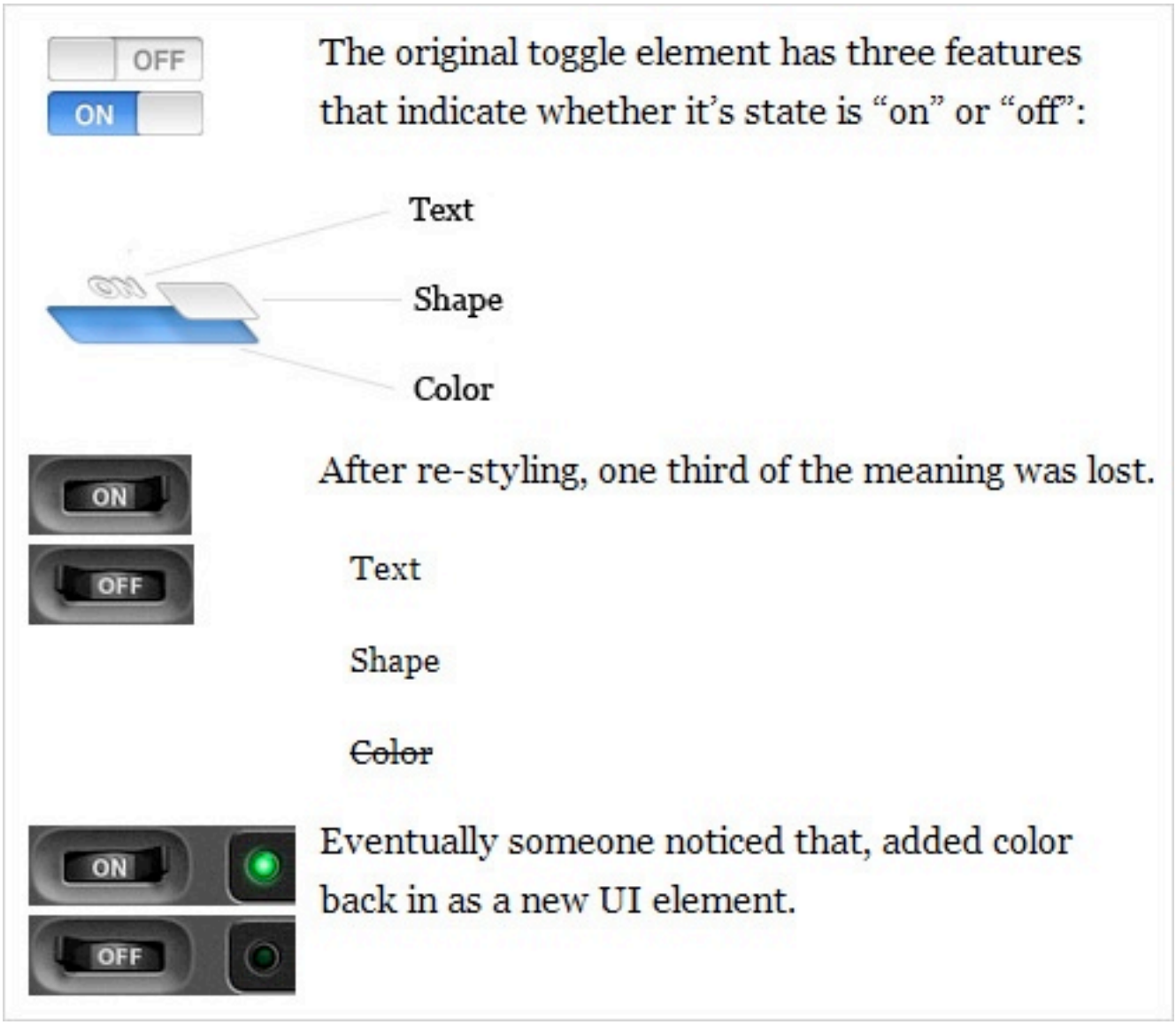
Larger version.

WASTE OF TIME AND MONEY

Apple has already done an excellent job of creating standardized controls. Losing some of that functionality is almost guaranteed if you try to reinvent the wheel.

Back to our earlier example:

If we take a closer look, we'll see that one-third of the screen space we would have had is now lost because of over-designing.



iPhone OS 3.0 introduced accessibility features. One of the modes is *White on Black*. Here's what happens to our controls after inverting colors:

In the original control, color, shape and text survived color inversion. However in re-designed one, 2/3 of original meaning is lost. Now there is only text.

In sum, this redesign has given us twice as many UI elements, taking up twice as much real estate. The catch is, even if you haven't made the controls worse, you still haven't added much value and you have lost time and money in the process.

THAT TIME AND MONEY COULD HAVE BEEN SPENT ON…

Design is all about solving problems. Sometimes, when people don't know exactly what problem they are solving, they wander in the design process, and the result is over-designed. To avoid that, you must have a clear picture of the problem you need to solve.

One of the best ways to get that picture is to talk to your users (both current and potential). Only when you know your customers' needs will you be able to build an application they'll love.

Don't overdesign. Be sure your house has a solid foundation before you decorate it. You will be rewarded with more loyal customers and higher download rates surprisingly quickly.

(Hopefully) coming soon: #2 iPhone's Technological Limitations. What Apple hasn't told you.

iPhone Apps Design Mistakes: Disregard Of Context

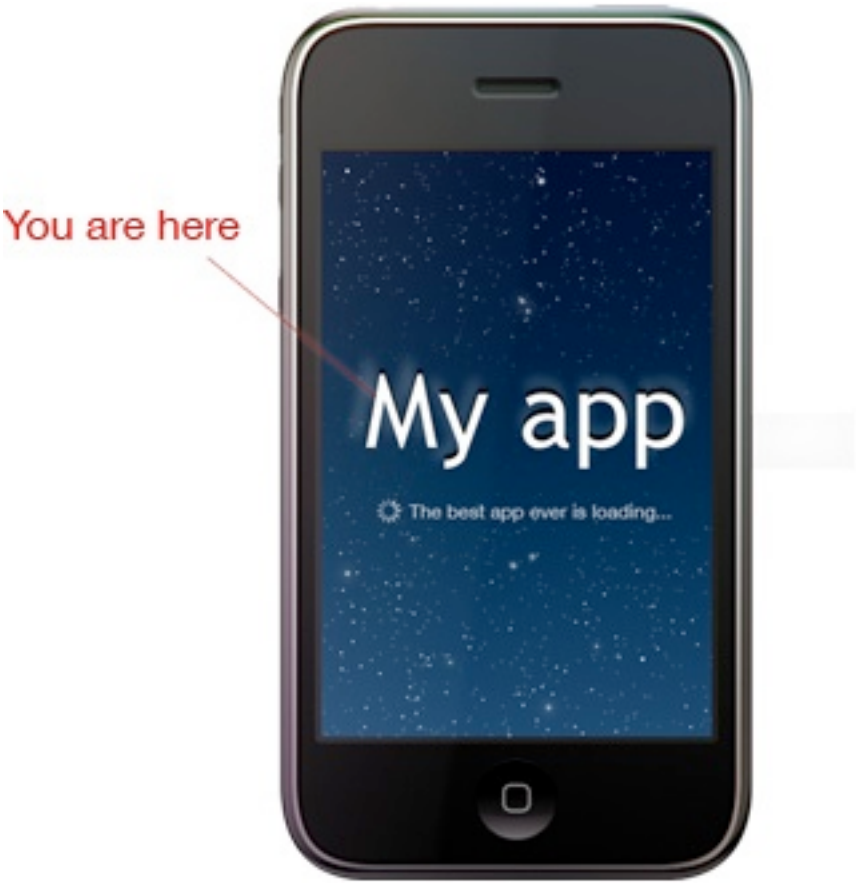
Alex Komarov

The iPhone will always be part of a much bigger picture. How well you address human and environmental factors will greatly determine the success of your product. All too often, iPhone developers create products in isolation from their customers. In order to create really appealing applications, developers must stop focusing only on the mechanisms of the apps. Zoom out: understand the person using the application, as well as the complex environmental factors surrounding that person.

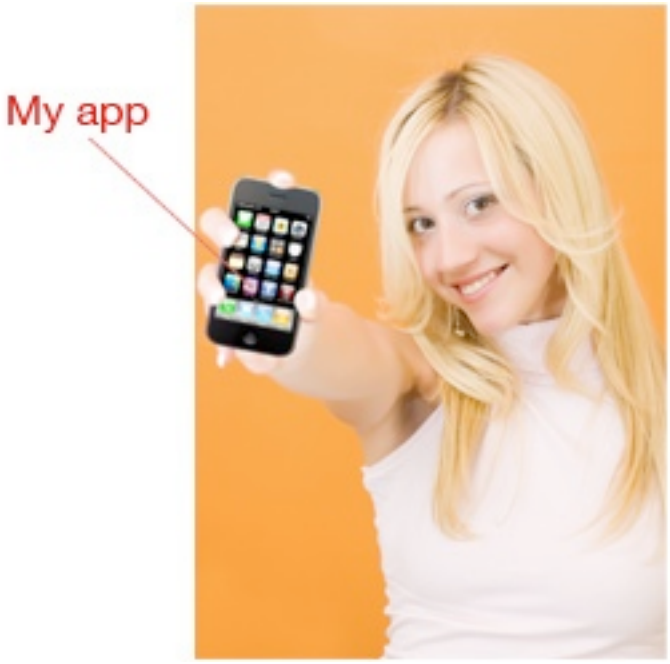
To better understand the context of these design challenges, we'll highlight several levels of human and environmental factors.

Level 1: You Are Here. To Create An App That Customers Love, Zoom Out

Level 1: The app itself.
This is how many developers view their apps. As a developer, you have a vision of what your product should look like and why customers will turn their attention to it. However, if you observe your product so closely, you may put it in the wrong context and design it for the wrong purposes and for the wrong users. This is why you need to zoom out.



Level 2: A *person* is using this app.
That person has specific goals and challenges. In the section below we'll start by exploring some of the most prominent — and most ignored — human factors pertaining to the iPhone. We'll discuss basic physical ergonomics, visual limitations and common design mistakes.



Level 3: That person is using this app in a specific environment.
Step back and you'll see that the app is a part of a complex social environment. It plays but a relatively small role in communication between people and helping people accomplish bigger goals. This is where the social components comes into play: networking, community, social-driven websites and applications and many other things create the environment — or the context — in which the application will be used.

Level 4: The environment is part of a greater culture.
Your ability to address the unique needs of different cultures will affect the success of your product. Ignoring them is too expensive, especially if your app sells worldwide. Here it is important to understand that the environment is a part of global networking. You need to be aware of cultural differences, traditions and metaphors in order to create an application that will not only gain popularity in certain local circles, but will also have a global success.

Level 2: Understand The Person's Needs And Limitations

"Measure twice and cut once": an effective strategy indeed. For you, the iPhone app developer, this means that you have to step back and answer these questions before you start coding:

- Who will be using your application?
- What are the capabilities of that person?
- What are the limitations of that person?

Answering these questions will broaden your perspective and prepare you to address your customer's needs. A whole Human Factors profession is dedicated to just that.

BASIC PHYSICAL ERGONOMICS

Here are a couple of the most important physical-, cognitive- and ergonomic-related truths about the iPhone.

1. Our fingers are not mouse pointers.
Remember this property of our fingertips: their surface area is not equal to one pixel. In many applications, tappable objects are way too small, making the interface frustrating to use. Here's one example: in iFitness, different muscle groups are indicated with red pins. Tapping a pin brings up the name of that muscle. And if you tap the name, you get a list of exercises that develop that muscle.

AT&T
5:40 PM
Exercises
Select Muscle
Quadriceps
Exercises
My Workouts
Routines
Logs
Extras

The pins are twice as small as those used in the Google Maps app. Tapping the pin you want is very hard, because the surface of your fingertip covers an area of three or more pins. You end up tapping repeatedly on the area, enabling random pins, wishing you could sharpen your finger. After more than a few tries, you get lucky and hit the right one.

Which of these pins will be activated when you tap on it?

Here are some ways to solve these ergonomic challenges:

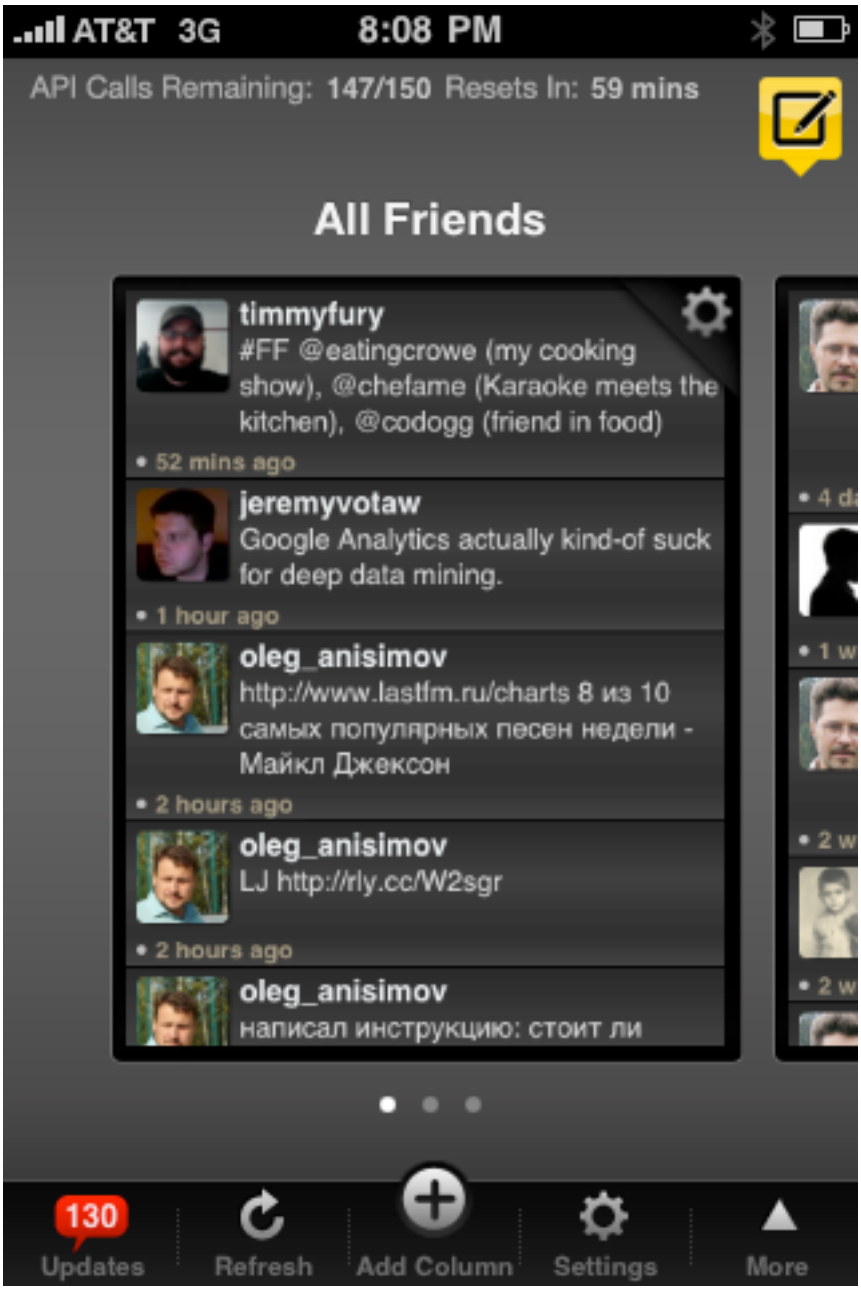
1. Make buttons and other tappable objects bigger.
2. If making a button bigger is impossible, then enlarge the clickable area to be bigger then the button itself.
3. Reduce the number of options on each screen, and make the selection process sequential (e.g. Arm Muscles → Biceps).

4. Implement multi-touch gestures within the interface. For example, selecting a muscle group in iFitness would be made easier by introducing a two-finger zoom feature.

2. We're not superheroes, unfortunately.

App designers need to take vision limitations into account. Mobile phones tend to be used in places with worse lighting conditions than computers. Think about those people who will be using your app on a bumpy bus or train or walking down a sunny street. Even if the technology is useful and perfectly executed, people will be reluctant to use the app if they find it hard to see what's going on. Here are a few examples of potentially useful apps that do not account for vision limitations.

TweetDeck


AT&T 3G
8:08 PM
API Calls Remaining: 147/150 Resets In: 59 mins
All Friends
timmyfury
#FF @eatingcrowe (my cooking show), @chefame (Karaoke meets the kitchen), @codogg (friend in food)
52 mins ago
jeremyvotaw
Google Analytics actually kind-of suck for deep data mining.
1 hour ago
oleg_anisimov
http://www.lastfm.ru/charts 8 из 10 самых популярных песен недели - Майкл Джексон
2 hours ago
oleg_anisimov
LJ http://rly.cc/W2sgr
2 hours ago
oleg_anisimov
написал инструкцию: стоит ли
130
Updates
Refresh
Add Column
Settings
More

Fish-tycoon

Here are some ways to avoid these mistakes:

1. Choose only the elements that are absolutely necessary. Make them bigger, and get rid of everything else. If needed, create additional screens with fewer options.

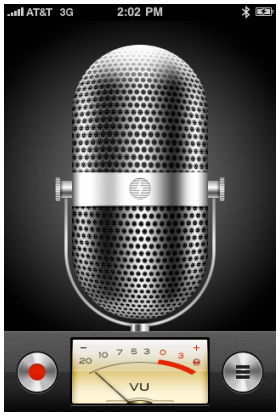
2. Remember that pixel dimensions on the iPhone are smaller than those on your computer screen. So, screenshots viewed on your computer's iPhone emulator look larger than they would on the iPhone itself, even though the resolution is the same.

The author holds an iPhone (163 ppi) in front of Apple Cinema's 30-inch display (~100 ppi). Your iPhone screen layout may look fine on a computer emulator, but don't be fooled: it will appear much smaller on the iPhone because of its smaller pixel dimensions.

Level 3: Understand The Challenges Specific To The User's Environment

GOALS AND ENVIRONMENT

Your app will usually play a relatively small role in helping the user achieve a bigger goal. The better you understand what goals people have and what they need to achieve them, the better you can design your app to satisfy those needs. Mobile phones are often used in loud, distracting environments. A simple stroll through town brings plenty of noisy distractions (cars, dogs, mail carriers, etc.). Consider the following examples. Which voice memo app would do a better job?



Apple Voice Memos **vs.** **iTalk**

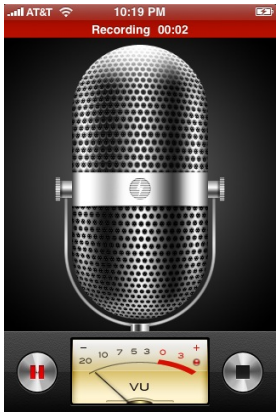
Although Apple Voice Memos looks nice, iTalk addresses the average user's goals and environment much better. Think about it: why would someone prefer to record a voice memo over writing a note? The audio format has fewer advantages than simple text. You can't scan, edit or enhance audio

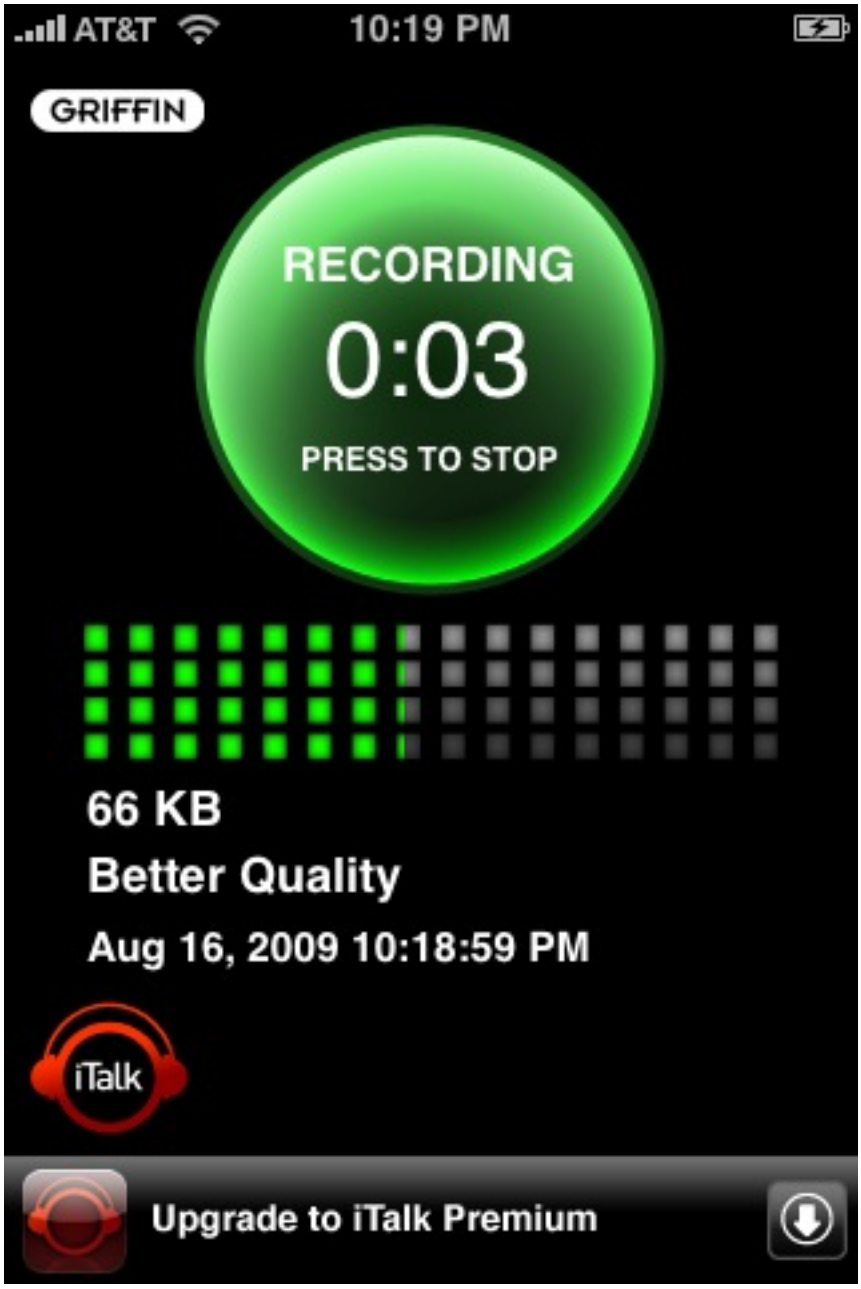
files as easily as you can text. In most scenarios, text is a much more convenient format in which to exchange information.

