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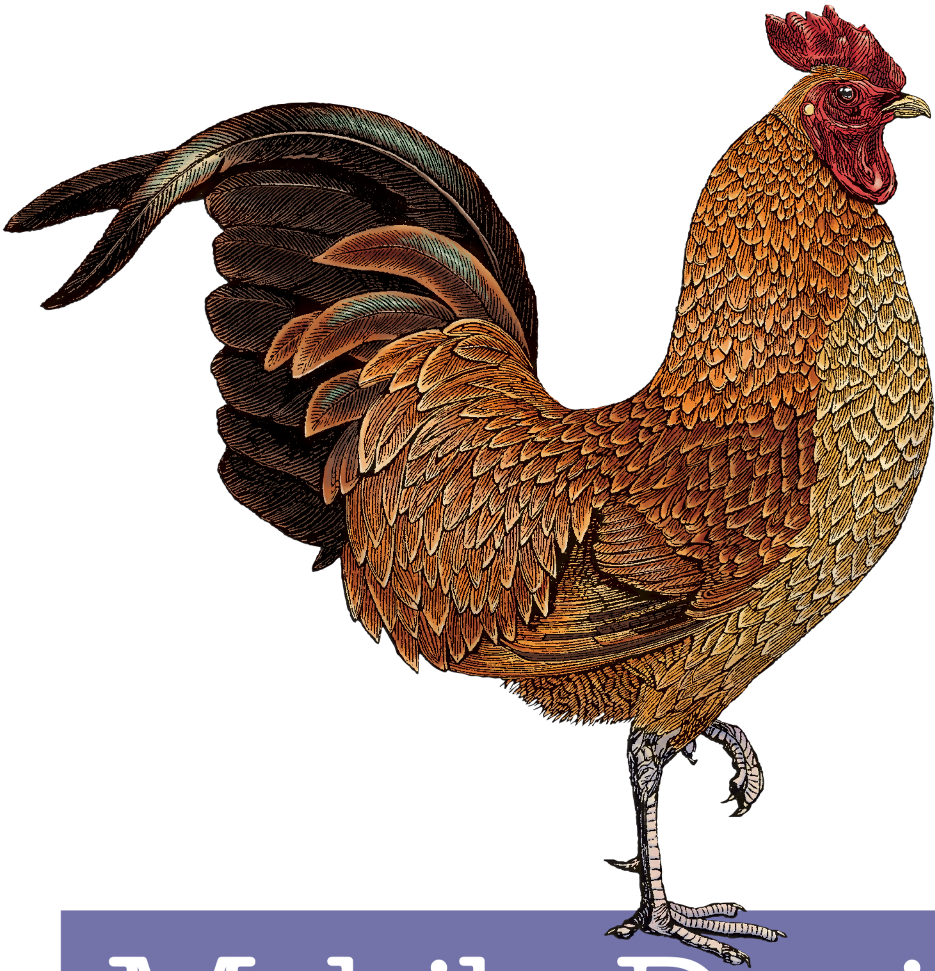

Mobile Design Pattern Gallery

UI PATTERNS FOR SMARTPHONE APPS

Theresa Neil

Foreword by Jenifer Tidwell

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Mobile Design Pattern Gallery

When you're under pressure to produce a well-designed, easy-to-navigate mobile app, there's no time to reinvent the wheel—and no need to. This handy reference provides more than 90 mobile app design patterns, illustrated by 1,000 screenshots from current Android, iOS, and Windows Phone apps.

Much has changed since this book's first edition. Mobile OSs have become increasingly different, driving their own design conventions and patterns, and many designers have embraced mobile-centric thinking. In this edition, user experience professional Theresa Neil walks product managers, designers, and developers through design patterns in 11 categories:

- Navigation: get patterns for primary and secondary navigation
- Forms: break industry-wide habits of bad form design
- Tables: display only the most important information
- Search, sort, and filter: make these functions easy to use
- Tools: create the illusion of direct interaction
- Charts: learn best practices for basic chart design
- Tutorials & Invitations: invite users to get started and discover features
- Social: help users connect and become part of the group
- Feedback & Accordance: provide users with timely feedback
- Help: integrate help pages into a smaller form factor
- Anti-Patterns: what not to do when designing a mobile app

Theresa Neil is an internationally recognized design expert who is passionate about making products that look good and work well. Her books and talks have helped thousands of IT professionals advance their design skills and create better user experiences.

"Mobile design evolves at a fast pace, so it's great to see a new edition of Theresa Neil's essential book. The initial set of patterns has proven remarkably resilient, as patterns should, and updates and improvements make the book both useful and timely. I can't wait to share the on-boarding chapter with my team."

—**Christian Crumlish**
Director of Product Management, CloudOn

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Second Edition

UI Patterns for Smartphone Apps

Theresa Neil

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by Theresa Neil

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[*Foreword*]

To name something is to begin to understand it.

My five-year-old son, like many children, enjoys looking at clouds. Recently, he clued into the fact that different kinds of clouds have different names. And so, being of good geek stock, he proceeded to memorize them—cirrus, cumulus, stratus, cirrostratus, cumulonimbus, altostratus, lenticular—all of the ones I knew, and then some. I'd certainly never heard of "cumulus congestus" before.

Now, when he looks at the sky, he can tell me which clouds are which. More than that, he notices more than he did before, and with greater nuance. He has learned to visually discriminate among cloud types based on texture, color, height, movement, and who knows what else. (They're not always easy to tell apart, of course, but that doesn't bother him.) He can predict, with some accuracy, which ones might drop rain on us and which won't.

And in his limited preschooler fashion, he uses his cloud knowledge to analyze the big picture. "Cirrostratus clouds might mean a warm front," he points out. Or, "Cumulus congestus might turn into cumulonimbus! Then we could get a storm."

Above all, he enjoys knowing these names. Little kids seem to get a kick out of naming the things they love, whether they're clouds, dinosaurs, bugs, cars, dolls, or movie characters. Certainly their imaginations aren't limited by that left-brain knowledge, despite our grown-up romantic biases—my son still sees palaces and ducks and cauliflowers in the clouds, even as he names them "cumulus."

So it is with us grown-ups. That brings us to the topic at hand: by recognizing and naming patterns in interfaces, we "see" those interfaces better. We notice more details, because our brains are more attuned to what we should look for. We can start to predict the workings of the software we use, because we know how certain interface patterns should behave. Then we can tell other people what we see via an expressive new vocabulary.

And how do we learn these patterns?

When my son learned about clouds, the best tool he had was pictures. Lots of pictures. After looking at some of these "catalogs" in books and on websites, he learned to see rather subtle differences between cloud types, some of which are hard to describe verbally.

Likewise, the best way to learn interface patterns is to see visual examples. Now, I'm a writer, so I love words. When not restrained by courtesy, I would happily go on endlessly about what patterns are, how to choose them, and the differences between them! But it's clear to me that anyone who simply wants to design interfaces—that is, anyone who needs to know patterns as one component of their craft knowledge—won't really need all those words. For a given pattern, they need just enough explanation to "get it," and then they need to see a range of well-chosen real-life examples to solidify and internalize that knowledge.

In this book, Theresa Neil has pulled together a spectacular collection of pictures of patterns. I can't imagine the work that went into this, having tried it myself; it's no small feat to review this many mobile apps, see what works best in them, and gather up all these carefully cataloged screenshots.

For mobile interface designers, this book is a treasure. Read it straight through if you'd like, but more than that, use its examples to improve your own designs:

- Use your own judgment about what works well in these examples, and figure out what may work best in the context of whatever you're designing.
- Use it as a sourcebook for design inspiration. I found myself admiring these screenshots for design aspects that had nothing to do with the patterns themselves, such as icon design and color usage.
- Use it to expand your knowledge of how existing apps work, without laboriously downloading and using them all (and on several devices, don't forget).

You might even go out and find your own pattern examples in the mobile apps you use daily. In fact, I'd bet that once you learn these pattern names, you won't be able to avoid doing so. Having had my son point out "cumulus congestus" in the wild a few times, I know it well, and, gosh—I don't know how I ever lived without that knowledge.

Enjoy!

—Jenifer Tidwell

[*Preface*]

Sometimes it's good to stop and reflect on the many factors that affect usable design. But more often, there's no time for that—you've just got to roll up your sleeves and get to work. This book is for those times.

From one perspective, the mobile world has changed a lot since this book first came out in 2011. Three of the six mobile operating systems I included in 2011—WebOS, Symbian, and BlackBerry—are no longer contenders in the mobile space.

From another perspective, not that much has changed: out of over 70 patterns from the first edition, most are still with us, with only a handful of new ones added. Those latest patterns, though, exhibit more "mobile-centric" thinking. Designers are finally looking beyond desktop and web metaphors to craft solutions that are organic to mobile interfaces. I expect this to continue, and to accelerate.

Another change: in 2011, I was also optimistic about OS-neutral designs, meaning that perhaps we could as designers and developers create a single interface that would work well on multiple OSs. In fact, the opposite has occurred; distinct design conventions for iOS, Android, and Windows Phone have become more formalized, particularly with regard to navigation.

It's now more important than ever to understand those OS guidelines, and even more crucial that you are truly familiar with the actual devices your users rely on 24/7/365. I strongly advise that you spend a minimum of six weeks using devices for each OS you are designing for. That way, when you do roll up your sleeves to get to work, your own experience—along with the patterns in this book—will give you the confidence you need to design beautifully usable apps.

Intended Audience for This Book

Mobile Design Pattern Gallery is for product managers, designers, and developers who are creating mobile applications. As companies are defining and refining their mobile strategies, it can be a challenge to find examples of design best practices, especially for multiple operating systems. Whether you have been tasked with designing a simple iPhone application or designing for every popular operating system on the market, these patterns will provide solutions to common design challenges.

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I am in debt to Rich Malley for helping me write this book; I hope this is just the first of many. Many thanks to Cathlin McCullough for pulling together the chapter on social patterns, and Suze Kemper for helping me meet the deadline. And a huge thanks to Ivan Bachev for once again prepping all 1,000 images!

Thank you to Alissa Briggs, Greg Nudelman, and Eli Holder for sharing their stories, and Aaron Jansinski for the pattern illustrations.

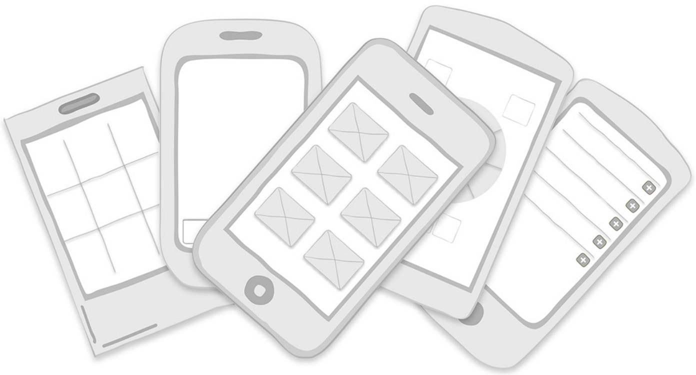
I'd also like to acknowledge all the creative and dedicated teams out there designing and developing mobile applications. I feel privileged to use many of the great apps showcased in this book and appreciate all the hard work that went into them.

This is my third book for O'Reilly Media, and it has been a pleasure to work with Mary Treseler and her team again.

Finally, a very warm thank you to the newest member of my family, Marlena Elizabeth Ann, for providing me with the motivation to finish this book before she arrived (with a whole 12 hours to spare)!

[1]

Navigation



Primary Navigation Patterns, Persistent

Springboard, List Menu, Dashboard, Gallery, Tab Menu, Skeuomorphic

Primary Navigation Patterns, Transient

Side Drawer, Toggle Menu, Pie Menu

Secondary Navigation Patterns

Page Swiping, Scrolling Tabs, Expand/Collapse Panel

I like to read reviews in mobile marketplaces to better understand how people are using apps. The marketplace rating system offers incredibly valuable feedback of a kind that doesn't exist for web and desktop applications. It provides a rich source of information about customer preferences and expectations.

In general, most 4- and 5-star reviews aren't very specific. They often don't go beyond "What a great app; it looks good and works well." But the 1- and 2-star reviews are much more telling; they tend to offer a truer picture of problems users are having with applications. The most common complaints seem to revolve around:

- Crashing
- Lack of key features (e.g., syncing, filtering, account linking)
- Confusing interface design
- Poor navigation (e.g., can't go back, can't find things)

The first two issues can't be fixed with design patterns—they'll both require user and device testing—but the third and fourth complaints certainly can. Following the common design patterns for navigation will ensure that people can find and use the valuable features in your application.

Good navigation, like good design, is invisible. Applications with good navigation just feel simple and make it easy to accomplish any task, from browsing through pictures to applying for a car loan.

Primary Navigation Patterns, Persistent

The first set of patterns we'll look at are used for primary navigation, like navigating from one primary category to another, as with the top-level menus of a desktop application. Since the first edition of this book, primary navigation has evolved into two distinct types: persistent and transient.

Persistent navigation encompasses simple menu structures like the List Menu and Tab Menu. As soon as you open an app with persistent navigation, it is immediately clear what the primary navigation options are.

Transient navigation, however, must be explicitly revealed with a tap or gesture. These patterns arise from the constraints of smartphone screen sizes, which have pushed mobile designers to think "outside of the box," literally.

To me, this classic 9-dot puzzle perfectly illustrates the change in thinking around mobile navigation patterns. Give it a try: your challenge is to connect all of the dots using four straight lines or fewer, without taking your pencil off the paper or retracing any of the lines.

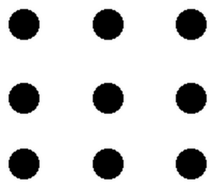


FIGURE 1-1.
9-dot puzzle

How'd you do? You probably figured out that the only way to solve this puzzle is to break free of the artificial boundaries. In the mobile world, it's called thinking "off-canvas."

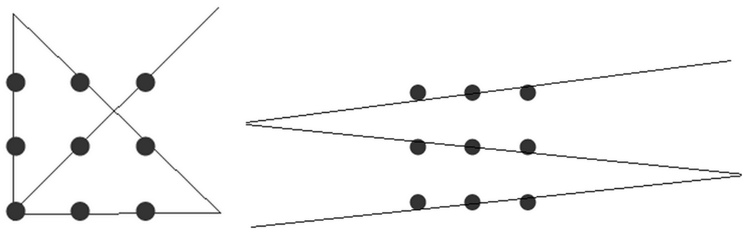


FIGURE 1-2.
Two of the possible solutions to the 9-dot puzzle

This off-canvas thinking inspired the Side Drawer, which is currently one of the most popular primary navigation patterns in iOS and Android apps.

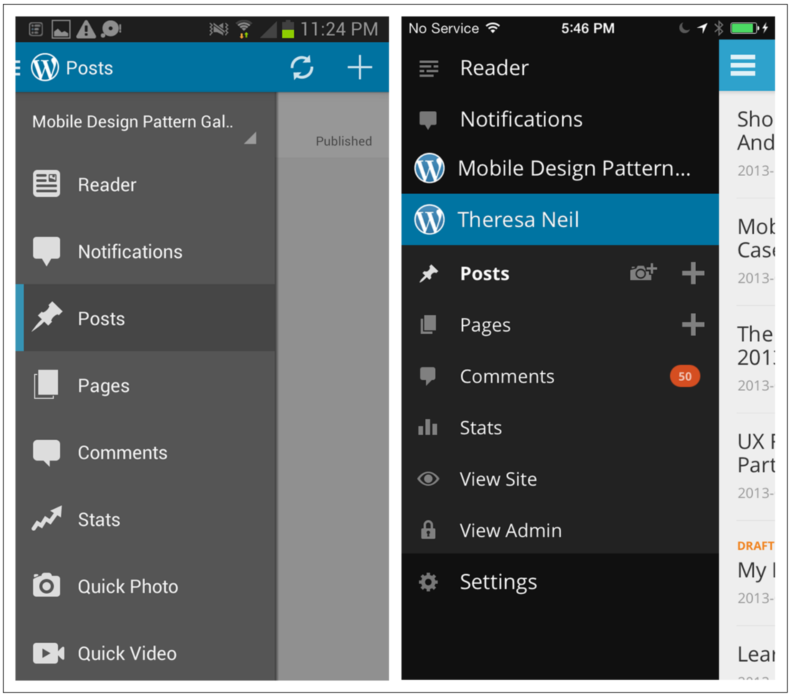


FIGURE 1-3. WordPress for Android and iOS: Side Drawer represents "off-canvas" thinking

Windows Phone 8 and Ubuntu Touch, a new open source mobile OS, are both highly influenced by this move to break artificial boundaries as well.

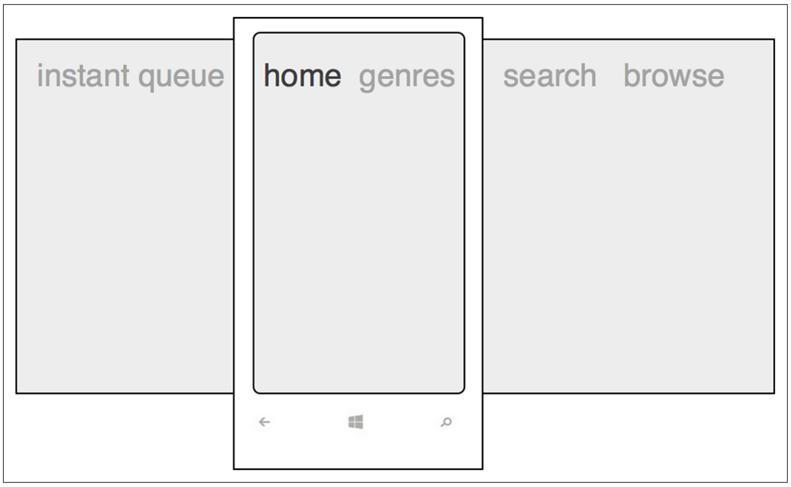


FIGURE 1-4. Windows Phone Panorama control

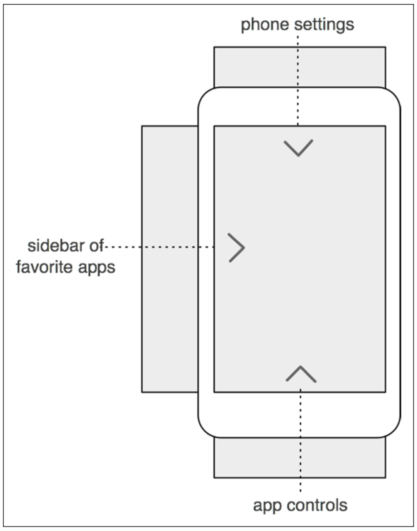
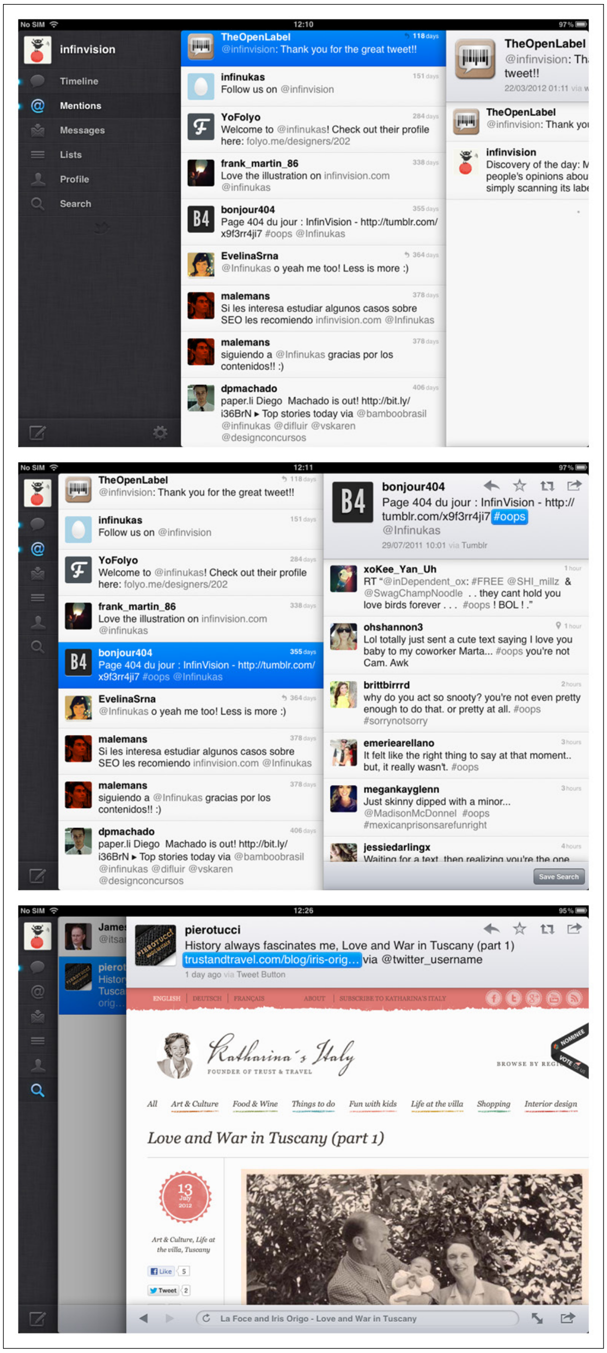


FIGURE 1-5.
In Ubuntu, you can swipe the screen edges to reveal settings and menus, leaving the screen entirely free for the application's content

Designers have also made a significant shift in design thinking, layering content instead of relegating the UI to a single plane. Twitter's early iPad design was a fantastic example of how 3D layers and gestures can create a uniquely mobile experience: the left panel is the menu bar, the middle panel is the listing of contents, and the right panel displays those contents. Tapping an item in the middle section collapses the left menu bar and shows a preview of the contents within the right panel. When tapped, the right panel expands to cover about 70% of the screen.

FIGURE 1-6.
Early version of Twitter for iPad: layers and gestures took advantage of the mobile platform



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ohshannon3 1 hour
Lol totally just sent a cute text saying I love you baby to my coworker Marta... #oops you're not Cam. Awk

brittbirrrd 2 hours
why do you act so snooty? you're not even pretty enough to do that. or pretty at all. #oops #sorrynotsorry

emeriearellano 3 hours
It felt like the right thing to say at that moment.. but, it really wasn't. #oops

megankayglenn 3 hours
Just skinny dipped with a minor... @MadisonMcDonnel #oops #mexicanprisonsarefunright

jessiedarlingx 4 hours
Waiting for a text, then realizing you're the one

pierotucci
History always fascinates me, Love and War in Tuscany (part 1) trustandtravel.com/blog/iris-orig… via @twitter_username
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When deciding between persistent and transient navigation, ask yourself a few questions:

- Is your application “flat”? Are the menu categories equivalent in hierarchy, and are there *just a few primary categories* (i.e., three to five) in the app?
- Do your users need the menu to be *always visible* for quick access?
- Do the menu categories have *status indicators*, like the number of unread emails, for instance?

If you answered “yes” to one or more of these questions, it’s probably best to stick with persistent navigation. Now let’s take a look at those patterns.

Springboard

The Springboard pattern, also called a Launchpad, was the most popular navigation pattern in 2011. This design is a landing screen with options that act as launch points into the application.

One of the reasons for its popularity was that it worked equally well across platforms. At the time, many of us were still thinking in terms of OS-neutral designs that allowed for consistency and reuse. It was also popular because up to nine options (in a 3×3 grid) could be displayed, compared to the limits of three to five tabs imposed by iOS and Android tab bars. And by adding a paging indicator (those little dots at the bottom), designers could provide even more menu options.

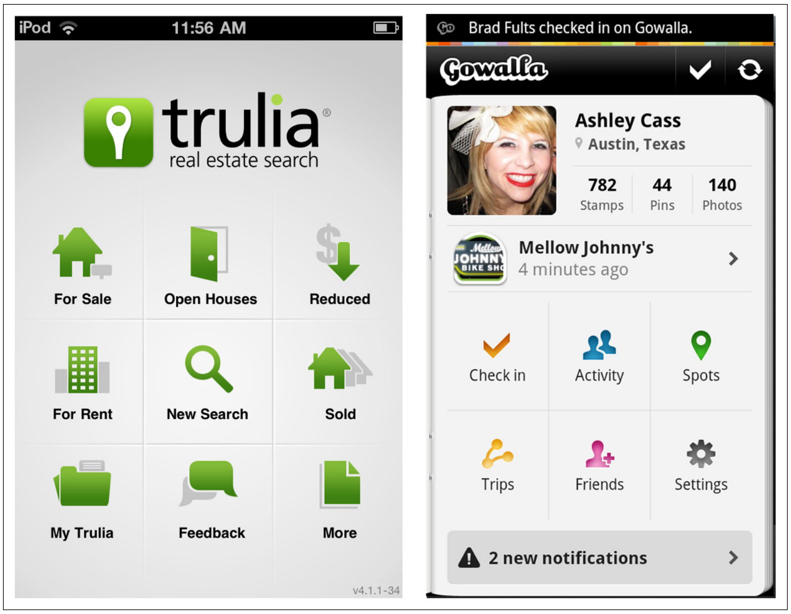


FIGURE 1-7. Trulia for iOS and Gowalla for Android

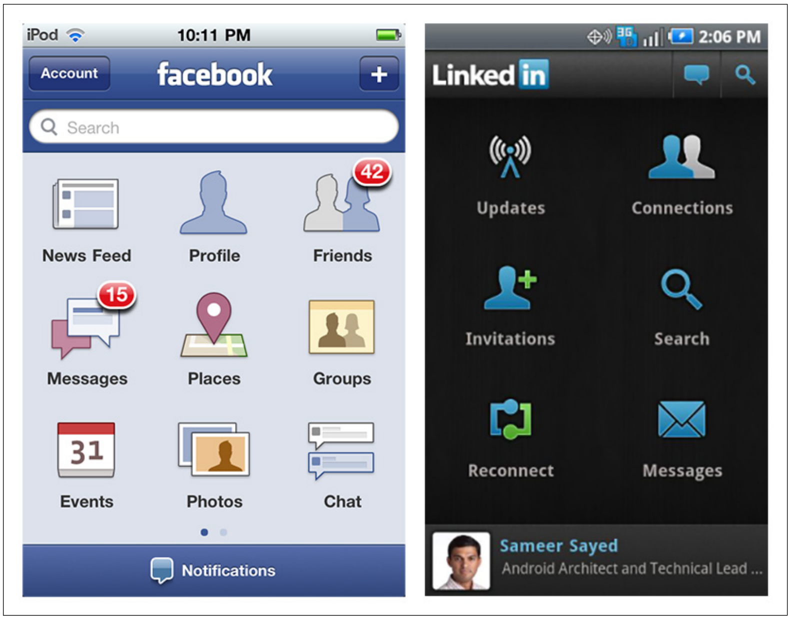


FIGURE 1-8. Facebook for iOS and LinkedIn for Android: Springboard designs from 2011

The main drawback of the Springboard pattern is that it flattens all options to the same level of importance. Enter the Side Drawer pattern, first designed by Aza Raskin for Firefox Mobile (*http://www.azarask.in/blog/post/firefox-mobile-concept-video/*), and adopted by

Path in 2011. This pattern accommodates more options than a tab bar, and those options can be logically grouped to communicate importance and/or hierarchy. We'll discuss it more later in this chapter.

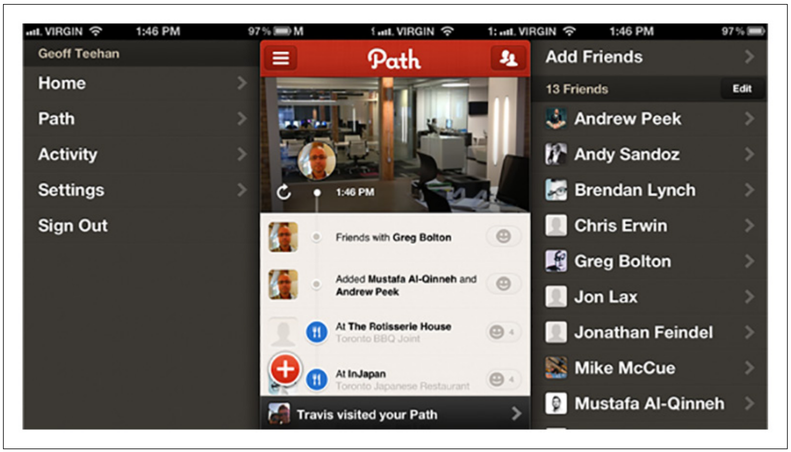


FIGURE 1-9.
Path for iOS (November 2011): enter the Side Drawer

However, the Springboard pattern is not dead. Android, iOS, and Windows Phone all still use this navigation pattern at the OS level.

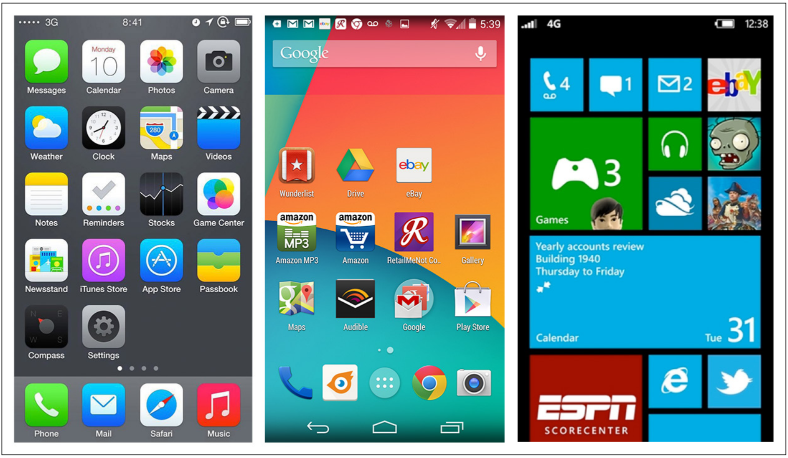
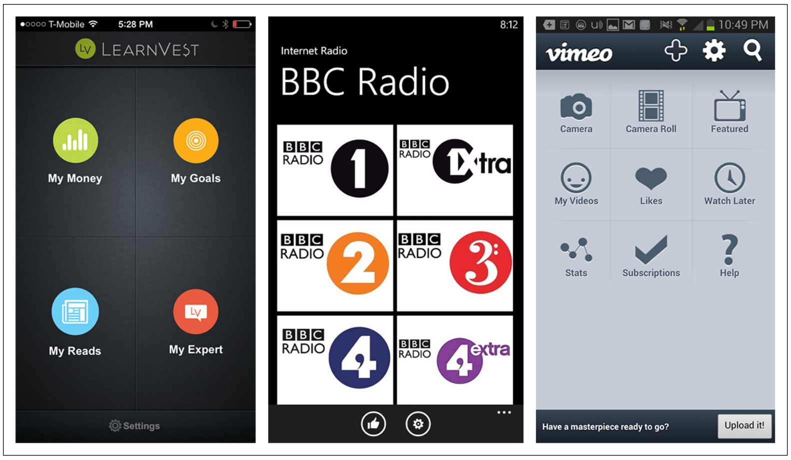


FIGURE 1-10.
iOS 7, Android KitKat, and Windows Phone 8 all use the Springboard pattern at the OS level

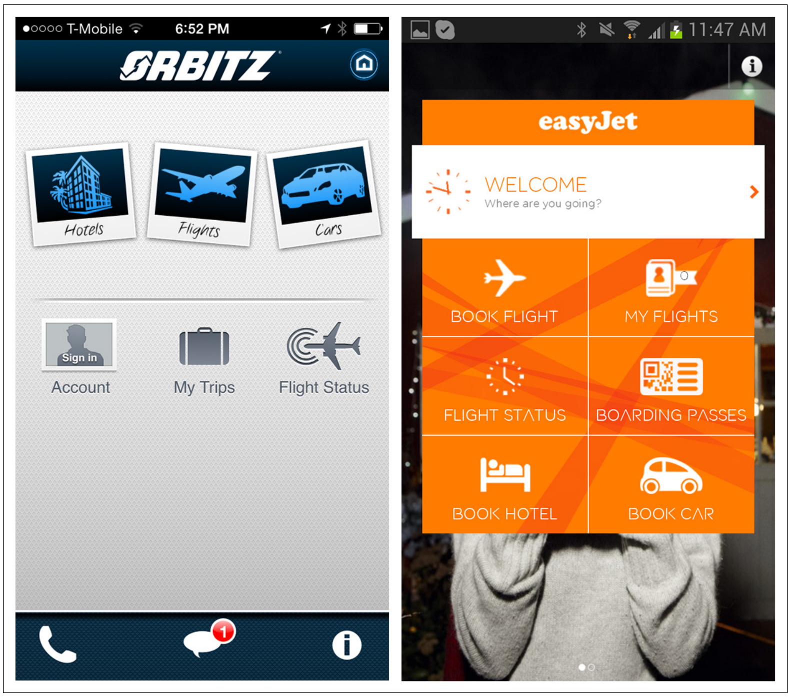
And there are still apps with traditional implementations of the Springboard pattern around. LearnVest, BBC Radio, and Vimeo use basic 4-, 6-, and 9-grid layouts, respectively.