So, why and, more importantly, when would people use voice memos? When they are not able to type. The most common time is probably while driving.

According to the New York Times' summary of the Virginia Tech Transportation Institute's findings, drivers who text have a 23-times greater risk of a collision than drivers who don't text. Which application would be easier to use in this case? The one with the big shiny mic and the record button that is small and hard to reach (especially for right-handed people)? Or the one with the red record button half the size of the screen? Certainly the latter.

Confirming for the user that the recorder is activated is important, too. Which interface communicates the device's status more clearly? Where do you tap when you're done?





Apple Voice Memos **vs.** **iTalk**

Based on which design works better overall, iTalk wins. Apple Voice Memo looks great when you're checking it out on a friend's phone but performs poorly in a real-world context.

MOBILE PHONES, NETWORKING AND COMMUNITY

The mobile phone is, without a doubt, a social tool. The greater the number of people involved, the more engaging the experience is. Think about it: if you were the only one with a phone, it wouldn't be very useful. YouTube, Facebook and Twitter are driven by the understanding that we are social beings — we want to share! Imagine how dramatically designs that foster greater social interaction could change the mobile world.

With the seemingly endless ways to capture and share information, many people feel overwhelmed with information. To help them cope, designers must exploit the iPhone's platform to make their applications as efficient as possible. Here are some inspiring examples:

Bump

AT&T
8:22 PM
Bump™
My Contact
Other Files
Ready to Bump
Bump phones to share:
My Phone
My Email
My Entire Contact Card
My Photo
My Address
My Profile
Tell A Friend
About

“Bump makes swapping contact information and photos as simple as bumping two phones together. No typing, no searching a list for the right person, no mistakes.” (iTunes Store description)

Mover

“Ever wished you could send something to the iPhone right next to you? Do it with style with Mover.”

Check the video

Loopt

“Loopt transforms your mobile phone into a social compass to discover and navigate the world around you. Use Loopt to see who’s around, what to do, and where to go.”

How Loopt works (video):

Level 4: The Environment Is Part Of A Greater Culture.

Your ability to address the unique needs of different cultures will affect the success of your product. Ignoring them is too expensive, especially if your app sells worldwide. Design should adapt to regional challenges. Jacob Nielsen, a leading usability expert, gives us an illustration of this:

"In Sweden, the Automatic Teller Machines have very large buttons. I hadn't noticed this particular design element on previous visits, which have usually been in warmer months. In 1996 I was in Stockholm in February and immediately realized why the ATM buttons are so big: you can press them wearing thick gloves."

Such insights are gained only by understanding the product in its real-world context. Here is the graphic designer's point of view:

"... Understanding the object in context moves graphic design from a purely formal arena to a social and political one."
—Steven Heller and Karen Pomeroy in "Design Literacy," Allworth Press, New York, 1997.

More wisdom from Nielsen:

"A system must match the user's cultural characteristics. This goes beyond simply avoiding offensive icons; it must accommodate the way business is conducted and the way people communicate in various countries."

Apple studied American users and addressed their goals. That's why the iPhone is so popular in US. But it hasn't succeeded in Japan. The handset is selling so poorly there that they are giving them away for free.

Conclusion: Excellence Comes From Hard Work

Designing a great app isn't a simple task. Jacob Nielsen recently asserted that "the mobile user experience is still miserable." Extracting user insights from testing is a challenge. People have difficulty telling you what they want; they usually only know it when they see it. But developers don't have to tackle user research alone. Interaction designers are trained to find relevant user groups, talk to customers and read between the lines. They understand how real-world context affects an application's design.

It takes a lot of leg work, but your efforts to understand user needs will be rewarded. The forefront of mobile technology is an exciting place to be.

Setting Up Photoshop For Web, App and iPhone Development

Marc Edwards

Most people who have designed websites or apps in Photoshop will, at one point or another, have had issues trying to match colors in images to colors generated by HTML, CSS or code. This article aims to solve those problems once and for all.

Color Management to Match Colors Across Multiple Devices

In the print world, color management typically involves calibrating your entire workflow, from scanner or digital camera to computer display to hard proofs to the final press output. This can be quite a tall order, especially when the devices use different color spaces — matching RGB and CMYK devices is notoriously hard.

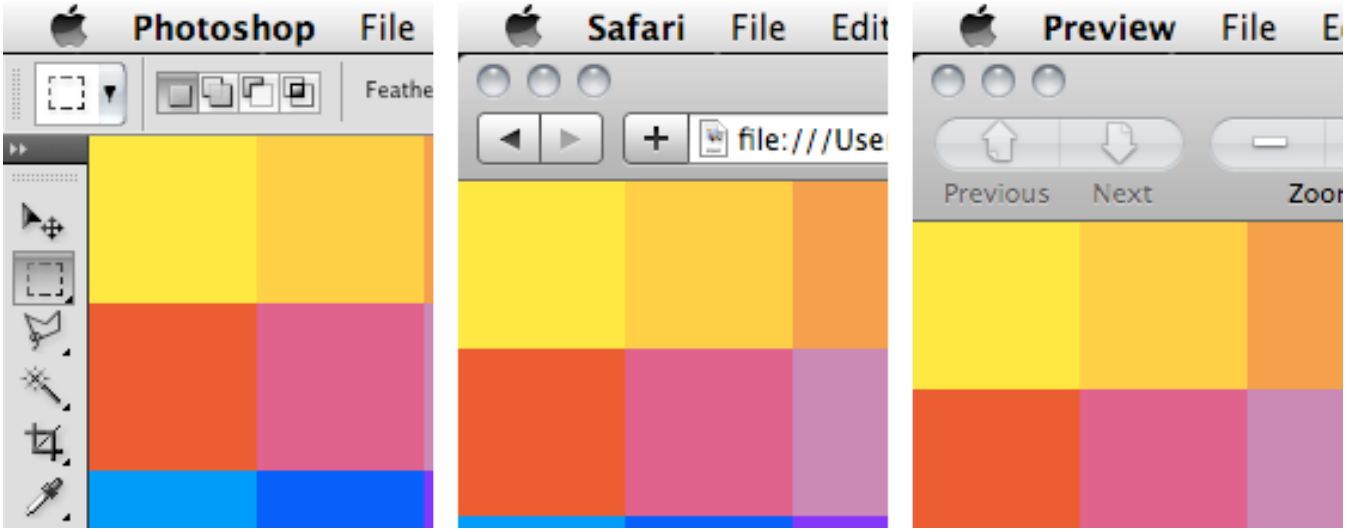
When designing or editing for TV, calibrating the main editing display and using a broadcast monitor are common; these show real-time proof of how the image will look on a typical TV in a viewer's home. In such a scenario, color management offers many benefits and is highly recommended.

When building Web and application interfaces, the situation is a little different. The final output is the same device that you're using to create the artwork: a computer display (putting aside for now differences in gamma between Windows, OS X prior to 10.6 and the iPhone, which we'll cover later.)

There is a catch, though. Even though you're creating the Web or app interface on the same device that the final product will be shown on, the colors will have various sources: images (typically PNG, GIF and JPEG), style markup (CSS) and code (JavaScript, HTML, Objective-C, etc). Getting them all to match can be tricky.

THE GOAL

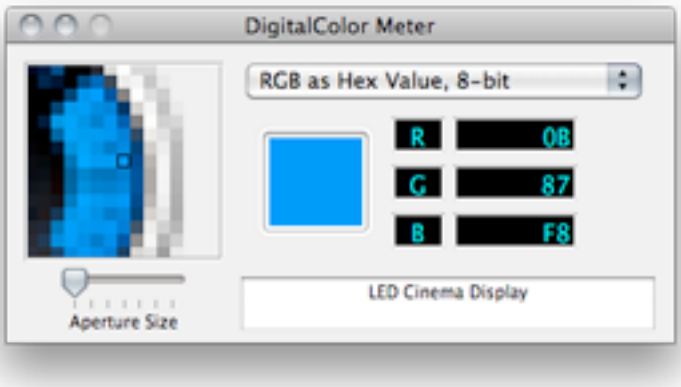
When designing websites or app interfaces, we want to perfectly match the colors that are displayed on screen in Photoshop and that are saved in files with what's displayed in other applications, including Firefox, Safari and the iPhone Simulator. Not only do we want the colors to look the same, but we want the actual values saved in the files to perfectly match the colors we have defined in Photoshop. Colors should not shift or appear to shift in any way, under any circumstance.



WHY IS THIS SO DIFFICULT?

Photoshop applies its color management to images displayed within its windows and to the files it saves. This is a bad thing if you're working exclusively with RGB images for Web or on-screen user interfaces. With the default Photoshop settings, #FF0000 will actually display as #FB0018, and #BB95FF will display as #BA98FD. The differences are subtle but definitely there.

How Does Photoshop Differ From OS X And Windows?



OS X's color management is applied to the entire display at the very end of the processing chain, after the main buffer in video ram. This means that although color management is applied, the software utilities that measure color on screen (like */Utilities/DigitalColor Meter*) will report the same values that you have saved in the file or entered as your code. I believe the color management in Windows Vista and Windows 7 (Windows Color System) works in a similar fashion.

Photoshop's color management is applied only to the image portion of its windows and to the files it saves. This color correction happens as Photoshop draws the image on screen, so software utilities that measure color on screen often report different colors from the ones you have specified. It's worth noting that OS X's color management is applied on top of Photoshop's.

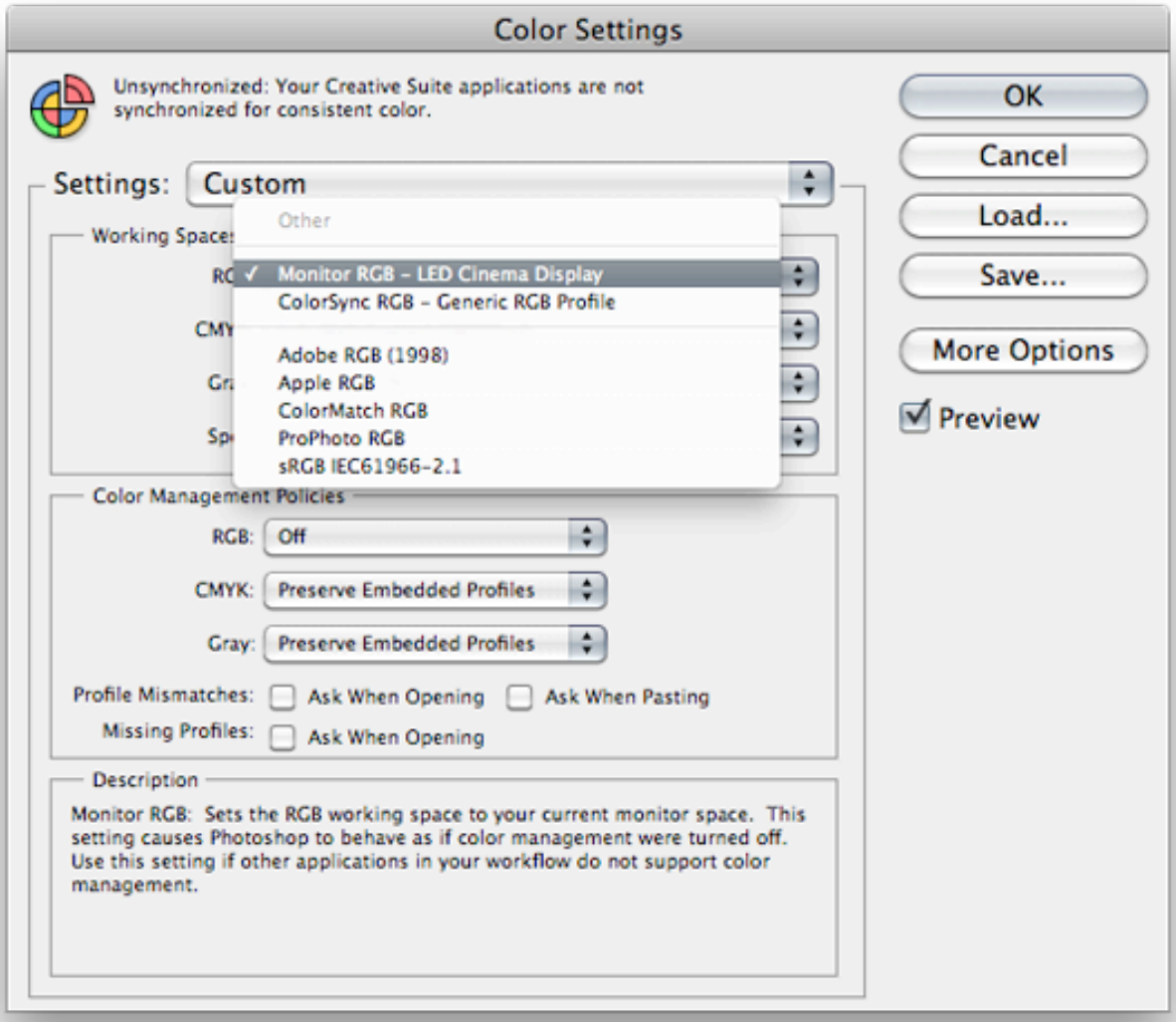
The best solution I've found is to disable Photoshop's color management for RGB documents as much as possible. Doing so forces the RGB colors that are on screen and saved to the file to match the actual color value. If you need to calibrate your monitor for Web and app design work, then you would best be served by changing it at the OS level.

Disabling color management used to be quite easy in Photoshop CS2 and all versions prior, but it now requires a little more skill.

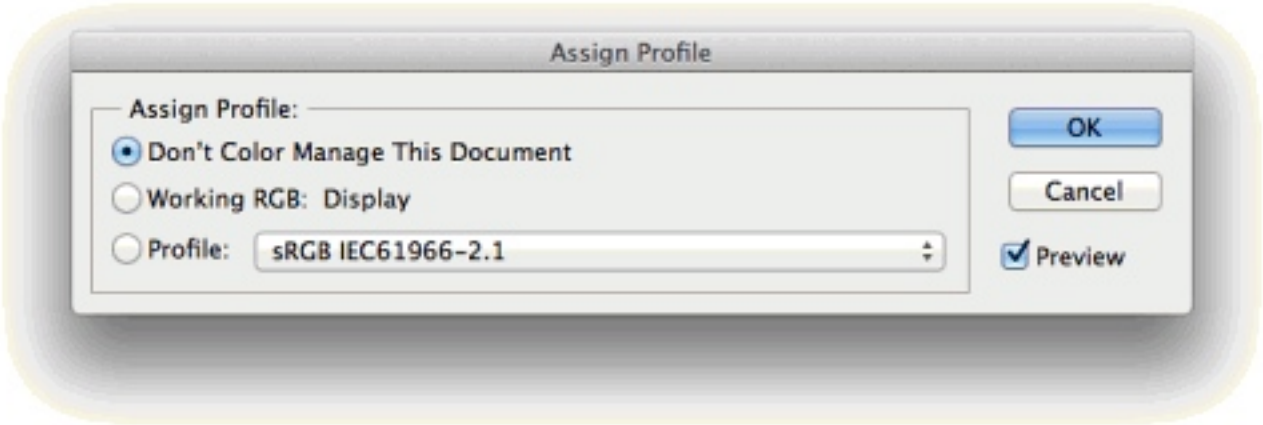
Disabling Photoshop's RGB Color Management

These instructions are for Photoshop CS4 on Mac and Windows. Setting up CS3 is very similar.

Step 1: Go to *Edit* → *Color Settings* and set the working space for RGB to *Monitor RGB*.


Color Settings
Unsynchronized: Your Creative Suite applications are not synchronized for consistent color.
OK
Cancel
Load...
Save...
More Options
Preview
Settings: Custom
Other
Monitor RGB – LED Cinema Display
ColorSync RGB – Generic RGB Profile
Adobe RGB (1998)
Apple RGB
ColorMatch RGB
ProPhoto RGB
sRGB IEC61966-2.1
Working Space
Color Management Policies
RGB: Off
CMYK: Preserve Embedded Profiles
Gray: Preserve Embedded Profiles
Profile Mismatches: Ask When Opening Ask When Pasting
Missing Profiles: Ask When Opening
Description
Monitor RGB: Sets the RGB working space to your current monitor space. This setting causes Photoshop to behave as if color management were turned off. Use this setting if other applications in your workflow do not support color management.

Step 2: Open a document and go to *Edit → Assign Profile*, then set it to *Don't Color Manage This Document*. This must be done for every single document you work on.



Step 3: Ensure View → Proof Colors is turned off.

Step 4: When saving files with *Save for Web & Devices*, ensure that *Convert to sRGB* is turned off. If you're saving a JPEG file, then also turn off *Embed Color Profile* (you may want this turned on for certain photos, but chances are you'll want it off for interface elements and icons).

Difference Between "Assign Profile" And "Convert To Profile"

Now would be a good time to mention the difference between *Assign Profile* and *Convert to Profile*, so that you know which to use when.

Each Photoshop document contains a color profile that's separate from the actual color data stored for each pixel. *Assign Profile* simply changes the profile in the document, without affecting any of the color data. It's a non-destructive action: you can assign a new color profile to your documents as often as you like without doing any damage. Assigning a new profile may change the way your document appears on screen, but the data contained in the file will remain unaltered.

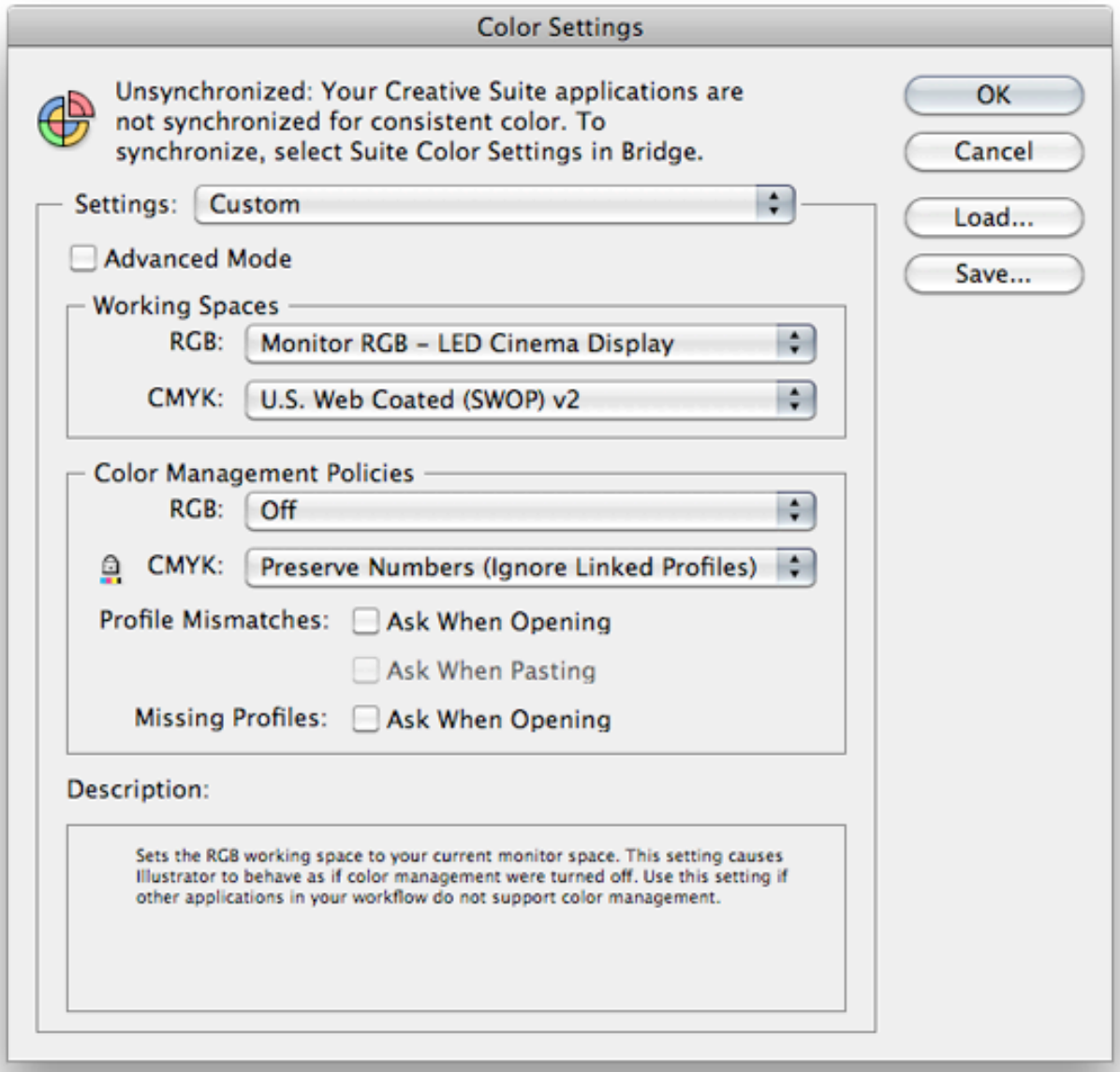
Convert to Profile is quite different. Not only does it assign a color profile to the document, but it tries to keep your image looking the same on screen. It does this by processing the color data contained in the file for each pixel. Converting to a new profile will more likely preserve a document's color on screen, but the data contained in the file will be permanently altered. Use with caution.

If you're copying layers from one Photoshop document to another, you will want to ensure that the documents have been assigned the same color profile.

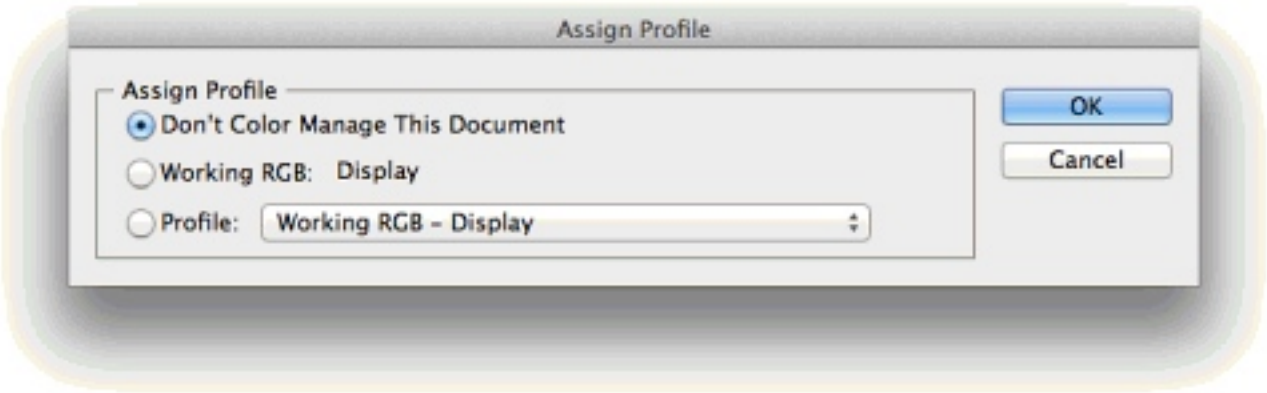
Illustrator Is The Same As Photoshop

If you would like images saved in Illustrator or imported from Illustrator to Photoshop to match as well, then follow the steps below. These instructions are for Illustrator CS4 on Mac and Windows. Setting up Illustrator CS3 is very similar.