FIGURE 1-11.
LearnVest for iOS, BBC Radio for Windows Phone, and Vimeo for Android: traditional Springboard alive and well within apps



Orbitz and EasyJet vary the icon treatment and grid layout to introduce visual hierarchy to the menu.

FIGURE 1-12.
Orbitz for iOS and EasyJet for Android: graphic treatment and layout imply a hierarchy



Windows Phone has pushed the Springboard pattern the farthest with *tiles*. Tiles can be live or static, and come in three different sizes. Live tiles convey dynamic information like number of calls missed, details of your next appointment, or the avatar of your last caller. Read the Windows Design Guide for more about tiles at *http://bit.ly/1hsl2R5*.

Windows Phone tiles can be used for primary navigation or paired with the Panorama control as a secondary navigation pattern. Examples from three apps show their versatility. CalendarPro uses live tiles for primary navigation and NBC News for subnavigation, while Evernote uses static tiles for subnavigation.

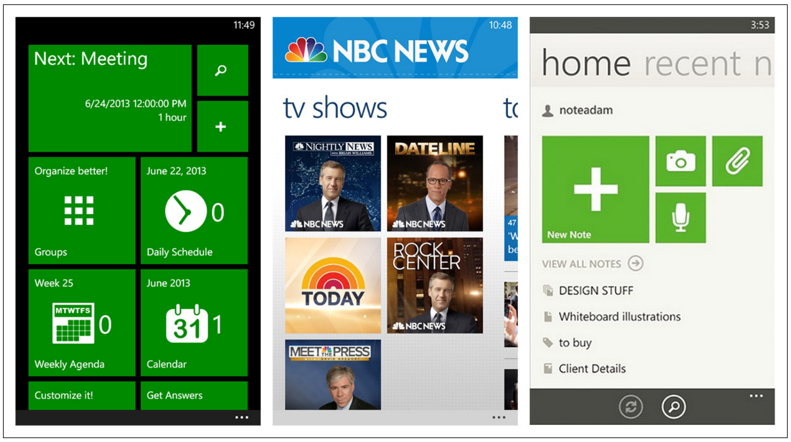
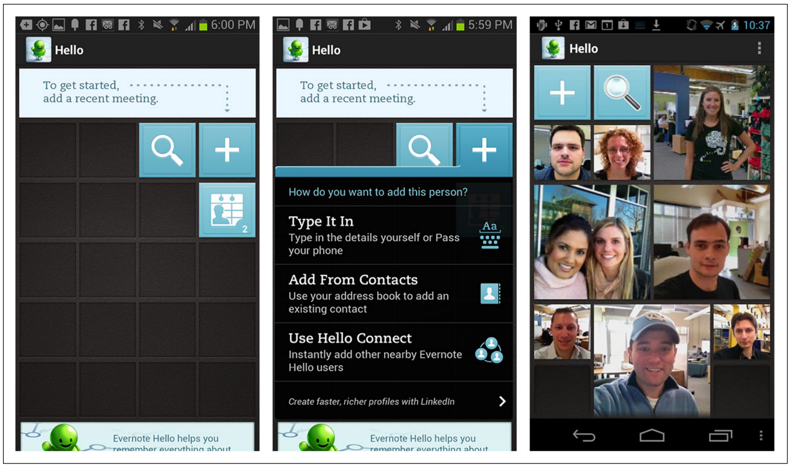


FIGURE 1-13. CalendarPro, NBC News, and Evernote for Windows Phone: versatile tile implementations

Evernote Hello for Android and iOS uses a tile-inspired design for the Springboard. Users can customize the UI, first by adding people, then by adding meetings.


Hello
To get started, add a recent meeting.
How do you want to add this person?
Type It In
Type in the details yourself or Pass your phone
Add From Contacts
Use your address book to add an existing contact
Use Hello Connect
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Create faster, richer profiles with LinkedIn
Evernote Hello helps you remember everything about

FIGURE 1-14. Evernote Hello for Android: tile-inspired customizable Springboard

Cards

Cards may seem familiar to those of us who had a Palm in 2010–2011. Card navigation is based on a card deck metaphor, including common card deck manipulations such as stacking, shuffling, discarding, and flipping.

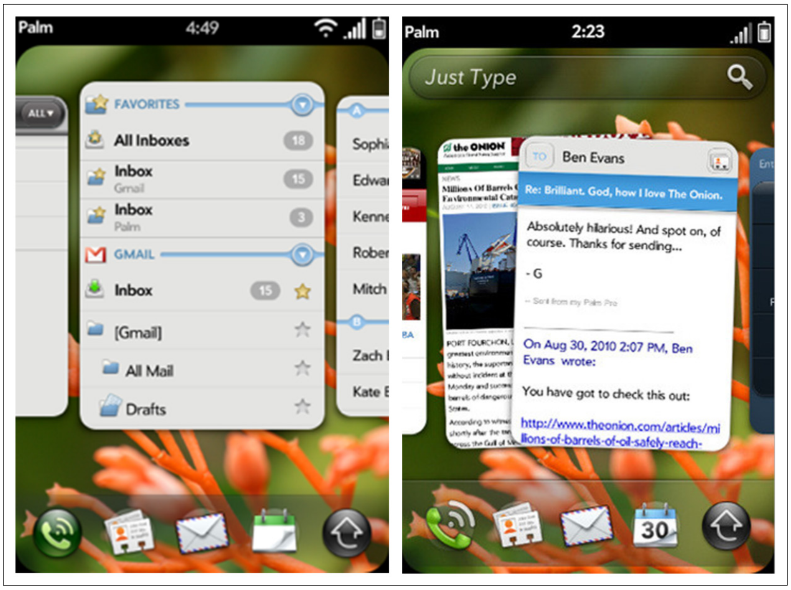


FIGURE 1-15. Palm webOS circa 2010–2011: apps fanned out like cards in a deck

This pattern has become popular again with the release of Google Now, which stacks information-rich cards vertically to display a long list of launch points into the app, or quick actions in context.

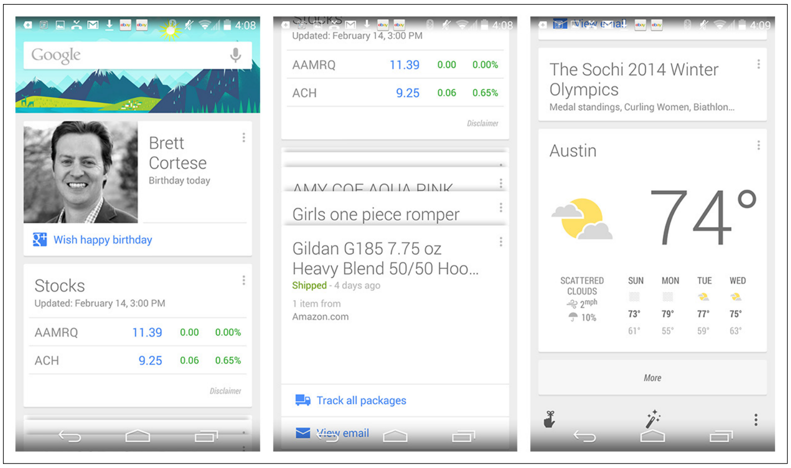
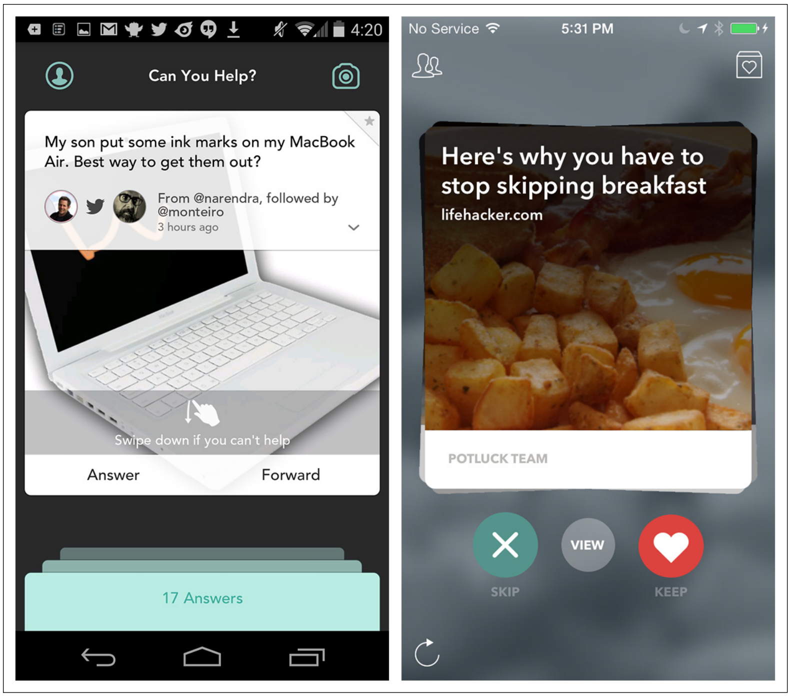


FIGURE 1-16. Google Now for iOS and Android: Cards for primary navigation

In a similar vein, Jelly and Potluck use Cards as the primary means to navigate and interact with content. With Jelly, when you swipe the card down to remove it from the screen—indicating that you can't help answer the posted question—a new card replaces it. With Potluck, swiping left on the top card in the stack will skip the story; swiping right will move it to a new pile, the "keep" pile.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From @narendra, followed by @monteiro
3 hours ago
Swipe down if you can't help
Answer
Forward
17 Answers
No Service
5:31 PM
Here's why you have to stop skipping breakfast
lifehacker.com
POTLUCK TEAM
SKIP
VIEW
KEEP

FIGURE 1-17.
Jelly (*http://www.youtube.com/watch?v=bCDB_TrAhSY*) and Potluck (*http://www.youtube.com/watch?v=pcfNFuvvdrA*) for iOS

Facebook and Pinterest use the visual style of Cards but are missing the gesture-based interactions of the aforementioned examples. This makes them more like stylized list elements than true Cards.

For an example of the Card pattern gone wrong, see the discussion of Alaska Airlines in the section "Novel Notions" in Chapter 11.

[NOTE]

Cards provide an elegant way to display content for browsing. A true Card pattern will offer interactions like stacking, swiping, or flipping.

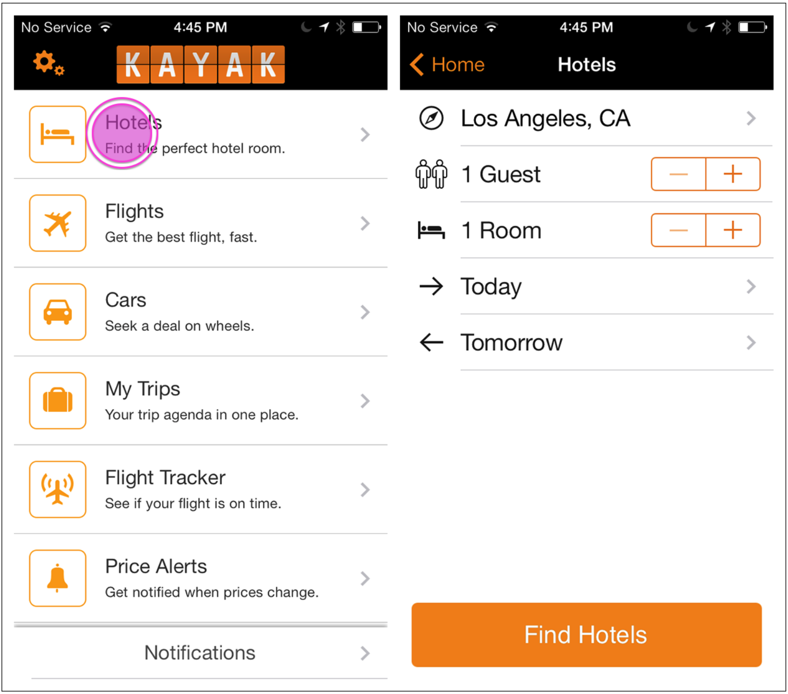
List Menu

The List Menu pattern is similar to the Springboard in that each list item is a launch point into the application, and switching modules requires navigating back to the list. Apple (*http://bit.ly/1dZDU8J*) calls this *hierarchal navigation*:

> In a hierarchical app, users navigate by making one choice per screen until they reach their destination. To navigate to another destination, users must retrace some of their steps—or start over from the beginning—and make different choices. Settings and Mail are good examples of apps that use a hierarchical structure.

The Kayak, Day One, and AroundMe apps illustrate various implementations of the List Menu.

FIGURE 1-18.
Kayak for iOS: tap Home (screen at right) to return to the List Menu



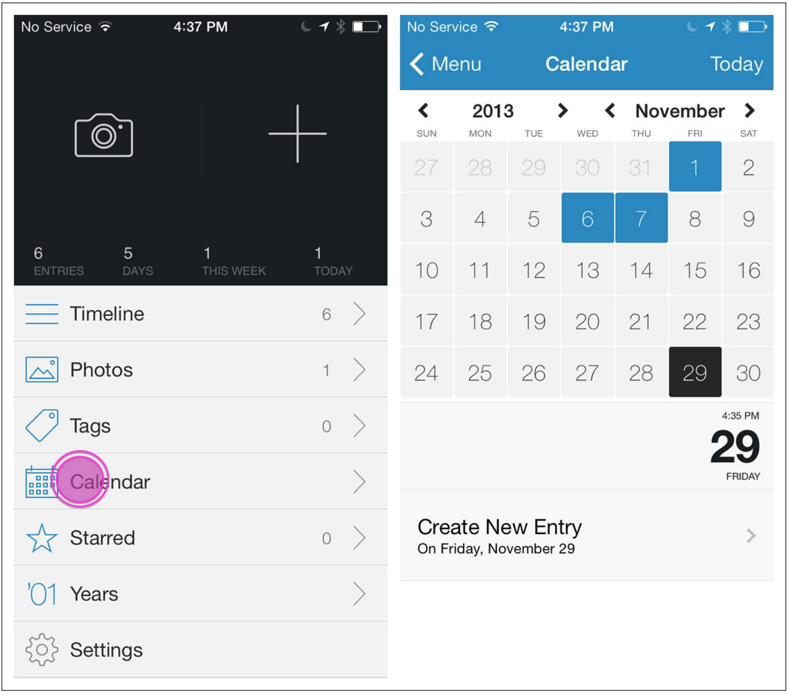


FIGURE 1-19.
Day One for iOS: List Menu as primary navigation

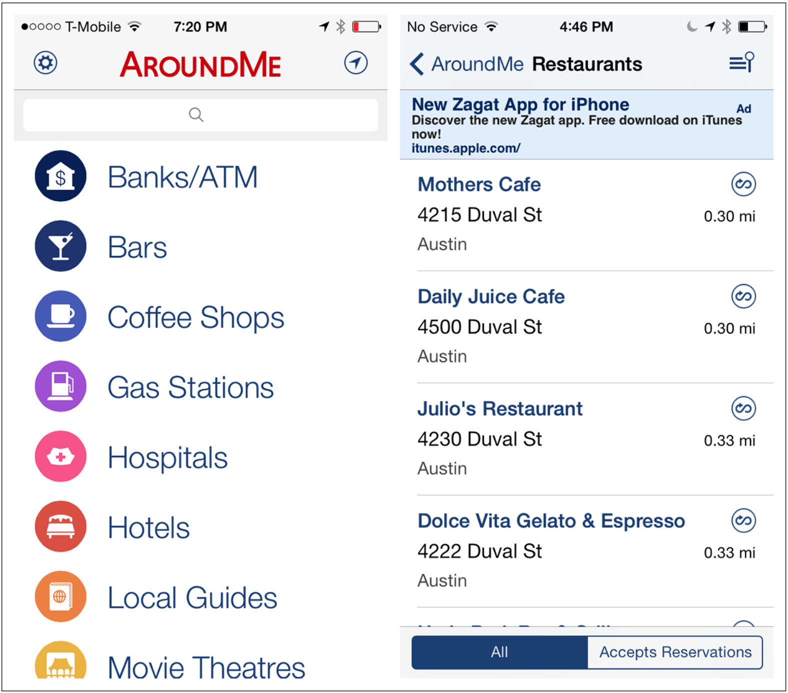


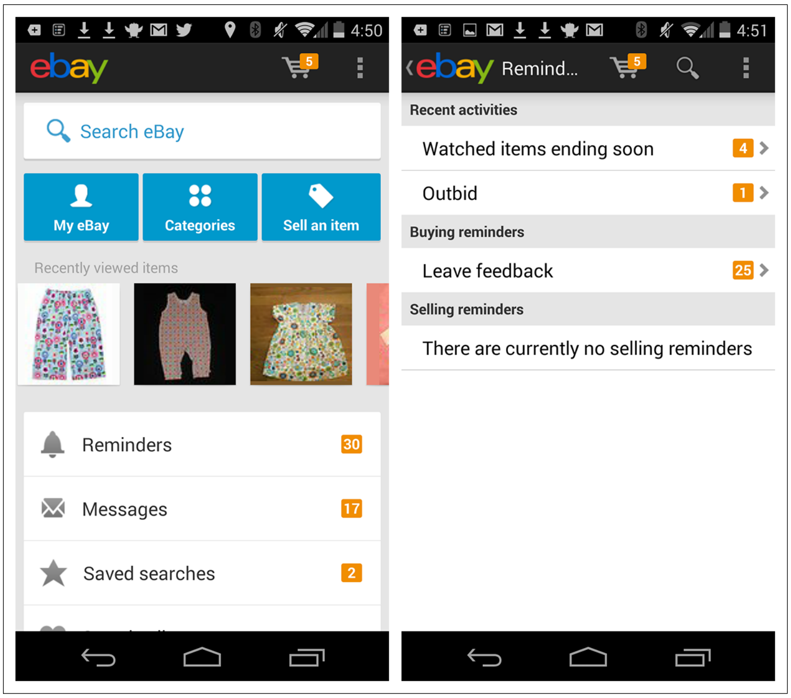
FIGURE 1-20.
AroundMe for iOS: "Home" or "Menu" might've been a better choice for the Back button label

The List Menu navigation pattern is similar in Android, but the Back button is called the Up button, conveying the pattern's hierarchical structure, as described in the Android documentation:

> The Up button is used to navigate within an app based on the hierarchical relationships between screens. For instance, if screen A displays a list of items, and selecting an item leads to screen B (which presents that item in more detail), then screen B should offer an Up button that returns to screen A. If a screen is the topmost one in an app (that is, the app's home), it should not present an Up button.

An example of this is shown in the eBay app; the Up button is the app icon preceded by a left chevron. Note that most users expect the chevron *plus* the logo or icon to be tappable.

FIGURE 1-21. eBay for Android: the chevron is the "Up" button



[NOTE]

Consider List Menus for navigating within a hierarchy. They also work well for menus with long item names, and where items need descriptions as well as titles. Follow OS conventions for implementing this navigation pattern.

Dashboard

The Dashboard pattern is similar to the Springboard and List Menu patterns.

With a quick glance, a good Dashboard gives the user a snapshot of the most relevant information she needs to know, without making her navigate into another screen.

When you design the drill-down screens, the rules for providing navigation back to the Dashboard are the same as with the List Menu and Springboard. See Chapter 6 for more on the Dashboard design pattern.

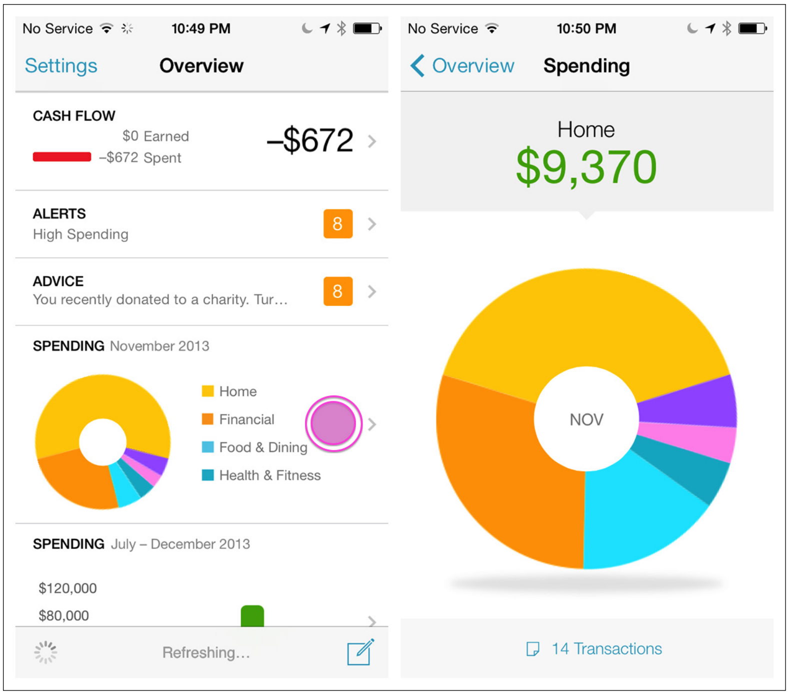


FIGURE 1-22.
Mint for iOS: Dashboard makes data the launch points

[NOTE]
Use a Dashboard when it makes sense to use key metrics or data as launch points into the app. But don't overload the Dashboard; conduct research to determine which key metrics or data to include.

Gallery

The Gallery pattern displays live content—like news stories, recipes, or photos—arranged in a grid (as with Recipeas and Square Wallet), a carousel (as with LinkedIn Pulse and BBC News), or a slideshow.

FIGURE 1-23.
Recipeas and Square Wallet for iOS: galleries present individual, nonhierarchical items

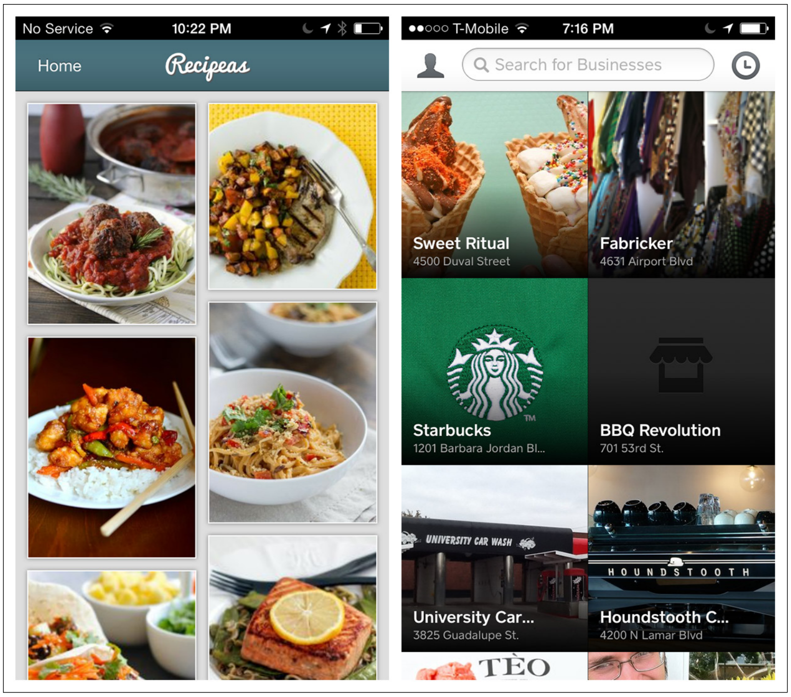
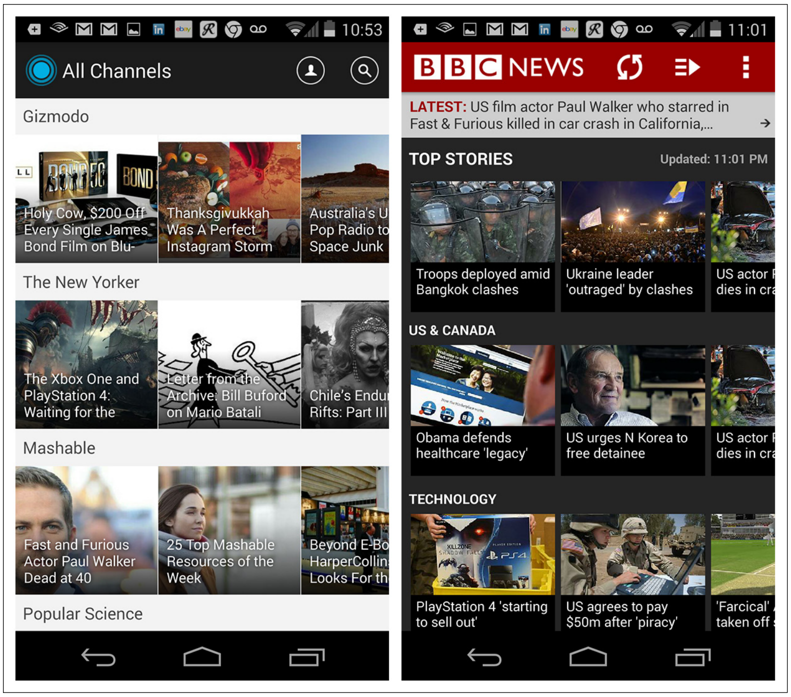


FIGURE 1-24.
LinkedIn Pulse and BBC News for Android: subtitles are easier to read than overlays


10:53
All Channels
Gizmodo
Holy Cow, $200 Off Every Single James Bond Film on Blu-
Thanksgivukkah Was A Perfect Instagram Storm
Australia's U Pop Radio to Space Junk
The New Yorker
The Xbox One and PlayStation 4: Waiting for the
Letter from the Archive: Bill Buford on Mario Batali
Chile's Endu Rifts: Part III
Mashable
Fast and Furious Actor Paul Walker Dead at 40
25 Top Mashable Resources of the Week
Beyond E-Bo HarperCollin Looks For th
Popular Science
11:01
BBC NEWS
LATEST: US film actor Paul Walker who starred in Fast & Furious killed in car crash in California,...
TOP STORIES
Updated: 11:01 PM
Troops deployed amid Bangkok clashes
Ukraine leader 'outraged' by clashes
US actor dies in cra
US & CANADA
Obama defends healthcare 'legacy'
US urges N Korea to free detainee
US actor dies in cra
TECHNOLOGY
PlayStation 4 'starting to sell out'
US agrees to pay $50m after 'piracy'
'Farcical' taken off

Notice the BBC News example is easier to scan than the LinkedIn Pulse example, because the titles are below the photo instead of overlaid on them.

[NOTE]

The Gallery pattern works best for showing frequently updated, highly visual content where no hierarchy is implied.

Tab Menu

Android, iOS, and Windows Phone each have their own specific nomenclature and design guidelines for Tab Menus. I'm going to go over them here, because it is important that you understand them, even if you choose to deviate from them in your design iterations.

IOS

Since the first release of iOS, Apple has recommended (*http://bit.ly/1dZF9Vt*) the Tab Bar for navigating *flat apps*:

> In an app with a flat information structure, users can navigate directly from one primary category to another because all primary categories are accessible from the main screen. Music and App Store are good examples of apps that use a flat structure.

Interestingly, Facebook recently has returned to the Tab Bar after two years of using Side Drawer navigation. Read more about its user testing process and results at *http://tcrn.ch/1dZFlUF*.

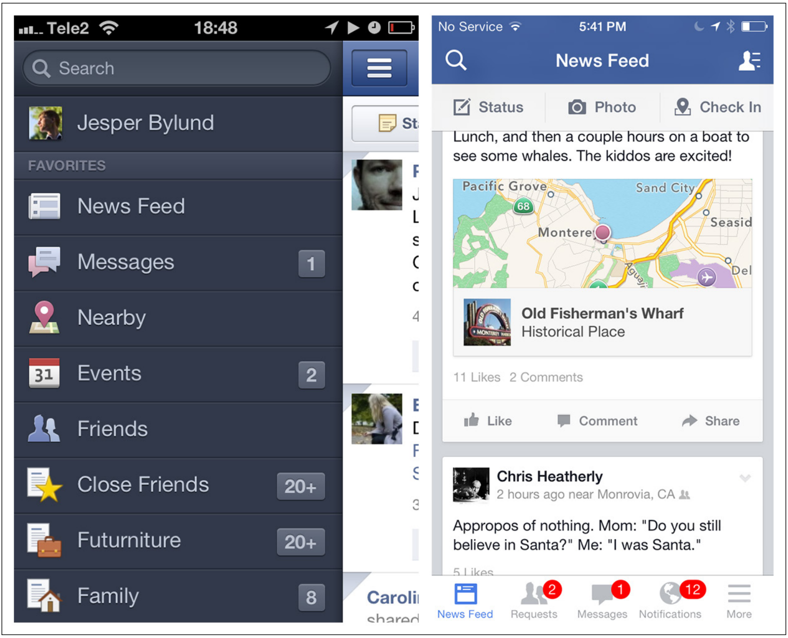
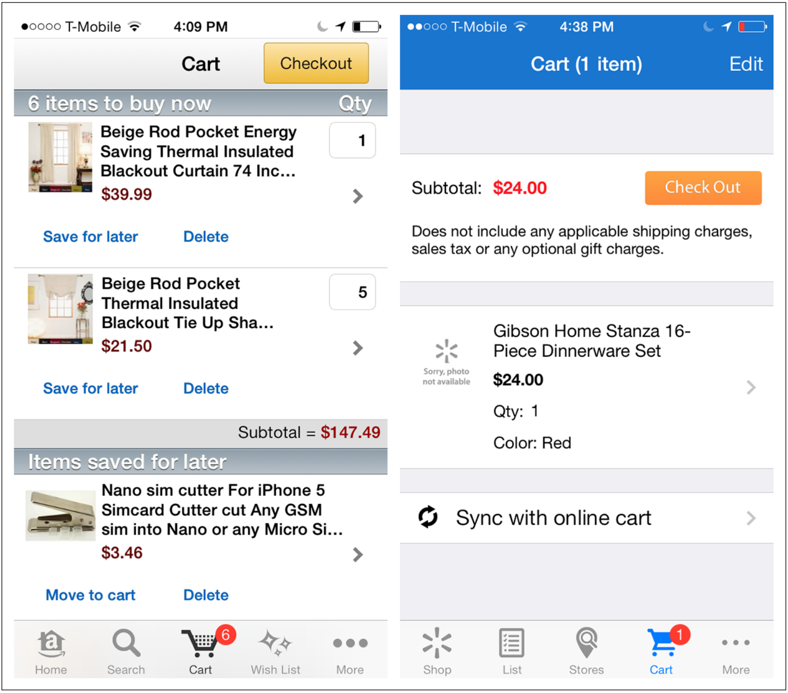


FIGURE 1-25.
Facebook for iOS, old and new: Tab Bar (right) beat out the Side Drawer (left) and other navigation patterns in 10-million-user test batches

The iOS Tab Bar is restricted to five menu items. If the application has more than five primary categories, a More option can be provided as the fifth tab on the right.

It is important to understand the difference between the Tab Bar and Toolbar in iOS. The Tab Bar is for navigating the main categories of the application; the Toolbar presents the tools, or possible actions, for a specific screen.


●○○○○ T-Mobile 4:09 PM

Cart Checkout

6 items to buy now Qty

Beige Rod Pocket Energy Saving Thermal Insulated Blackout Curtain 74 Inc… 1

$39.99

Save for later Delete

Beige Rod Pocket Thermal Insulated Blackout Tie Up Sha… 5

$21.50

Save for later Delete

Subtotal = $147.49

Items saved for later

Nano sim cutter For iPhone 5 Simcard Cutter cut Any GSM sim into Nano or any Micro Si…

$3.46

Move to cart Delete

Home Search Cart 6 Wish List More

●●○○○ T-Mobile 4:38 PM

Cart (1 item) Edit

Subtotal: $24.00 Check Out

Does not include any applicable shipping charges, sales tax or any optional gift charges.

Sorry, photo not available

Gibson Home Stanza 16-Piece Dinnerware Set

$24.00

Qty: 1

Color: Red

Sync with online cart

Shop List Stores Cart 1 More

FIGURE 1-26. Amazon and Walmart for iOS: Tab Bar treatments

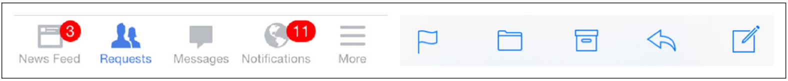
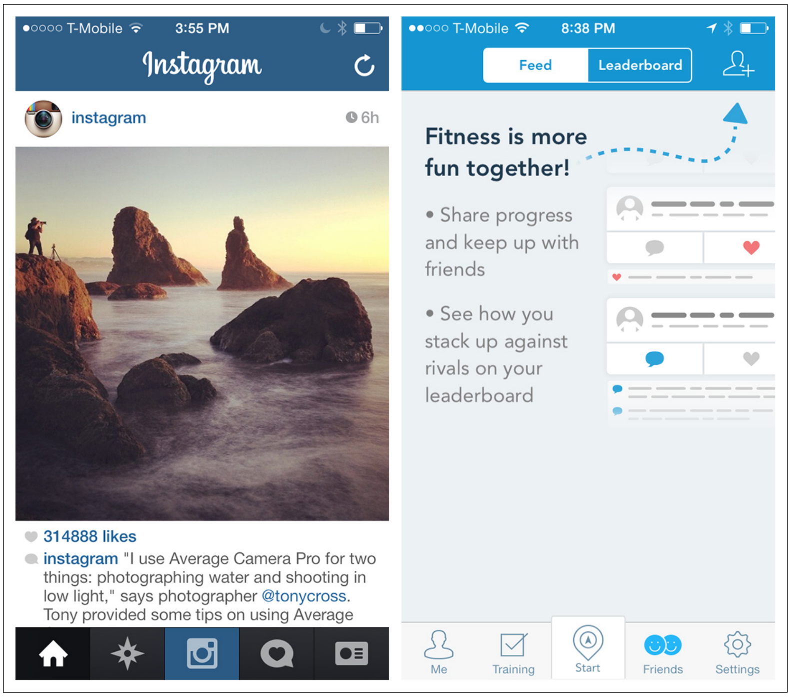


FIGURE 1-27. Tab Bar (left) has menu items; Toolbar (right) has tools for actions

Some applications, like Instagram and RunKeeper, rely so heavily on the user taking a single action (like taking a picture or starting a run) that they place *calls to action* (a single action more prominent than the rest) in their Tab Bars.

If you design for this variation, make sure the selected tab is conspicuous. It's hard to tell where you are in Everlapse and Tumblr, for instance, because the selected tabs are overshadowed by the visual emphasis on the action buttons.



●○○○○ T-Mobile 3:55 PM
Instagram
instagram 6h
314888 likes
instagram "I use Average Camera Pro for two things: photographing water and shooting in low light," says photographer @tonycross. Tony provided some tips on using Average
●●○○○ T-Mobile 8:38 PM
Feed
Leaderboard
Fitness is more fun together!
• Share progress and keep up with friends
• See how you stack up against rivals on your leaderboard
Me
Training
Start
Friends
Settings

FIGURE 1-28. Instagram and RunKeeper for iOS: calls to action in the Tab Bar

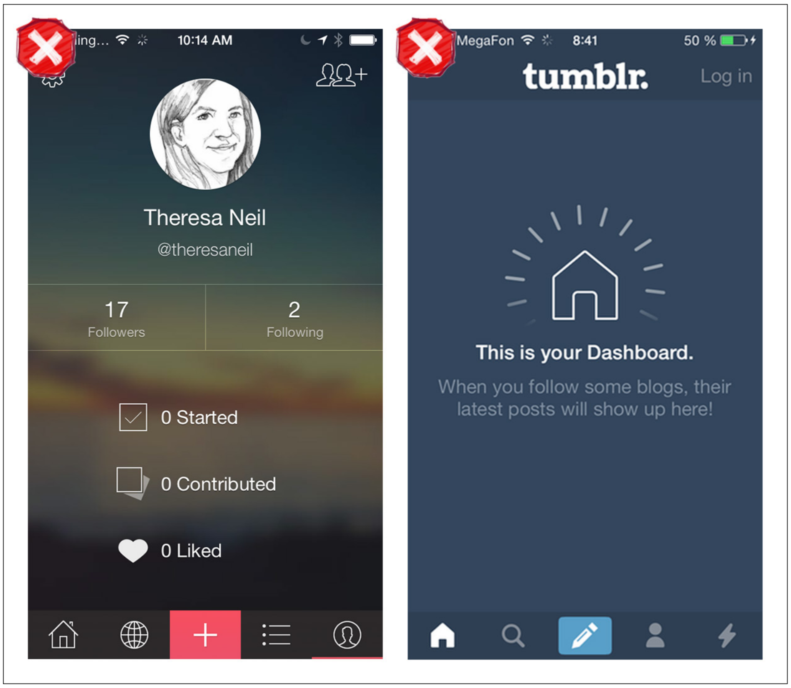


FIGURE 1-29. Everlapse and Tumblr for iOS: the prominence of action buttons overshadows menu location

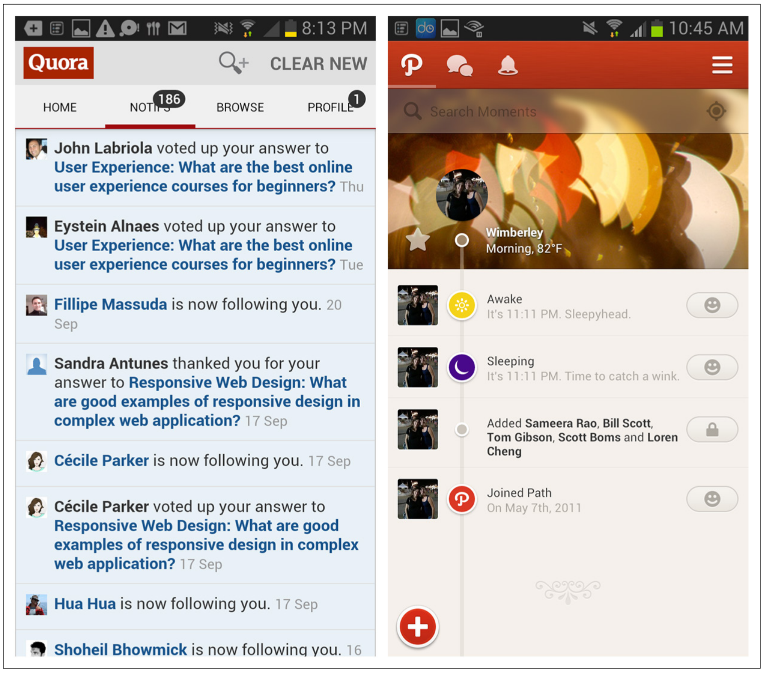
ANDROID

Android offers three different Tab Menu patterns for top-level, or primary, navigation: Fixed Tabs, Spinners, and Navigation Drawers. Here are the Android guidelines (*http://developer.android.com/design/patterns/app-structure.html*) for Fixed Tabs:

> *Fixed tabs* display top-level views concurrently and make it easy to explore and switch between them. They are always visible on the screen, and can't be moved out of the way like scrollable tabs. *Fixed tabs* should always allow the user to navigate between the views by swiping left or right on the content area.
>
> Use tabs if:
>
> - You expect your app's users to switch views frequently.
> - You have a limited number of up to three top-level views.
> - You want the user to be highly aware of the alternate views.

Path makes Fixed Tabs work by using icon-based tabs, while Quora pushes the limit, squeezing in four text-based tabs. More often than not, designers incorrectly use the Scrolling Tab control for primary navigation when they should be using a Spinner or Navigation Drawer instead.

FIGURE 1-30. Quora for Android pushes the Fixed Tabs limit by squeezing in four items; Path for Android uses icons for Fixed Tabs



John Labriola voted up your answer to User Experience: What are the best online user experience courses for beginners? Thu

Eystein Alnaes voted up your answer to User Experience: What are the best online user experience courses for beginners? Tue

Fillipe Massuda is now following you. 20 Sep

Sandra Antunes thanked you for your answer to Responsive Web Design: What are good examples of responsive design in complex web application? 17 Sep

Cécile Parker is now following you. 17 Sep

Cécile Parker voted up your answer to Responsive Web Design: What are good examples of responsive design in complex web application? 17 Sep

Hua Hua is now following you. 17 Sep

Shoheil Bhowmick is now following you. 16

Awake
It's 11:11 PM. Sleepyhead.

Sleeping
It's 11:11 PM. Time to catch a wink.

Added Sameera Rao, Bill Scott, Tom Gibson, Scott Boms and Loren Cheng

Joined Path
On May 7th, 2011

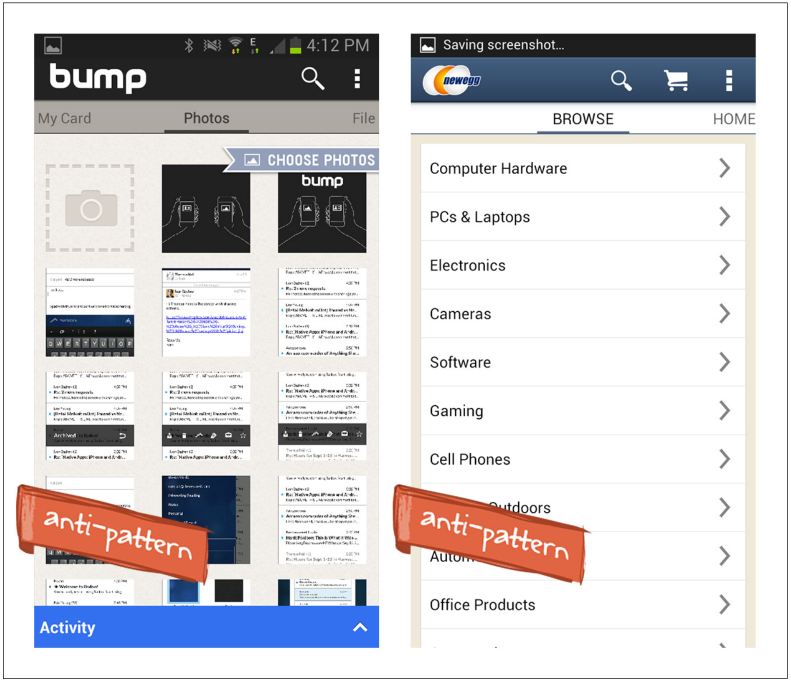


FIGURE 1-31.
Bump and Newegg for Android: incorrect use of Scrolling Tabs for primary navigation

WINDOWS PHONE

In Windows Phone, the Tab Menu is called App Tabs, and tabs that extend offscreen are accessible via panning, through the Pivot control. The Windows Phone design guide (*http://bit.ly/1iJWnpE*) suggests:

> You can use the Pivot control (*http://bit.ly/1iJWy4v*) to implement the App Tab UI style. This control allows the user to navigate right and left through each page (called a *pivot page*).

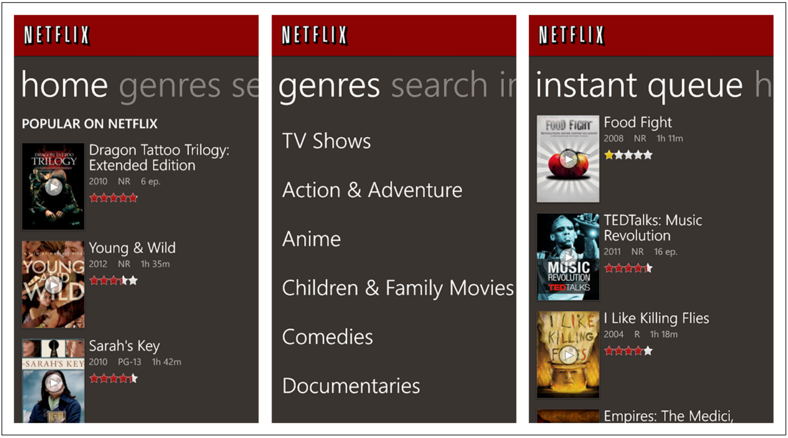


FIGURE 1-32.
Netflix for Windows Phone: Pivot control implementation of App Tabs

EMERGING PATTERNS

There is a new trend in both desktop and mobile web design to hide or collapse the website header when the user is scrolling or swiping down through content.

This Retracting Tab design is showing up in native apps too. Pinterest retracts the Toolbar when the user swipes down to browse content. The Toolbar reappears when the user swipes up. Luvocracy and Polar for iOS are other apps that use this effect.

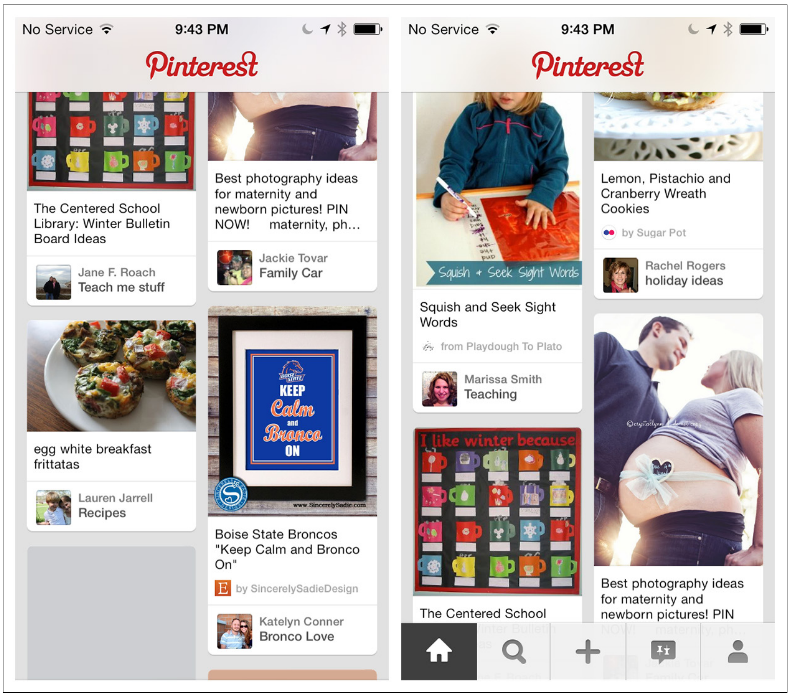

No Service
9:43 PM
Pinterest
The Centered School Library: Winter Bulletin Board Ideas
Jane F. Roach
Teach me stuff
Best photography ideas for maternity and newborn pictures! PIN NOW! maternity, ph...
Jackie Tovar
Family Car
egg white breakfast frittatas
Lauren Jarrell
Recipes
KEEP Calm and Bronco ON
Boise State Broncos "Keep Calm and Bronco On"
by SincerelySadieDesign
Katelyn Conner
Bronco Love
Squish + Seek Sight Words
Squish and Seek Sight Words
from Playdough To Plato
Marissa Smith
Teaching
I like winter because
The Centered School
Lemon, Pistachio and Cranberry Wreath Cookies
by Sugar Pot
Rachel Rogers
holiday ideas
Best photography ideas for maternity and newborn pictures! PIN

FIGURE 1-33. Pinterest for iOS: scrolling down hides the Toolbar; scrolling up reveals it (*http://www.youtube.com/watch?v=joaaJgvTN28*)

Configurable Tabs are another variation of the standard Tab Menu. The design of Frequency mimics the way tabs are implemented in all the major desktop web browsers. Adding a channel adds a new tab. If there are too many tabs to fit on the screen, the header scrolls. To reorganize the tab order, the user can simply press and hold a tab, then drag it to the desired location.

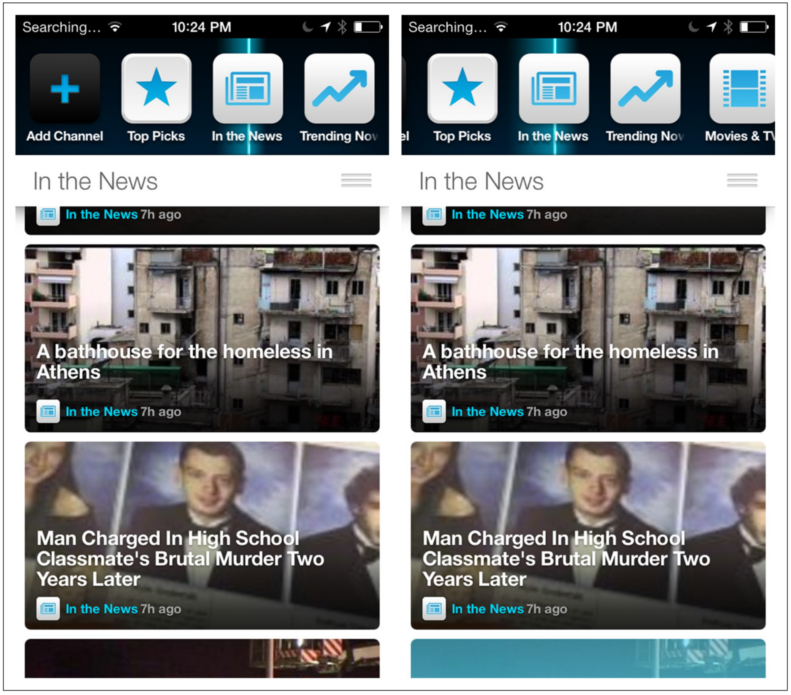
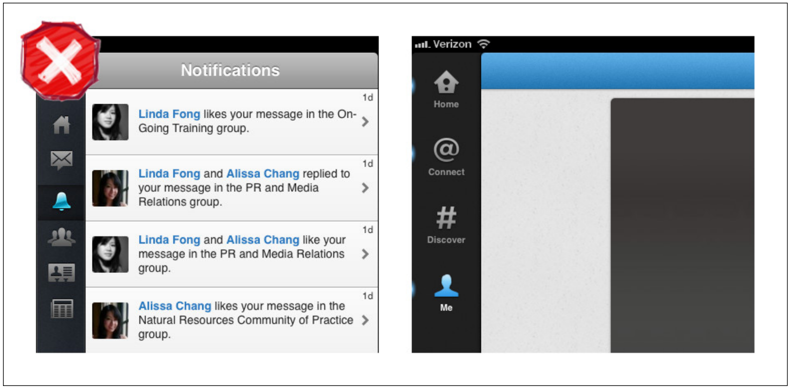

Searching...
10:24 PM
Add Channel
Top Picks
In the News
Trending Now
Movies & TV
In the News
In the News 7h ago
A bathhouse for the homeless in Athens
Man Charged In High School Classmate's Brutal Murder Two Years Later

FIGURE 1-34. Frequency for iOS: Configurable Tabs, an emerging pattern, work like web browser tabs

Sidebars are gaining popularity in web applications as well as native tablet apps. Twitter offers clearly labeled side tabs for navigating the main views of its iPad application. Yammer has almost twice as many tabs, but no labels, making navigation more of a challenge.



1d Linda Fong likes your message in the On-Going Training group.

1d Linda Fong and Alissa Chang replied to your message in the PR and Media Relations group.

1d Linda Fong and Alissa Chang like your message in the PR and Media Relations group.

1d Alissa Chang likes your message in the Natural Resources Community of Practice group.

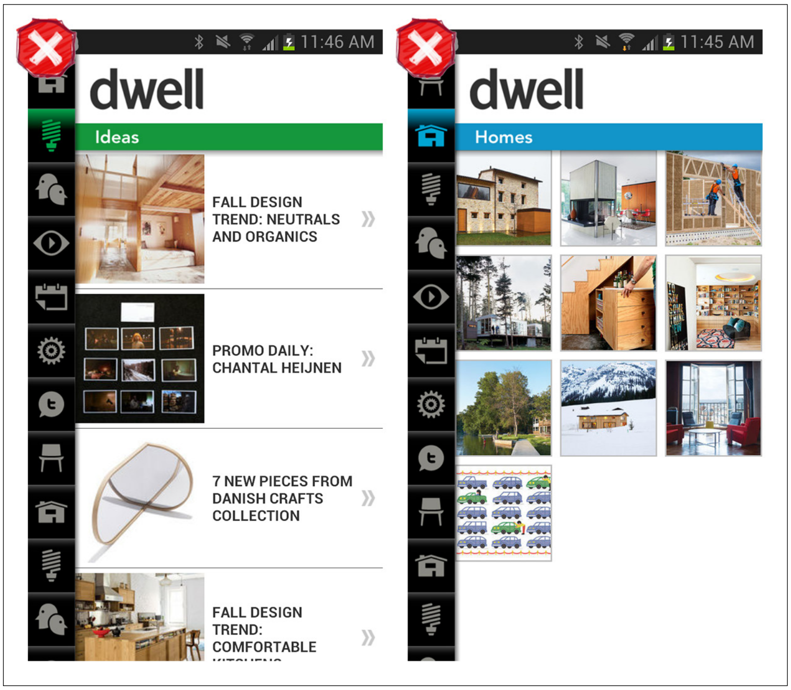
FIGURE 1-35. Twitter for iPad has tabs clearly labeled; Yammer for iPad does not

It is unlikely that Sidebars will ever be widely adopted as a persistent navigation pattern on smartphones, for two reasons:

- Most people hold their smartphones in portrait mode, and the sidebar takes up a fair amount of horizontal real estate.
- Since the space is so limited, labels will get dropped, which reduces the usability of the app.

Dwell is a cautionary example. It looks nice, but you have to tap every single icon to see what the primary categories are—a classic example of mystery meat navigation (*http://www.webpagesthatsuck.com/mysterymeatnavigation.html*).

FIGURE 1-36.
Dwell for Android: the Sidebar as mystery meat navigation


11:46 AM
dwell
Ideas
FALL DESIGN TREND: NEUTRALS AND ORGANICS
PROMO DAILY: CHANTAL HEIJNEN
7 NEW PIECES FROM DANISH CRAFTS COLLECTION
FALL DESIGN TREND: COMFORTABLE
11:45 AM
dwell
Homes

[NOTE]

Learn and follow the different OS design guidelines for Tab Menus. Clearly indicate where the user is by visually differentiating the selected tab from the others.

Skeuomorphic

The Skeuomorphic pattern is characterized by an interface designed to match its real-world counterpart. Even though the trend in *visual design* is now toward a flatter design aesthetic, some apps can still aid usability by emulating objects and tools from the real world.

Skeuomorphism is the dominant navigation pattern in game design, as in *Sniper Ghost Warrior* 2, but it can also have its uses in nongame apps, like the music-mixing app Cross DJ, the photo app Hipstamatic, and the travel app FlightBoard.

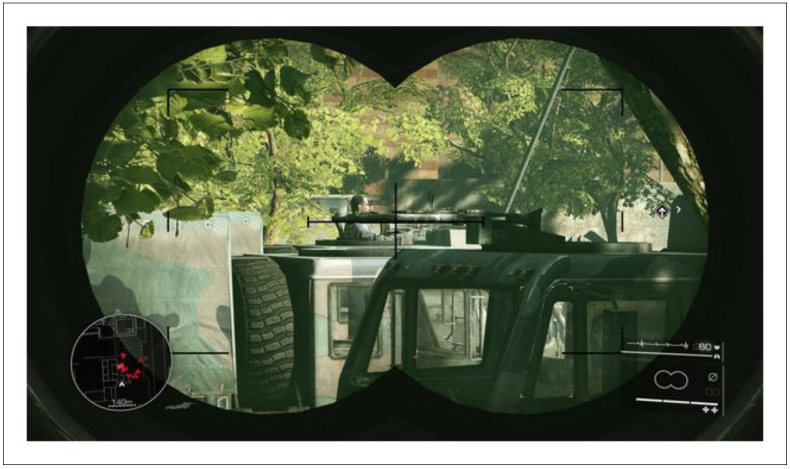


FIGURE 1-37.
Sniper Ghost Warrior 2 for iOS and Android: skeuomorphism is common in game navigation

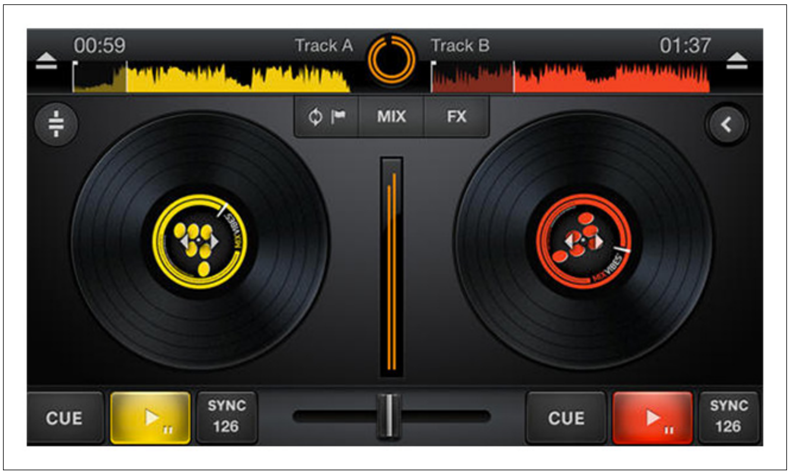
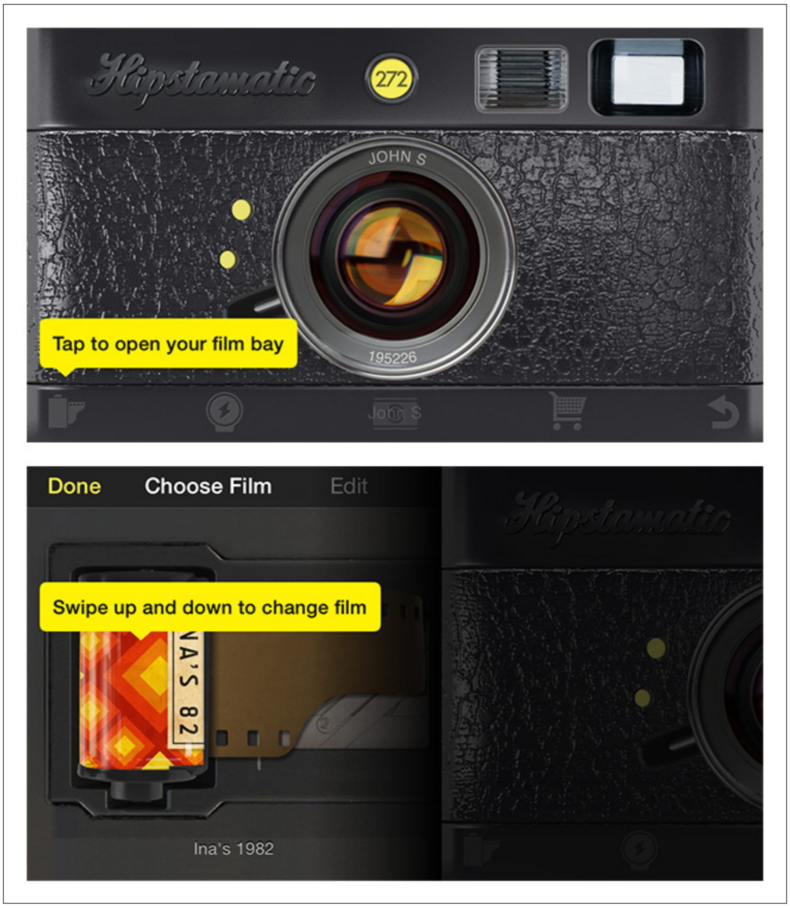


FIGURE 1-38.
Cross DJ for iOS: skeuomorphic design is also valid for some nongame apps

FIGURE 1-39.
Hipstamatic for iOS: emulation of real-world objects



Other examples include the iOS 7 redesign of Awesome Note and Apple's Newsstand. Both designs are immediately recognizable and feel intuitive because we recognize the folder and bookshelf metaphors.

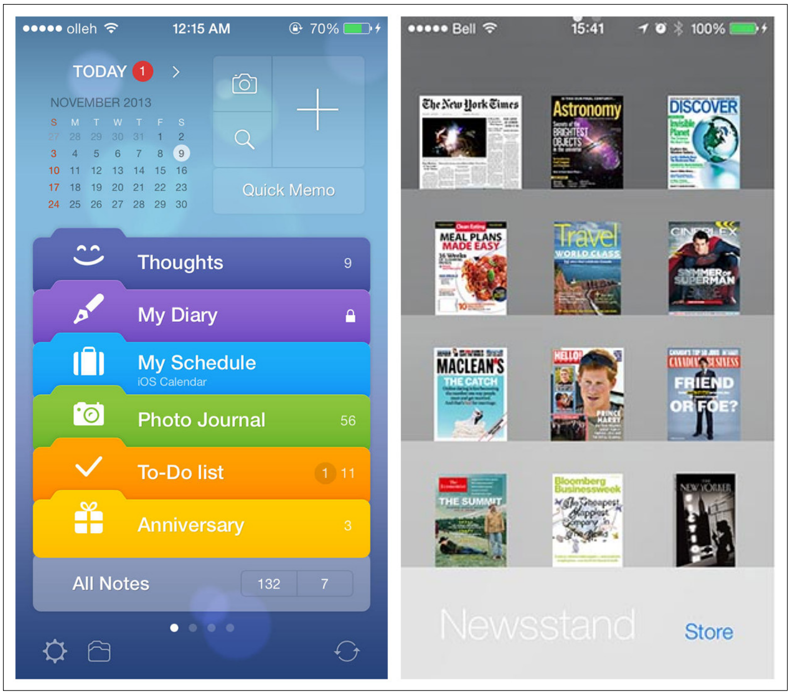
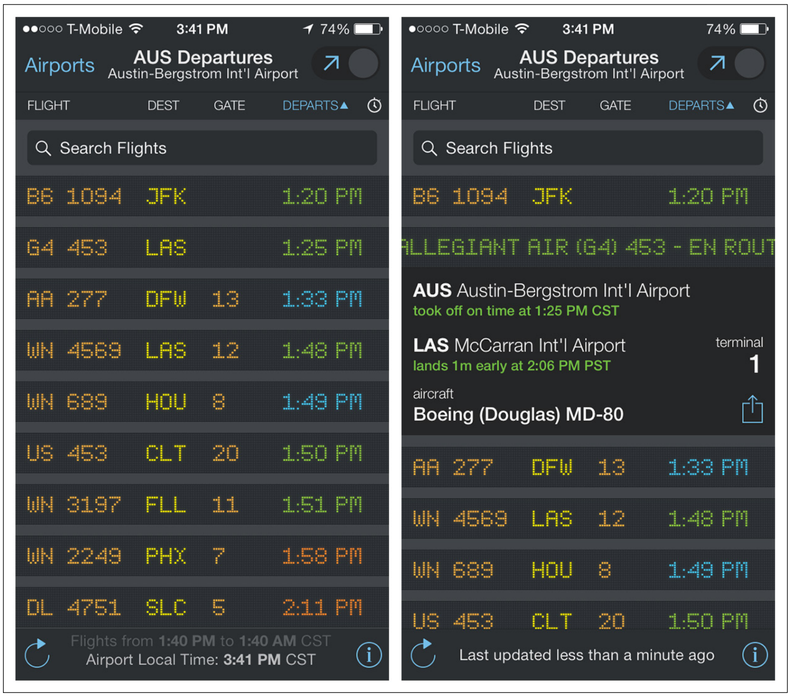


FIGURE 1-40. Awesome Note and Newsstand for iOS: skeuomorphism can help make navigation intuitive


Airports
AUS Departures
Austin-Bergstrom Int'l Airport
Search Flights
Flights from 1:40 PM to 1:40 AM CST
Airport Local Time: 3:41 PM CST
Last updated less than a minute ago

FLIGHT	DEST	GATE	DEPARTS
B6 1094	JFK		1:20 PM
G4 453	LAS		1:25 PM
AA 277	DFW	13	1:33 PM
WN 4569	LAS	12	1:48 PM
WN 689	HOU	8	1:49 PM
US 453	CLT	20	1:50 PM
WN 3197	FLL	11	1:51 PM
WN 2249	PHX	7	1:58 PM
DL 4751	SLC	5	2:11 PM

ALLEGIANT AIR (G4) 453 - EN ROUT
AUS Austin-Bergstrom Int'l Airport
took off on time at 1:25 PM CST
LAS McCarran Int'l Airport
lands 1m early at 2:06 PM PST
terminal 1
aircraft
Boeing (Douglas) MD-80

FIGURE 1-41. FlightBoard for iOS: designed to match the flight information display systems in airports

[NOTE]

Exercise restraint in choosing the metaphor to model the navigation on—a poor implementation can result in the Novel Notion anti-pattern discussed in Chapter 11.

There are, of course, limits to any metaphor being extended to the digital realm. For example, there was confusion around the early versions of iBook: some users thought that the digital bookshelf size implied a limit to the number of ebooks it could hold, which it didn't.

Primary Navigation Patterns, Transient

The term *transient* means staying a short time, which is exactly how the following navigation menus work. They are hidden until we reveal them; then we make a selection and they disappear again. The three patterns we'll look at here are Side Drawers, Toggle Menus, and Pie Menus.

Side Drawer

There are two styles of Side Drawers. The first is an *overlay*, meaning a swipe or tap gesture will reveal a drawer that partially covers or overlaps the original screen content, as in RetailMeNot. The second style is an *inlay*, in which a swipe, pan, or tap will open a drawer that pushes the original screen content partially off-canvas, as in Path.