Step 1: Go to *Edit* → *Color Settings*, and set the working space for RGB to *Monitor RGB*.

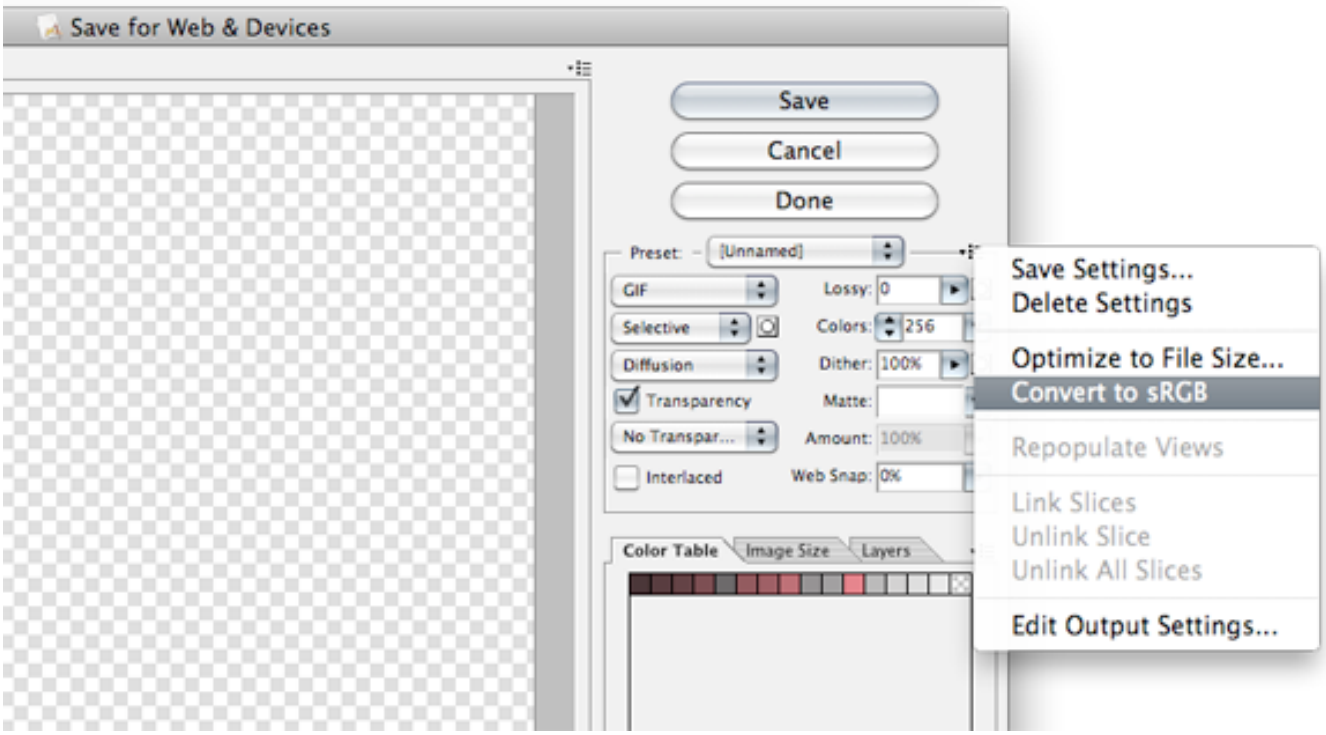


Step 2: Open the document and go to *Edit* ➜ *Assign Profile*. Then set it to *Don't Color Manage This Document*. This must be done for every single document you work on.



Step 3: Ensure that *View → Proof Colors* is turned off.

Step 4: When saving files with *Save for Web & Devices*, ensure that *Convert to sRGB* is turned off. If you're saving a JPEG file, then also turn off *Embed Color Profile* (again, you may want this turned on for certain photos, but chances are you'll want it off for interface elements and icons).



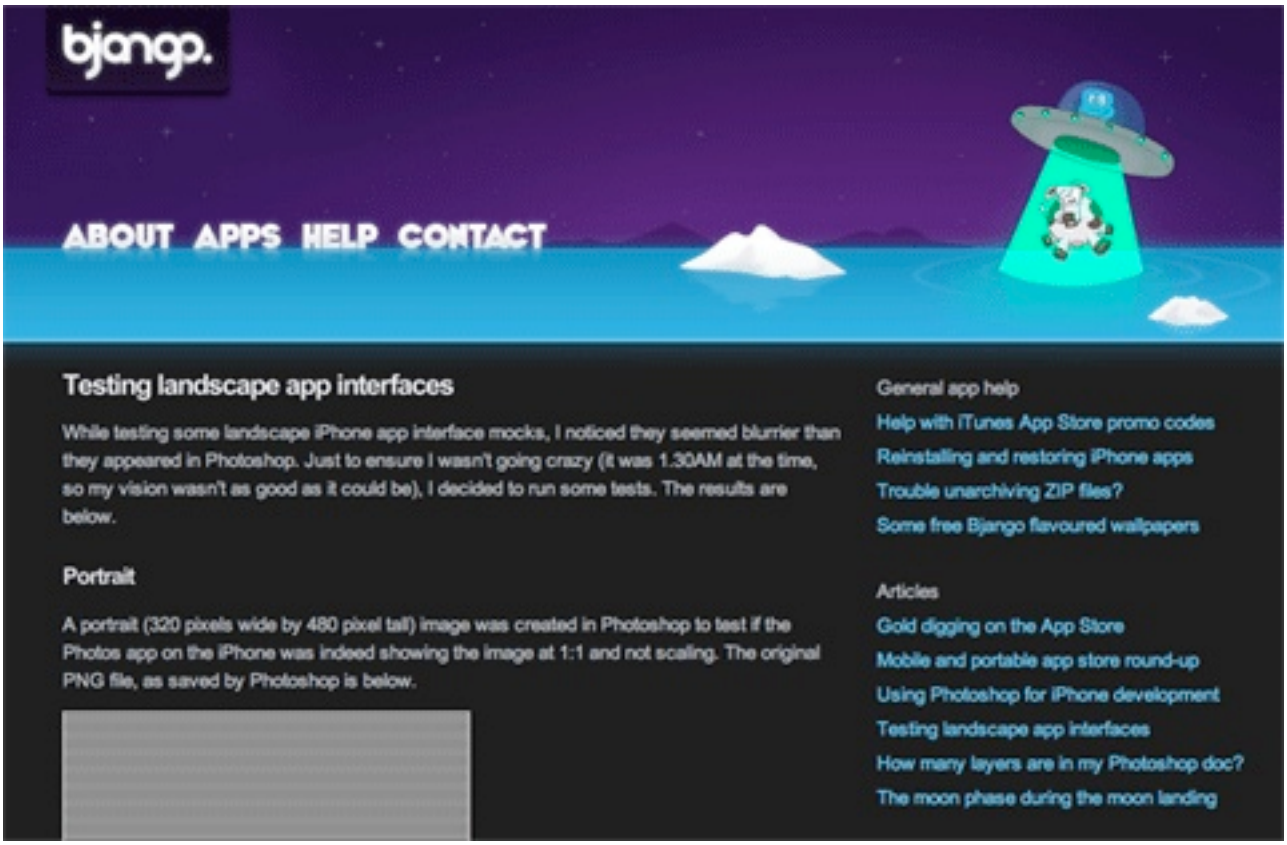
Gamma Differences

Windows has used a gamma of 2.2 since its introduction. OS X has used a gamma of 1.8 for all versions except Snow Leopard (the latest release), which uses 2.2. What does this mean? Prior to Snow Leopard, Web pages looked darker on Windows. Thankfully, both operating systems are now in sync, so a Web page should look very similar on a Mac and PC that use the same monitor.

Information about the iPhone's gamma is a little hard to come by; I couldn't ascertain whether it is 1.8 or 2.2. This is another reason to test your interface on an iPhone.

Final Check For iPhone UI

Your iPhone or iPod's screen and calibration will likely be different from your Mac or PC's screen and calibration. I often import full-screen images of the UI into iPhoto and sync them with an iPhone to see exactly how the final interface will look on the device (on Windows, you can sync photos using iTunes). This gives you another chance to make adjustments before slicing up images or committing anything to code.



This article explains how to handle the problem that while testing some landscape iPhone app interface mocks, they seem blurrier than they appear in Photoshop.

On Mac, moving colors between Photoshop and code can be made easier with Developer Picker, Hex Color Picker and Colors (all free).

Conclusion

Now, you're able to move bitmap and vector images between Photoshop and Illustrator without any color shifts at all, and using any method. You're also able to grab a color using the color picker in Photoshop, and then use the same HEX color value in your CSS, HTML, JavaScript, Flash or Objective-C code, and it will match your images perfectly.

Designing For iPhone 4 Retina Display: Techniques And Workflow

Marc Edwards

The iPhone 4 features a vastly superior display resolution (614400 pixels) over previous iPhone models, containing quadruple the 153600-pixel display of the iPhone 3GS. The screen is the same physical size, so those extra dots are used for additional detail — twice the detail horizontally, and twice vertically. For developers only using Apple's user interface elements, most of the work is already done for you.

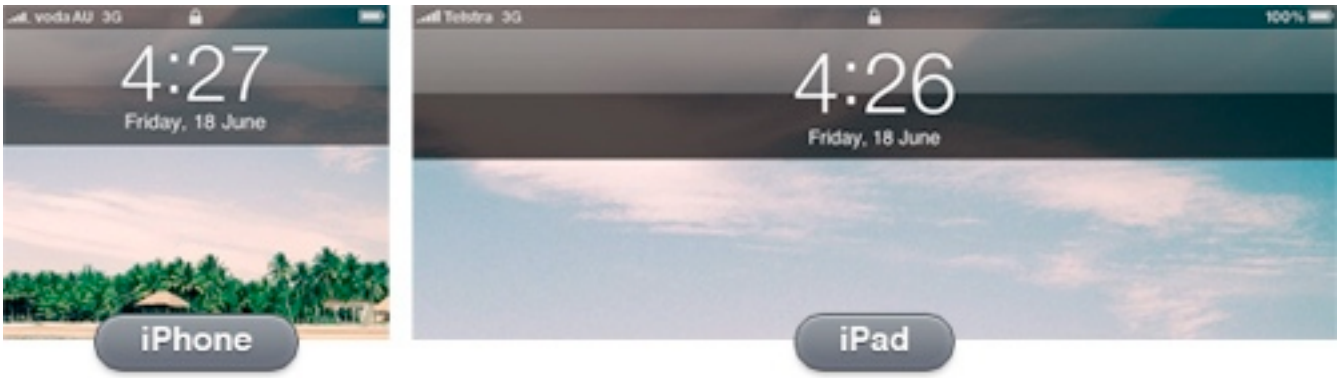
For those with highly custom, image-based interfaces, a fair amount of work will be required in scaling up elements to take full advantage of the iPhone 4 Retina display. Scaling user interfaces for higher detail displays — or increasing size on the same display — isn't a new problem. Interfaces that can scale are said to have resolution independence.

In a recent article, Neven Mrgan described resolution independence: "RI [resolution independence] is really a goal, not a technique. It means having resources which will look great at different sizes." If it's a goal, not a specific technique, then what techniques exist? How has Apple solved the problem in iOS?

While apps that take advantage of Apple's native user interface elements require a lot less work when designing for the Retina display, we're here to talk about highly custom, graphic-driven apps that need a fair amount of work to take full advantage of the Retina display.

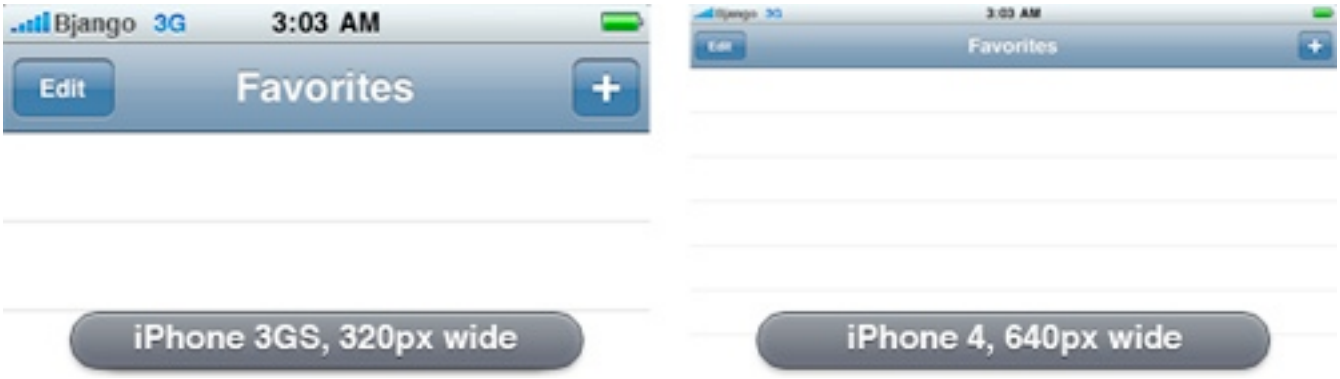
While not strictly a resolution-independent technique, using a fluid layout can help an app grow to take advantage of a larger window or screen by adding padding or by changing the layout dynamically. A lot of Mac, Windows and Linux apps use this method, as do some websites.

This is partially how Apple handled the difference in resolution from iPhone to iPad — a lot of UI elements are the same pixel size, but padded to make use of the extra screen real estate. The status bar is a good example of this. It works because the pixel densities of the iPhone 3GS and iPad are similar (163 ppi vs 132 ppi).



Full view

Fluid layouts work when the change in density is minor, but aren't any help with the iOS non-Retina to Retina display transition (163 ppi to 326 ppi). The image below demonstrates what would happen if an iPhone app was simply padded to cater for the higher resolution display of the iPhone 4. Buttons and tap areas would be the same size in pixels, but half the physical size due to the higher pixel density, making things harder to read and to tap.

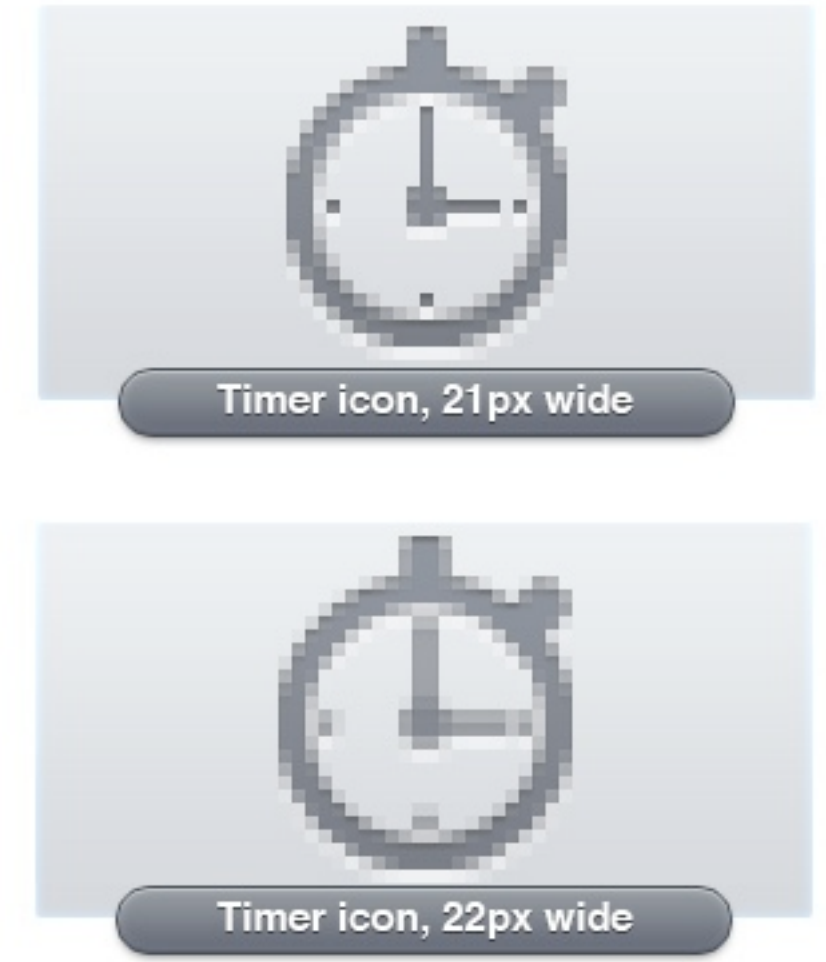


Full view

Just-in-time Resolution Independence

Another approach to handling widely different resolutions and pixel densities is to draw everything using code or vector-based images (like PDFs) at runtime. Without trying to stereotype anyone, it's usually the approach engineering-types like. It's clean, simple and elegant. It lets you design or code once, and display at any resolution, even at fractional scales.

Unfortunately, using vector-based images tends to be more resource-hungry and lacks pixel level control. The increase in resources may not be an issue for a desktop OS, but it is a considerable problem for a mobile OS. The lack of pixel level control is a very real problem for smaller elements. Change an icon's size by one pixel, and you will lose clarity.



Neven emphasizes in his article that:

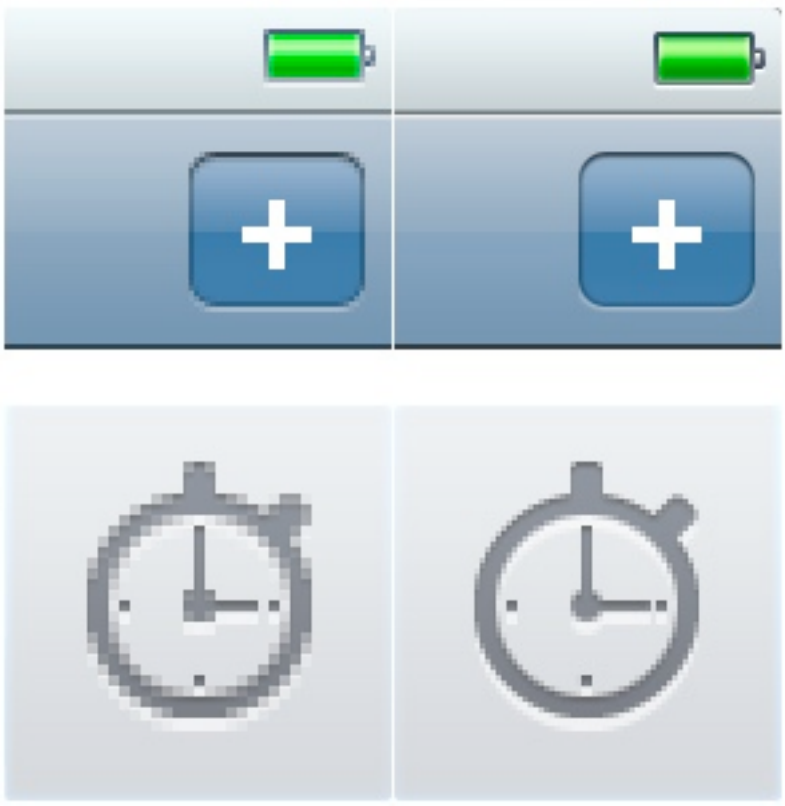
"...it is simply not possible to create excellent, detailed icons which can be arbitrarily scaled to very small dimensions while preserving clarity. Small icons are caricatures: they exaggerate some features, drop others and align shapes to a sharp grid. Even if all icons could be executed as vectors, the largest size would never scale down well."

Although here he is talking exclusively about icons, his description is apt for most UI elements. The decisions involved in scaling are creative, not mechanical. Vector-based elements aren't suitable for all resolutions, if you value quality.

Ahead-of-time Resolution Independence

The best quality results — and the method Apple chose for the iPhone 3GS to iPhone 4 transition — comes from pre-rendered images, built for specific devices, at specific resolutions: bespoke designs for each required size, if you will. It's more work, but pre-rendering images ensures everything always looks as good as possible.

Apple chose to exactly double the resolution from the iPhone 3GS to the iPhone 4, making scaling even easier (different from the approach of Google and Microsoft — notice that this article is not relevant to the latest version of Microsoft's mobile OS — proving yet again that controlling the entire stack has huge advantages).



Currently, there are three iOS resolutions:

- 320 × 480 (iPhone/iPod touch)
- 640 × 960 (iPhone 4 and iPod with Retina display)
- 768 × 1024 / 1024 × 768 (iPad)

In a few years, it seems highly likely that the line-up will be:

- 640 × 960 (iPhone/iPod touch with Retina display)
- 1536 × 2048 / 2048 × 1536 (iPad with Retina display)
- Some kind of iOS desktop iMac-sized device with a Retina display

There are significant differences between designing iPhone and iPad apps, so completely reworking app layouts seems necessary anyway — you can't just scale up or pad your iPhone app, and expect it to work well or look good on an iPad. The difference in screen size and form factor means each device should be treated separately. The iPad's size makes it possible to show more information on the one screen, while iPhone apps generally need to be deeper, with less shown at once.