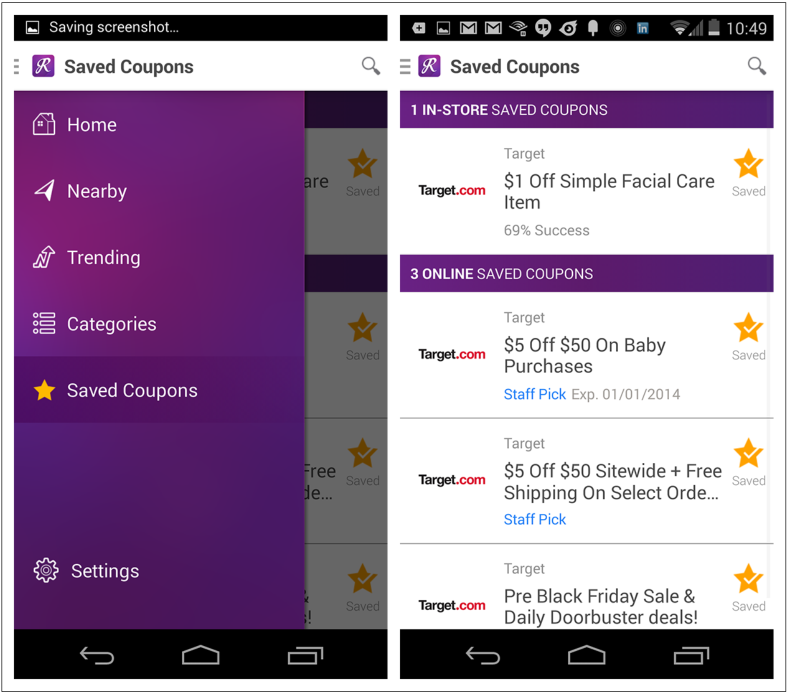
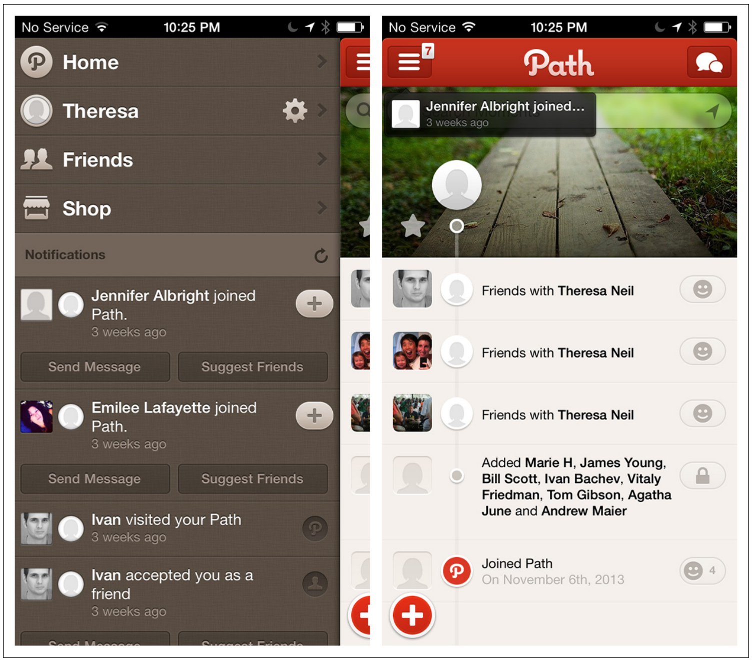


FIGURE 1-42. RetailMeNot for Android: tap navicon or swipe edge to reveal the overlay Side Drawer, which partially covers main screen content


No Service 10:25 PM

Home

Theresa

Friends

Shop

Notifications

Jennifer Albright joined Path.
3 weeks ago

Send Message | Suggest Friends

Emilee Lafayette joined Path.
3 weeks ago

Send Message | Suggest Friends

Ivan visited your Path
3 weeks ago

Ivan accepted you as a friend
3 weeks ago

No Service 10:25 PM

Path

Jennifer Albright joined...
3 weeks ago

Friends with Theresa Neil

Friends with Theresa Neil

Friends with Theresa Neil

Added Marie H, James Young, Bill Scott, Ivan Bachev, Vitaly Friedman, Tom Gibson, Agatha June and Andrew Maier

Joined Path
On November 6th, 2013

FIGURE 1-43.
Path for iOS: tap navicon or pan to reveal the Side Drawer as an inlay, pushing main screen to the side

What is the best way to let users know that there is a Side Drawer?

The Android design guidelines (*http://bit.ly/1iKuQV5*) recommend having the drawer open on first use so the user can see the menu and learn how to close the drawer:

> Upon first launch of your app, introduce the user to the navigation drawer by automatically opening it. This ensures that users know about the navigation drawer and prompts them to learn about the structure of your app by exploring its content. Continue showing the drawer upon subsequent launches until the user actively expands the navigation drawer manually. Once you know that the user understands how to open the drawer, launch the app with the navigation drawer closed.

Sounds good, right? However, this suggestion has not performed well in the user testing I've conducted for clients. Instead, I recommend a design like Allthecooks, where the drawer "bumps" open just the first time the app is opened.

The most popular orientation for the Side Drawer is on the left, but it can be on the right instead, as with IfThisThenThat, or there can be drawers on the right and the left, as with the Facebook Beta for Windows Phone.

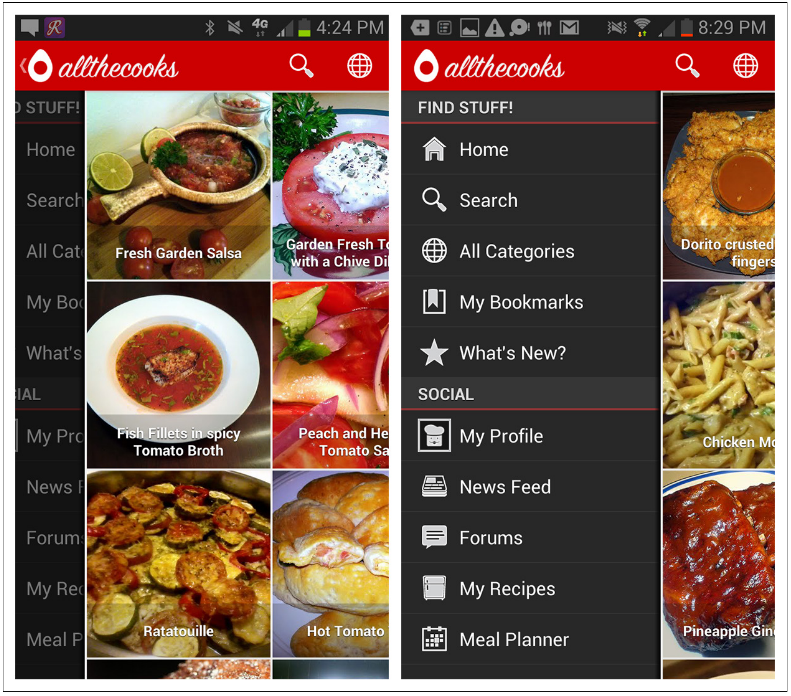


FIGURE 1-44. Allthecooks for Android: Side Drawer bumps open when app is launched to alert users it's there (*http://youtu.be/iLICs-gyNaE*)

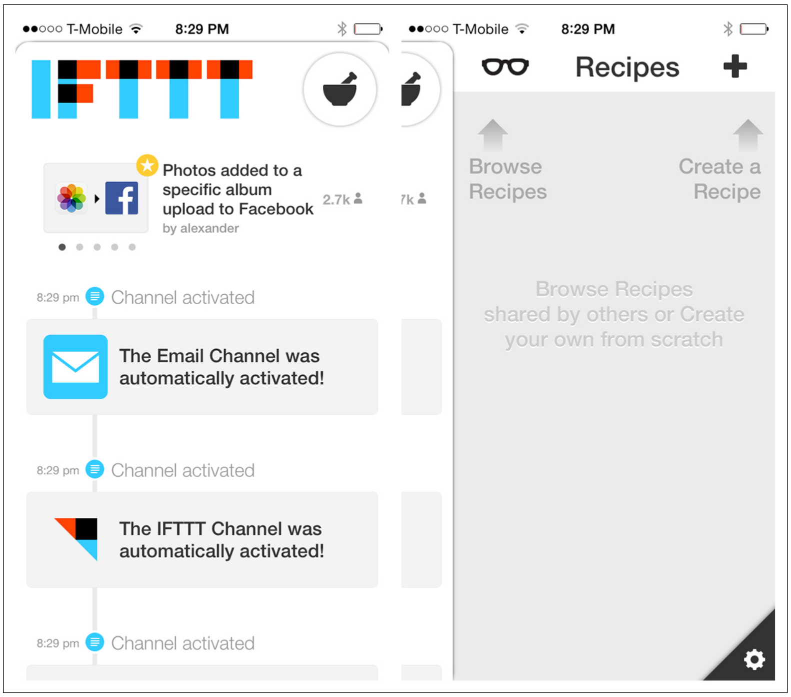

●●○○○ T-Mobile
8:29 PM
Photos added to a specific album upload to Facebook
by alexander
2.7k
8:29 pm Channel activated
The Email Channel was automatically activated!
8:29 pm Channel activated
The IFTTT Channel was automatically activated!
8:29 pm Channel activated
Recipes
Browse Recipes
Create a Recipe
Browse Recipes shared by others or Create your own from scratch

FIGURE 1-45. IfThisThenThat for iOS: Side Drawer for configuration and navigation is at right

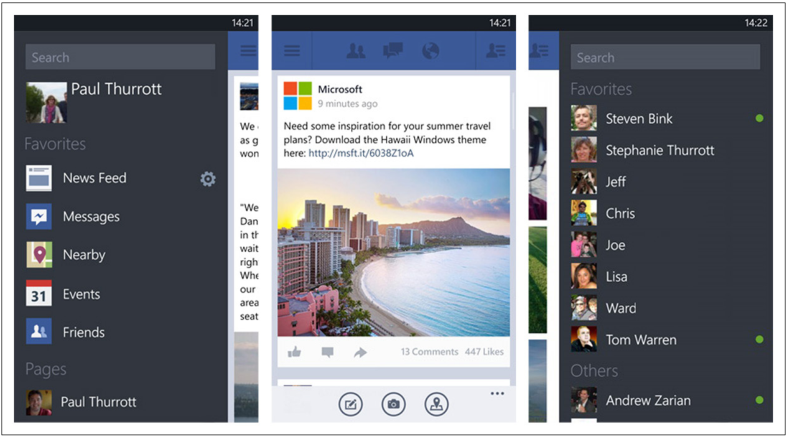


FIGURE 1-46. Facebook beta for Windows Phone: two Side Drawers—left for the main menu, right for quick links

But don't position the drawer on the bottom, as in the om finder and Frost apps. This positioning conflicts with the swipe-up gesture that reveals the Control Center in iOS 7.

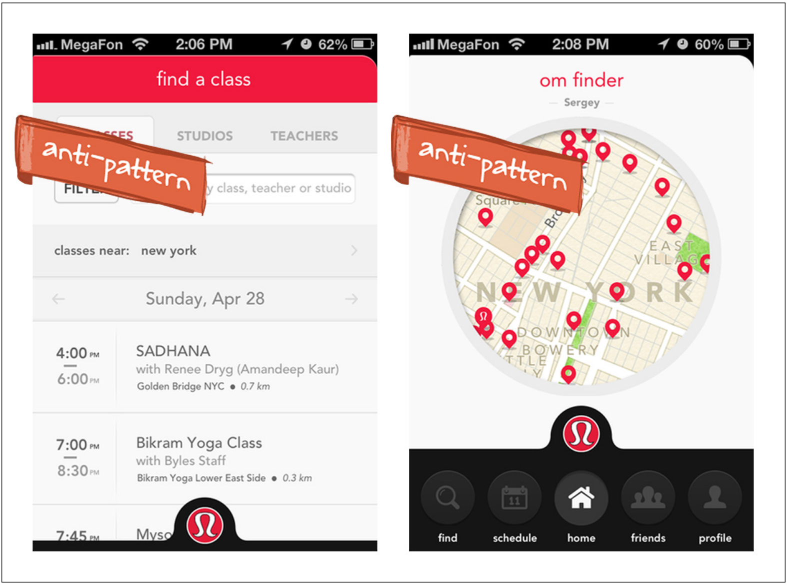

find a class
anti-pattern
STUDIOS
TEACHERS
classes near: new york
Sunday, Apr 28
4:00 PM 6:00 PM SADHANA with Renee Dryg (Amandeep Kaur) Golden Bridge NYC • 0.7 km
7:00 PM 8:30 PM Bikram Yoga Class with Byles Staff Bikram Yoga Lower East Side • 0.3 km
om finder
Sergey
anti-pattern
NEW YORK
find
schedule
home
friends
profile

FIGURE 1-47. om finder for iOS: drawer at the bottom of the screen conflicts with the iOS 7 Control Center

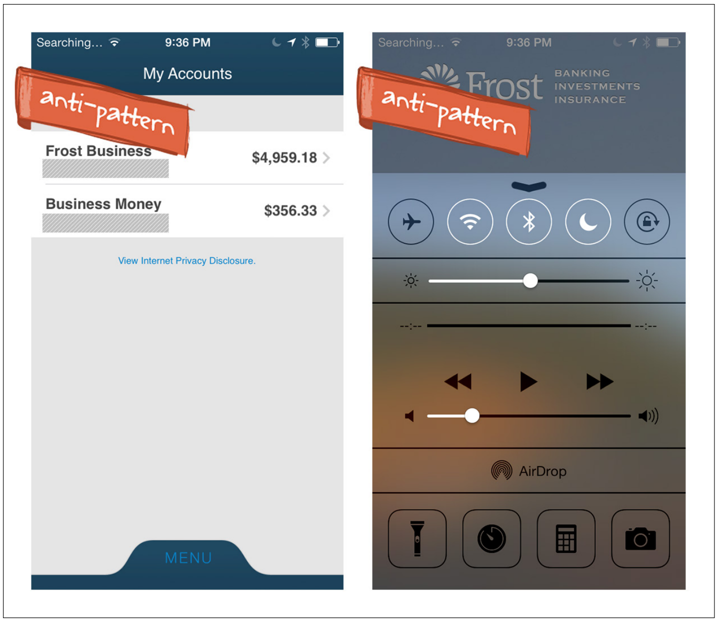


FIGURE 1-48. Frost for iOS: almost every time I try to open the menu, the iOS Control Center opens instead

Side Drawer content need not be limited to only navigation options. Zillow's Mortgage Marketplace drawer has a real-time chart of mortgage rates, and social apps like LinkedIn frequently include profile information.

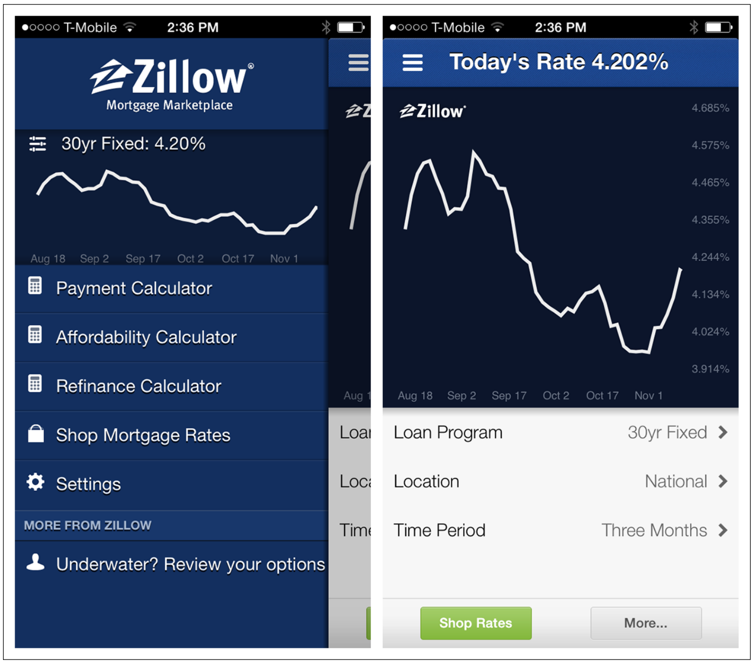


FIGURE 1-49. Zillow Mortgage Marketplace for iOS: Side Drawer has content and menu items

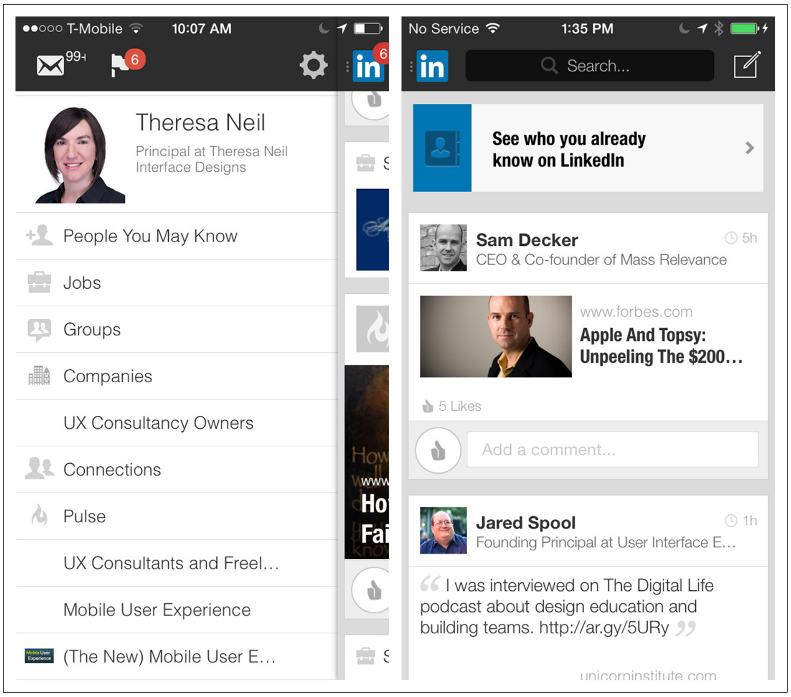
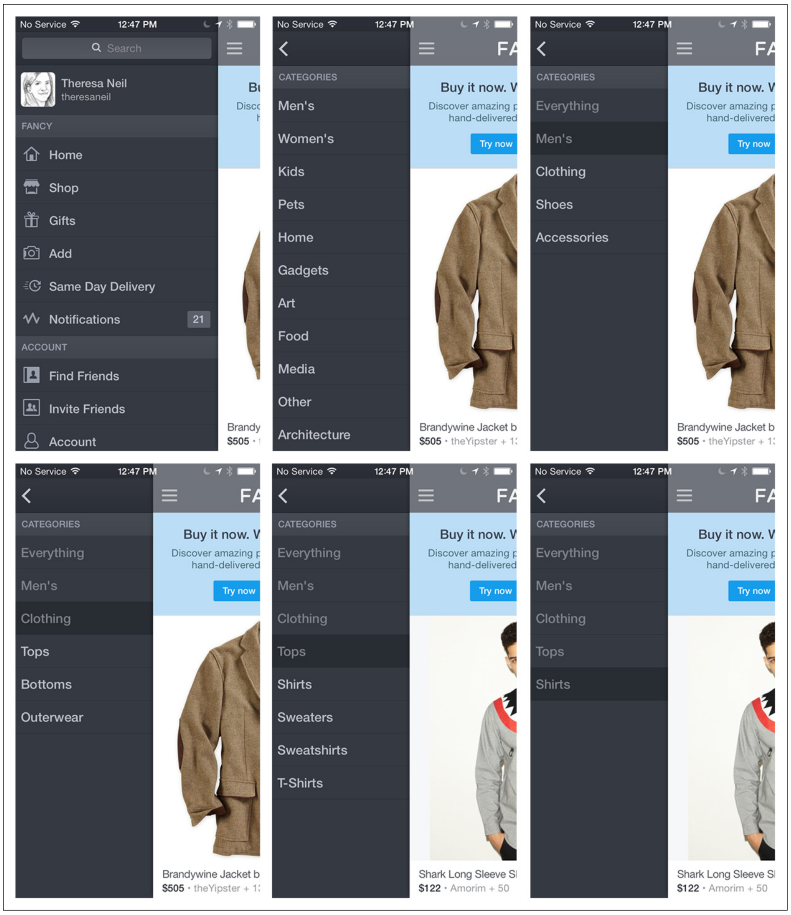

T-Mobile 10:07 AM
99+
6
Theresa Neil
Principal at Theresa Neil Interface Designs
People You May Know
Jobs
Groups
Companies
UX Consultancy Owners
Connections
Pulse
UX Consultants and Freel…
Mobile User Experience
(The New) Mobile User E…
No Service 1:35 PM
Search...
See who you already know on LinkedIn
Sam Decker 5h
CEO & Co-founder of Mass Relevance
www.forbes.com
Apple And Topsy: Unpeeling The $200…
5 Likes
Add a comment...
Jared Spool 1h
Founding Principal at User Interface E…
I was interviewed on The Digital Life podcast about design education and building teams. http://ar.gy/5URy
unicorninstitute.com

FIGURE 1-50.
LinkedIn for iOS: Side Drawer has profile info (oops, I have mail!)

The Side Drawer can be more than one level deep. In Fancy, for instance, you can tap-tap-tap down the path until you reach the lowest-level category. As you drill down through the categories, the content on the right updates. In Wish, the Side Drawer path for Categories is only two levels deep; categories are selected Springboard-style.

FIGURE 1-51.
Fancy for iOS: a multilevel Side Drawer



The Side Drawer can also let users switch high-level context. With the Side Drawer in Gmail for iOS, tapping the arrow by my name opens a panel that slides down over the menu options. There I can switch between email accounts, or add a new one.

[NOTE]

The Side Drawer can be versatile, but be careful not to overload it with too many features. It should show the primary navigation options first and foremost.

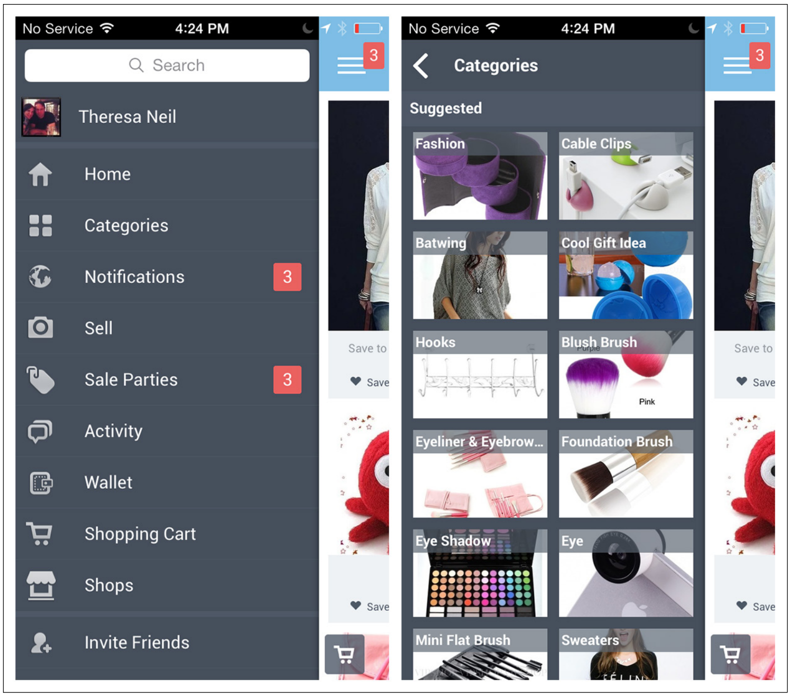


FIGURE 1-52.
Wish for iOS: Side Drawer path to Categories is only two levels deep, then switches to a Springboard

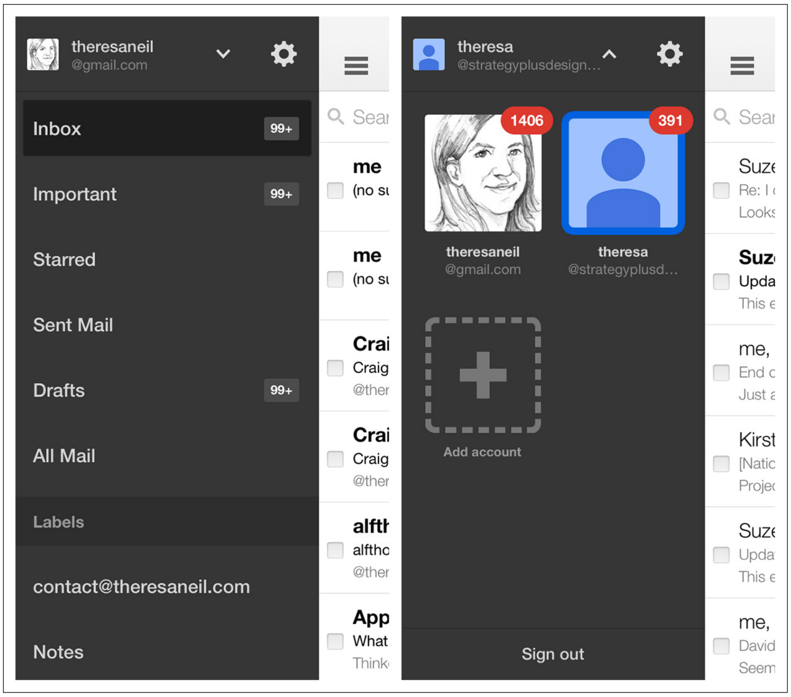


FIGURE 1-53.
Gmail for iOS: slide-down panel within a Side Drawer lets me switch or add accounts

EMERGING PATTERN

In response to iOS 7 guidelines, the designers of Luvocracy have been experimenting with a variation of the inlay Side Drawer (*http://uxmag.com/articles/adapting-ui-to-ios-7-the-side-menu*).

Tapping the navicon (or the "hamburger") reveals the Side Drawer, but instead of the drawer inlay simply pushing the parent screen to the right, it also uses a 3D effect to push it back.

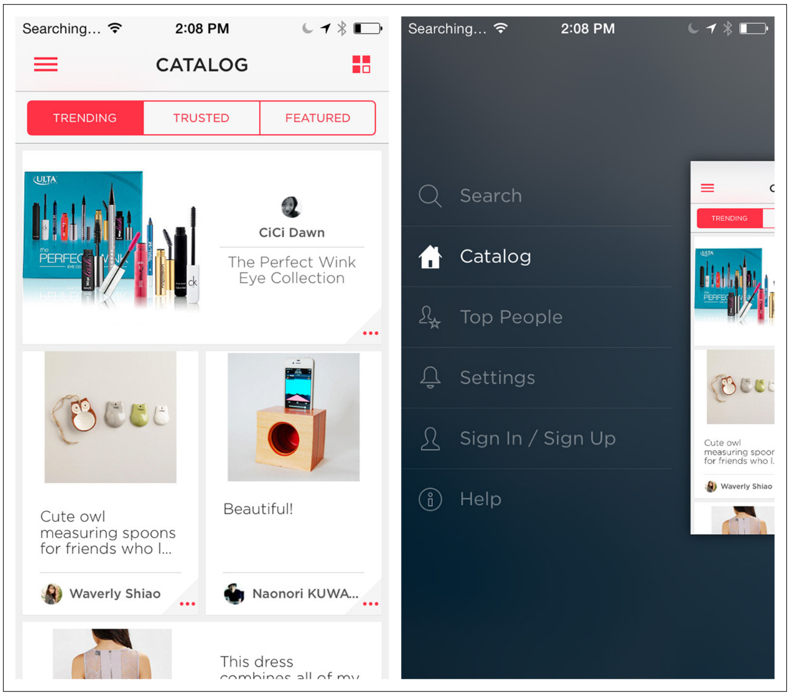


FIGURE 1-54. Luvocracy for iOS: tap the navicon, or "hamburger," and Side Drawer pushes parent screen aside and back

Luvocracy is simple to navigate and the transitions are smooth. However, a similar-style menu in Airbnb for iOS constitutes an anti-pattern. The new design creates three high-level menu categories: Travel, Host, and Log In. The Travel title is positioned across the top (with the actual travel menu options disconnected down below), while Host and Log In are next to each other on the bottom edge. Tapping on Host or swiping vertically switches Host to the top and Travel to the bottom (Log In stays static). Swiping again switches them back. This design is impractical and inefficient for users. I don't always agree with everything in the iOS Design Guide (*http://bit.ly/1iK1juP*), but substitute the word *swipe* for *scroll* in the following and it's on point in this case:

> Don't make users scroll to see all their choices. This causes a disconcerting experience for users, because they must spend extra time to distinguish the choices. Also, it can be very difficult for users to scroll without inadvertently tapping an option.

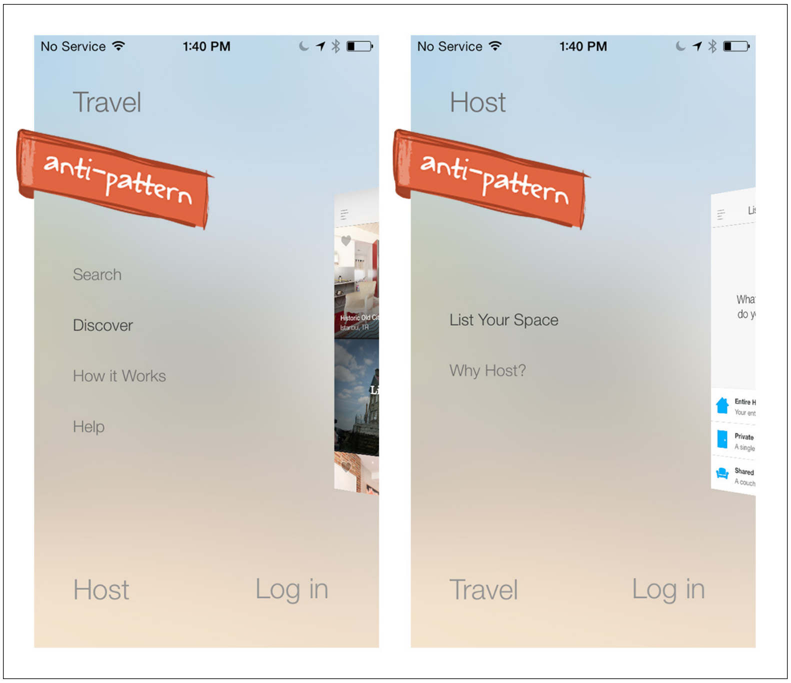


FIGURE 1-55.
Airbnb for iOS 7: confusing implementation of the emerging Side Drawer style (*http://www.youtube.com/watch?v=Rl1ZwXINhlc*)

The Navigation Drawer in the Android version of Airbnb, by comparison, is crystal-clear—no guesswork required.

A better implementation for iOS is American Airlines, where the Side Drawer reveals a well-designed grouped menu. I wish the parent screen weren't translucent, though, since it is still a touch target.

[NOTE]

Before you choose Side Drawer navigation, map out the information architecture for the app and validate it with users. Then, if a Side Drawer seems to make sense, you should prototype and test a couple of variations to see which one works best.

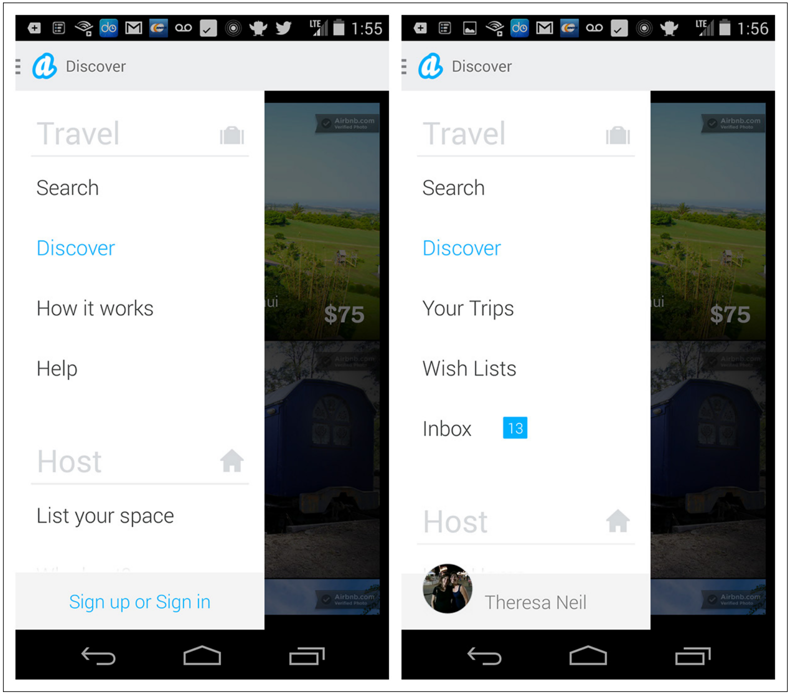


FIGURE 1-56. Airbnb for Android: ah, crystal-clear Side Drawer navigation

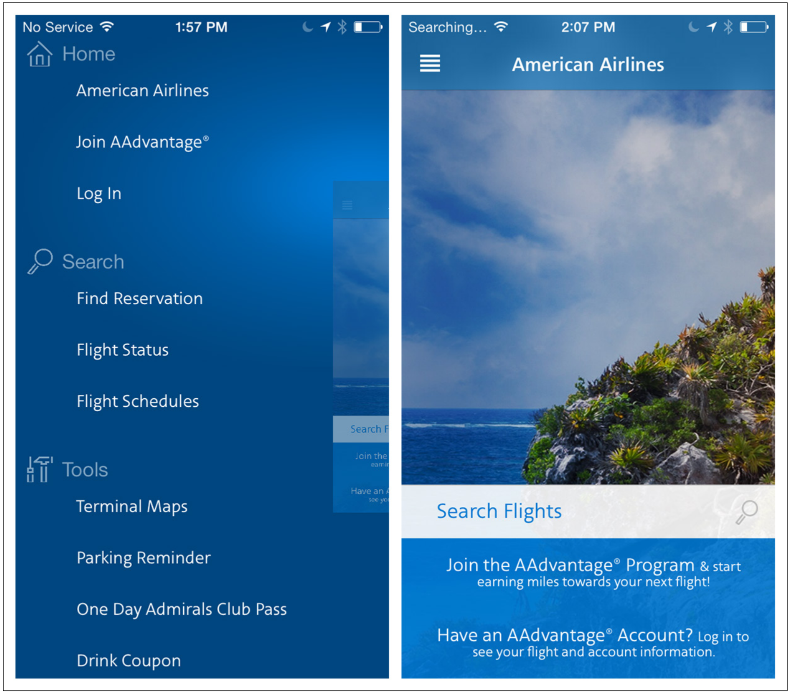


FIGURE 1-57. American Airlines for iOS: the grouped menu for Side Drawer is nice, but the parent screen should be solid, not translucent

Toggle Menu

In this book's first edition, I labeled this pattern the Mega Menu, after its web equivalent. Since then, mobile web and responsive web design have pushed this design further, and it is now more commonly known as the Toggle Menu.

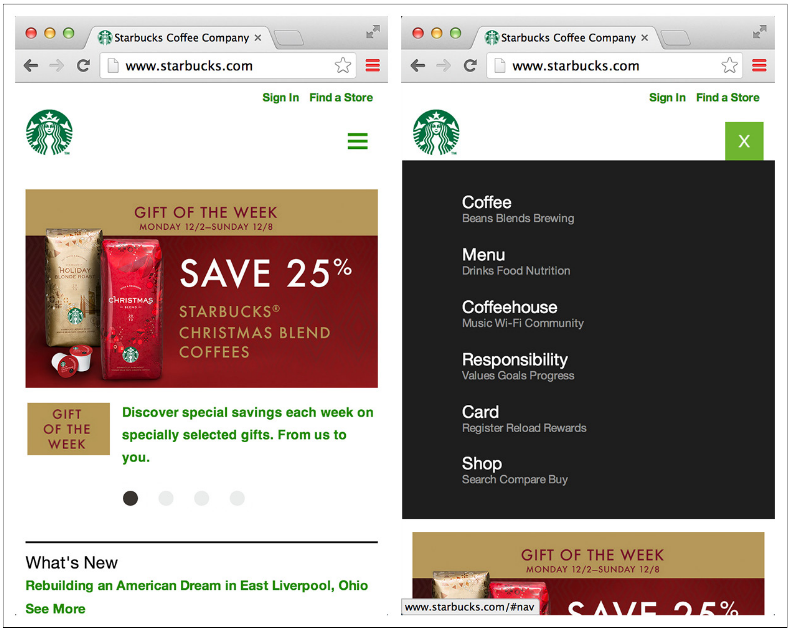


FIGURE 1-58.
Starbucks.com: responsive web design with a Toggle Menu

Like the Side Drawer, the Toggle Menu can be an inlay that pushes the content down below the menu, as with Pocket or Qwiki, or an overlay that appears as a layer above the content, as with Walmart and Home Depot. The overlay design is the more common option in native mobile apps. In Ultravisual, the overlay Toggle Menu comes up from the bottom.

FIGURE 1-59. Pocket and Qwiki for iOS: overlay Toggle Menus

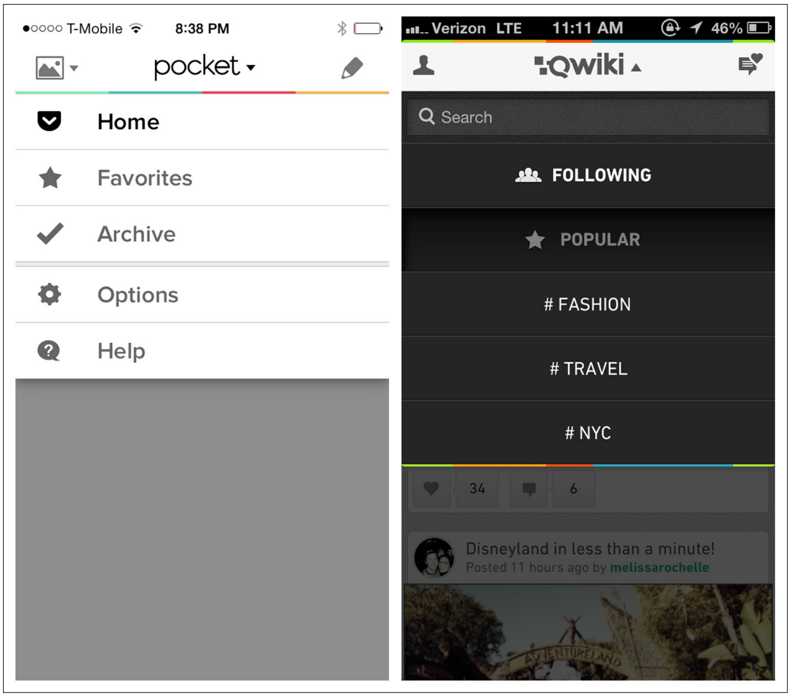
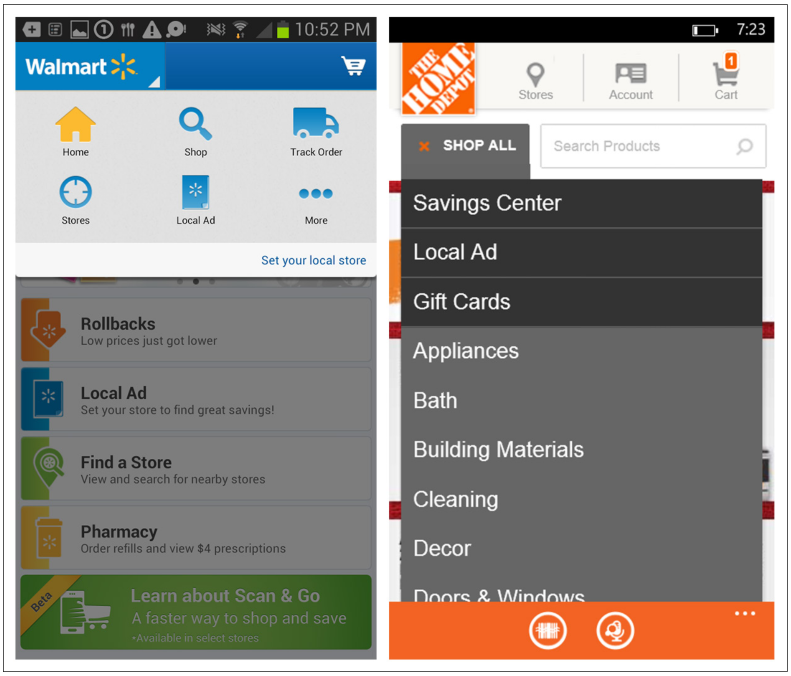


FIGURE 1-60. Walmart for Android and Home Depot for Windows Phone: overlay Toggle Menus



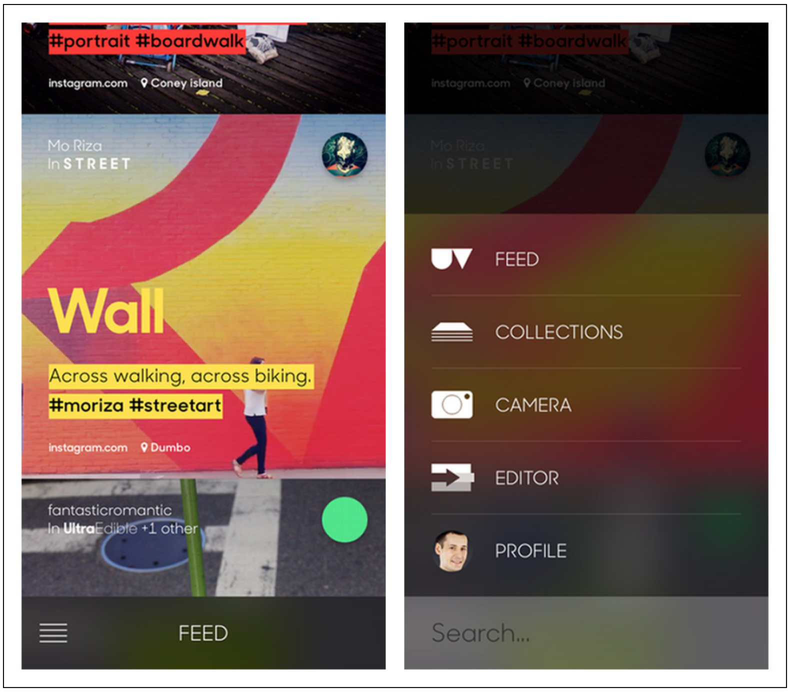


FIGURE 1-61. Ultravisual for iOS: overlay Toggle Menu comes up from the bottom

A key convention of the Toggle Menu is that whatever gesture reveals the menu—tapping an icon, swiping, or panning, for example—should also hide it.

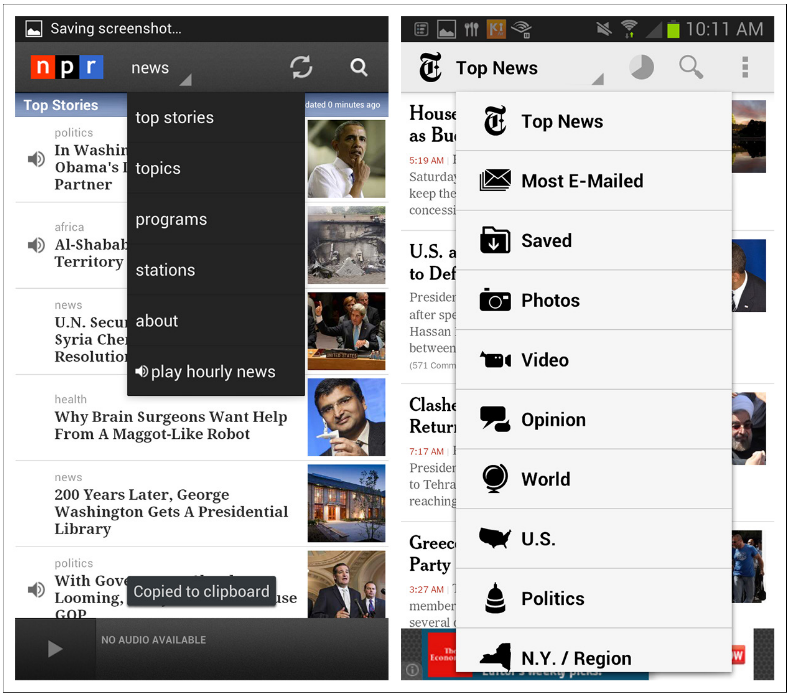
The menu shouldn't cover the whole screen, but instead let the background peek through. Tapping anywhere in the background should also hide the menu.

Android provides a specific control, the Spinner, for this type of primary navigation. But keep in mind the Spinner should be reserved for navigating between views in a category, as opposed to jumping between completely different categories.

For example, both the NPR and the NYTimes apps serve up news, and the Spinner offers different ways to slice and dice the massive amount of news content they offer. But if, say, NPR needed to offer other options in this menu, like Music or Weather, Android guidelines would dictate using a Tab Bar or Navigation Drawer instead.

For Android, use the Spinner control where the Toggle Menu is intended to show the views within a category. For iOS and Windows, bear in mind that the Toggle Menu is a custom control, which could take more time to implement, test, and maintain.

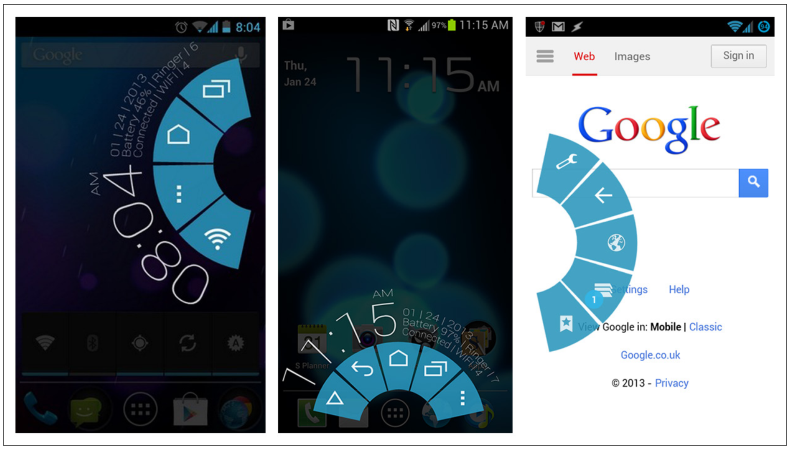
FIGURE 1-62.
NPR and NYTimes for Android: the Spinner Toggle Menu is for views within a category



Pie Menu

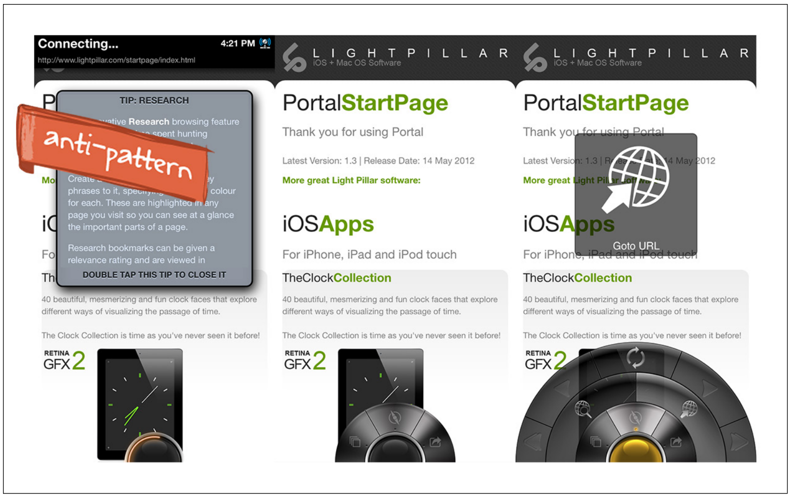
Pie Menus—also known as wheels, circular menus, or radial menus—have been around since the '90s in desktop software, and more recently in web applications. They are also very popular in game design. So I was excited to play with PIE, a Pie Menu interface in the open source Paranoid Android OS, and was surprised at how well it works.

FIGURE 1-63.
Examples of PIE menus from a phone running the open source Paranoid Android OS (*http://bit.ly/1iK2jPr*)



If the Pie Menu option ever becomes a standard part of the stock Android OS, though, I think that will disqualify it for use as primary navigation within apps—it would create too many conflicts between the OS and the apps.

Looking at the other operating systems, I discovered only a handful of apps experimenting with this pattern for primary navigation. The examples I did find were discouraging. PortalWebBrowser, for instance, has a multitier wheel that requires psychic powers and surgeon-like precision to navigate.



anti-pattern
Connecting...
4:21 PM
http://www.lightpillar.com/startpage/index.html
TIP: RESEARCH
DOUBLE TAP THIS TIP TO CLOSE IT
LIGHTPILLAR
iOS + Mac OS Software
PortalStartPage
Thank you for using Portal
Latest Version: 1.3 | Release Date: 14 May 2012
More great Light Pillar software:
iOSApps
For iPhone, iPad and iPod touch
TheClockCollection
Goto URL
RETINA GFX 2

Research bookmarks can be given a relevance rating and are viewed in

40 beautiful, mesmerizing and fun clock faces that explore different ways of visualizing the passage of time.

The Clock Collection is time as you've never seen it before!

FIGURE 1-64.
PortalWebBrowser for iOS: multitiered Pie Menu requires a surgeon's touch to use

The primary design differences between Paranoid Android's PIE and the Pie Menu in PortalWebBrowser are the latter's multiple tiers and tiny touch targets. Having to tap, hold, and then slide across tiers to variably sized wedges is not a simple or natural gesture. There are some good examples of Pie Menus for selecting actions, though; see Chapter 5.

[NOTE]

This is probably the weakest pattern for primary navigation and should be avoided for any menu with multiple tiers. If you have an application with flat information architecture, consider the Tab Menu—familiar to all users—instead.

Secondary Navigation Patterns

This chapter didn't feel complete with only primary navigation patterns, so I broadened it to include secondary navigation. By *secondary* navigation, I mean moving about within a selected module. For example, Starbucks uses the Tab Menu for primary navigation and a Springboard for secondary navigation on the Home screen. Similarly, Brit & Co. uses a Tab Menu for primary navigation (a Windows Pivot control) and a Springboard for secondary navigation in the Browse module.

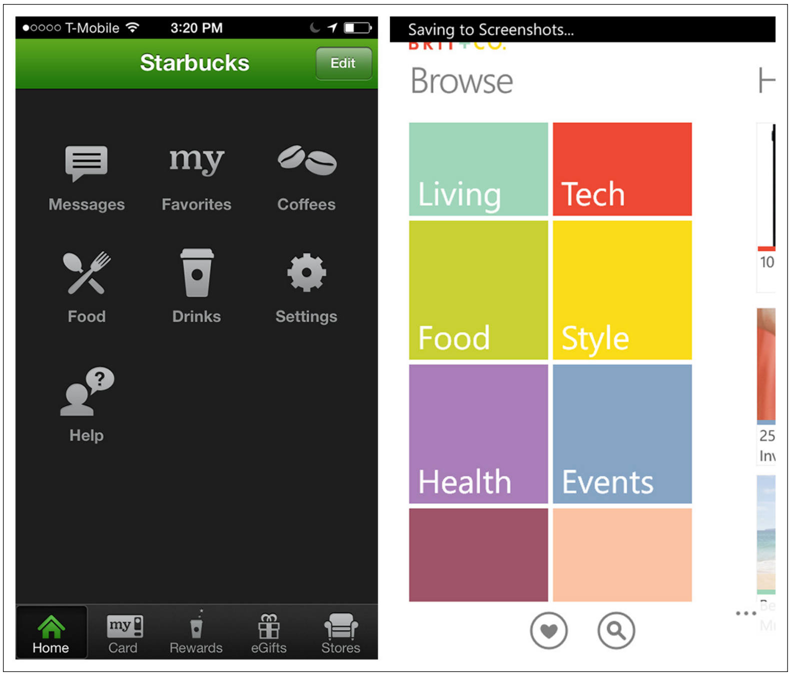


FIGURE 1-65.
Starbucks for iOS and Brit & Co. for Windows Phone: Springboards as secondary navigation

All of the primary navigation patterns can also serve as secondary navigation patterns. It is common to see Tabs with Tabs, Tabs with Lists, Tabs with a Dashboard, a Springboard with a Gallery, and so on.

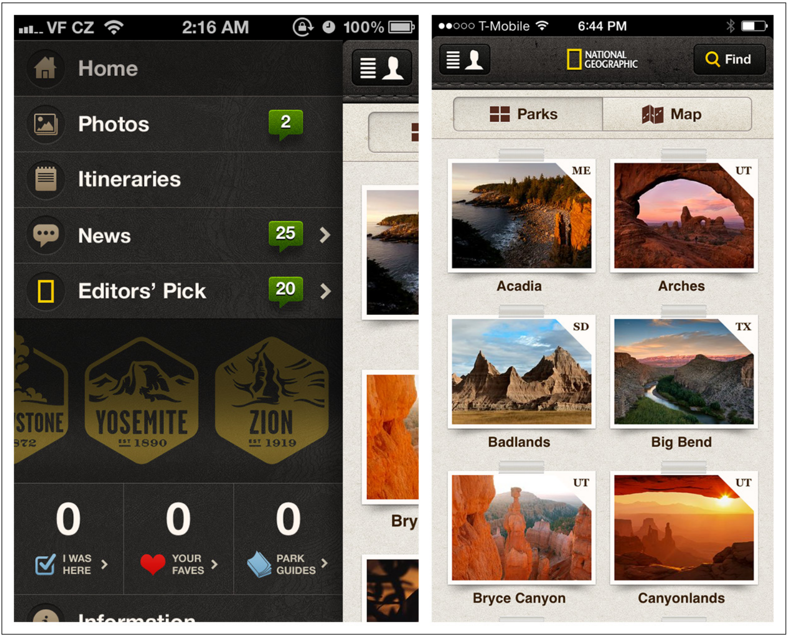


FIGURE 1-66. National Parks by National Geographic for iOS: Side Drawer for primary navigation, Gallery for secondary

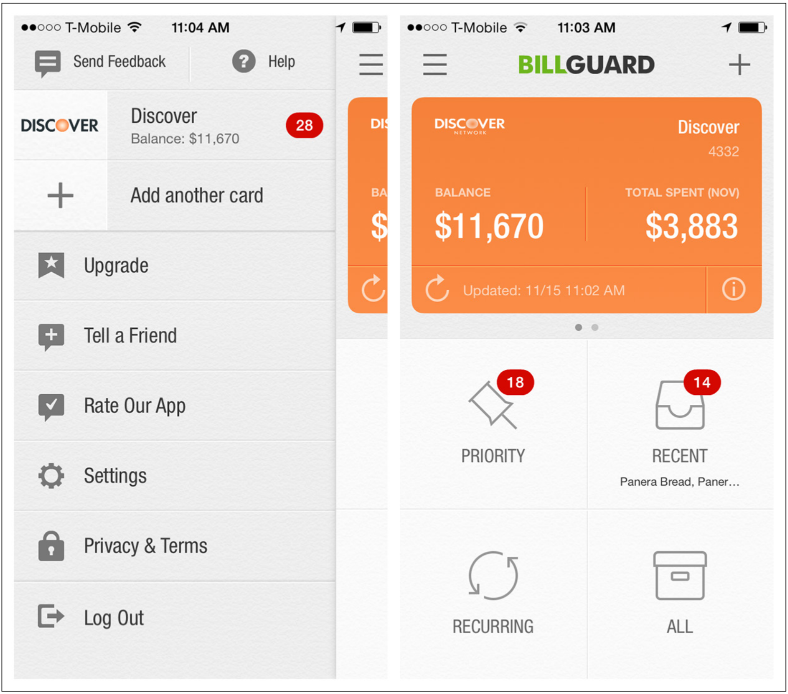


FIGURE 1-67. BillGuard for iOS: Side Drawer for primary navigation, Springboard for secondary

Additional patterns that work well for secondary navigation include Page Swiping, Scrolling Tabs, and the Expand/Collapse Panel.

Page Swiping

This pattern can be used to navigate quickly through content using the swipe gesture. The most common way to communicate this navigation pattern is via *page indicators* (the iOS term for the horizontal line of little dots). The card metaphor also works for paging, as in Ness and Foodspotting. In these examples, partially visible background cards or pages cue the user to swipe.

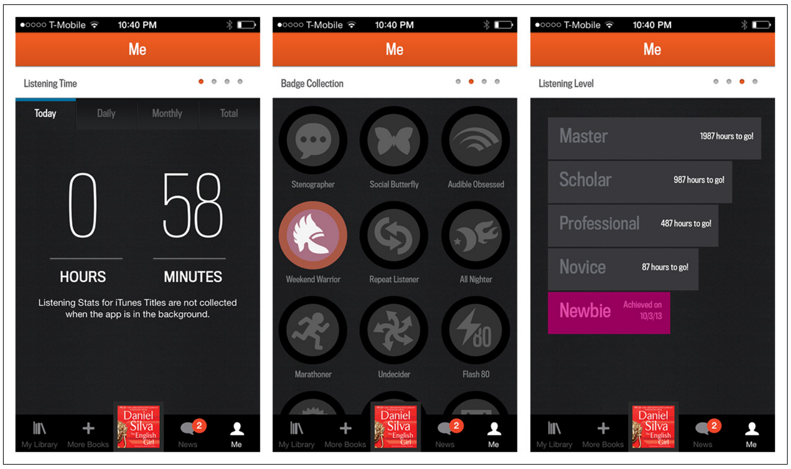


FIGURE 1-68. Audible for iOS: Tabs for primary navigation, Page Swiping for secondary; note page indicators

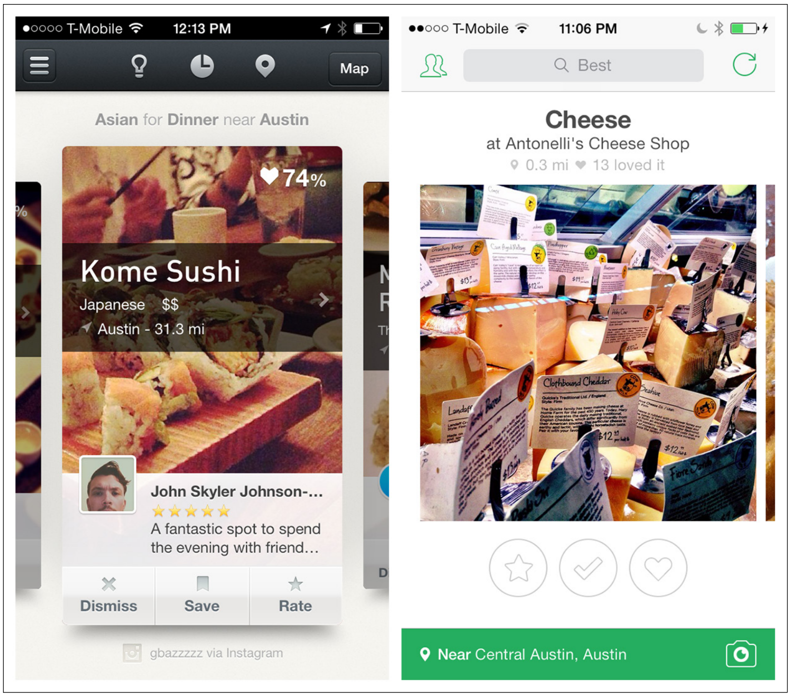
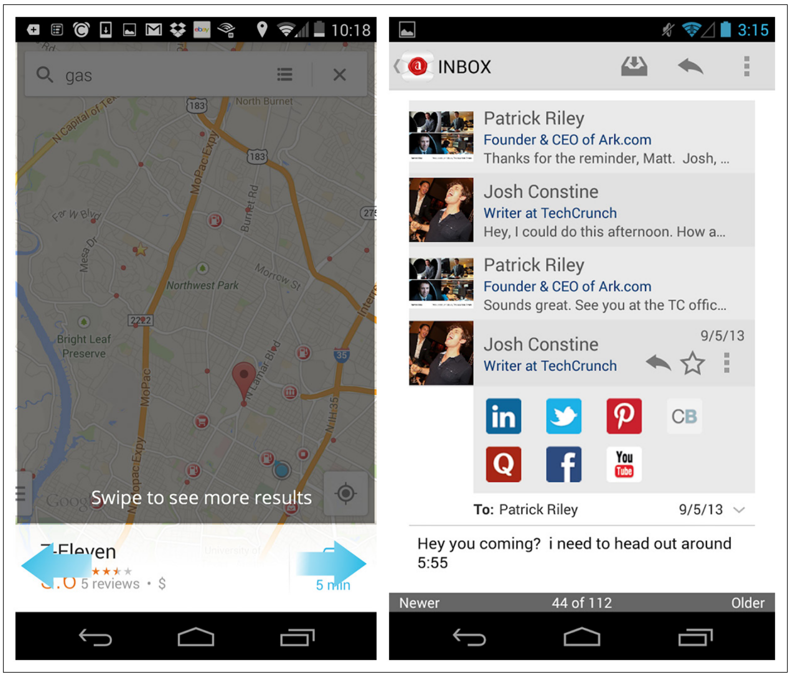

Map
Asian for Dinner near Austin
74%
Kome Sushi
Japanese $$
Austin - 31.3 mi
John Skyler Johnson-...
A fantastic spot to spend the evening with friend...
Dismiss
Save
Rate
gbazzzzz via Instagram
Best
Cheese
at Antonelli's Cheese Shop
0.3 mi 13 loved it
Near Central Austin, Austin

FIGURE 1-69. Ness and Foodspotting for iOS: partially visible content cues user to swipe

Many Android apps offer a similar paging experience. In Google Maps, you can swipe through the list of search results. A tip is shown on first use to communicate this Page Swiping option.

Ark Mail, like Gmail, offers Page Swiping for quick navigation through email messages. A thin footer shows the total number of messages, current message number, and Newer and Older labels in the corners, giving some indication that swiping horizontally will reveal another email.



Patrick Riley
Founder & CEO of Ark.com
Thanks for the reminder, Matt. Josh, ...

Josh Constine
Writer at TechCrunch
Hey, I could do this afternoon. How a...

Patrick Riley
Founder & CEO of Ark.com
Sounds great. See you at the TC offic...

Josh Constine 9/5/13
Writer at TechCrunch

To: Patrick Riley 9/5/13

Hey you coming? i need to head out around 5:55

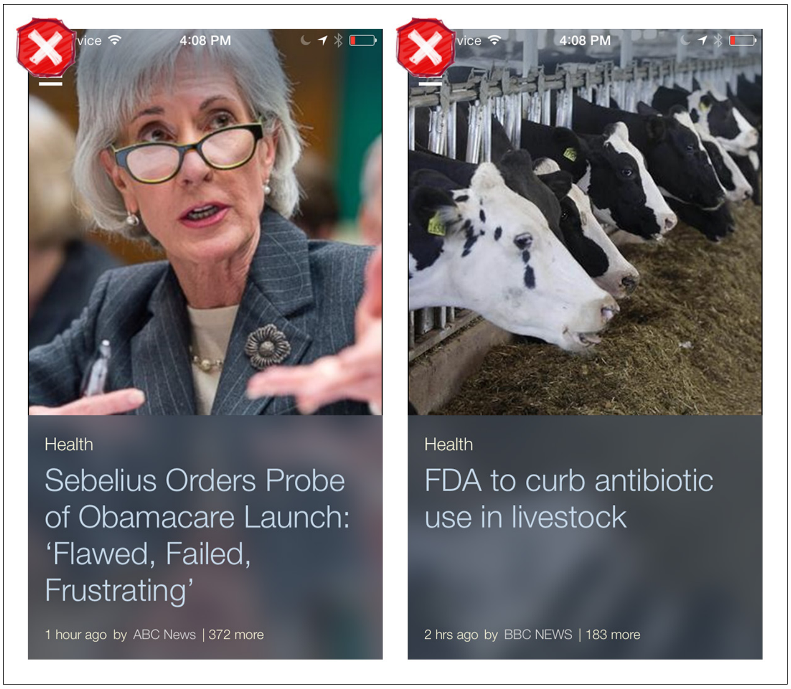
Newer 44 of 112 Older

FIGURE 1-70.
Google Maps and Ark Mail for Android

News360 is an anti-pattern implementation of Page Swiping, because of its lack of affordance. Adding the paging indicator dots across the top, as in HuffPost, would have made it immediately obvious that a horizontal swipe gesture is required to see the next story, versus a vertical scroll.

[NOTE]

Use Page Swiping to take advantage of mobile's gestural controls, instead of relying on desktop holdovers like Next buttons or Tabs. But provide visual affordance that swiping is available.

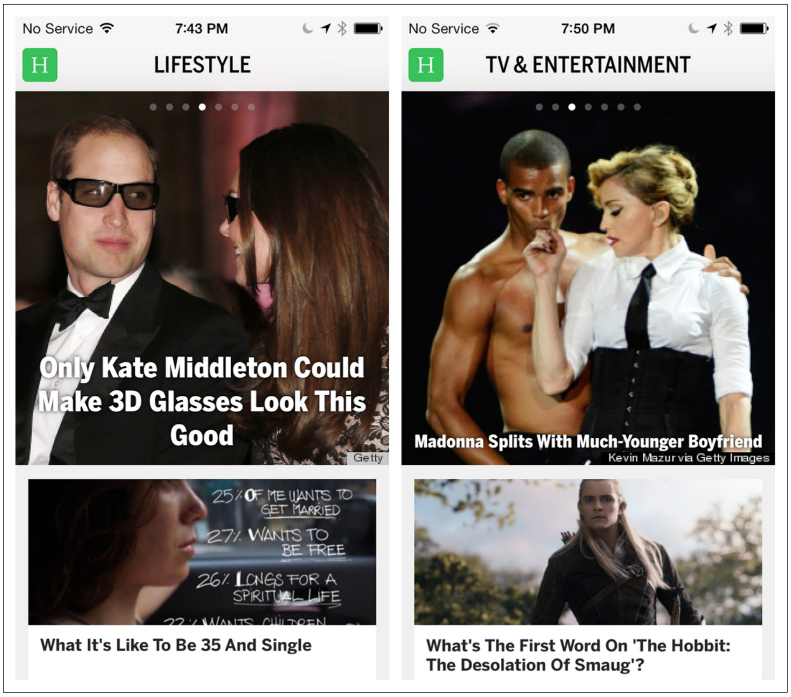


vice
4:08 PM
Health
1 hour ago by ABC News | 372 more
vice
4:08 PM
Health
2 hrs ago by BBC NEWS | 183 more

Sebelius Orders Probe of Obamacare Launch: 'Flawed, Failed, Frustrating'

FDA to curb antibiotic use in livestock

FIGURE 1-71. News360 for iOS: no affordance that horizontal swiping shows the next article



Only Kate Middleton Could Make 3D Glasses Look This Good

What It's Like To Be 35 And Single

Madonna Splits With Much-Younger Boyfriend

What's The First Word On 'The Hobbit: The Desolation Of Smaug'?