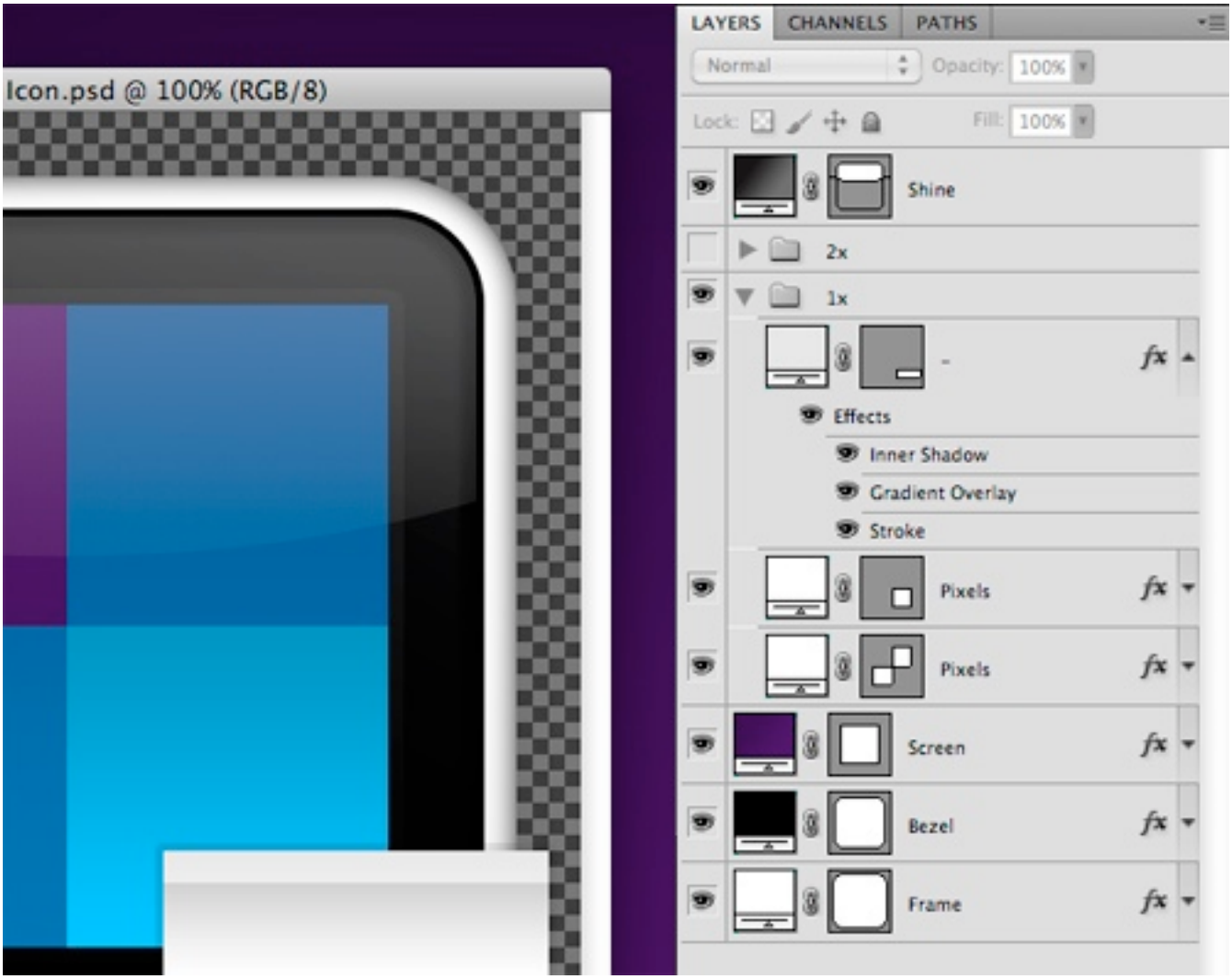
Building Designs That Scale

Building apps for the iPhone 4 Retina display involves creating two sets of images — one at 163 ppi and another at 326 ppi. The 326 ppi images include @2x at the end of their filename, to denote that they're double the resolution.

When it comes to building UI elements that scale easily in Adobe Photoshop, bitmaps are your enemy because they pixelate or become blurry when scaled. The solution is to create solid color, pattern or gradient layers with vector masks (just make sure you have "snap to pixel" turned on, where possible). While a little awkward at times, switching to all vectors does have significant advantages.

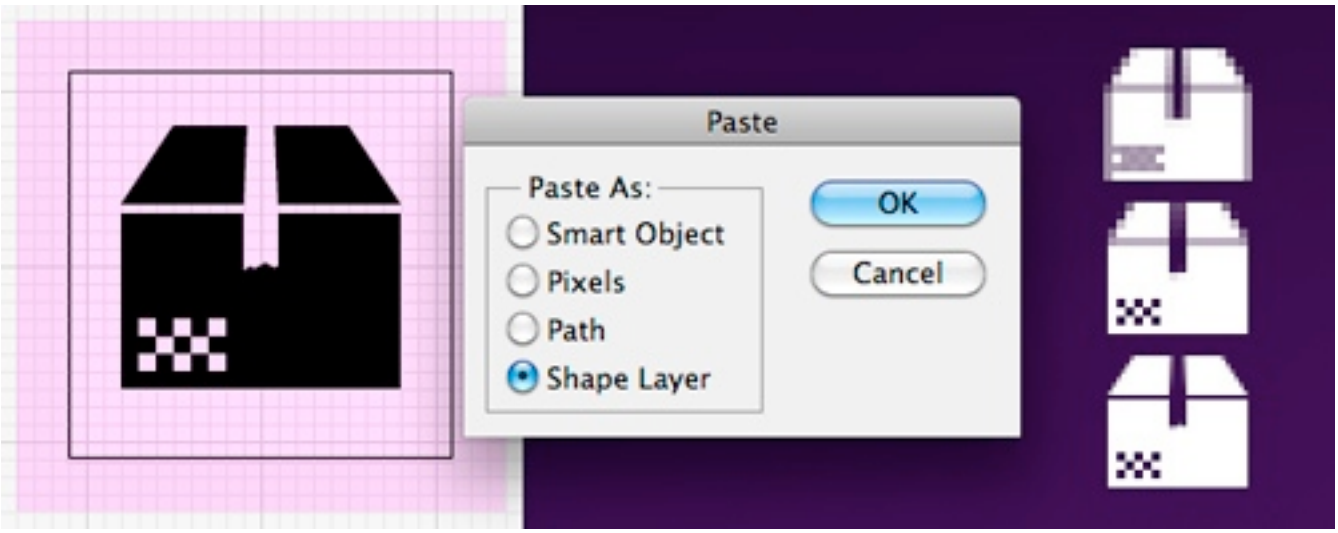
Before anyone mentions it, I'm not suggesting any of the methods are new; I'm willing to bet that most icon designers have been working this way for years. I've been using vector shapes for ages too, but the Retina display has changed my practice from using vector shapes only when I could be bothered, to building entire designs exclusively with vector shapes.

I usually draw simple elements directly in Photoshop using the Rectangle or Rounded Rectangle Tool. Draw circles using the Rounded Rectangle Tool with a large corner radius, because the ellipse tool can't snap to pixel. Layer groups can have vector masks too, which is handy for complex compositing (option-drag a mask from another layer to create a group mask).



Full view

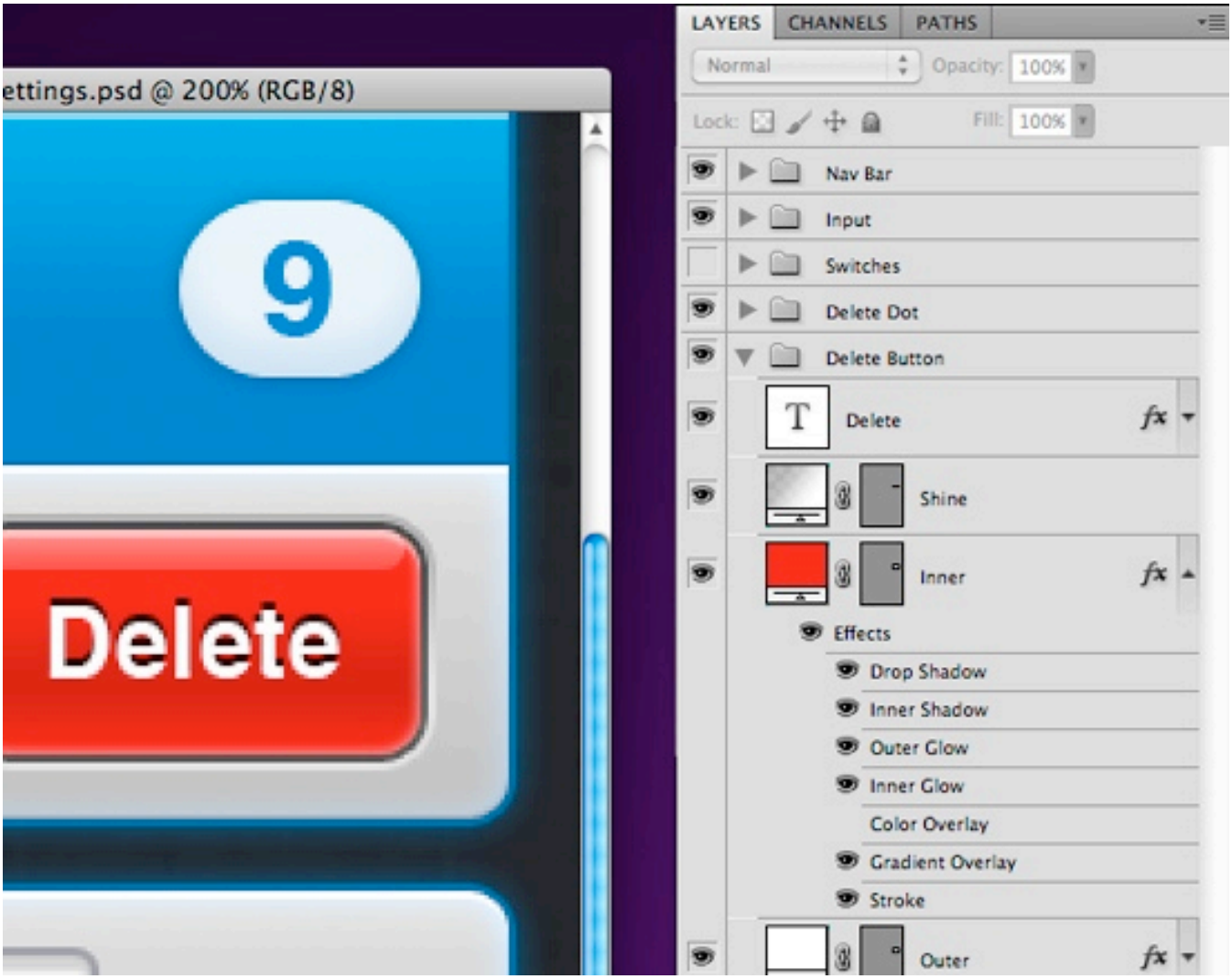
More complex objects get drawn in Adobe Illustrator to the exact pixel size, and then pasted into Photoshop as a shape layer. Be careful when pasting into Photoshop, as the result doesn't always align as it should — it's often half a pixel out on the x-axis, y-axis or both. The workaround is to zoom in, scroll around the document with the Hand Tool, and paste again. Repeat until everything aligns. Yes, it's maddening, but the method works after a few attempts. Another option is to zoom in to 200%, select the path with the Direct Selection Tool, and nudge once, which will move everything exactly 0.5px.



Full view

Even more complex objects requiring multiple colors get drawn in Illustrator to the exact pixel size, and then pasted into Photoshop as a Smart Object. It is a last resort, though — gradients aren't dithered, and editing later is more difficult.

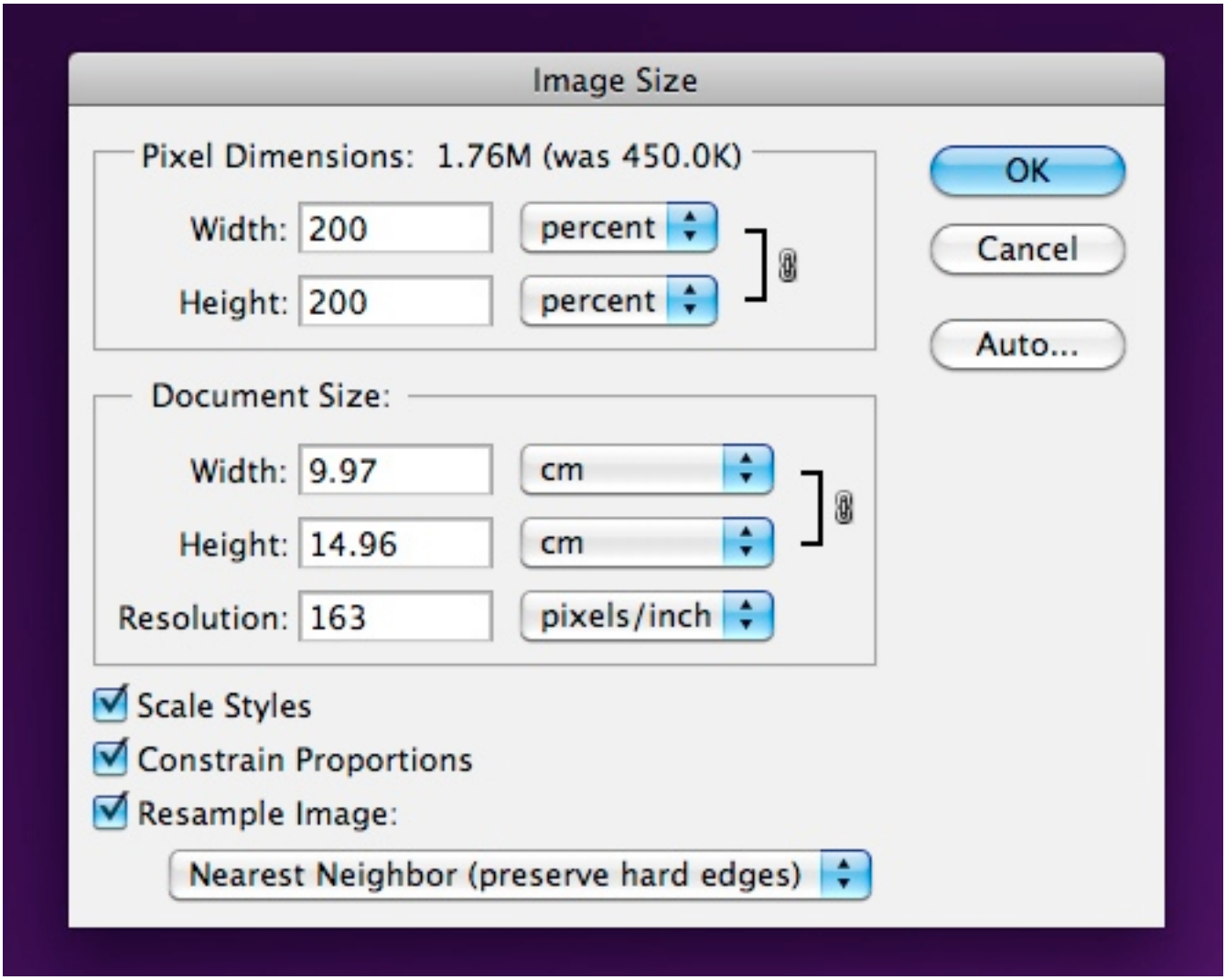
If you need to use a bitmap for a texture, there are three options: use a pattern layer, a pattern layer style, or build a bitmap layer at the 2× size and turn it into a Smart Object. I prefer to use pattern layer styles in most cases, but be warned: patterns are scaled using bicubic interpolation when you scale the entire document, so they become "softer." The solution is to create two versions of each pattern, then to manually change pattern layer styles to the correct pattern after scaling — a little tedious, but totally do-able approach.


ettings.psd @ 200% (RGB/8)
9
Delete
LAYERS
CHANNELS
PATHS
Normal
Opacity: 100%
Lock:
Fill: 100%
Nav Bar
Input
Switches
Delete Dot
Delete Button
Delete
Shine
Inner
Effects
Drop Shadow
Inner Shadow
Outer Glow
Inner Glow
Color Overlay
Gradient Overlay
Stroke
Outer

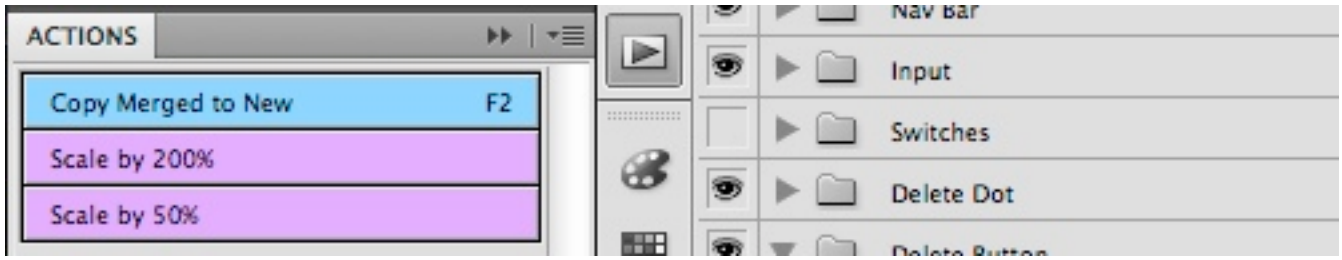
Full view

Scaling Up

At this point, your document should be able to scale to exactly double the size, without a hitch.



I have a Photoshop Action set up that takes a History Snapshot, then scales to 200%. That means, previewing at the Retina display's resolution is only a click away. If you're feeling confident you've built everything well, you should be able to scale up, edit, then scale down and continue editing without degradation. If you run into trouble, a Snapshot is there to take you back. Using one document for both resolutions, means not having to keep two documents in sync — a huge advantage.



A word of warning: layer styles can only contain integer values. If you edit a drop shadow offset to be 1 px with the document at 2× size, and then scale it down, the value will end up as 1 px because it can't be 0.5 px (a non-integer value). If you do require specific changes to the 2× version of the Photoshop file, you'll have to save that version as a separate file.

Exporting, Exporting, Exporting

Now for some bad news: exporting all the images to build an app can be extremely tedious, and I don't have much advice here to assist you. As my documents act as full screen mockups, they're not set up in a way that Photoshop's Slice feature is any use. Layer comps don't help either — I already have folders for each app state or screen, so switching things off and on is easy.

The best export method seems to be: enable the layers you'd like visible, make a marquee selection of the element, then use Copy Merged and paste the selection into a new document — not much fun when you have hundreds of images to export.

The problem is amplified when saving for the Retina display, where there are twice as many images and the 1× images must match the 2× images precisely.

The best solution I've come up with so far:

- Build your design at 1×
- Use Copy Merged to save all the 1× images
- Duplicate the entire folder containing the 1× images
- Use Automator to add @2x to all the filenames
- Open each @2x image and run the "Scale by 200%" Photoshop action. This gives you a file with the correct filename and size, but with upscaled content
- Scale your main Photoshop design document by 200%
- Use Copy Merged to paste the higher quality elements into each @2x document, turn off the lower quality layer, then save for the Web, overwriting the file.

In some cases, Photoshop's "Export Layers To Files" can help. The script can be found under the File menu.

Mac Actions and Workflows

All the Actions and Workflows that I use myself can be downloaded from the blog post link below. The Automator Workflows can be placed in your Finder Toolbar for quick access from any Finder window, without taking up any space in your Dock.

Download: Retina Actions and Workflows.zip

Fortunately, Apple chose to exactly double the resolution for the iPhone 4, and for using ahead-of-time resolution independence. As complex as the process is now, things would have been far worse if they had chosen a fractional scale for the display.

Showcase Of Designs Optimized For iPhone

Adeel Raza

Over the last couple of years, mobile devices have managed to gain mainstream popularity. With iPhone, making mobile Web applications finally usable by broad masses, web design can now be applied to mobile applications as well. In this article we are focusing on designs that are specifically optimized for mobile devices, in particular iPhone.

Though iPhone's Safari browser is able to render any website just like you would see it on a desktop browser, the available screen area is much smaller than in common "classic" displays. This poses a new challenge for designers and developers who now can reach millions of users that use mobile Web. Websites that are specifically optimized for the iPhone utilize the screen to the fullest extent, and use less bandwidth (which is necessary, because the connectivity is not always optimal).

The iPhone browsing experience is quite different than the regular browsing experience. The buttons and hyperlinks have to be bigger because our fingers are not as sharp as the mouse pointer. Optimizing a website for iPhone is not rocket science. It's the same HTML, CSS and JavaScript that you already know. The only major difference is the screen size.

In the showcase below we present some of the interesting, interactive and beautiful designs that are optimized for the iPhone. You will also learn about some handy tools that will help you optimize your website for the iPhone.