FIGURE 1-72. HuffPost for iOS: subtle paging indicators across the top provide affordance to swipe

Scrolling Tabs

The Android design guidelines (*http://bit.ly/1hsr9VF*) refer to these secondary navigation controls as Scrolling Tabs, so I stuck with that term. This pattern is useful for displaying multiple categories or views within a specific module. Scrolling Tabs are usually thinner than standard Tab Bars since they are not necessarily touch targets. More typically, they are an affordance to swipe horizontally.

In Google Play, Scrolling Tabs offer a way to filter the results after selecting an item (such as "Movies & TV") in the Navigation Drawer. Examples from Songza and TuneIn show other ways to integrate the pattern.

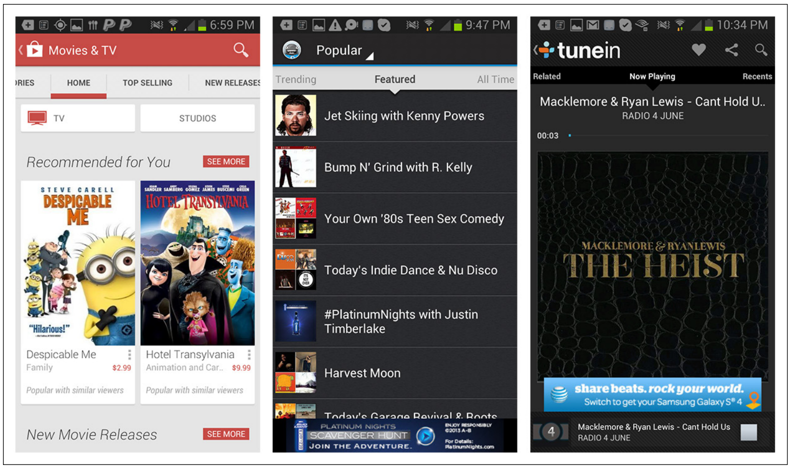


FIGURE 1-73.
Google Play, Songza, and TuneIn for Android: Scrolling Tabs for secondary navigation

If you incorporate this pattern, make sure your design clearly indicates the selected tab.

ACCORDION

An Accordion lets the user see more information while staying on the same screen. This pattern can be more efficient than navigating to a new screen, and then having to navigate back up. Note that examples from Elevatr, Flava, and the Android Play Store all use familiar icons to indicate a panel's expanded or collapsed state.

FIGURE 1-74.
Elevatr for iOS: "+" turns to "–" and heading colors reverse when panel expands

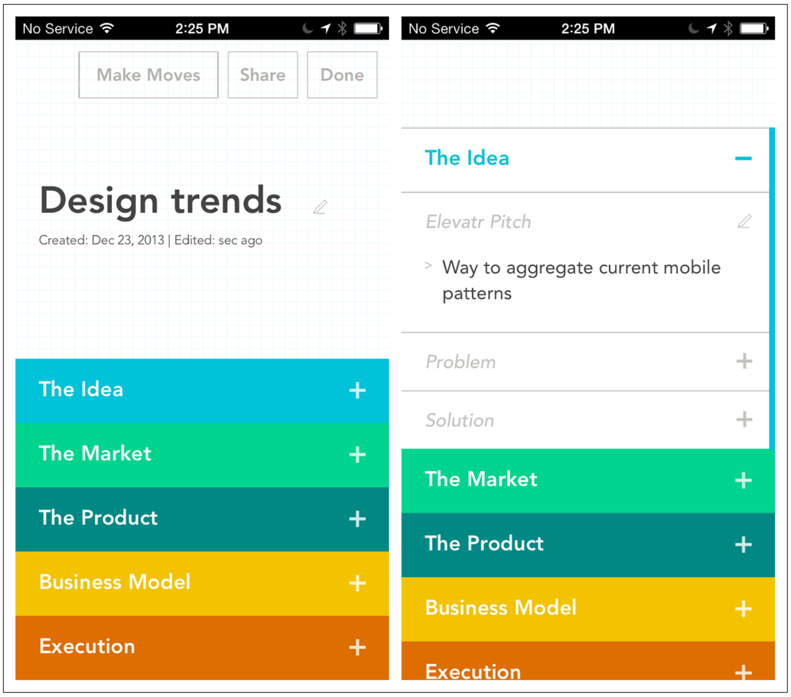
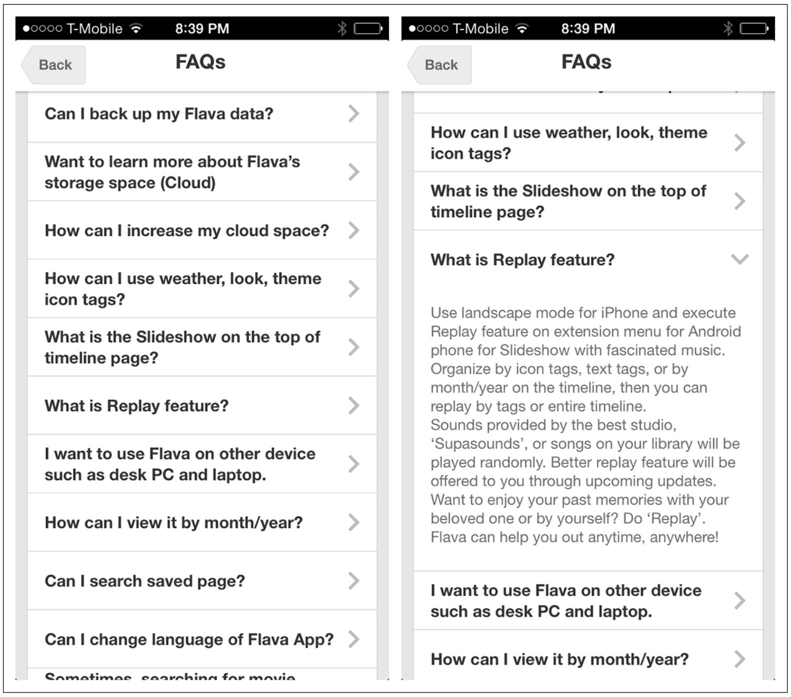


FIGURE 1-75.
Flava for iOS: down arrow indicates expanded panel

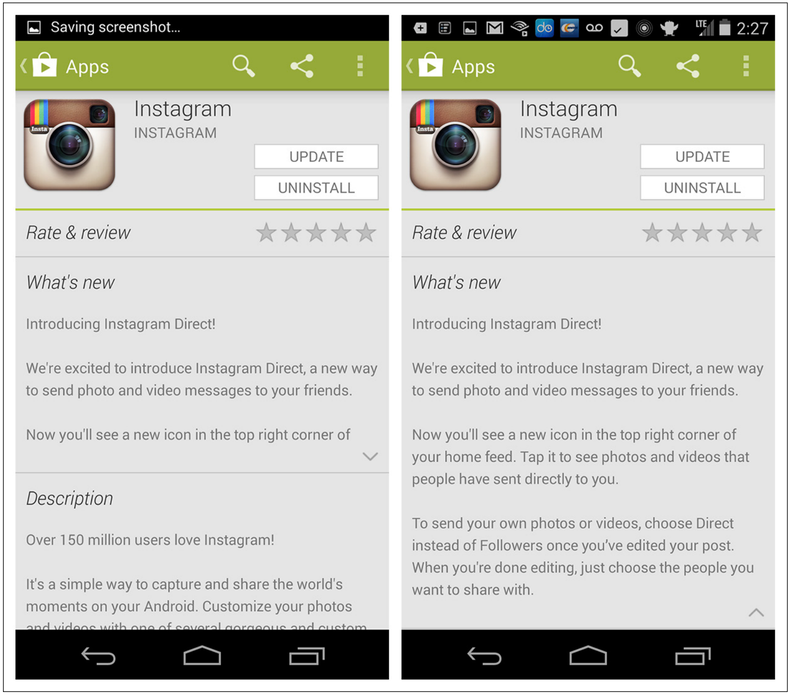


Can I back up my Flava data?
Want to learn more about Flava's storage space (Cloud)
How can I increase my cloud space?
How can I use weather, look, theme icon tags?
What is the Slideshow on the top of timeline page?
What is Replay feature?
I want to use Flava on other device such as desk PC and laptop.
How can I view it by month/year?
Can I search saved page?
Can I change language of Flava App?

How can I use weather, look, theme icon tags?
What is the Slideshow on the top of timeline page?
What is Replay feature?

Use landscape mode for iPhone and execute Replay feature on extension menu for Android phone for Slideshow with fascinated music. Organize by icon tags, text tags, or by month/year on the timeline, then you can replay by tags or entire timeline.
Sounds provided by the best studio, 'Supasounds', or songs on your library will be played randomly. Better replay feature will be offered to you through upcoming updates.
Want to enjoy your past memories with your beloved one or by yourself? Do 'Replay'.
Flava can help you out anytime, anywhere!

I want to use Flava on other device such as desk PC and laptop.
How can I view it by month/year?



Introducing Instagram Direct!

We're excited to introduce Instagram Direct, a new way to send photo and video messages to your friends.

Now you'll see a new icon in the top right corner of

Over 150 million users love Instagram!

It's a simple way to capture and share the world's moments on your Android. Customize your photos and videos with one of several gorgeous and custom

Introducing Instagram Direct!

We're excited to introduce Instagram Direct, a new way to send photo and video messages to your friends.

Now you'll see a new icon in the top right corner of your home feed. Tap it to see photos and videos that people have sent directly to you.

To send your own photos or videos, choose Direct instead of Followers once you've edited your post. When you're done editing, just choose the people you want to share with.

FIGURE 1-76. Play Store for Android: expand/collapse in the What's New panel

[NOTE]

Use a familiar icon for communicating the Accordion's open or closed state.

[2]

Forms

Patterns

Sign In, Registration, Registration with Personalization, Checkout, Calculator, Search Form, Multi-Step, Long Form

Most web applications rely extensively on forms for data entry and configuration. And although we have compelling research and design strategies for effective form design, there are still horrible forms all over the Web. We do our best to muddle through them to set up online accounts, buy merchandise, submit applications, answer surveys, and the like.

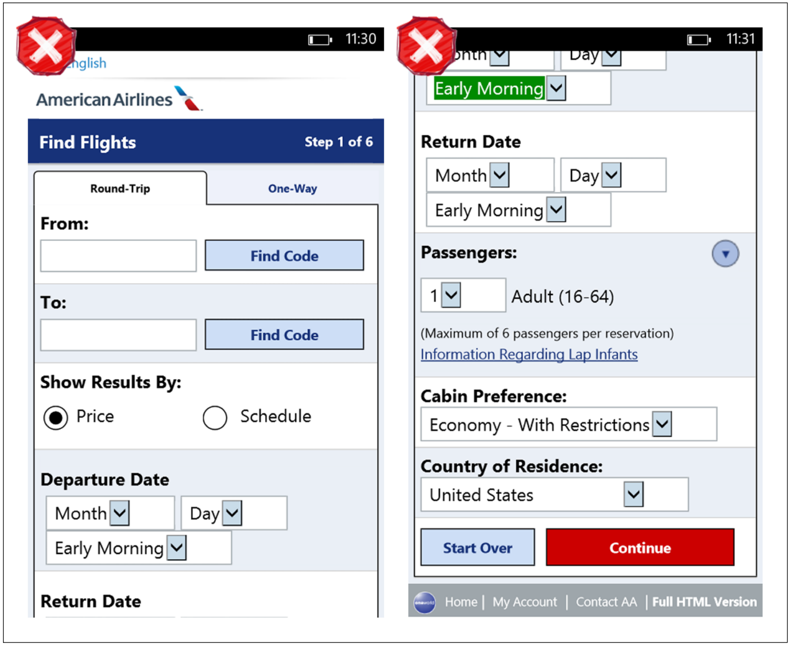


FIGURE 2-1.
American Airlines flight booking on Windows Phone: poor form design

Sometimes we succeed, but often we don't. Form abandonment (users who fail to complete and submit forms before giving up) is an enormous and costly problem. But compared to mobile, the Web is pretty forgiving, because mobile forms—rendered on devices that have small screen sizes and restricted user input—give you, the designer, virtually no leeway for bad design.

So before you design any mobile forms, I highly recommend brushing up on form basics with these resources:

- *Web Form Design: Filling in the Blanks* (*http://amzn.to/1g364lv*) by Luke Wroblewski (Rosenfeld Media, 2011)
- *Forms on Mobile Devices: Modern Solutions* (*http://bit.ly/1g369pc*) by Luke Wroblewski
- *Better Mobile Form Design* (*http://bit.ly/1g36zvV*) by Luke Wroblewski
- *Mobile Form Design Strategies* (*http://bit.ly/1g36jwU*) by Chui Chui Tan
- *Mobile Inline Form Validation* (*http://bit.ly/1g36pVe*) by Steven Hoober
- *Removing Stumbling Blocks in Mobile Forms* (*http://bit.ly/1g36uZb*) by Robert Brauber

As a complement to these resources, the form design patterns that follow will help you build apps with forms that work for your users. They include:

- Sign In
- Registration
- Registration with Personalization
- Checkout
- Calculator
- Search Form
- Multi-Step Form
- Long Form

Sign In

Sign In forms should require a minimal number of inputs: username, password, command button, password help, and an option to register. Some applications do this in a single screen, like Remember the Milk and Groupon.

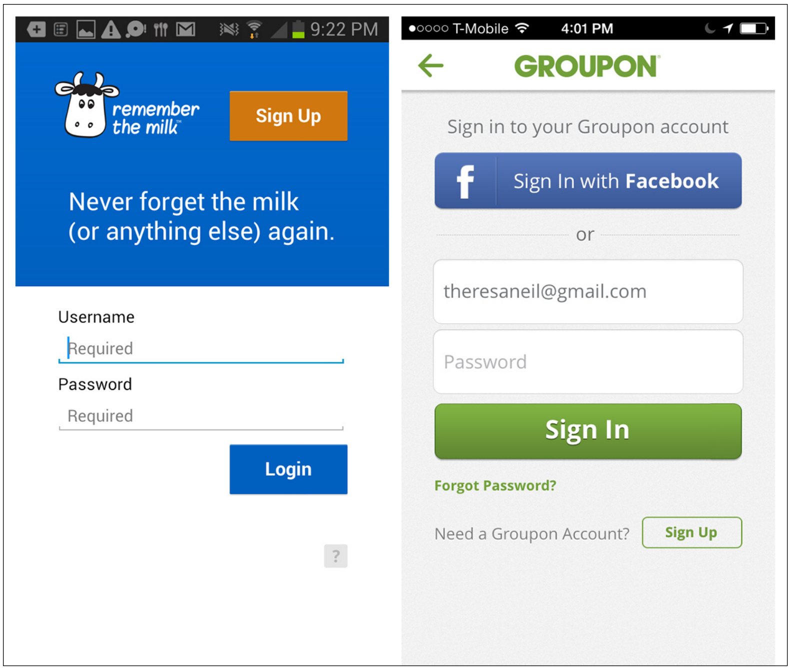


FIGURE 2-2. Remember the Milk for Android and Groupon for iOS: minimal Sign In fields

Other apps, like Instagram, present the Sign In and Register options up front, then take the user to the appropriate form. You should autofocus on the first form field, saving the user an extra tap to open the keyboard.

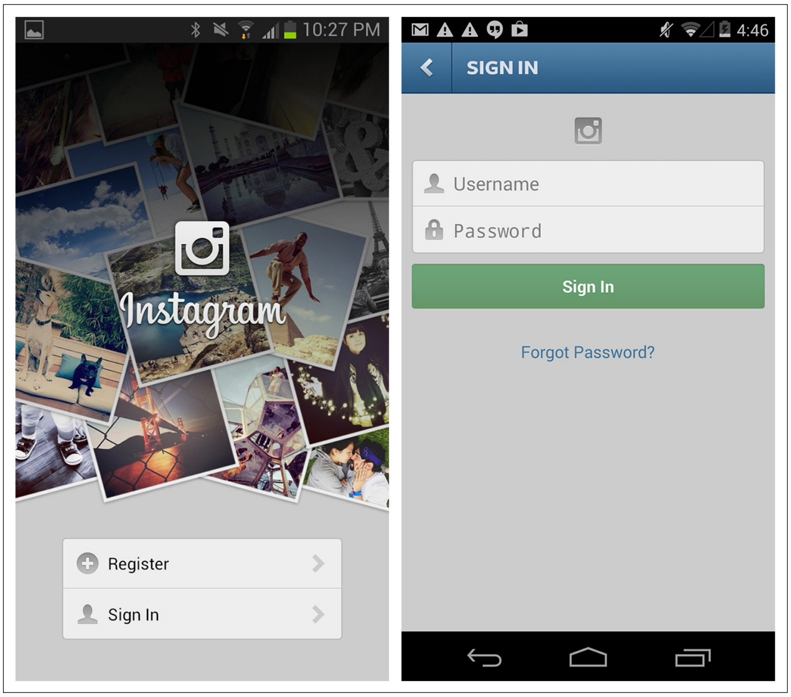


FIGURE 2-3. Instagram for Android: Register and Sign In up front

The Sign In form itself should use a new technique that has substantial support from usability testing and live usage: the unmasked password field. As in LinkedIn, show the password unmasked and/or offer the option to mask it. The open and close icon is common, or just the words Hide/Show (see the Polar example in the section "Registration" later in this chapter).

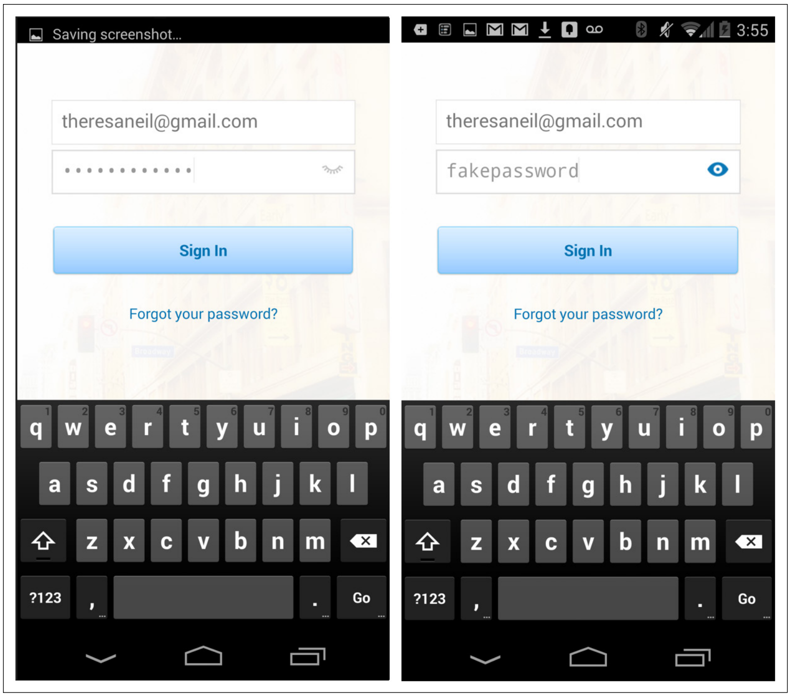
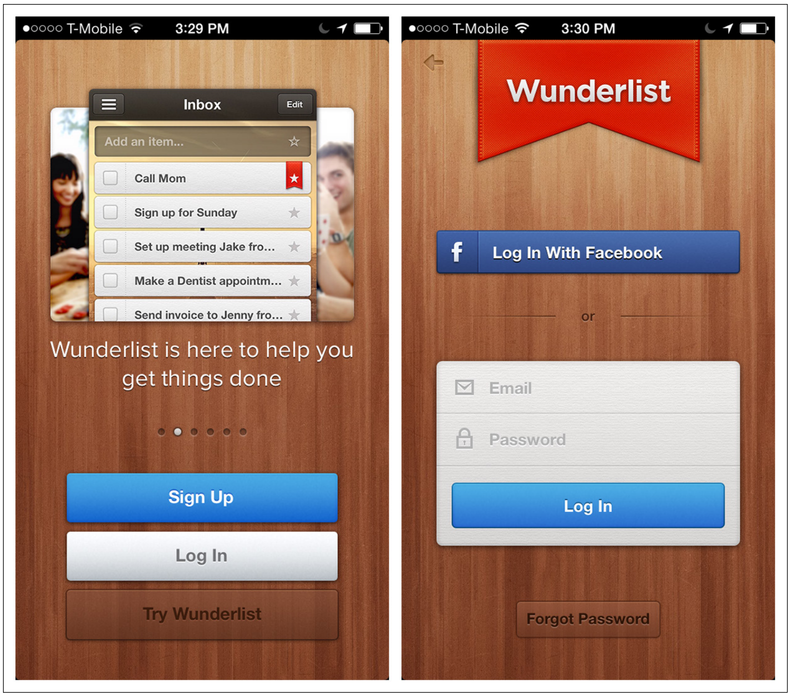


FIGURE 2-4. LinkedIn for Android-Unmask password option

Other apps, like Wunderlist and Box, place the Sign Up and Log In options in context within the promotional tour. By keeping these options present on each screen in the tour, the apps make it easy for prospective users to take action once they have been persuaded to use the app, and equally easy for returning users to simply log in.

FIGURE 2-5. Wunderlist for iOS: Sign Up and Log In are persistent throughout tour



Tabs are another viable option for presenting these two options while keeping navigation to a minimum, as shown with Foodspotting and SigFig.

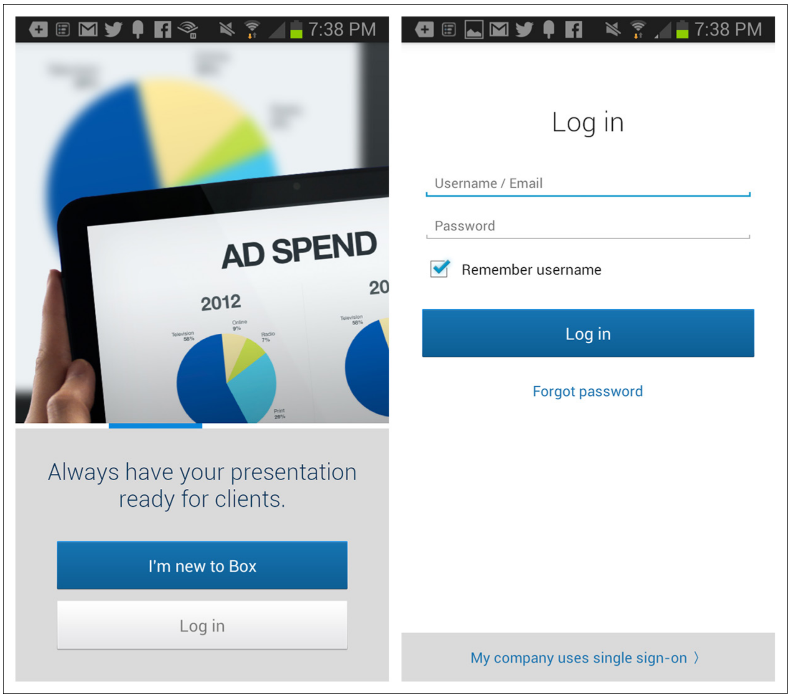


FIGURE 2-6. Box for Android makes it easy for users to sign up once sold by the tour

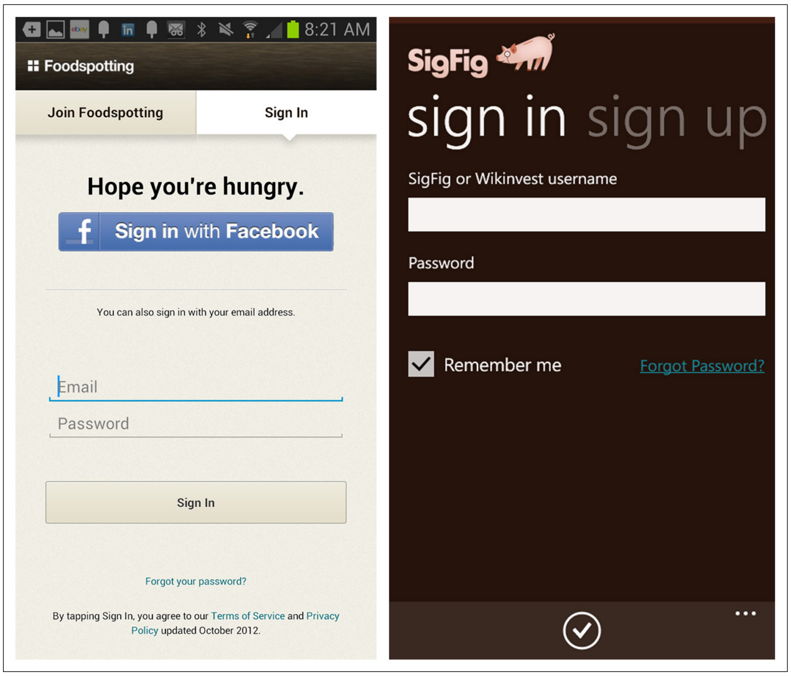
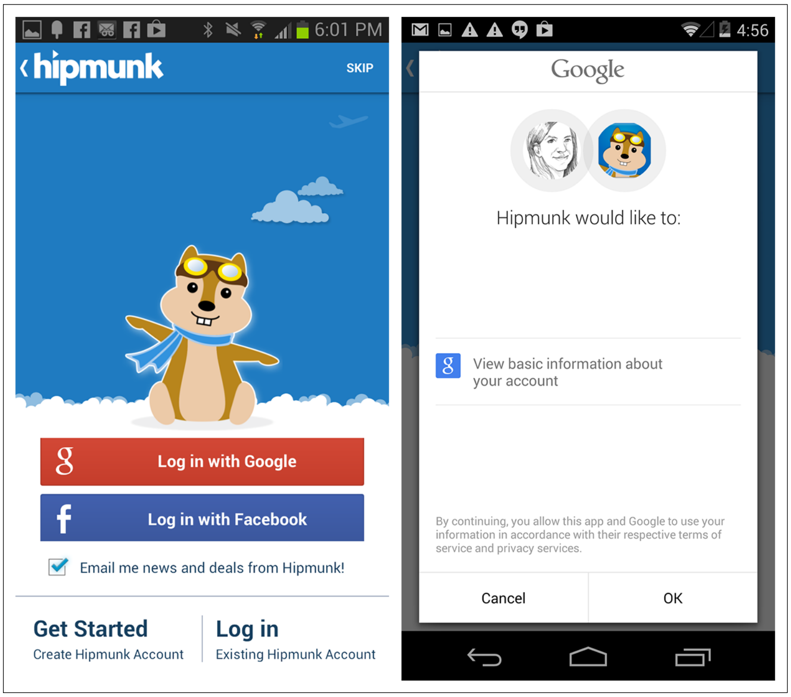


FIGURE 2-7. Foodspotting for Android and SigFig for Windows Phone: Sign In and Sign Up on tabs

Any of these patterns can also include a Social Sign In path, not to be confused with Social Sign Up, which we'll cover in the Registration pattern. Social Sign In will take the user through the social network of his choice to gain access to the application.



By continuing, you allow this app and Google to use your information in accordance with their respective terms of service and privacy services.

FIGURE 2-8. Hipmunk for Android offers three Sign In options: create an account, use Facebook, or use Google

Another Sign In option gaining popularity with the finance industry is to forgo the username field and just require a password. The user's identity can be authenticated when the application is installed. Users are then only prompted for a password to access sensitive data. Requiring a mobile PIN as a password serves the same purpose, as shown in the examples from Frost Bank and Personal Capital.

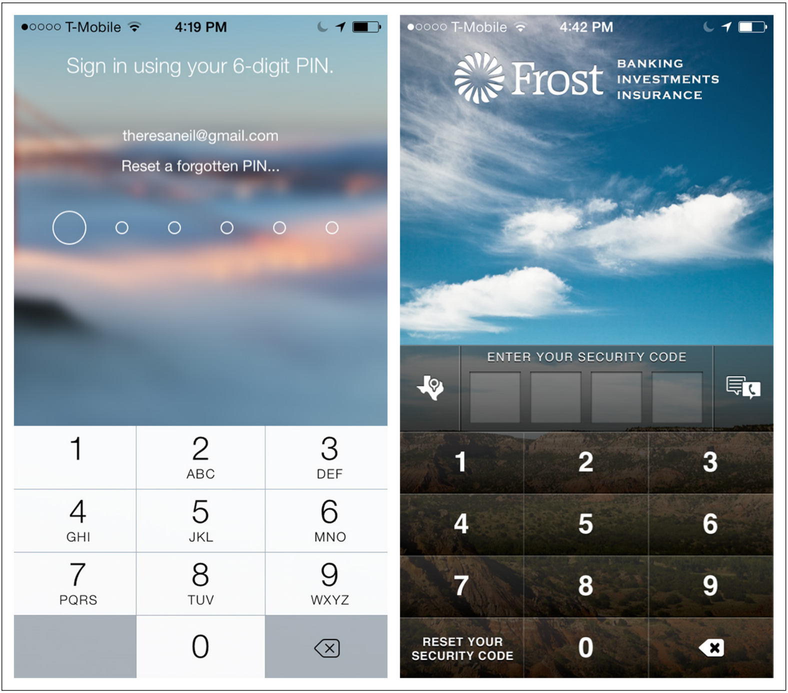


FIGURE 2-9. Personal Capital and Frost for iOS require just a password or PIN for Sign In

In most of the examples we've seen so far, the Sign In form is presented when the app is launched. But there are many cases where it's preferable to allow the user to start using the application without having to sign in or register.

You can happily explore Groupon and Etsy unauthenticated, until it is time to buy an item or save a favorite (authentication could also be required to share, add an item to your wish list, add a comment, etc.). Why should you let folks shop without signing in or registering? Jared Spool explains it in his article "The $300 Million Button" (*http://www.uie.com/articles/three_hund_million_button*). And if you need further convincing, take a look at the "Chapter Extra" by Greg Nudelman in Chapter 11.

[NOTE]

Sign In may not be a necessary first step. Consider where it makes sense to authenticate the user. And don't get creative with the Sign In screen; use standard designs to make it easy for users to sign in.