1. News / Entertainment

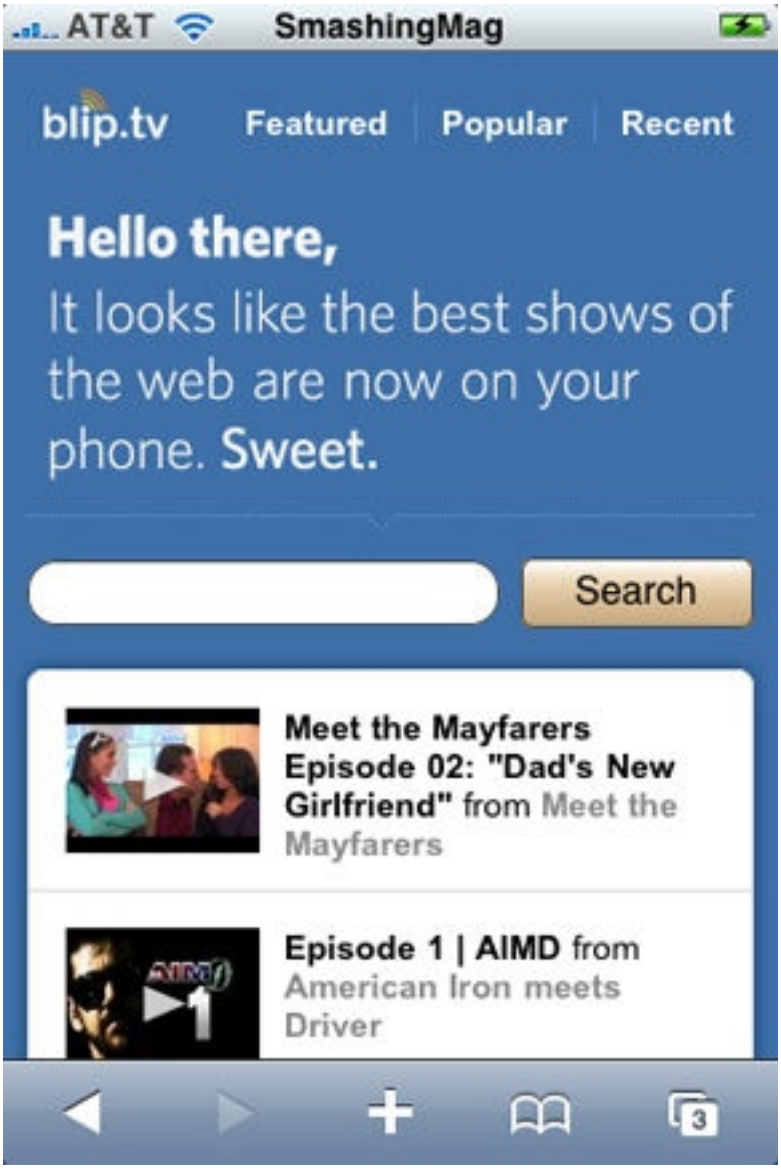
Sevnth Sin

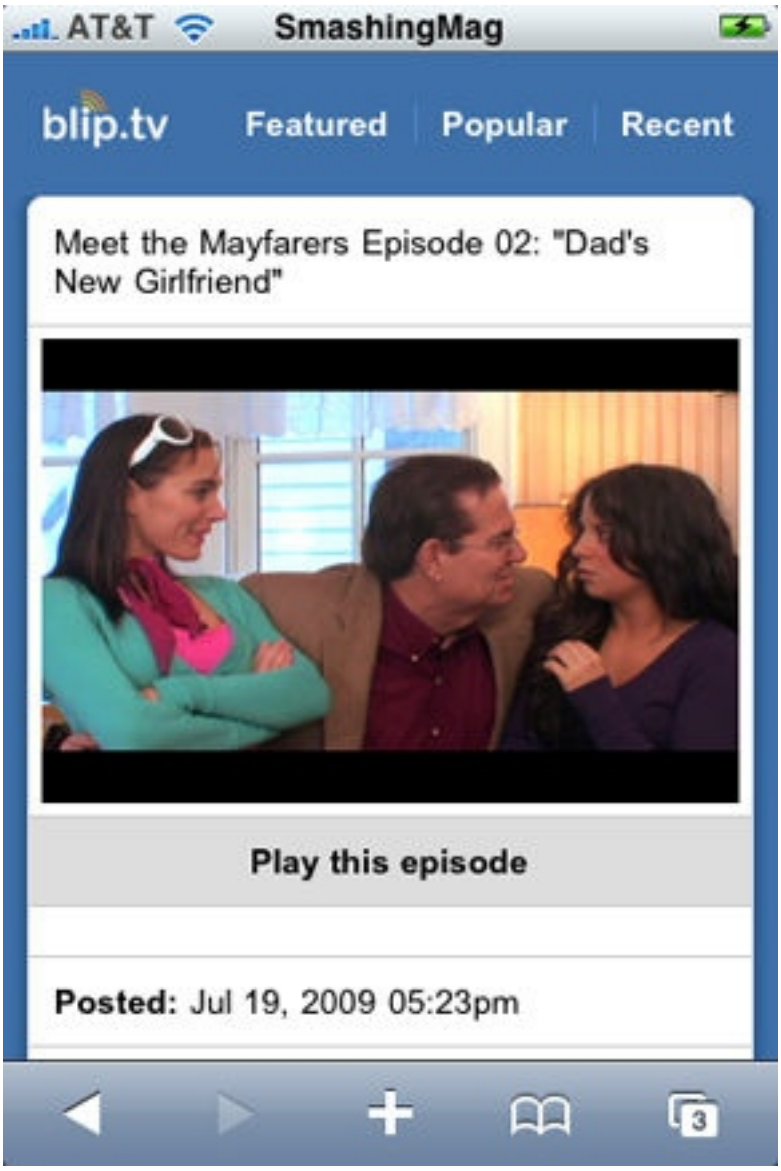
The unique navigation makes this site very interactive. Nice concept, nice colors.

AT&T
SmashingMag
BACK
RICH INTERACTIVE
Make It Better
Rhymesayers Entertainment
CLICK IMAGE TO ADVANCE
POS Never Better
Make it Better
BACK
NEXT PROJECT

Blip.tv

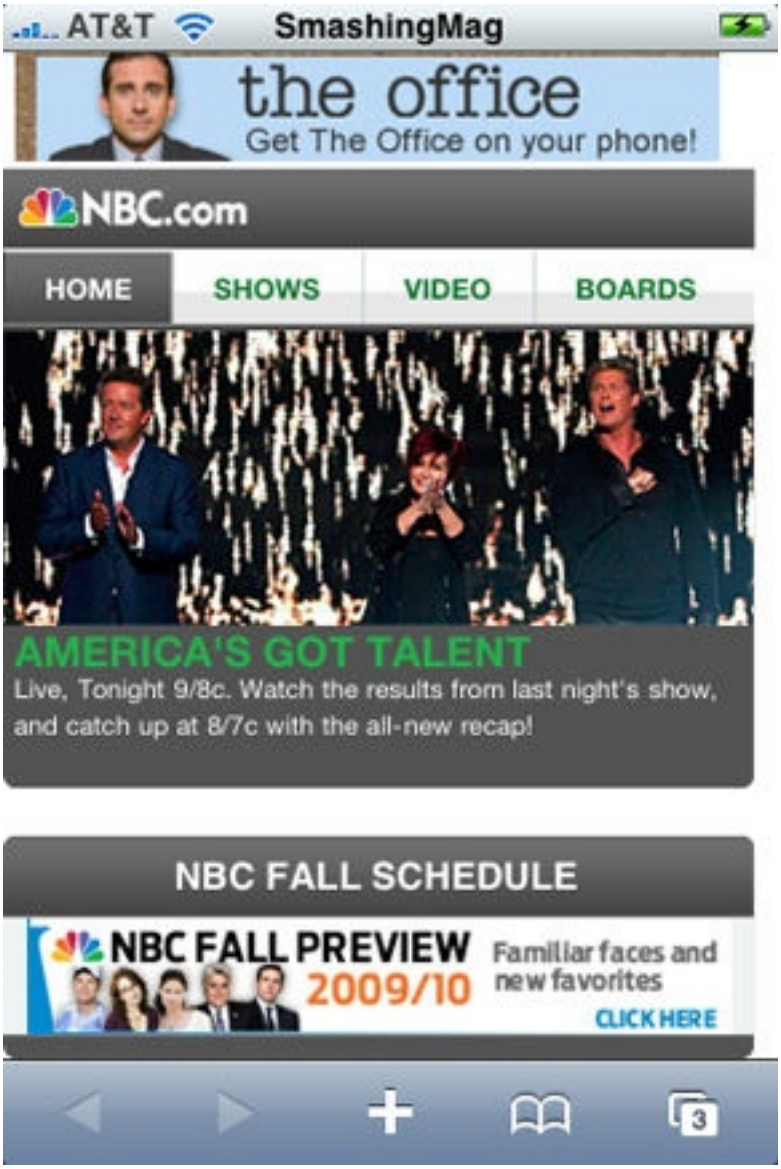
Perfectly suits the theme: video entertainment! Clean and clear typography.

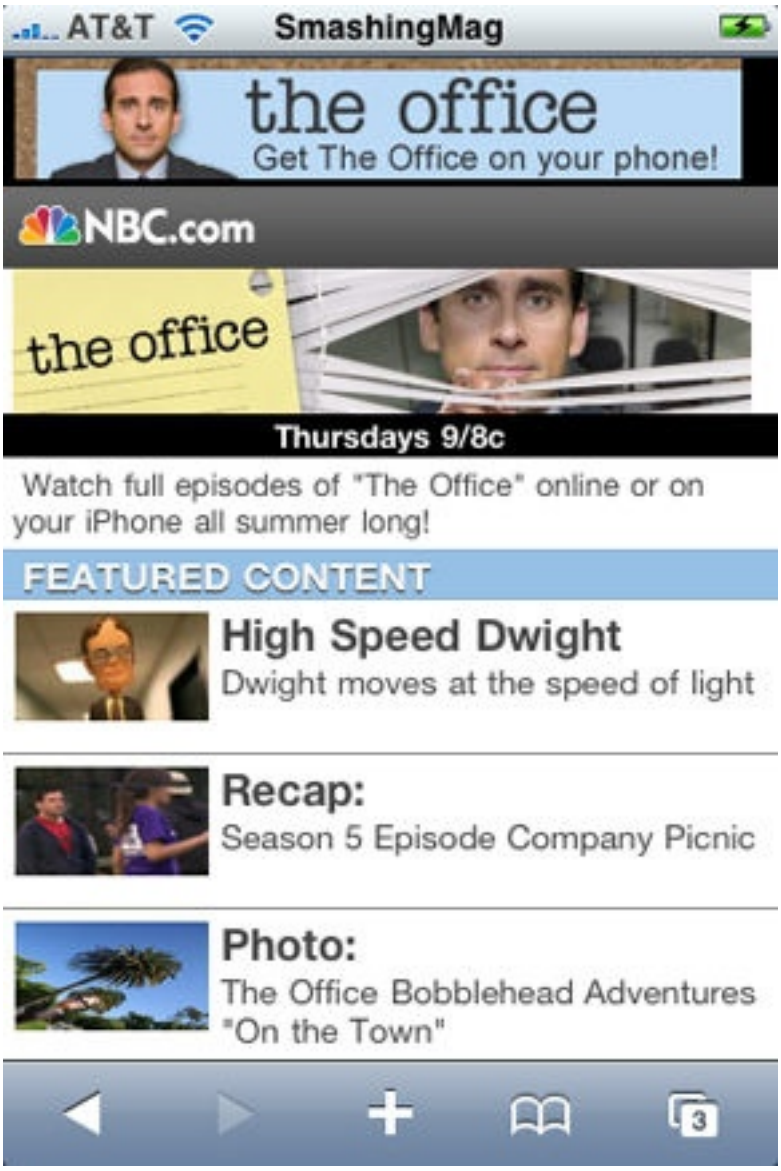



AT&T
SmashingMag
blip.tv
Featured
Popular
Recent
Meet the Mayfarers Episode 02: "Dad's New Girlfriend"
Play this episode
Posted: Jul 19, 2009 05:23pm

NBC

The YouTube-style design makes it very easy to navigate and find shows.




AT&T
SmashingMag
the office
Get The Office on your phone!
NBC.com
the office
Thursdays 9/8c
Watch full episodes of "The Office" online or on your iPhone all summer long!
FEATURED CONTENT
High Speed Dwight
Dwight moves at the speed of light
Recap:
Season 5 Episode Company Picnic
Photo:
The Office Bobblehead Adventures
"On the Town"
3

Zinio

That's a kit of magazines, all one-touch away!

Spin The Bottle

A simple bottle spinning game. Good use of graphics.

AT&T
SmashingMag
About
Tell a friend
THE NEXT THINGS
BIG
idean

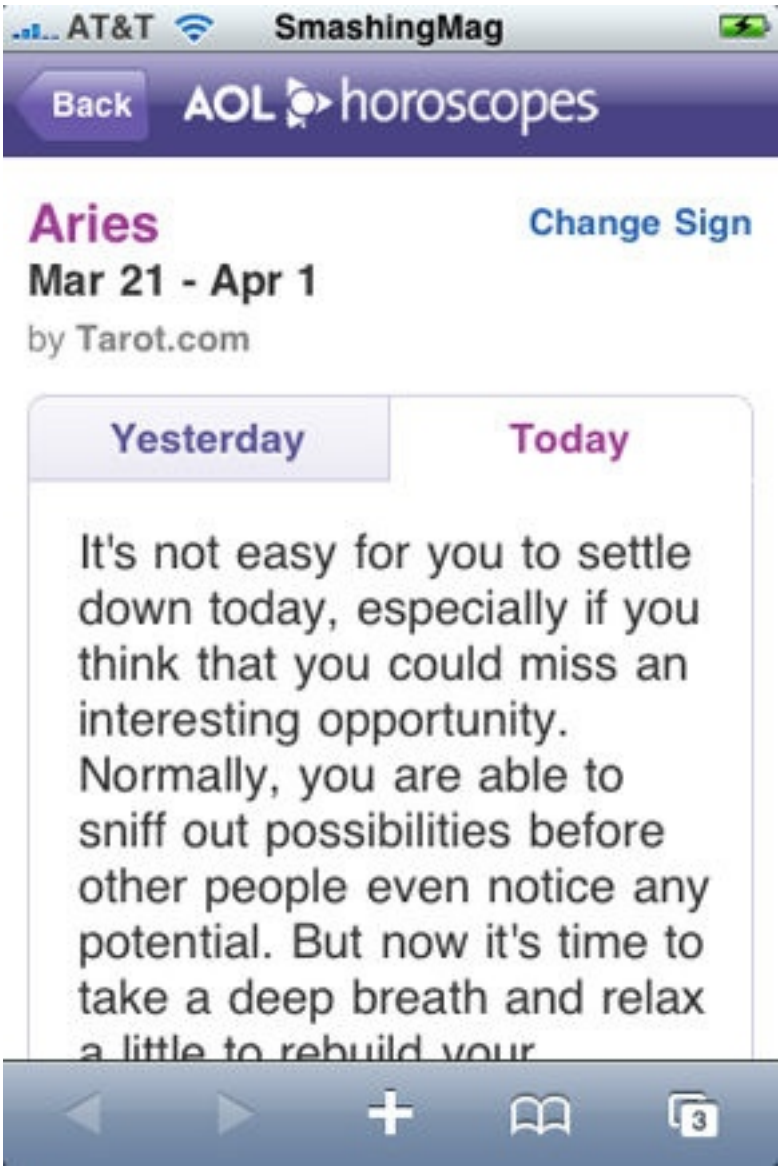
Daily Wallpaper

Similar to Zinio, but 2 thumbnails in a row make it more easy to navigate around.

AT&T
SmashingMag
NON SIAMO SOLI
PLANET
51

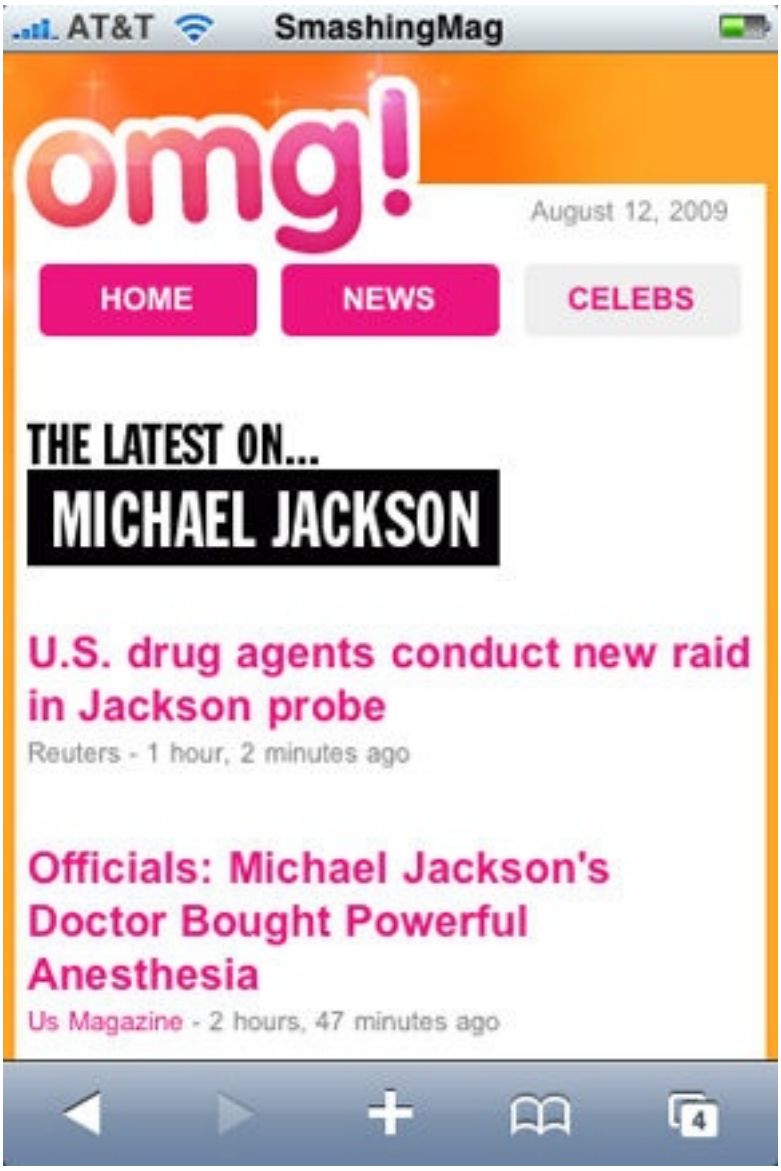
AOL Horoscopes

Very well designed for a horoscope site. Matching color scheme throughout.


AT&T
SmashingMag
Back
AOL horoscopes
Aries
Change Sign
Mar 21 - Apr 1
by Tarot.com
Yesterday
Today
It's not easy for you to settle down today, especially if you think that you could miss an interesting opportunity. Normally, you are able to sniff out possibilities before other people even notice any potential. But now it's time to take a deep breath and relax

Yahoo Omg!

Fresh look, vibrant colors and lively typography make this design fun to browse and easy to read. The design also matches the celebrity gossip theme.


AT&T
SmashingMag
omg!
August 12, 2009
HOME
NEWS
CELEBS
THE LATEST ON...
MICHAEL JACKSON
U.S. drug agents conduct new raid in Jackson probe
Reuters - 1 hour, 2 minutes ago
Officials: Michael Jackson's Doctor Bought Powerful Anesthesia
Us Magazine - 2 hours, 47 minutes ago
4

2. Business / Corporate

DPTO

Different tones of red make this design look very attractive on the iPhone. The 3D menu looks very nice — perfect for a marketing and design agency.

AT&T
SmashingMag
20 ANOS
CLIENTES
PORTIFÓLIO
NOTÍCIAS
CONTATO
DPTO.
THESE OPEN DOORS

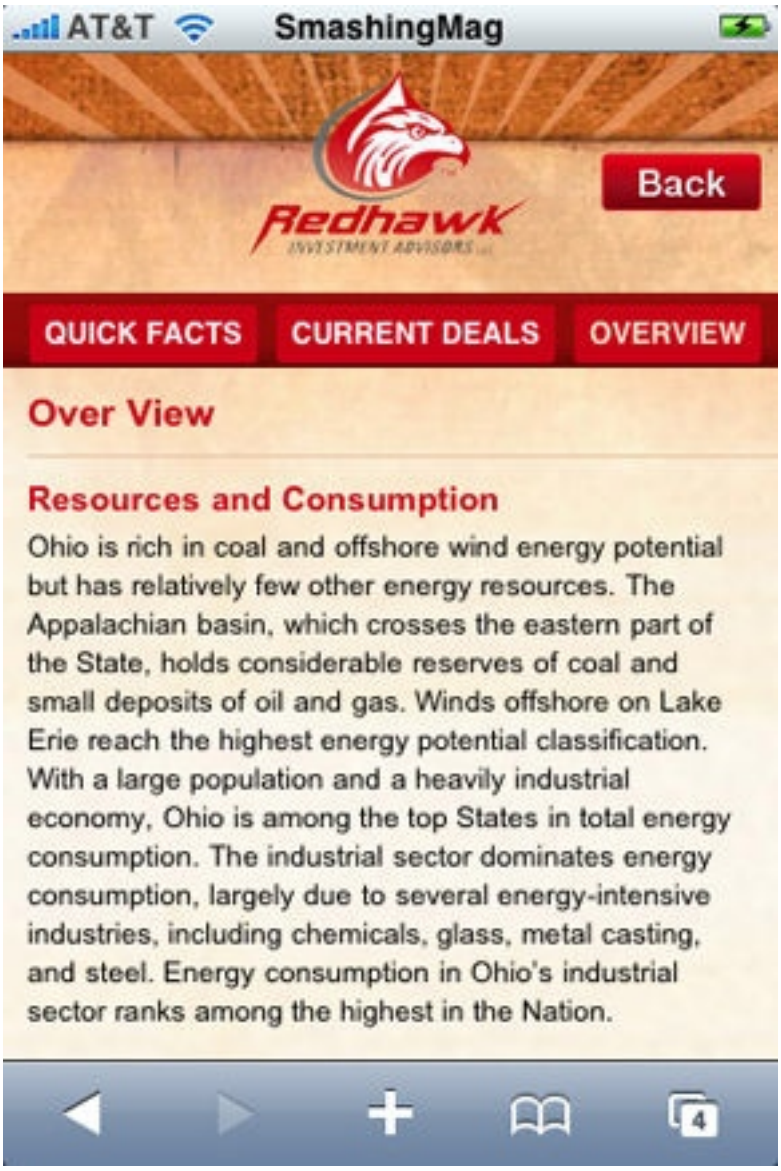
Mind Medium Creative

The use of gradients make the overall site look very shiny on the iPhone. The menu is very to-the-point. A nice composition and execution.

AT&T
SmashingMag
Mind[medium]
Creative Mkt_AGENCY
SERVICES
Web / Development
Flash, PHP, Ruby on Rails, XHTML, CSS, E-Commerce
Creative / Branding Dev
Create the identity, Design the theme, Icon, Logoface, and Branding Style
Marketing / Advertising
Print, online, outdoor, events, licensing, cross marketing, product marketing, talent marketing, niche media, unique placements
Viral Marketing

Redhawk Investment Advisors

This design has a very corporate feel to it. Good use of colors.


AT&T
SmashingMag
Redhawk
INVESTMENT ADVISORS
Back
QUICK FACTS
CURRENT DEALS
OVERVIEW
Over View
Resources and Consumption
Ohio is rich in coal and offshore wind energy potential but has relatively few other energy resources. The Appalachian basin, which crosses the eastern part of the State, holds considerable reserves of coal and small deposits of oil and gas. Winds offshore on Lake Erie reach the highest energy potential classification. With a large population and a heavily industrial economy, Ohio is among the top States in total energy consumption. The industrial sector dominates energy consumption, largely due to several energy-intensive industries, including chemicals, glass, metal casting, and steel. Energy consumption in Ohio's industrial sector ranks among the highest in the Nation.
4

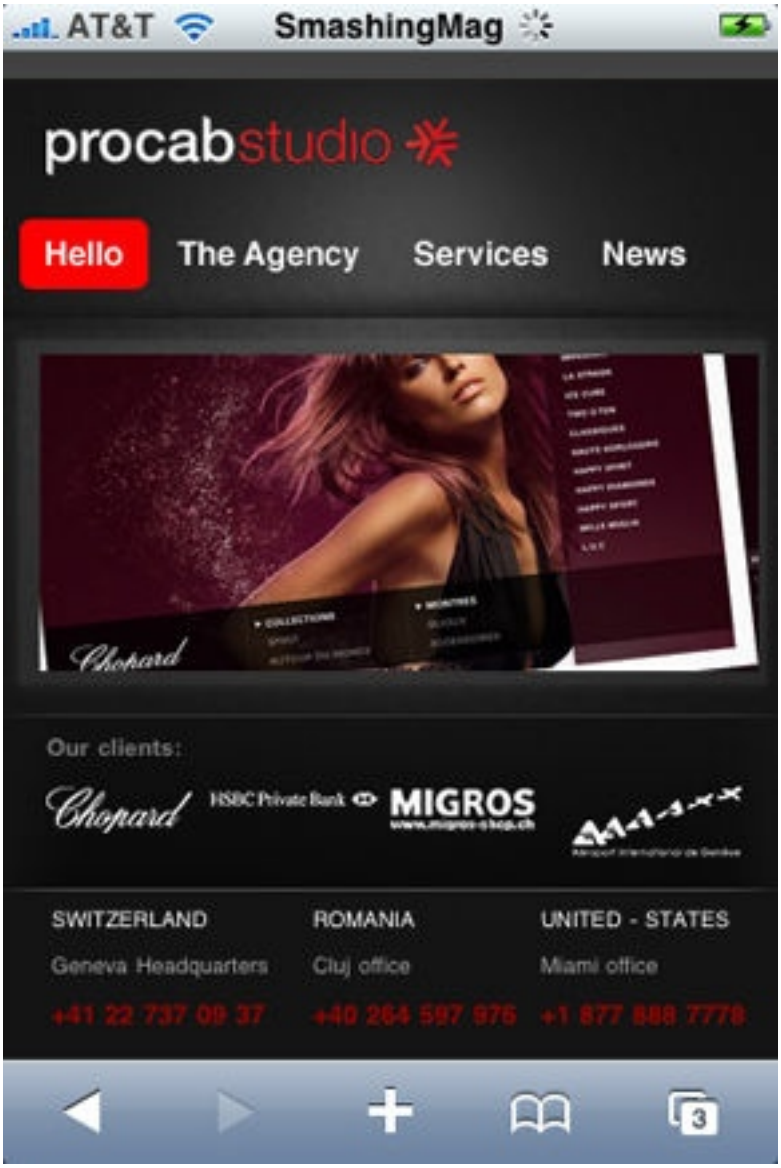
Nike Lab

Just what to expect from Nike. Sporty and energetic design.