FIGURE 2-10. Groupon for iOS: browse freely—you'll be prompted to sign in to purchase

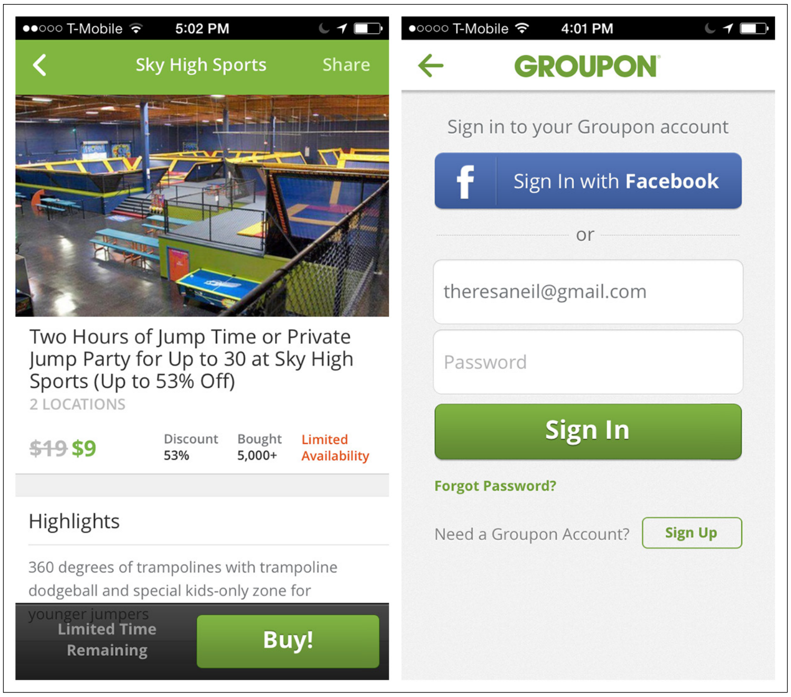
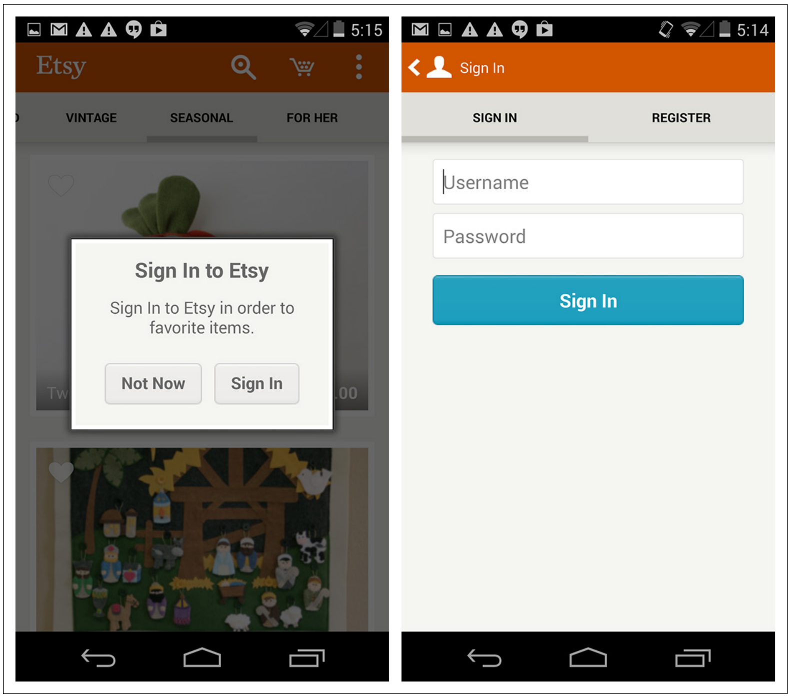
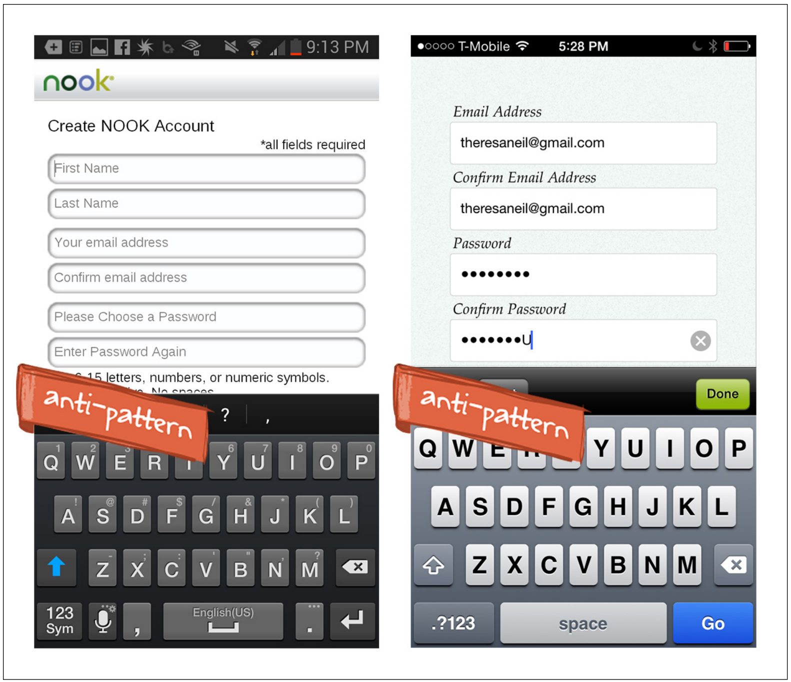


FIGURE 2-11. Etsy for Android prompts for Sign In when user "favorites" an item



Registration

Businesses love customer data, so they often try to get as much of it as possible at user registration. But Registration forms should have a minimal number of inputs. Since every additional form field demonstrably lowers Registration form conversion, UX consultant and author Chui Chui Tan recommends ruthlessly editing "elements which do not carry important functions." One easy target has been validated by a lot of user testing: eliminating the redundant Confirm Email and Confirm Password fields found in apps such as NOOK and LearnVest.


Create NOOK Account

*all fields required

First Name

Last Name

Your email address

Confirm email address

Please Choose a Password

Enter Password Again

6-15 letters, numbers, or numeric symbols.

Email Address

theresaneil@gmail.com

Confirm Email Address

theresaneil@gmail.com

Password

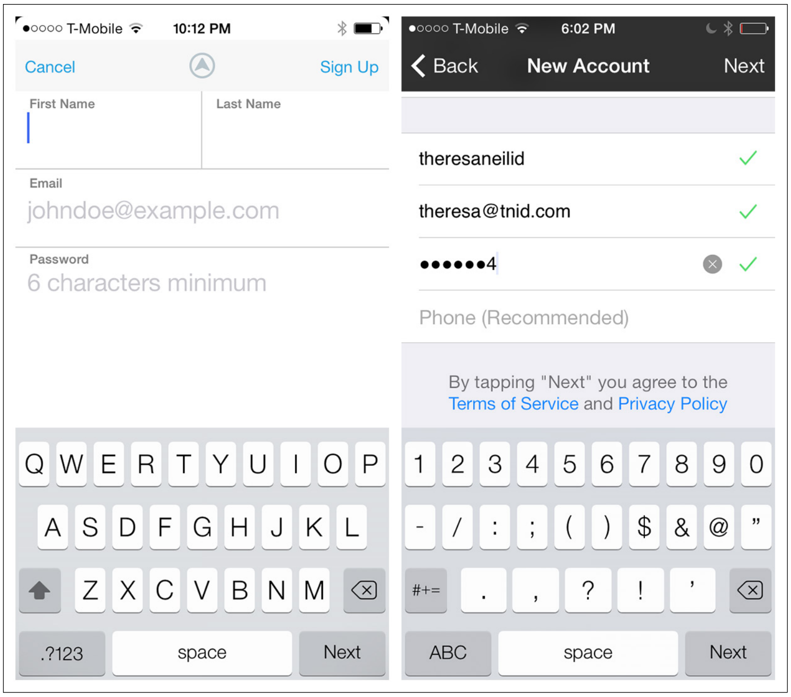
••••••••

Confirm Password

•••••••U

FIGURE 2-12.
NOOK for Android and LearnVest for iOS: redundant email and password fields

FIGURE 2-13.
Rove and Kik for iOS: testing validates use of single fields for email and password



johndoe@example.com

6 characters minimum

theresaneilid ✓

theresa@tnid.com ✓

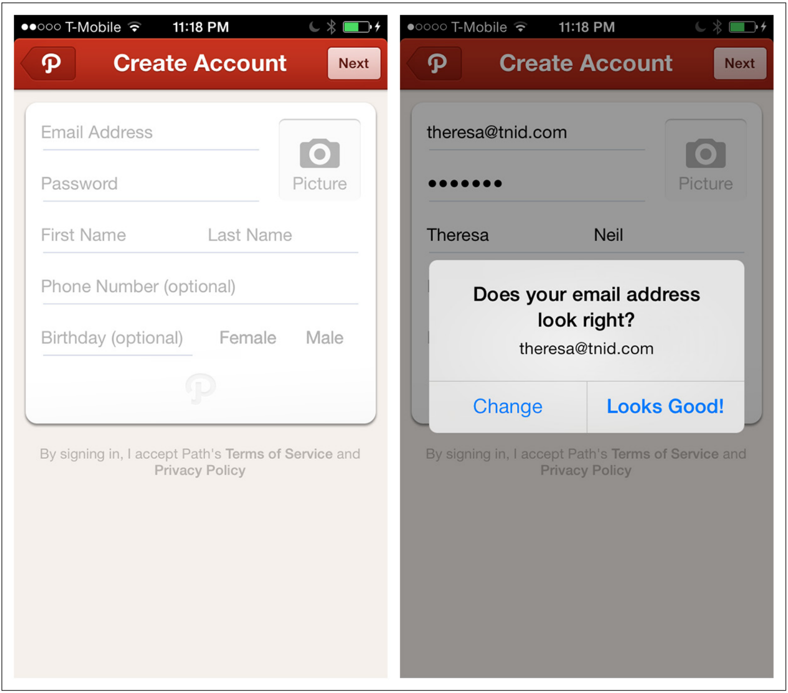
••••••4 ✓

Phone (Recommended)

By tapping "Next" you agree to the Terms of Service and Privacy Policy

Can't live without email confirmation? Path's Registration form is a bit longer, but it clearly marks the optional fields, and instead of asking for the email twice, it prompts users to double-check it.

Since this may be the first form you design for your application, establish a labeling convention that is easy to read. Polar, the fun polling app from form guru Luke Wroblewski provides a good example. Note that each field also has inline feedback and the password field has a Hide/Show option, which further makes redundant password entry unnecessary.


Create Account

Email Address

Password

First Name Last Name

Phone Number (optional)

Birthday (optional) Female Male

By signing in, I accept Path's Terms of Service and Privacy Policy

theresa@tnid.com

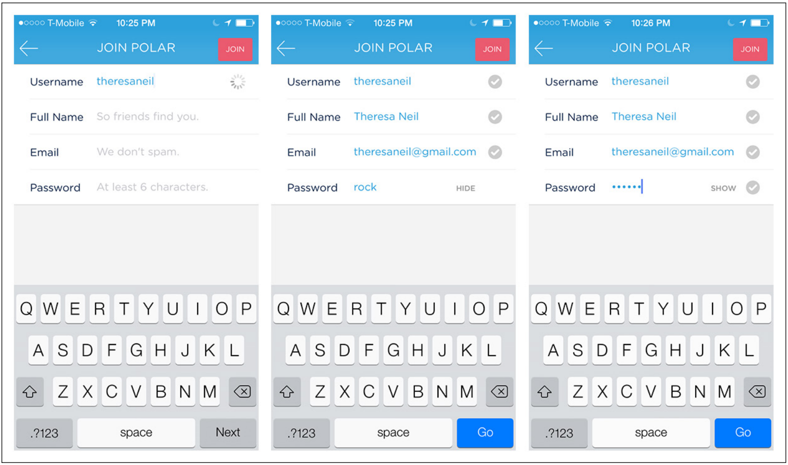
•••••••

Theresa Neil

Does your email address look right?

theresa@tnid.com

FIGURE 2-14.
Path for iOS clearly marks optional fields and uses a prompt to confirm email address


JOIN POLAR

Username	theresaneil
Full Name	So friends find you.
Email	We don't spam.
Password	At least 6 characters.

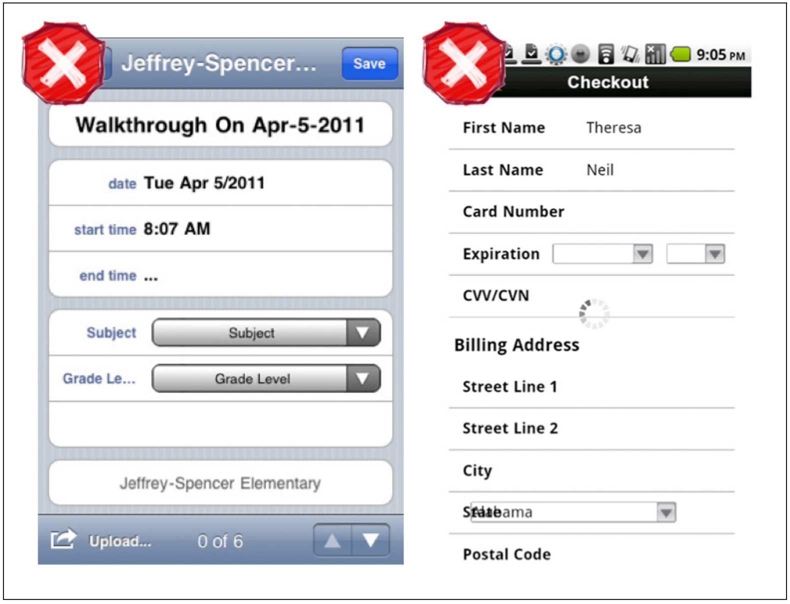
Username	theresaneil
Full Name	Theresa Neil
Email	theresaneil@gmail.com
Password	rock

Username	theresaneil
Full Name	Theresa Neil
Email	theresaneil@gmail.com
Password	••••••

FIGURE 2-15.
Polar for iOS is a good example of form layout and interaction design

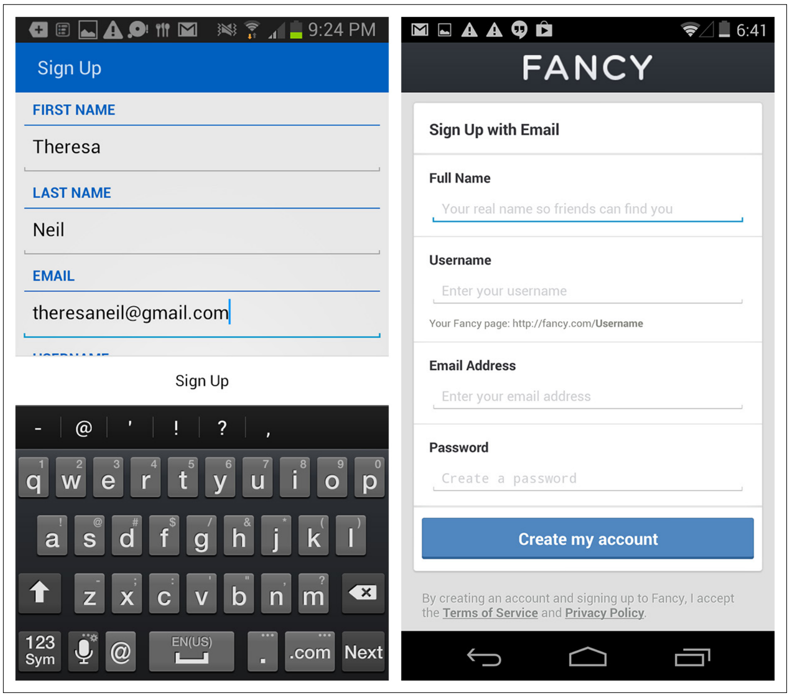
Horizontally aligned form labels might not be the best choice, since they can end up truncated or simply cut into the space needed to enter the value. Consider vertically aligned labels, like in Fancy and Remember The Milk.

FIGURE 2-16.
Horizontal labels can end up truncated or overlapped


Jeffrey-Spencer... Save
Walkthrough On Apr-5-2011
date Tue Apr 5/2011
start time 8:07 AM
end time ...
Subject: Subject
Grade Le...: Grade Level
Jeffrey-Spencer Elementary
Upload... 0 of 6

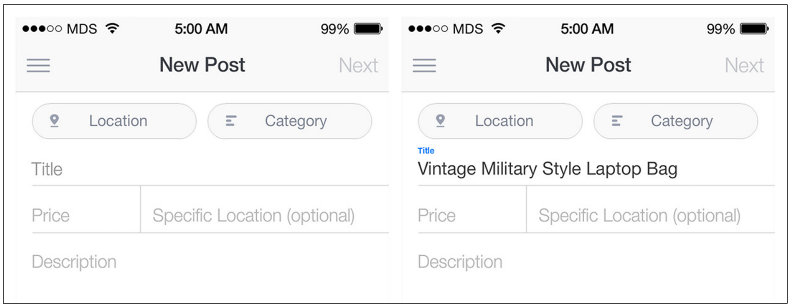
9:05 PM
Checkout
First Name: Theresa
Last Name: Neil
Card Number
Expiration
CVV/CVN
Billing Address
Street Line 1
Street Line 2
City
StateAlabama
Postal Code

FIGURE 2-17.
Remember The Milk and Fancy for Android: vertically aligned labels often work better


9:24 PM
Sign Up
FIRST NAME
Theresa
LAST NAME
Neil
EMAIL
theresaneil@gmail.com
Sign Up

6:41
FANCY
Sign Up with Email
Full Name
Your real name so friends can find you
Username
Enter your username
Your Fancy page: http://fancy.com/Username
Email Address
Enter your email address
Password
Create a password
Create my account
By creating an account and signing up to Fancy, I accept the Terms of Service and Privacy Policy.

Another option is to use *hint text* (i.e., faint text prepopulated in the field that prompts users for the required info). But this can create a problem, because it disappears once the user starts entering text. A distracted user can easily forget what she's supposed to enter in that field. The Float Label is an emerging pattern that may address some of the usability problems around watermark labels. See more on this from Matt Smith, the pattern's creator, at *http://mattdsmith.com/float-label-pattern/*.



New Post
Next
Location
Category
Title
Price
Specific Location (optional)
Description
Vintage Military Style Laptop Bag

FIGURE 2-18.
With the Float Label pattern, watermarks become labels "floating" above the field once text is entered

Another good practice is to offer inline feedback wherever possible and appropriate, like Instagram does for Account Name. See Chapter 8 for more tips.

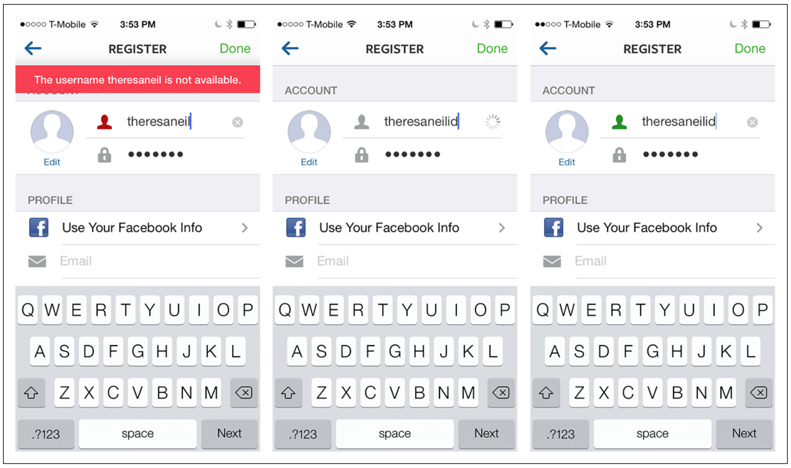
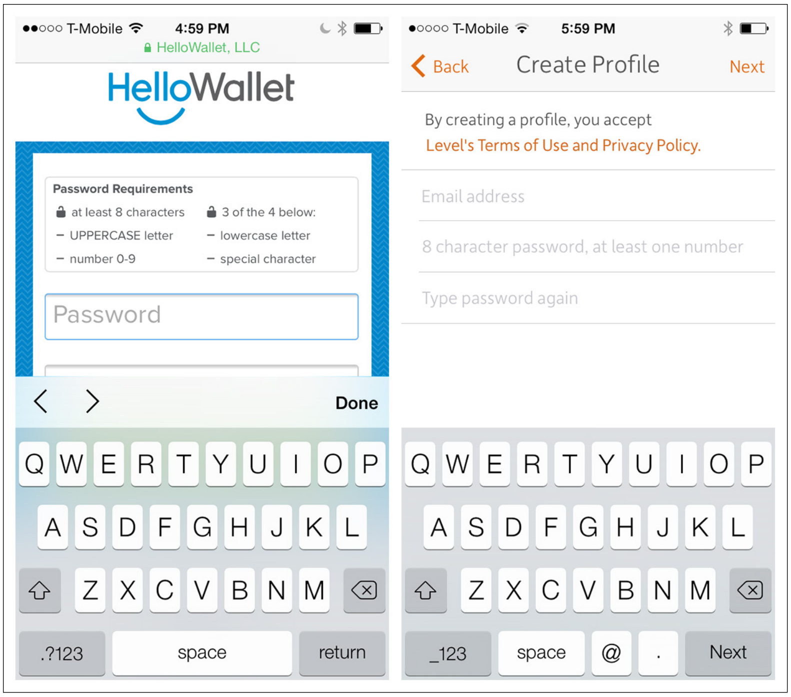


FIGURE 2-19.
Instagram for iOS: real-time inline feedback

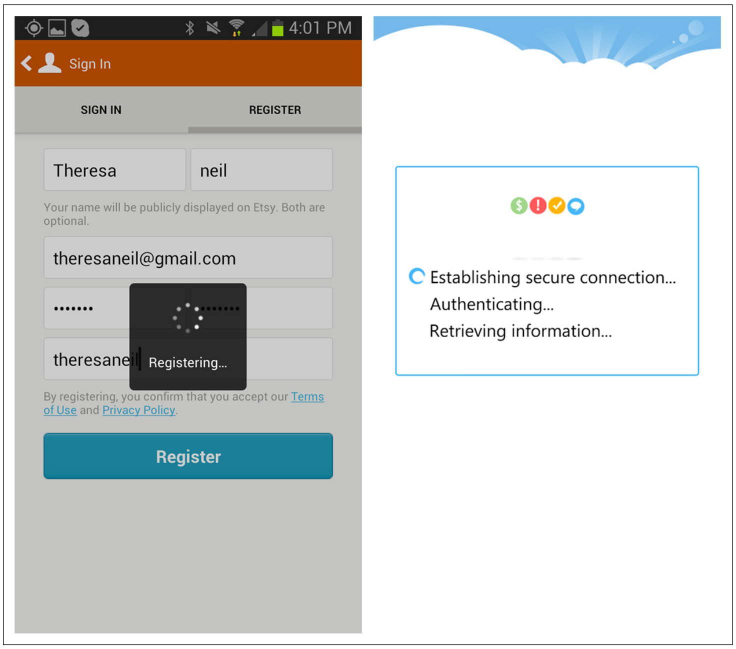
Will you have certain requirements for password security, like upper- and lowercase letters and so forth? Tell users that *before* they tap the Submit or Done button, not in an error message afterward. HelloWallet's instructions are bit much; Level is more succinct (although it could improve its registration experience overall, in my opinion).

FIGURE 2-20.
HelloWallet and Level for iOS: show password requirements up front

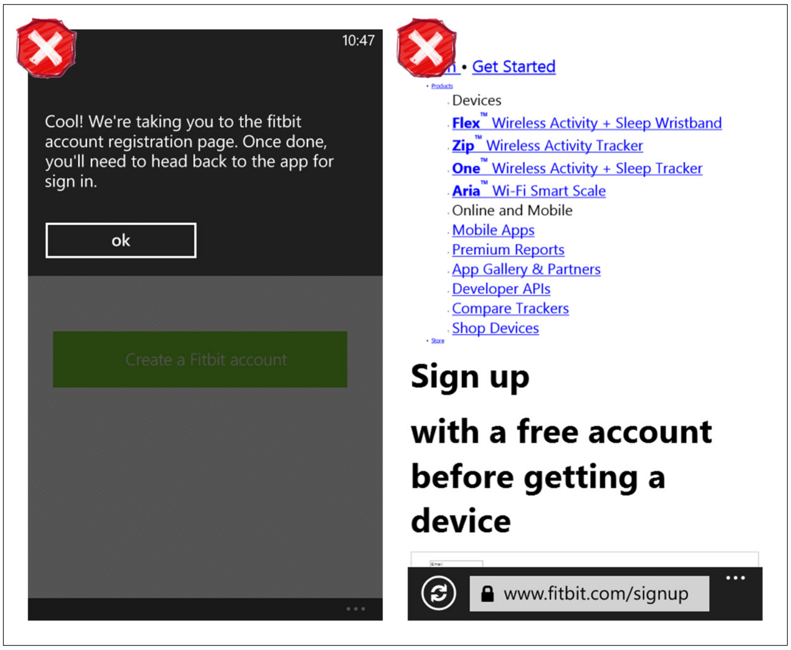


And once the user does submit a Registration form, offer feedback on progress, like in the Etsy and Pageonce apps for Android.

FIGURE 2-21.
Etsy and Pageonce for Android: once the form is submitted, offer the user feedback on progress


4:01 PM
Sign In
SIGN IN
REGISTER
Theresa
neil
Your name will be publicly displayed on Etsy. Both are optional.
theresaneil@gmail.com
theresaneil
Registering...
By registering, you confirm that you accept our Terms of Use and Privacy Policy.
Register
Establishing secure connection...
Authenticating...
Retrieving information...

During the registration process, keep the user within the application if at all possible. If you must link out to a form on a web page, at least test the form in mobile browsers to make sure it is usable. The designers of Fitbit for Windows Phone apparently didn't do this.


10:47

Cool! We're taking you to the fitbit account registration page. Once done, you'll need to head back to the app for sign in.

Sign up with a free account before getting a device

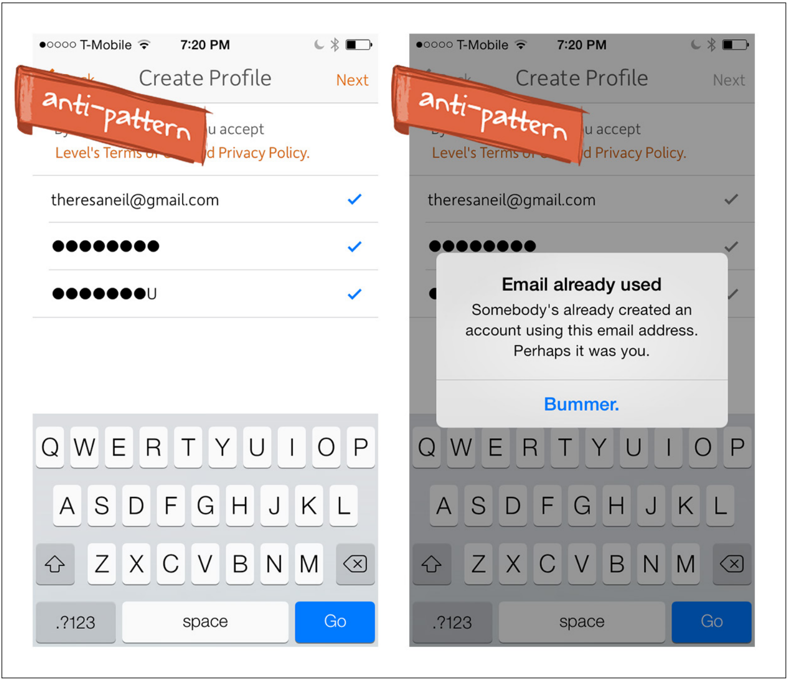
FIGURE 2-22. Fitbit for Windows Phone: miserable browser-based registration UX

Think of registration as a flow, and account for all possible user inputs. In another example from Level, I "accidentally" filled out the Registration form again, even though I already had an account. Even though there was a checkmark next to my email address—which would apparently indicate that it was acceptable—I received an error message because the email address was already in use. My only option was to tap "Bummer."

Why not tell me the email address is already in use when I enter it in the form field? Or how about at least redirecting me to the Sign In screen with my email address prepopulated instead of serving me a lame error message that gives me no clue as to what step to take next?

[NOTE]

Keep Registration forms short, preferably one screen, with the command button in plain sight. Clearly state field entry requirements and use inline feedback to speed up the process and let the user know what's going on. And account for all user scenarios.

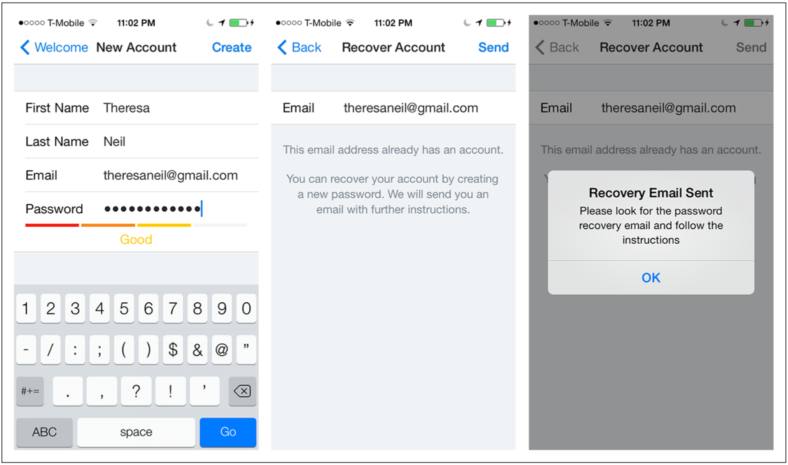


theresaneil@gmail.com

Email already used
Somebody's already created an account using this email address. Perhaps it was you.

FIGURE 2-23. Level for iOS: my email address has a checkmark by it, even though it's already in use

Dropbox offers an elegant solution for this same scenario. Once it recognizes my email address it assumes that I would like to sign in, not reregister. Since I most likely need recovery instructions for my password, it prepopulates my email address on the recovery screen, so I only have to tap Send and I'm on my way.



First Name Theresa
Last Name Neil
Email theresaneil@gmail.com

Email theresaneil@gmail.com

This email address already has an account.

You can recover your account by creating a new password. We will send you an email with further instructions.

Recovery Email Sent
Please look for the password recovery email and follow the instructions

FIGURE 2-24. Dropbox for iOS: elegant solution for the duplicate registration scenario

Registration with Personalization

This is a relatively new pattern designed to either offer more personalized content to the user (as shown with Ness and News360), enhance the experience through social connections (Path and Instagram), or capture data required for setup (Personal Capital).

The Multi-Step pattern we'll look at next offers examples of more elaborate Registration flows.

Facebook's recent Paper app veers toward the Needless Complexity anti-pattern (see Chapter 11), with its drag-and-drop UI for selecting topics of interest. Swiping and tapping like shown in Ness and News360 is more efficient and very easy to do with just a thumb. For more on that concept, see Luke Wroblewski's article "Designing for Thumb Flow" (*http://www.lukew.com/ff/entry.asp?1734=*).

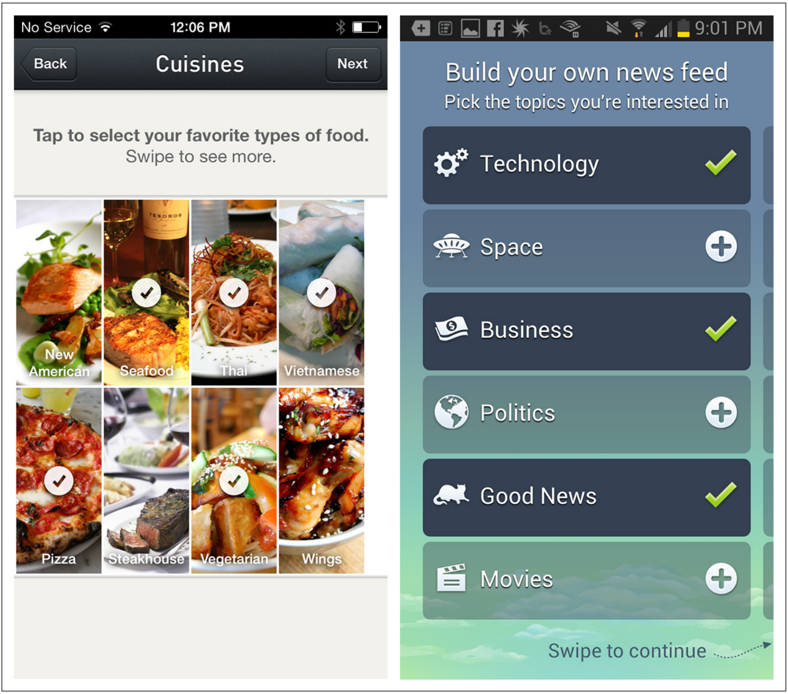


FIGURE 2-25.
Ness for iOS and News360 for Android: prompt for preferences in the Registration flow

FIGURE 2-26.
Facebook's Paper for iOS: drag-and-drop UI requires extra user effort (*http://youtu.be/UpZFw2wQr58*)

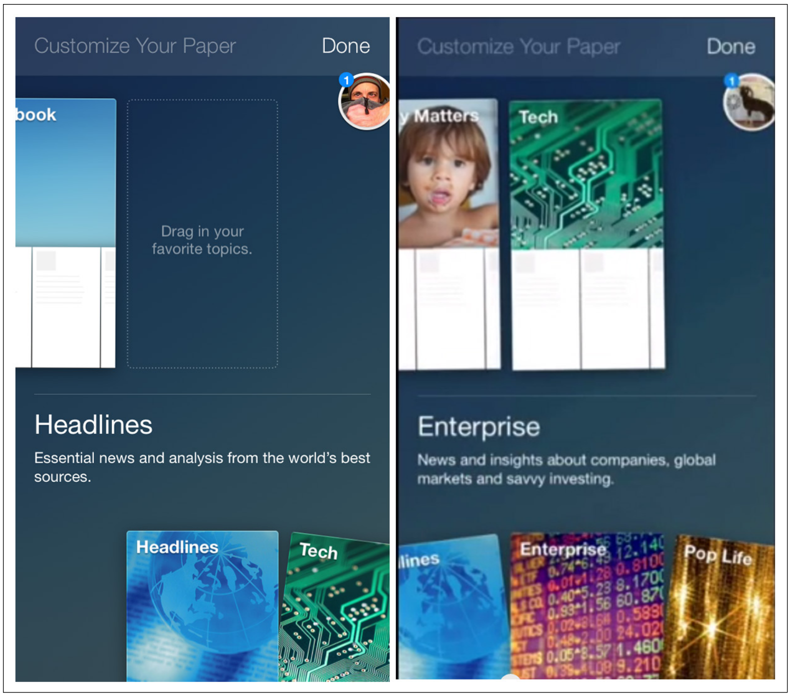
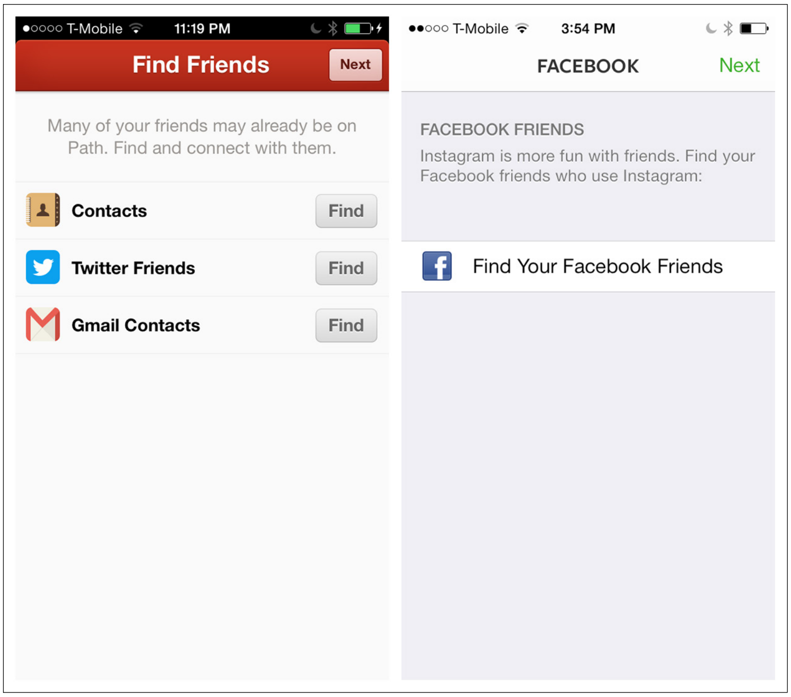

Customize Your Paper
Done
book
Drag in your favorite topics.
Headlines
Essential news and analysis from the world's best sources.
Headlines
Tech
Customize Your Paper
Done
y Matters
Tech
Enterprise
News and insights about companies, global markets and savvy investing.
lines
Enterprise
Pop Life

FIGURE 2-27.
Path and Instagram for iOS: encourage friend connections in the Registration flow



Many of your friends may already be on Path. Find and connect with them.