AT&T
SmashingMag
nikelab.com
PRODUCTS
ATHLETES
TECHNOLOGIES
MARIA SHARAPOVA

Procab Studio

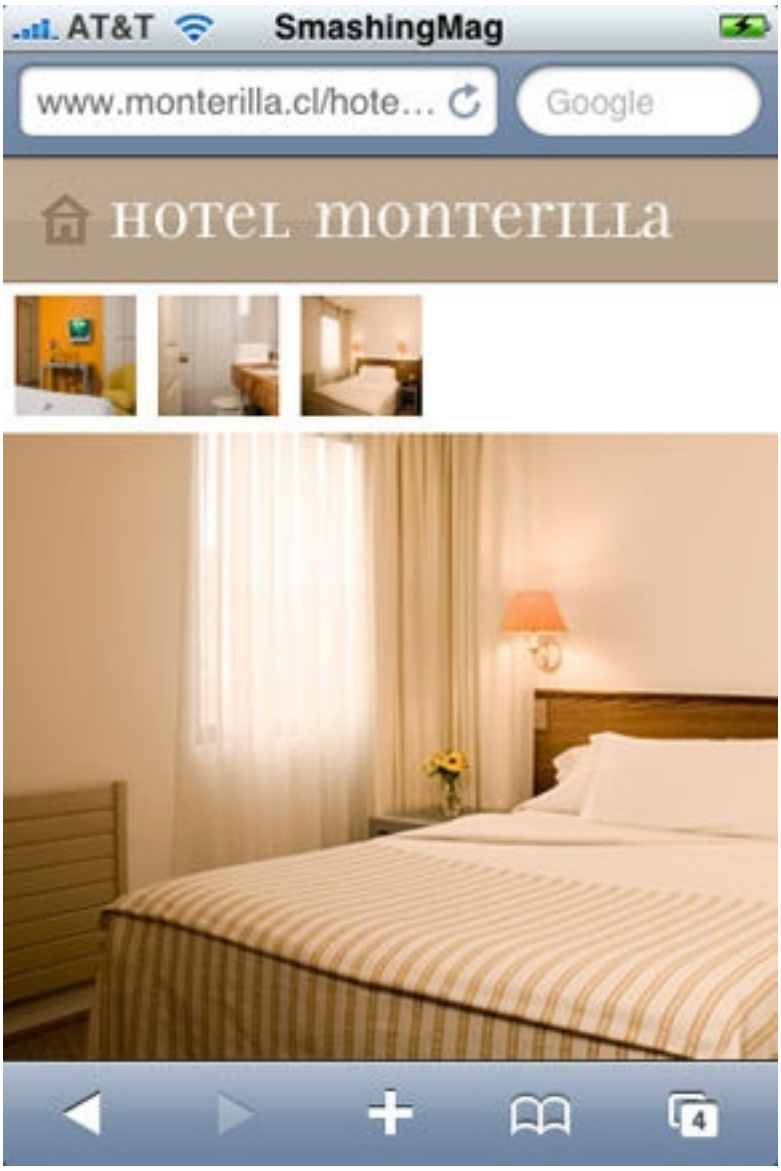
Procab studio showcases their work portfolio and other information about the agency. Well placed content. The font size is a bit too small, though.



AT&T
SmashingMag
procabstudio
Hello
The Agency
Services
News
Chopard Juin 2009
Chopard a confié à procab studio l'intégralité de sa stratégie digitale incluant notamment la création de tous les sites de la manufacture et le référencement. Nous sommes très fiers de pouvoir épauler leur équipe depuis près de 2ans avec qui nous partageons beaucoup de plaisir.
Wilkinson Sword Mai 2009
Wilkinson Sword mandate procab studio pour la réalisation de toute sa stratégie digitale pour la Suisse. Le site principal de la marque qui se veut frais, novateur et très tendance sera lancé courant 2009.
Stryker Avril 2009
Stryker est un leader mondial des technologies orthopédiques. La division USA a confié à procab studio la réalisation d'un site mondial pour la formation des chirurgiens incluant des vidéos et eLearning. Un projet ambitieux et réellement passionnant.
Channoine Mars 2009
Le site global de la marque de cosmétique de luxe a été
3

Hotel Monterilla

The design makes you want to go there for a vacation. The design has a very comforting feel to it. A perfect color scheme.


AT&T
SmashingMag
www.monterilla.cl/hote…
Google
HOTEL MONTERILLA

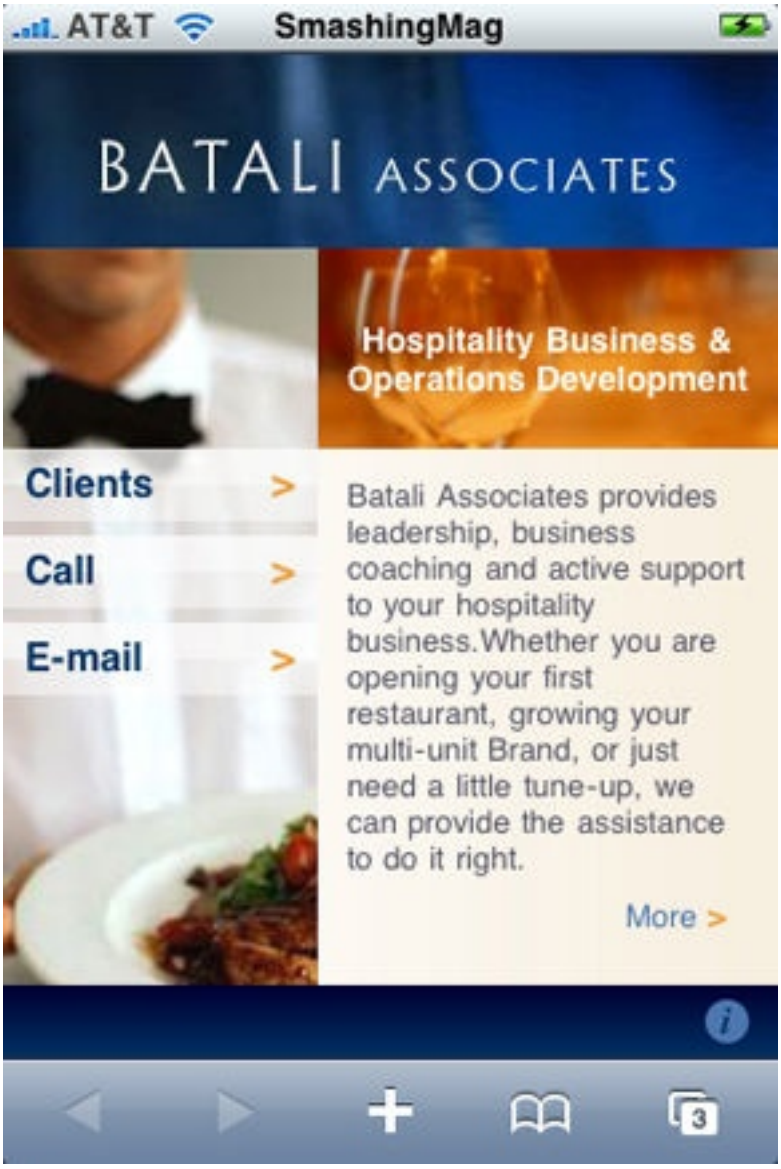
Viget Labs

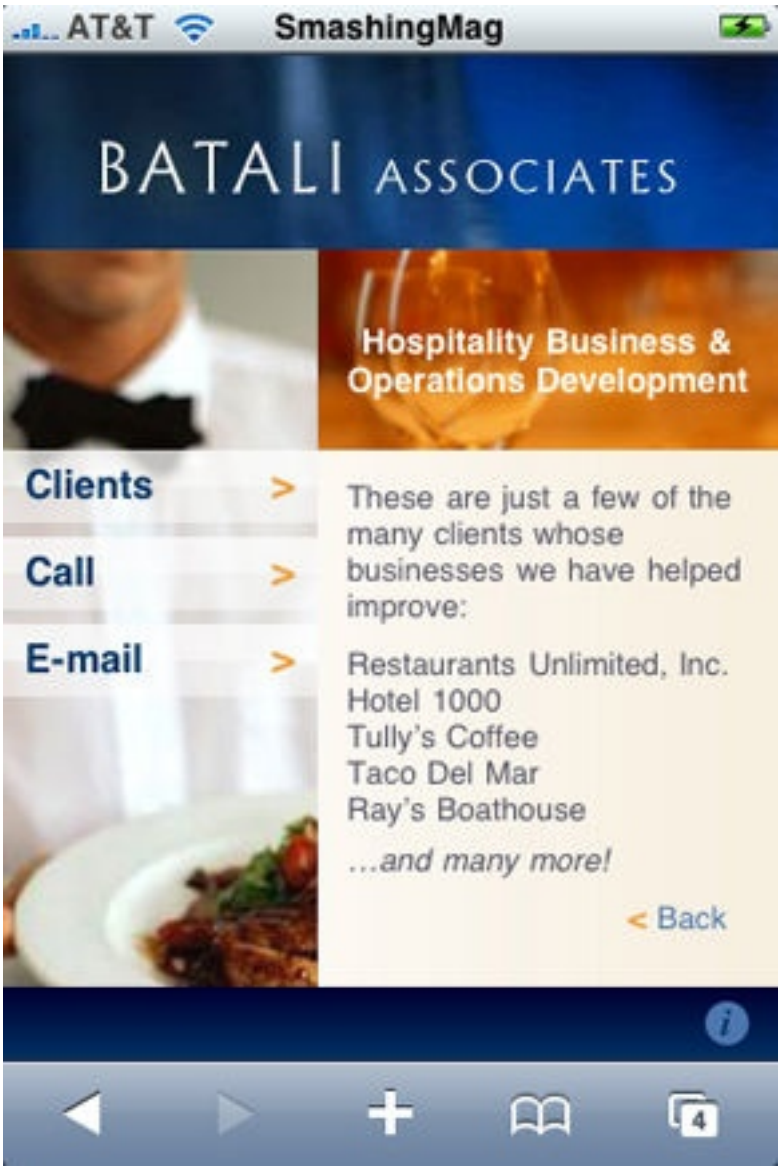
A blue background, appropriate padding and rounded corners make this simple design look vibrant and attractive.

AT&T
SmashingMag
Home
About
Work
Careers
Blogs
Viget Labs
we build web business
Team Viget
Brian Williams
Andy Rankin
Wynne Williams
Anjali Merchant
April Mohr

Batali Associates

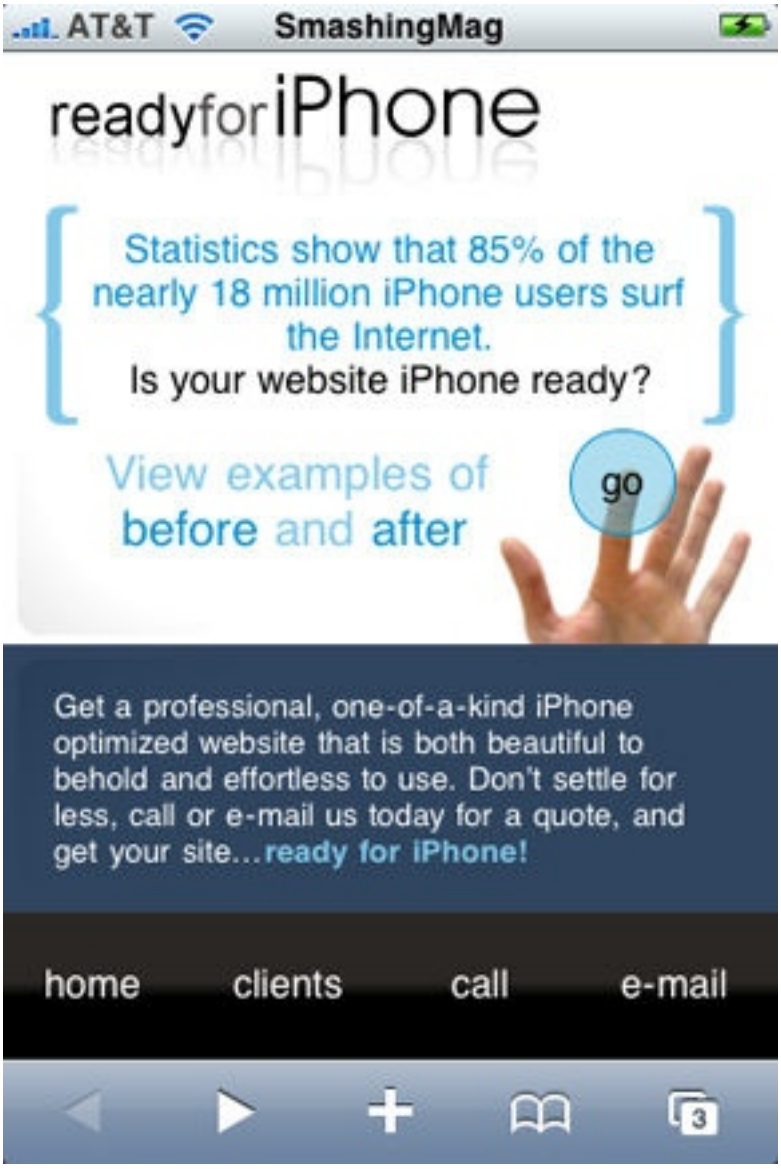
This is one of the good examples of design optimization for the iPhone. It clearly looks like it was really made for the iPhone, not just duplicated.

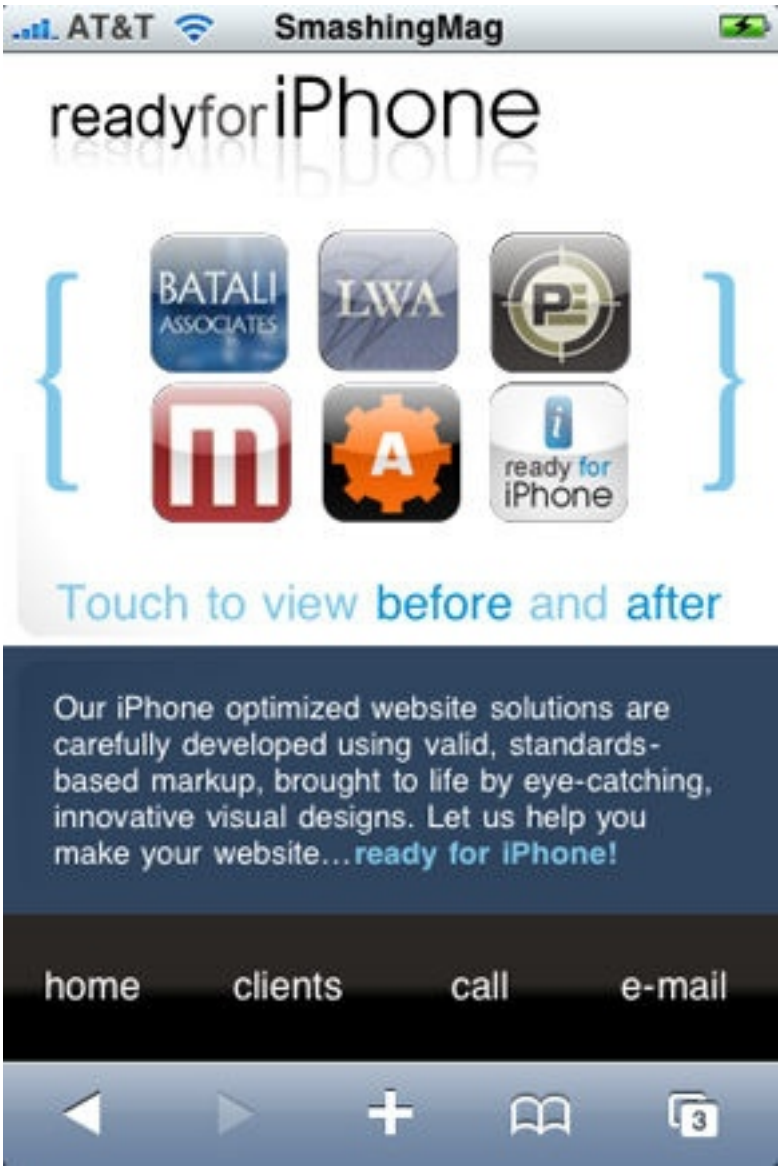



AT&T
SmashingMag
BATALI ASSOCIATES
Hospitality Business & Operations Development
Clients >
Call >
E-mail >
These are just a few of the many clients whose businesses we have helped improve:
Restaurants Unlimited, Inc.
Hotel 1000
Tully's Coffee
Taco Del Mar
Ray's Boathouse
...and many more!
< Back

Ready For iPhone

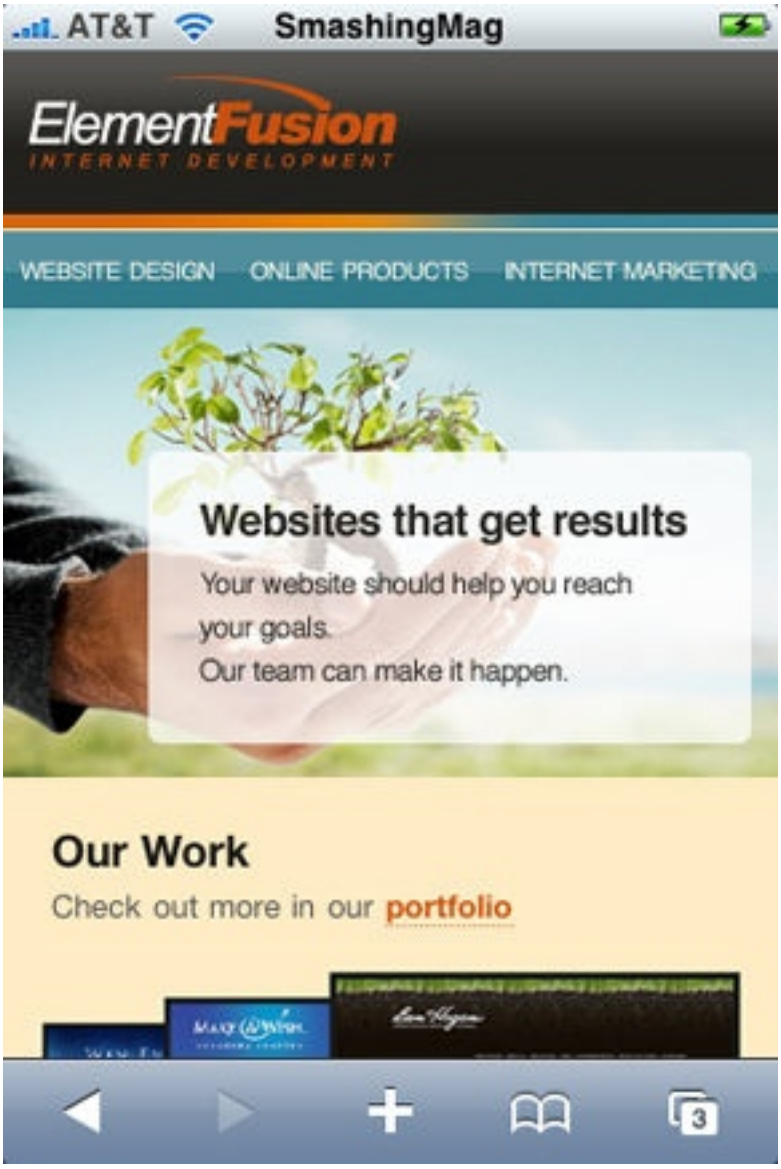
A company that provides iPhone optimized website solutions. The finger on the “Go” looks intuitive.




AT&T
SmashingMag
readyforiPhone
BATALI ASSOCIATES
LWA
ready for iPhone
Touch to view before and after
Our iPhone optimized website solutions are carefully developed using valid, standards-based markup, brought to life by eye-catching, innovative visual designs. Let us help you make your website...ready for iPhone!
home
clients
call
e-mail

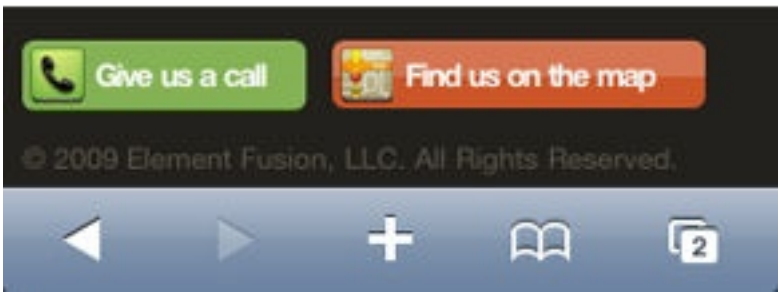
Element Fusion

Another showcase website that provides design services. Looks like a cut-down version of the actual website.



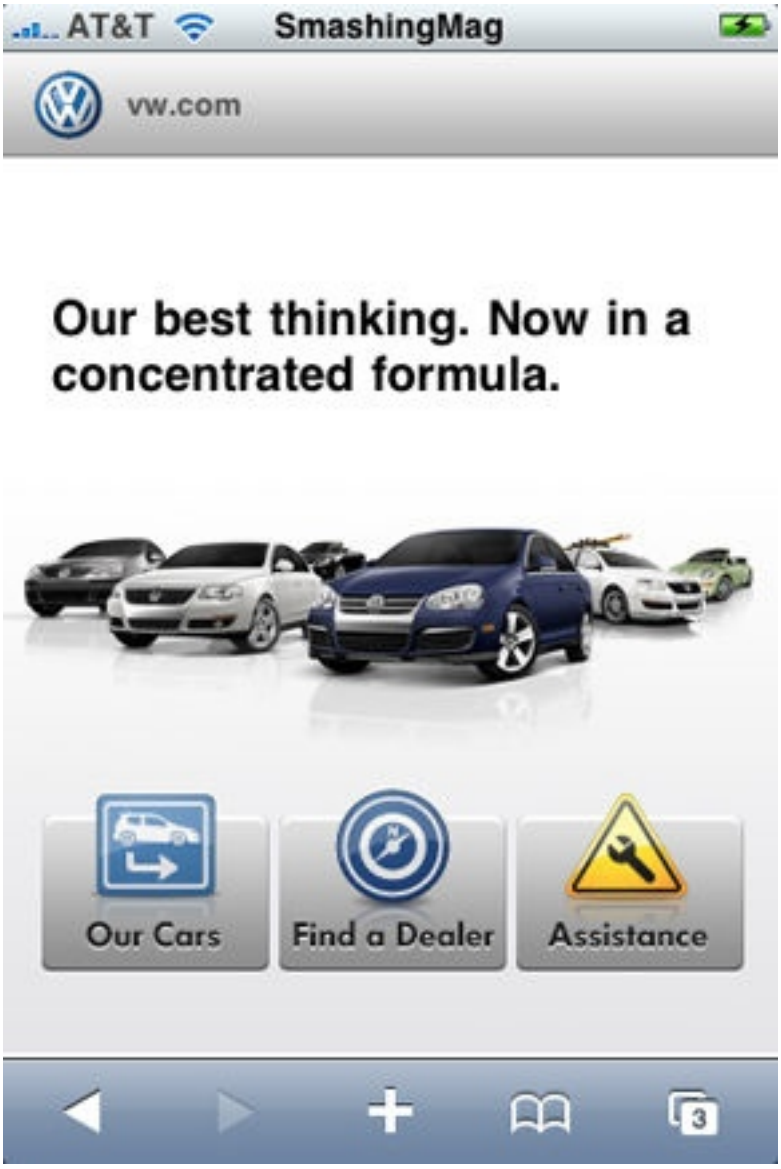
Talk to a real, live person

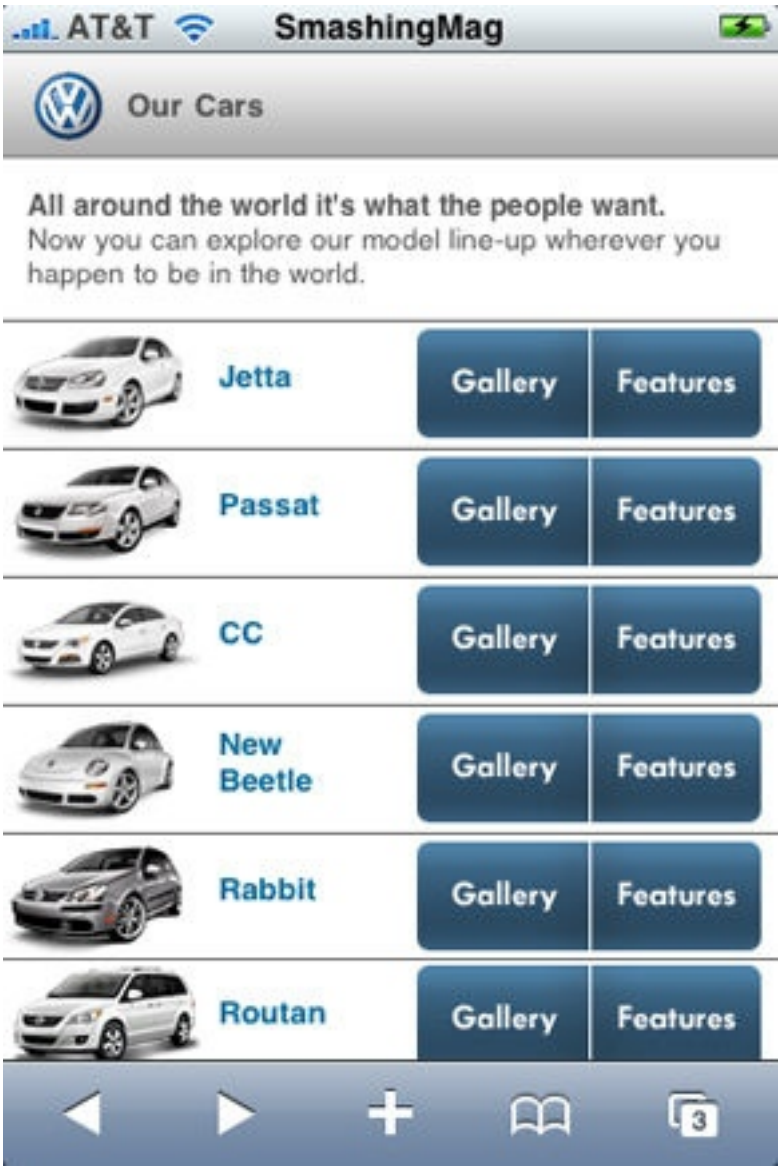
Our team of professional Internet Consultants is ready to talk about your web needs. There's no cost or obligation for an initial consultation.



Volkswagon

A showcase gallery for Volkswagon. Easy to navigate around. Clean and clear content.




AT&T
SmashingMag
Our Cars
All around the world it's what the people want.
Now you can explore our model line-up wherever you happen to be in the world.
Jetta
Gallery
Features
Passat
Gallery
Features
CC
Gallery
Features
New Beetle
Gallery
Features
Rabbit
Gallery
Features
Routan
Gallery
Features

3. Shopping / E-Commerce

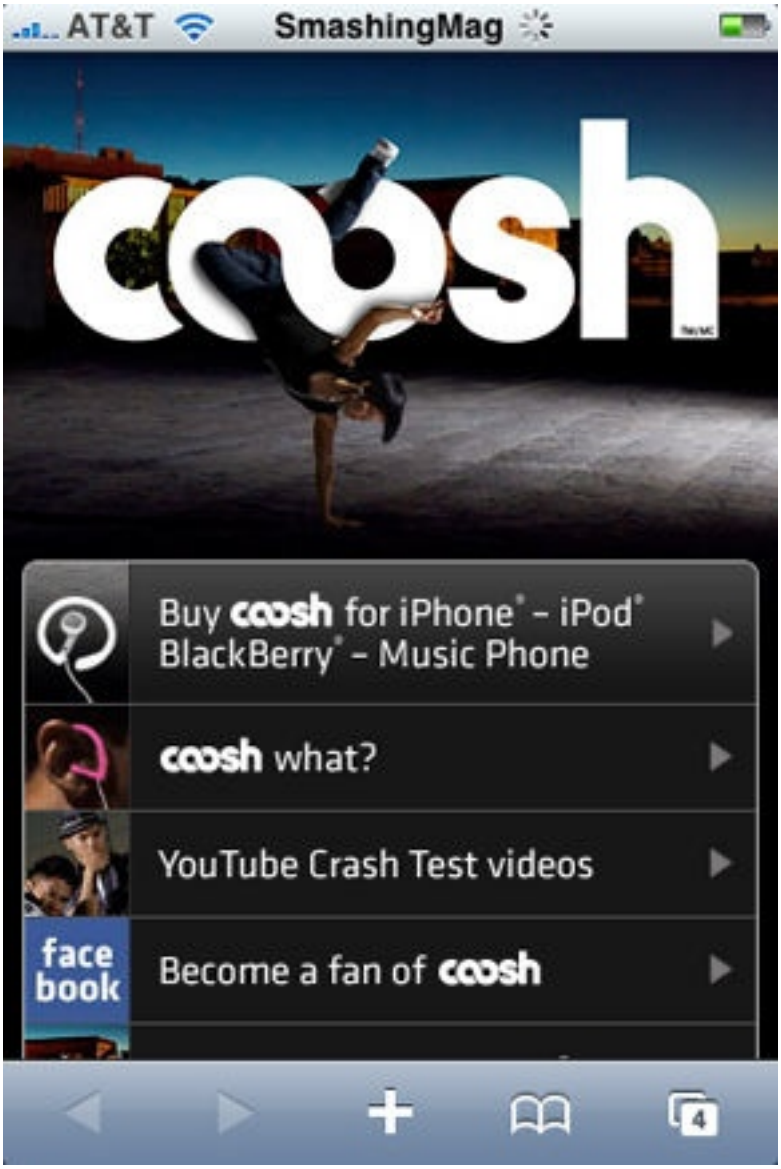
Torn Robes

A nice example of a mobile e-Commerce site. Just touch your favourite design, have a look at it and buy it. Looks very vibrant.

AT&T
SmashingMag
torn robes
falls creek hook-up (yellow/orange)
FALLS CREEK
"YOU'RE NOT HERE TO HOOK-UP"
Buy this t-shirt

Coosh

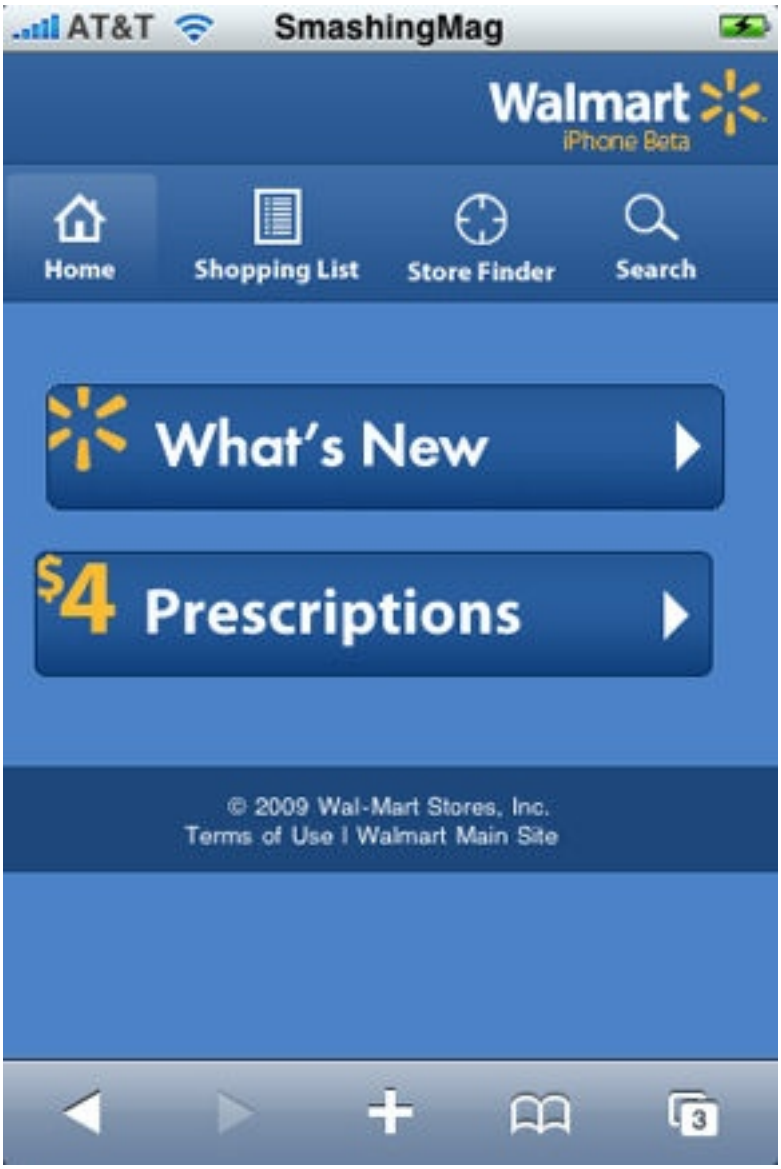
A single-product e-Commerce site. Branded very well.

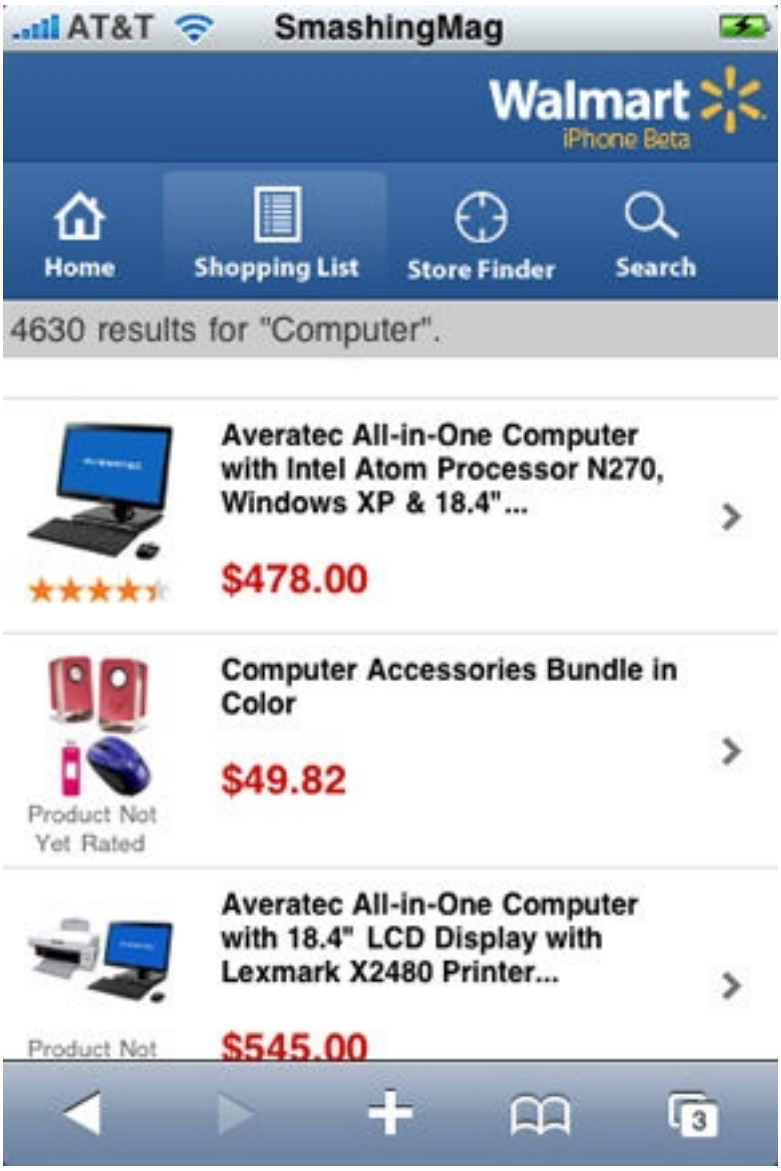


AT&T
SmashingMag
Simply put, what makes coosh original...
Let's be honest, headphones shouldn't hurt, but most of them do (that's what we heard). And they should stay put and not go wild every time you move. So we asked our engineers to find a solution, and they came up with little headphones and headsets with a big difference:
coosh

Walmart

This design doesn't really meet the expectations from WalMart — however, the design is still in beta. The usability is good, though: it is very easy to search for products and stores. You can also create shopping lists.




AT&T
SmashingMag
Walmart
iPhone Beta
Home
Shopping List
Store Finder
Search
4630 results for "Computer".
Averatec All-in-One Computer with Intel Atom Processor N270, Windows XP & 18.4"...
$478.00
Computer Accessories Bundle in Color
$49.82
Product Not Yet Rated
Averatec All-in-One Computer with 18.4" LCD Display with Lexmark X2480 Printer...
$545.00
Product Not

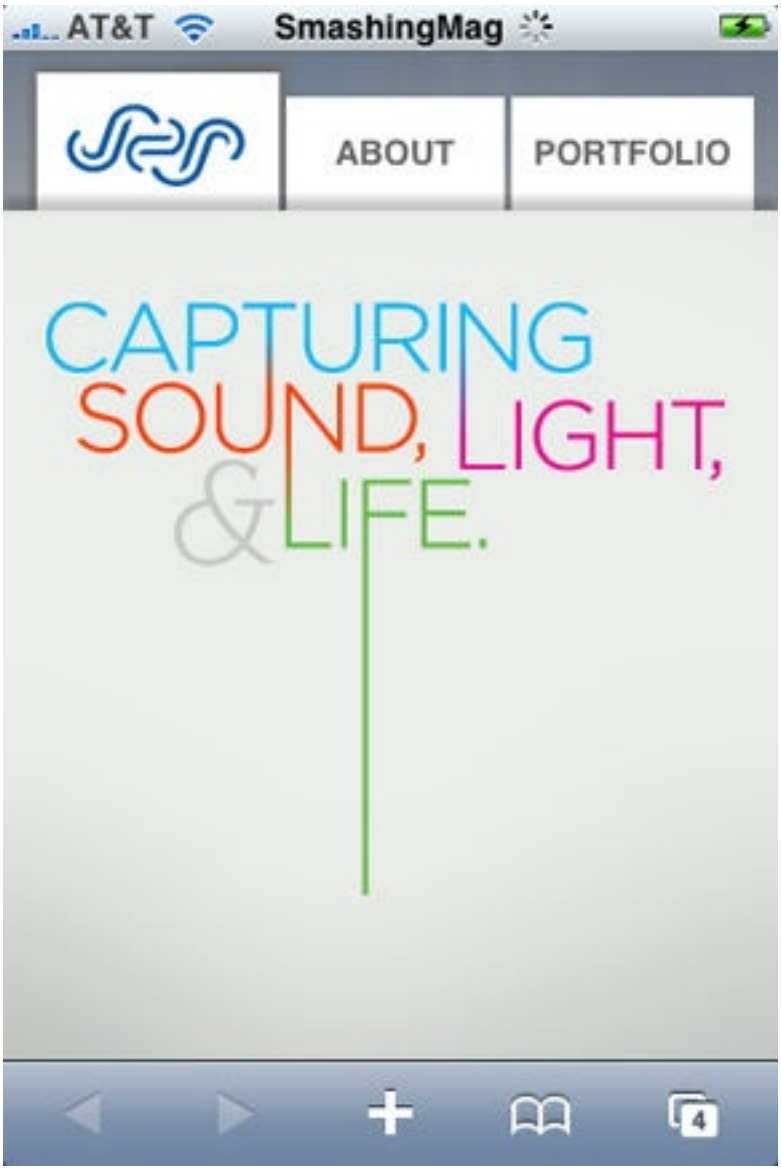
4. Portfolio / Blog

World Ending Blog (Japanese)

Although we did not understand a word there, it is very well designed for the iPhone. Every page is optimized and provides a good browsing experience.

Signal Element

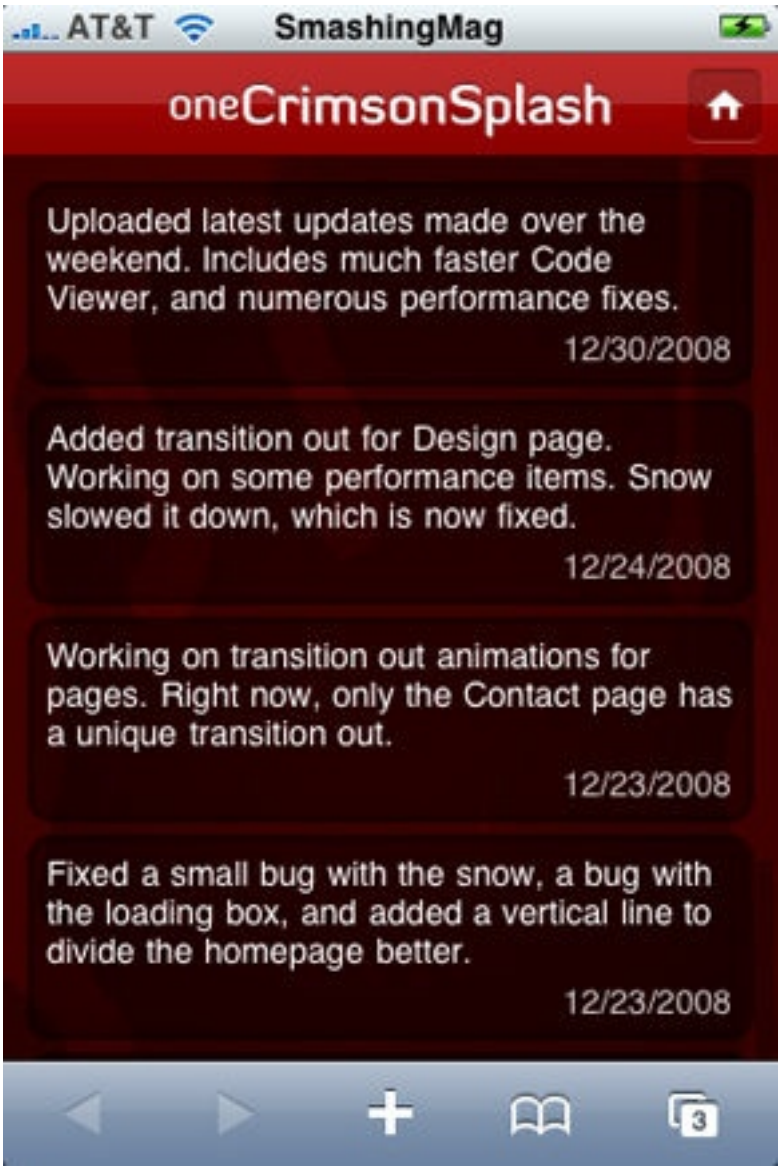
Simple and clean design: just 3 pages, but very well designed.


AT&T
SmashingMag
ABOUT
PORTFOLIO
CAPTURING
SOUND, LIGHT,
& LIFE.

One Crimson Splash

This is the portfolio of James Finley. The choice of colors and content placement are very good.

AT&T
SmashingMag
Back
oneCrimsonSplash
31cards
prudence
a) a Beatles song
b) Christian web development team
c) a cool dude
d) skill and good judgment in the use of resources
1 of 4
31cards
31cards is a web app that will hopefully launch one day. The goal was to make an easy method to create decks of flash cards to study for tests, quizzes, and exams. The site features a full Javascript


AT&T
SmashingMag
oneCrimsonSplash
Uploaded latest updates made over the weekend. Includes much faster Code Viewer, and numerous performance fixes.
12/30/2008
Added transition out for Design page. Working on some performance items. Snow slowed it down, which is now fixed.
12/24/2008
Working on transition out animations for pages. Right now, only the Contact page has a unique transition out.
12/23/2008
Fixed a small bug with the snow, a bug with the loading box, and added a vertical line to divide the homepage better.
12/23/2008
3

5. Education / Content

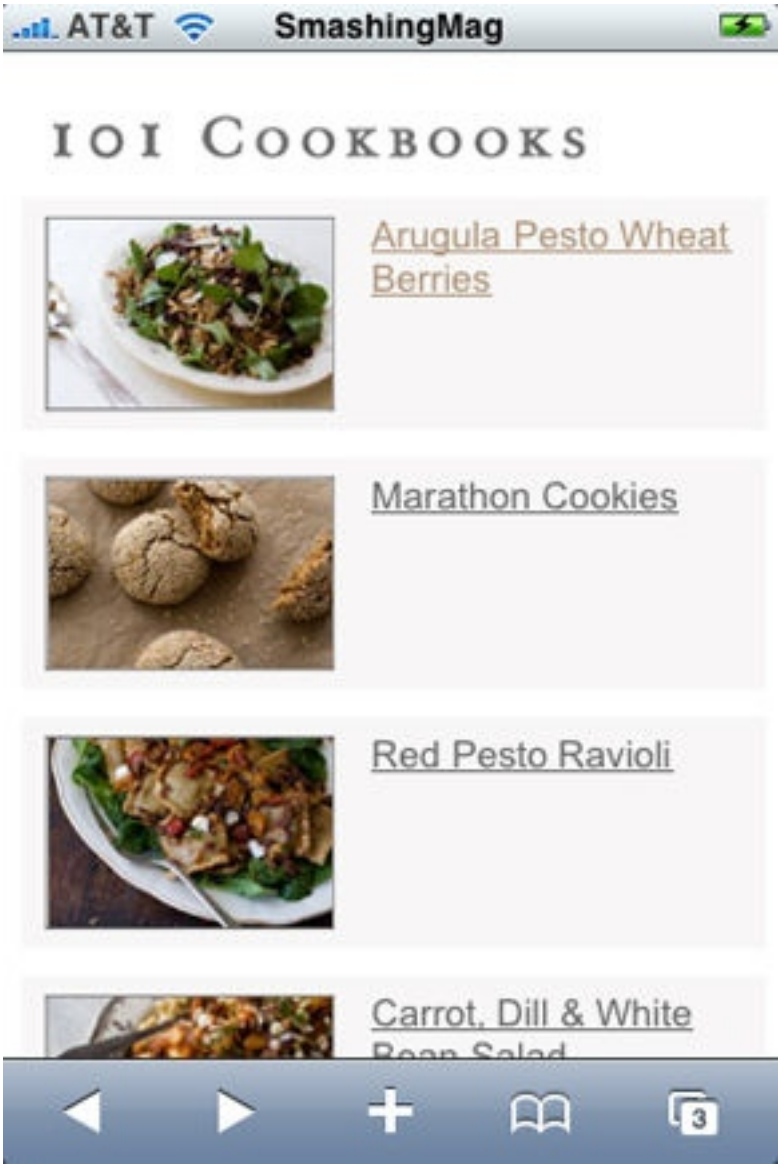
MIT

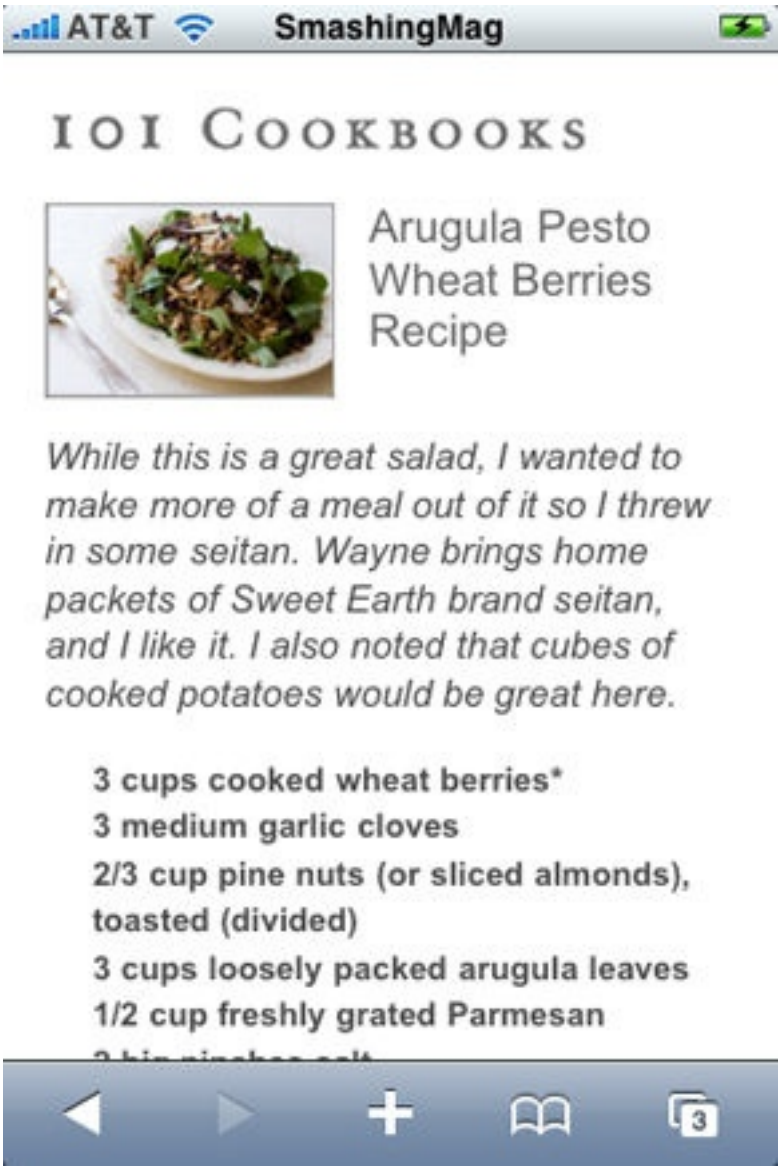
What else to expect from MIT? Simple, clean, user-friendly.

AT&T
SmashingMag
Map Details
?
Anna's Taqueria found in:
Building W20 (Stratton Student Center)
84 Massachusetts Avenue
Map
Photo
What's Here
Vassar St
Massachusetts Ave
W31
W32
W33
W20
W35
W34
W16
W15
W11
W13
9
7A
7
84 Massachusetts Ave.

101 Cook Books

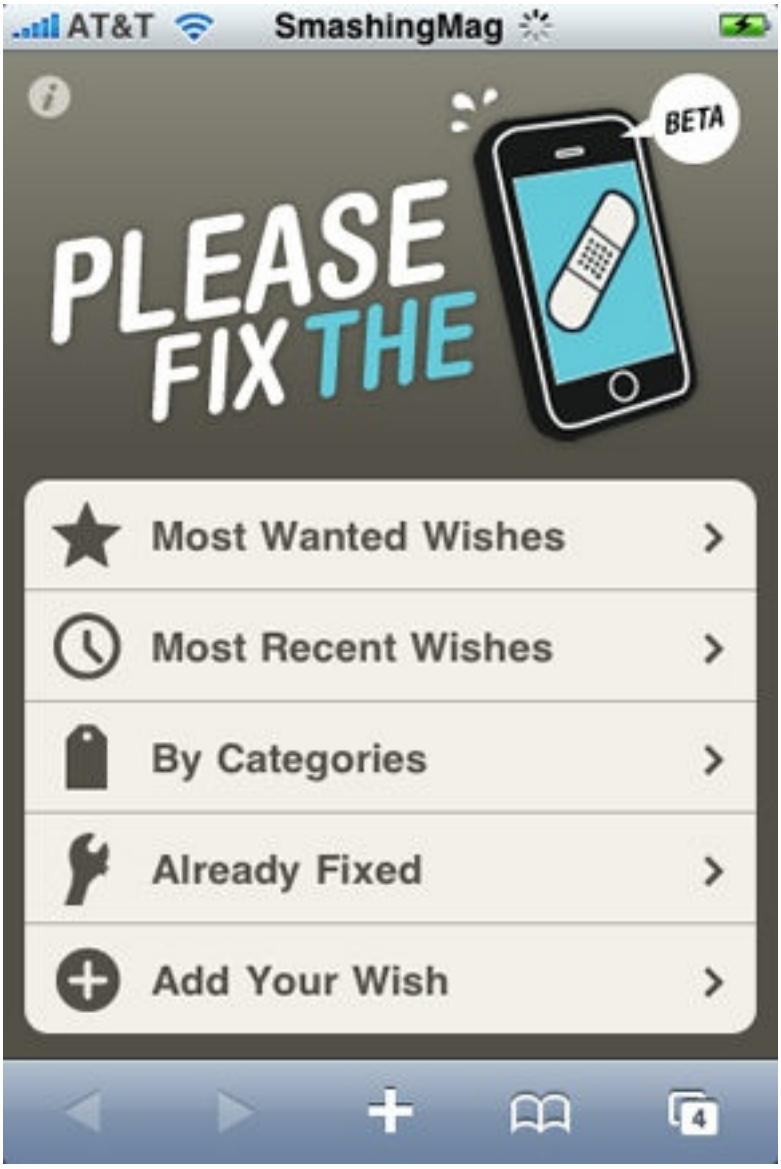
Not really a fancy design, but it's the simplicity and clarity of content that makes it appear in this showcase.




AT&T
SmashingMag
101 Cookbooks
Arugula Pesto Wheat Berries Recipe
While this is a great salad, I wanted to make more of a meal out of it so I threw in some seitan. Wayne brings home packets of Sweet Earth brand seitan, and I like it. I also noted that cubes of cooked potatoes would be great here.
3 cups cooked wheat berries*
3 medium garlic cloves
2/3 cup pine nuts (or sliced almonds), toasted (divided)
3 cups loosely packed arugula leaves
1/2 cup freshly grated Parmesan
3

Please Fix The iPhone

A good design that provides the desktop browsing experience. It is very easy to find what you are looking for.



AT&T
SmashingMag
AIRPLANE MODE
#7: 14,601 votes
I want a button on the homescreen that allows me to quickly shut off Bluetooth, Wireless, or 3g. All of these are battery wasters, on a short life battery, and getting to each setting is a pain. And by the way... a larger capacity batter wouldn't hurt!
AIRPLANE MODE
BLUETOOTH
HARDWARE
You want this fixed too? ›
756 votes

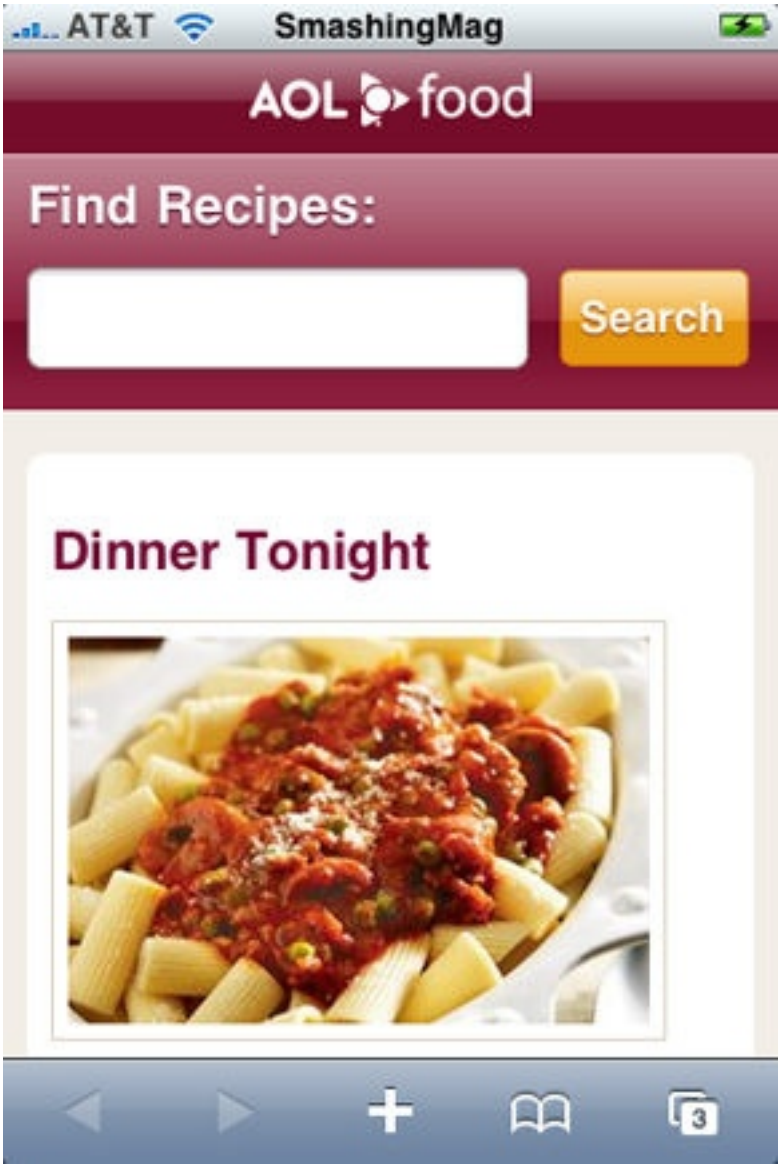
1881

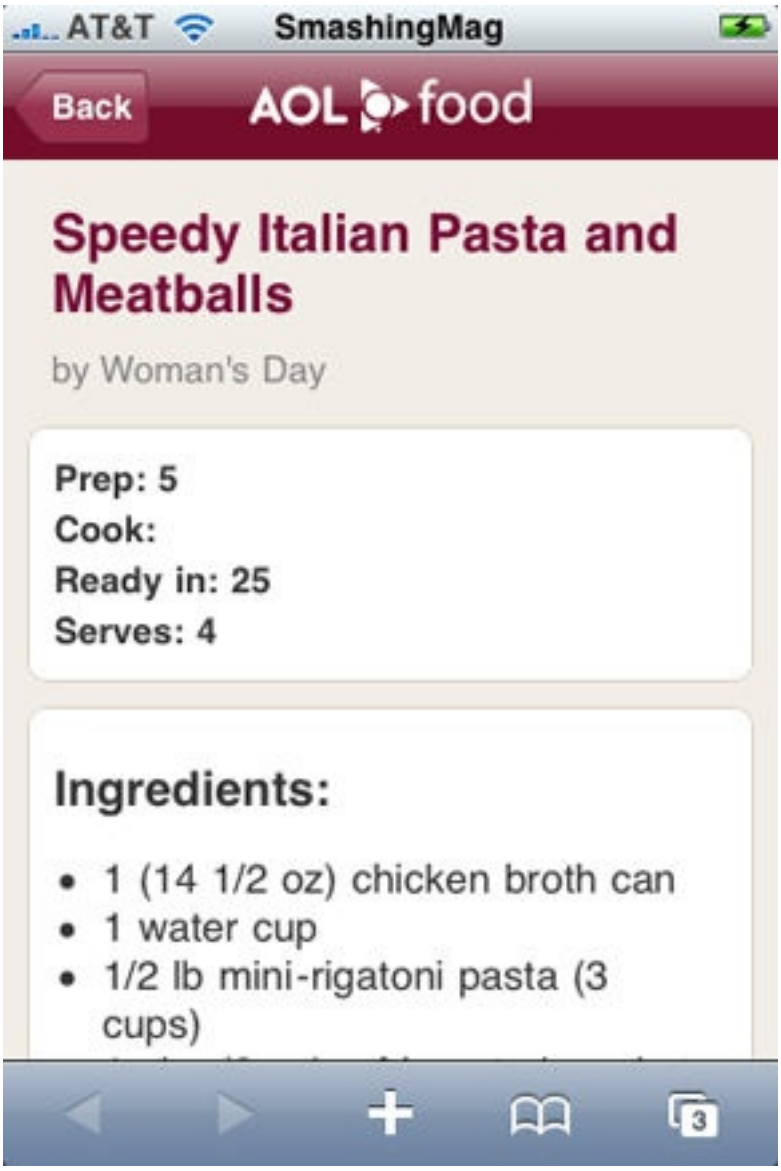
The Norwegian telephone directory online. The combination of bright blue, orange and white looks really good.

AT&T
SmashingMag
Endre søk
Opplysningen
1881
Nytt søk
Personer
48 treff
Firma
775 treff
Test Test 2
8900 Brønnøysund
904 11 391
Magnus test Test Magnus
486 04 418
Test Peter Test Villadsen
Burbon Street 999, 9996 Utland
458 01 079
Test Kort
3040 Drammen

AOL Food

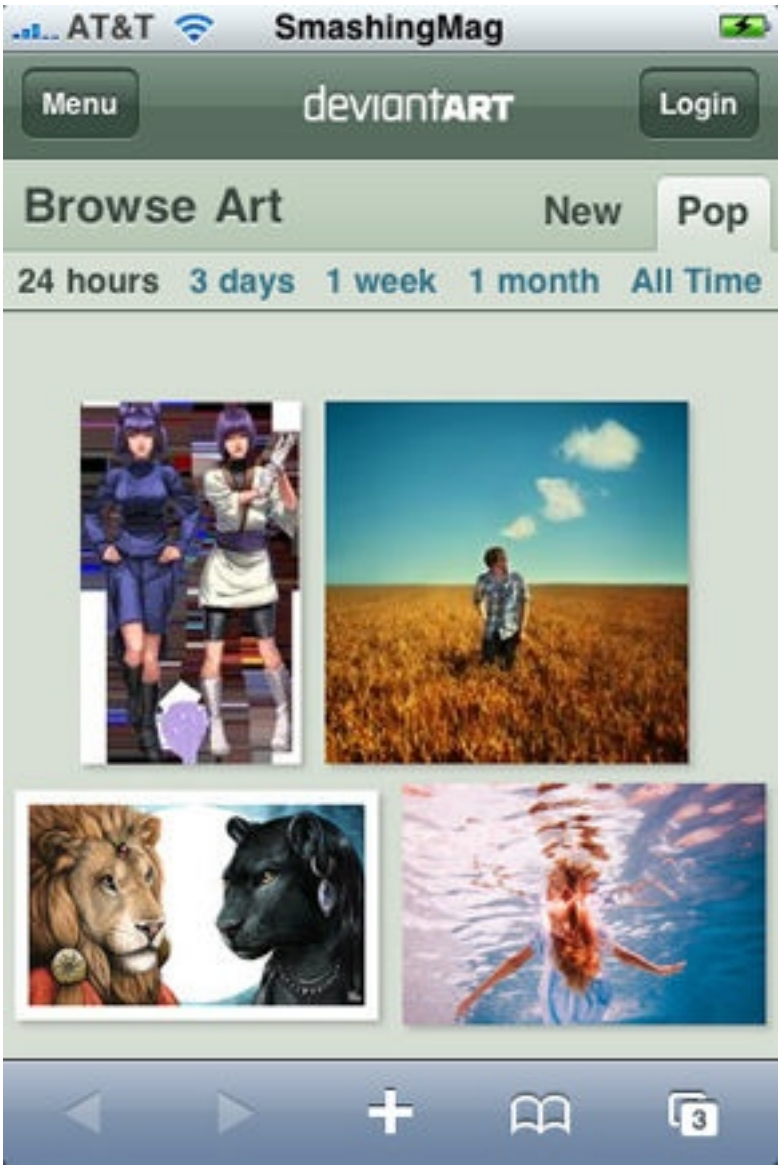
Heaven for those who love to cook. Just keep your iPhone with you in the kitchen, and let this nice design help you make a delicious dinner.




AT&T
SmashingMag
Back
AOL food
Speedy Italian Pasta and Meatballs
by Woman's Day
Prep: 5
Cook:
Ready in: 25
Serves: 4
Ingredients:
1 (14 1/2 oz) chicken broth can
1 water cup
1/2 lb mini-rigatoni pasta (3 cups)
3

Deviant Art

A nice way to browse art on the iPhone. The color scheme is good, and it makes the artwork look prominent. Very easy to navigate and search. Also, appropriately sized thumbnails.



AT&T
SmashingMag
Menu
deviantART
Login
Think Things Through by =P0RG
Description
Details
Comments
3

Last but not least, some words of wisdom…

Tools to design a website for iPhone

There are some libraries and kits available to help you iPhoneize your design.

- iPhoney
  iPhoney gives you a pixel-accurate web browsing environment—powered by Safari—that you can use when developing web sites for iPhone. It's a perfect tool to see how your web creations will look on iPhone.

- Test iPhone
  A web browser based simulator for quickly testing your iPhone web designs.
- iWebKit (Demo)
  iWebKit is a file package designed to help you create your own iPhone and iPod Touch compatible website or webapp. Comes with various ready-to-use themes.
- iUI
  iUI is a framework consisting of a JavaScript library, CSS, and images for developing iPhone web designs. It makes your web designs look and feel like iPhone's native applications.
- Intersquash (Demo)
  Not really a helpful tool for designing, but you can instantly create an iPhone compatible site from your RSS feed url.
- WPtouch
  For WordPress users: WPtouch transforms your WordPress blog into an iPhone application-style theme, complete with ajax loading articles and effects, when viewed from an iPhone or iPod touch.
- Jaipho Gallery (Demo)
  If your website features a photo gallery, Jaipho will optimize it for iPhone users.

About The Authors

Adeel Raza

Adeel Raza is a young entrepreneur with over 10 years of experience on the web. He specializes in user interface, user experience and beautiful design. He loves finding gems out of dirt and showcasing them on his gallery Inspire Mix. Follow him on Twitter to say hi!

Alex Komarov

Alexander Komarov is a Russian designer (currently residing in Philadelphia), who has been working in the field of Web- and Mobile Interaction- design and user experience for over 7 years. He runs a nimble interaction design studio that specializes in mobile interaction design and strategy. He helps his clients break through the wall that separates them from their customers and stand out in the competitive world of modern technology.
Twitter: Follow the author on Twitter

Jen Gordon

Jen Gordon is a web and mobile UI designer based in Atlanta, Georgia. She teaches iPhone app design and other 7-day design courses at DesignBoost. For fun she enjoys writing about DIY craft projects and kids crafts on her personal blog.
Website: DesignBoost
Twitter: Follow the author on Twitter

Marc Edwards

Marc Edwards (@marcedwards) is the Director & Lead Designer at Bjango (@bjango) and co-host of the Iterate podcast (@iteratetv).

Nick Francis

Nick Francis builds websites with an outstanding team at Project83 in Nashville, Tennessee. He also co-founded Brightwurks that created web apps Feed My Inbox and Linkpatch, along with mobile website gallery Mobile Awesomeness.
Website: Project83
Twitter: Follow the author on Twitter