FACEBOOK FRIENDS

Instagram is more fun with friends. Find your Facebook friends who use Instagram:

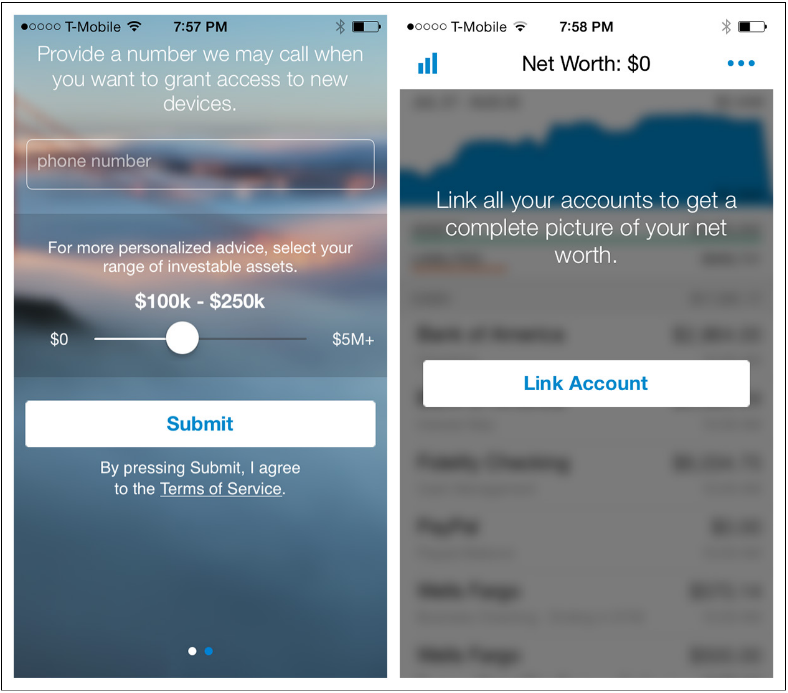

●○○○○ T-Mobile 7:57 PM
Provide a number we may call when you want to grant access to new devices.
phone number
For more personalized advice, select your range of investable assets.
$100k - $250k
$0
$5M+
Submit
By pressing Submit, I agree to the Terms of Service.
●○○○○ T-Mobile 7:58 PM
Net Worth: $0
Link all your accounts to get a complete picture of your net worth.
Link Account

FIGURE 2-28.
Personal Capital for iOS: prompts for phone number and asset range and provides an opportunity to link accounts

Multi-Step

On the Web, Multi-Step registration processes often use process bars to show users where they are and what's next. But with their smaller screens, mobile devices just don't have the real estate to display bulky process bars. You might be able to cram one in the title bar, but there are better ways to guide mobile users through a series of steps.

For an early version of the PayPal iOS app, stakeholders insisted on a process bar. Sending money was a process, after all. But compare the 2010–2011 version with the current, much cleaner evolution.

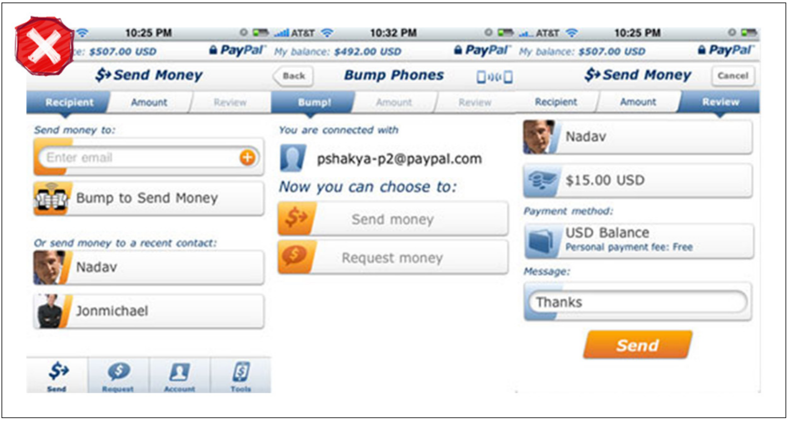


FIGURE 2-29. PayPal for iOS, circa 2010–2011: Send Money process bar

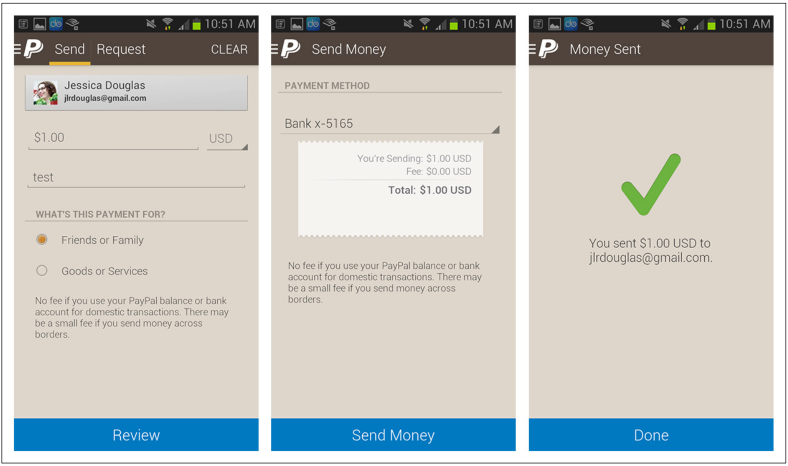


FIGURE 2-30. PayPal circa 2013: losing the process bar is part of a cleaner overall look

If steps have to be broken across multiple screens, skip the heavy process bar and consider displaying the current step among the total number of steps, like SnipSnap (displayed in the title bar) and Priceline (displayed in the footer).

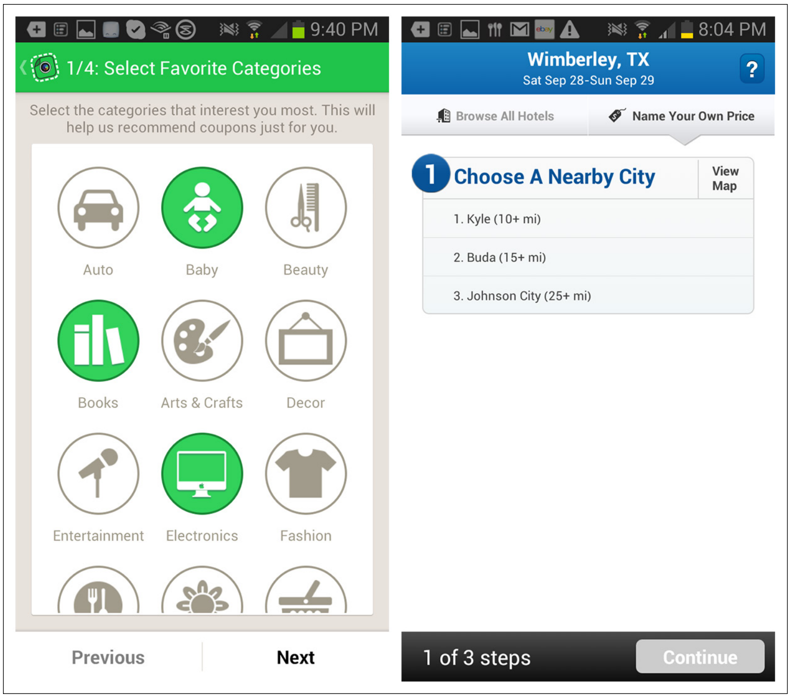


FIGURE 2-31.
SnipSnap and Priceline for Android: indicate the current step among the total number

In the first edition of the book, Home Depot's checkout process was included as an anti-pattern. The process bar was crowded with tiny text, and the checkout experience felt tedious. But it now offers a much-improved single-screen design.

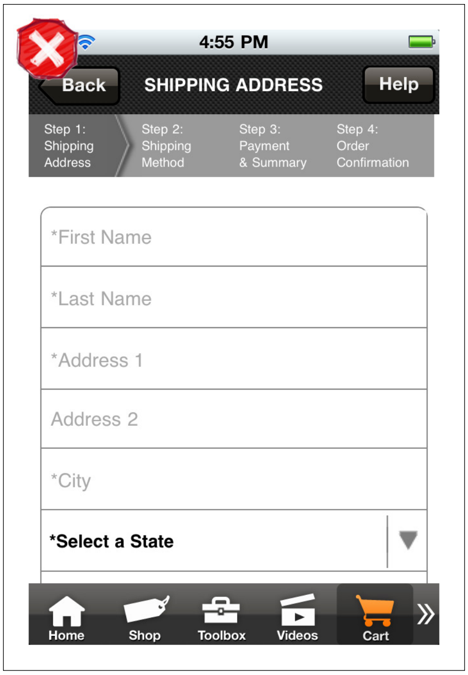
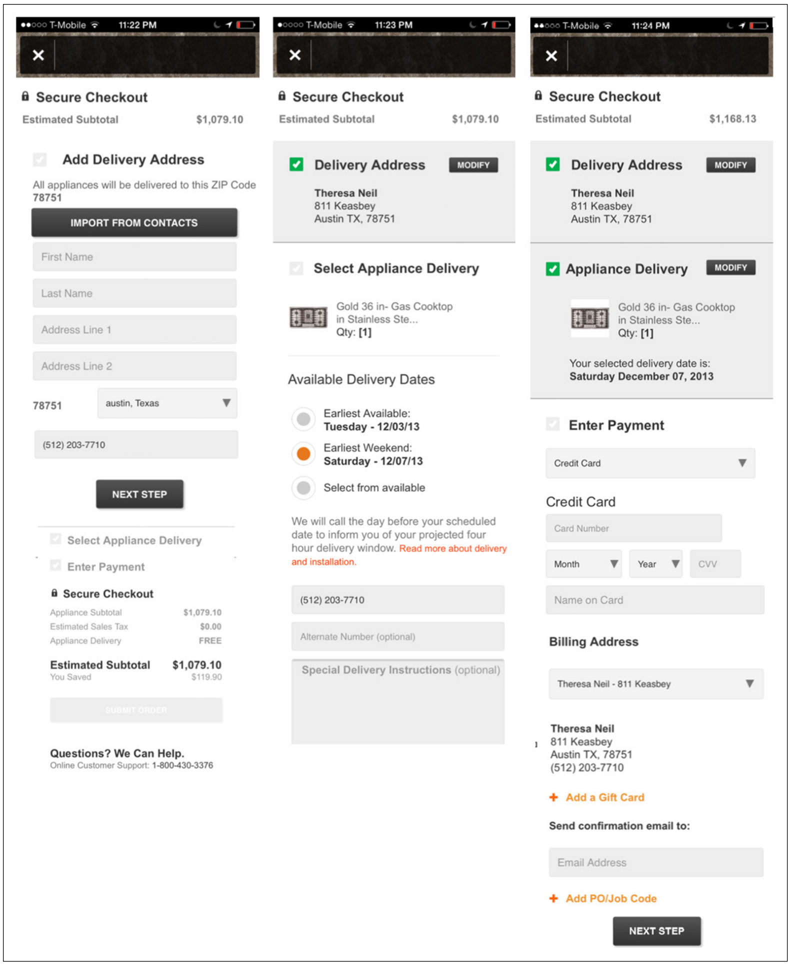


FIGURE 2-32.
Home Depot for iOS (2011): overcrowded process bar

The secure checkout process first captures the delivery address. Upon tapping Next, you then select the delivery date. The delivery address is still shown, but in a read-only mode, with an Edit button.

Once the delivery date is selected, tapping Next reveals the payment form. Upon completing the payment form, you can review the total, and all of the information entered previously—while never leaving this screen—and proceed to the next step.



Secure Checkout
Estimated Subtotal $1,079.10

Add Delivery Address
All appliances will be delivered to this ZIP Code 78751
IMPORT FROM CONTACTS
First Name
Last Name
Address Line 1
Address Line 2
78751 austin, Texas
(512) 203-7710
NEXT STEP
Select Appliance Delivery
Enter Payment

Secure Checkout
Appliance Subtotal $1,079.10
Estimated Sales Tax $0.00
Appliance Delivery FREE
Estimated Subtotal $1,079.10
You Saved $119.90
SUBMIT ORDER
Questions? We Can Help.
Online Customer Support: 1-800-430-3376

Secure Checkout
Estimated Subtotal $1,079.10

Delivery Address MODIFY
Theresa Neil
811 Keasbey
Austin TX, 78751

Select Appliance Delivery
Gold 36 in- Gas Cooktop in Stainless Ste...
Qty: [1]

Available Delivery Dates
Earliest Available: Tuesday - 12/03/13
[✓ Earliest Weekend: Saturday - 12/07/13]
Select from available
We will call the day before your scheduled date to inform you of your projected four hour delivery window. Read more about delivery and installation.
(512) 203-7710
Alternate Number (optional)
Special Delivery Instructions (optional)

Secure Checkout
Estimated Subtotal $1,168.13

Delivery Address MODIFY
Theresa Neil
811 Keasbey
Austin TX, 78751

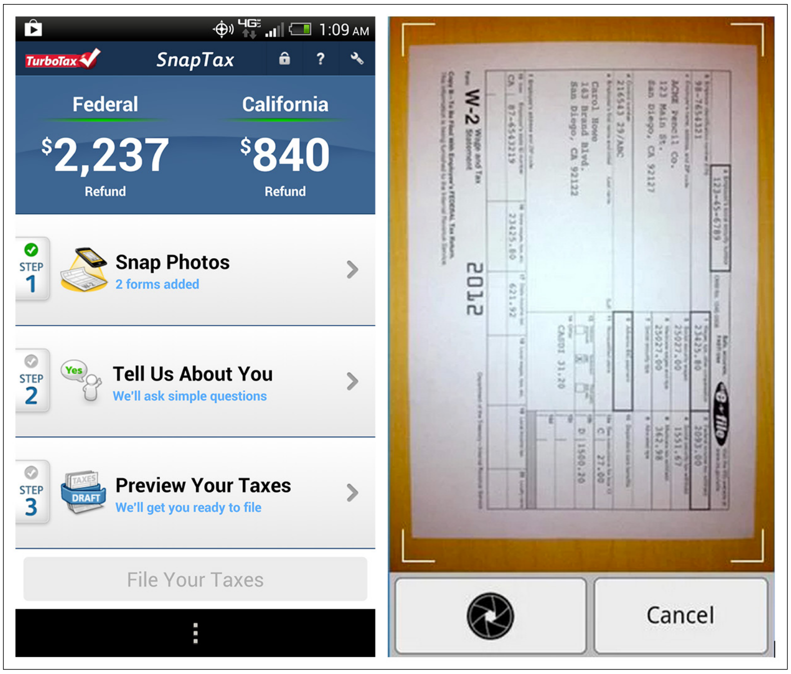
Appliance Delivery MODIFY
Gold 36 in- Gas Cooktop in Stainless Ste...
Qty: [1]
Your selected delivery date is:
Saturday December 07, 2013

Enter Payment
Credit Card
Credit Card
Card Number
Month Year CVV
Name on Card
Billing Address
Theresa Neil - 811 Keasbey
Theresa Neil
811 Keasbey
Austin TX, 78751
(512) 203-7710
+ Add a Gift Card
Send confirmation email to:
Email Address
+ Add PO/Job Code
NEXT STEP

FIGURE 2-33.
Home Depot for iOS (2013): much-improved checkout flow

TurboTax SnapTax uses a similar approach. However, the details for each step are collected in a drill-down screen instead of inline on the same screen. This single-page approach provides valuable navigation information (there are three steps in the process, two of which are remaining), and it also doubles as a high-level summary.

FIGURE 2-34.
Intuit's TurboTax SnapTax for Android and iOS: drill down to the details



Product configurators are a unique type of Multi-Step form that may need to allow for back-and-forth navigation, not just the typical linear flow. To enable this in its Drink Builder tool, Starbucks just uses Next- and Back-style buttons.

This works fine, but it is hard to see what's been specified in the customization screens without opening every one of the options and scrolling through the list.

A simple fix could be a persistent Summary or Details button in the footer, near the Nutrition tab and Info icon. The Audi Configurator does exactly that, with a Details button that opens to reveal all of the selected preferences so far.

[NOTE]

Show users where they are and where they can go, but skip the bulky process bar. Eliminate unnecessary fields and minimize the number of pages and steps.

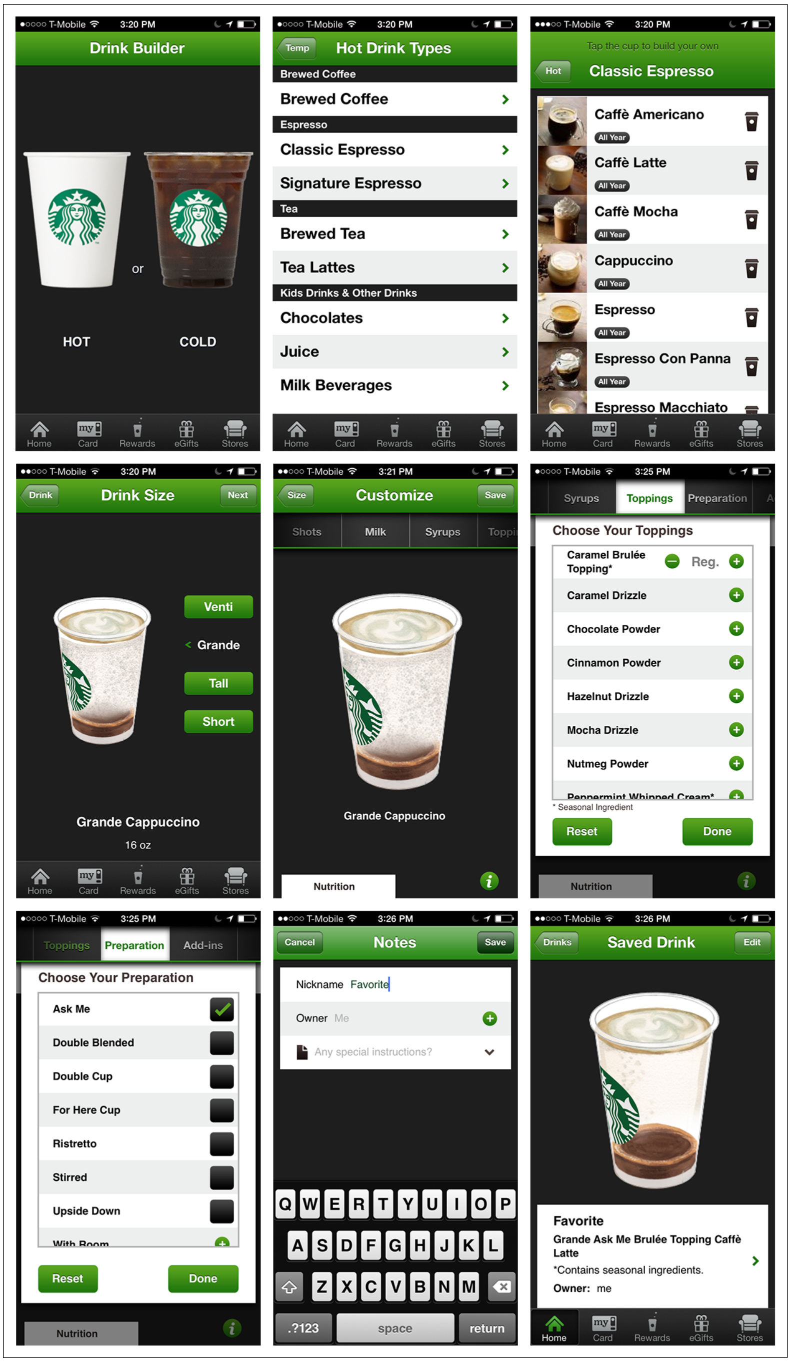
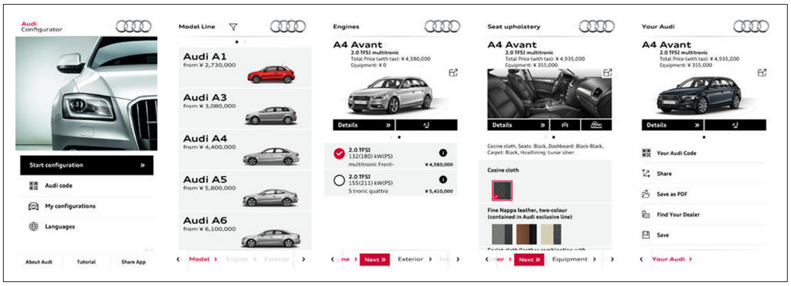


FIGURE 2-35. Starbucks Drink Builder for iOS: Next- and Back-style buttons (*http://www.youtube.com/watch?v=BvkeOdXD2SM*)

FIGURE 2-36. Audi Configurator for iOS: Persistent Details button reveals selected options

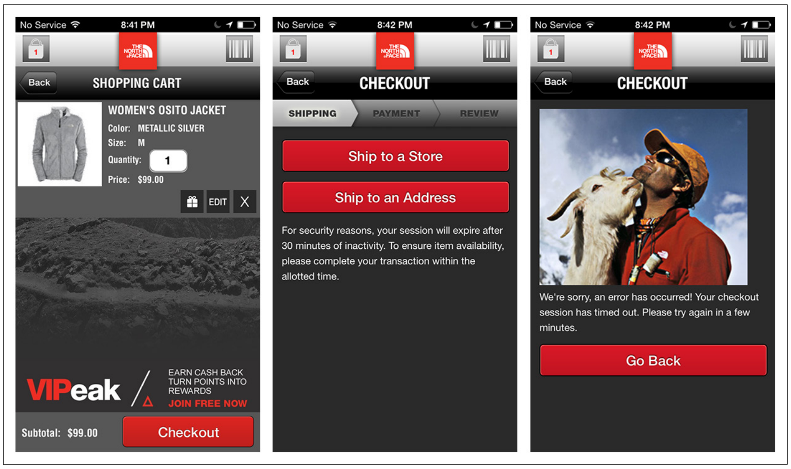


Checkout

As of January 2013, about 15% of ecommerce was being conducted via mobile devices, with the expectation that this will exceed 25% in a couple of years. However, even when the shopping experience starts on the phone, most people choose to finish the transaction, or checkout, via desktop or tablet or at the retailer.

In many cases, this is likely due to the incredibly bad checkout experiences many retailers include in their native apps. In others, it's because many retailers only let users shop in their apps and redirect them to a mobile-optimized site for checkout.

FIGURE 2-37. The North Face for iOS times out when I try to check out—every time! Grr! Why have a timeout anyway?



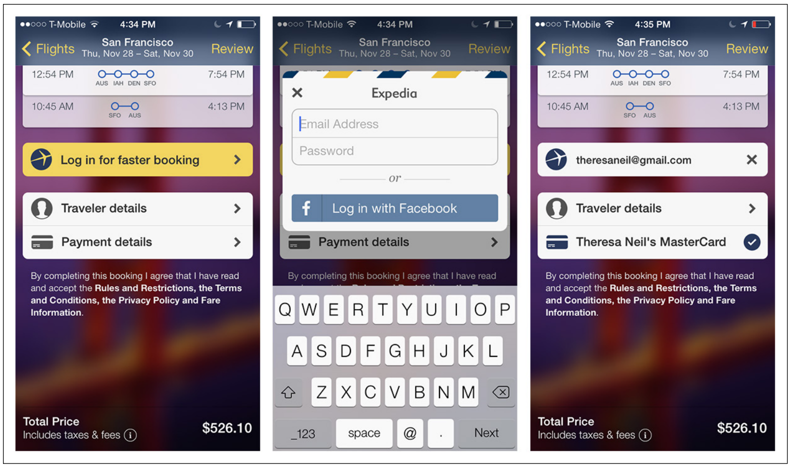
For security reasons, your session will expire after 30 minutes of inactivity. To ensure item availability, please complete your transaction within the allotted time.

We're sorry, an error has occurred! Your checkout session has timed out. Please try again in a few minutes.

Help your users buy right where they are, right when their interest is highest. Don't let a poor UX deter your customers from checking out on their phones, preferably right within the app they are shopping from. Here are some design tips for creating a high-conversion checkout flow.

Tip #1: Include Sign In, Register, and Guest Options

Allow customers to save their account information with their profiles for faster checkout in the future, but also offer guest checkout. You can always prompt the user to create an account after checkout is complete, when he is more comfortable with the experience.



By completing this booking I agree that I have read and accept the **Rules and Restrictions, the Terms and Conditions, the Privacy Policy and Fare Information.**

FIGURE 2-38.
Expedia for iOS: signing in prepopulates the checkout form with traveler and payment details

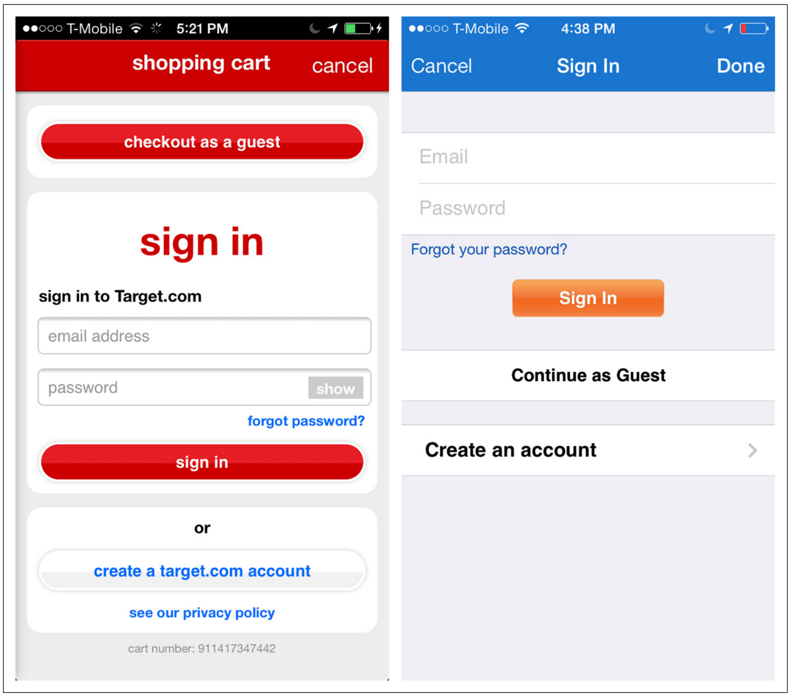
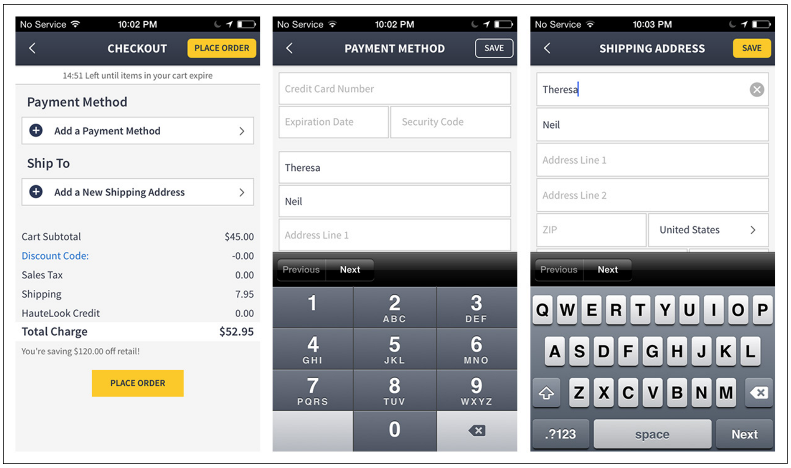


FIGURE 2-39.
Target and Walmart for iOS: offer guest checkout as well as Sign In/Register options

Tip #2: Streamline the Flow

Skip the process bar and consolidate multiple screens into one checkout page (see the earlier discussion of the Multi-Step pattern for a good example from Home Depot). Retailers like Haute and Apple present a single checkout form with sections users can drill down into to complete.



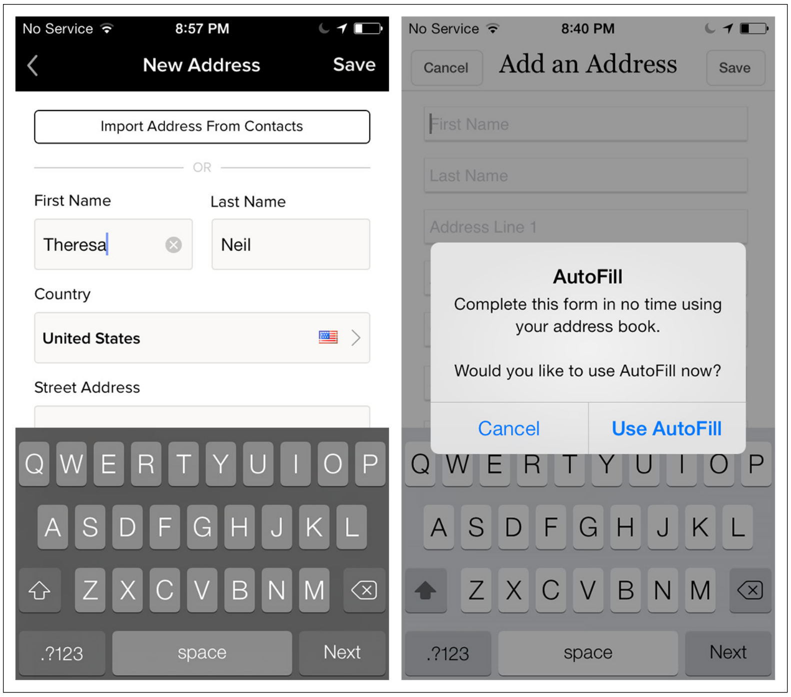
Cart Subtotal	$45.00
Discount Code:	-0.00
Sales Tax	0.00
Shipping	7.95
HauteLook Credit	0.00
Total Charge	$52.95

Theresa
Neil

FIGURE 2-40. Haute for iOS: single checkout screen with additional screens to add details

Tip #3: Provide Time-Saving Shortcuts

Offer an "Import Address from Contacts" option to quickly populate the user's shipping and billing addresses. Also, consider a Scan Card feature to save the user the trouble of typing in all of her credit card info.


No Service 8:57 PM

New Address Save

Import Address From Contacts

OR

First Name: Theresa

Last Name: Neil

Country: United States

Street Address

No Service 8:40 PM

Cancel Add an Address Save

First Name

Last Name

Address Line 1

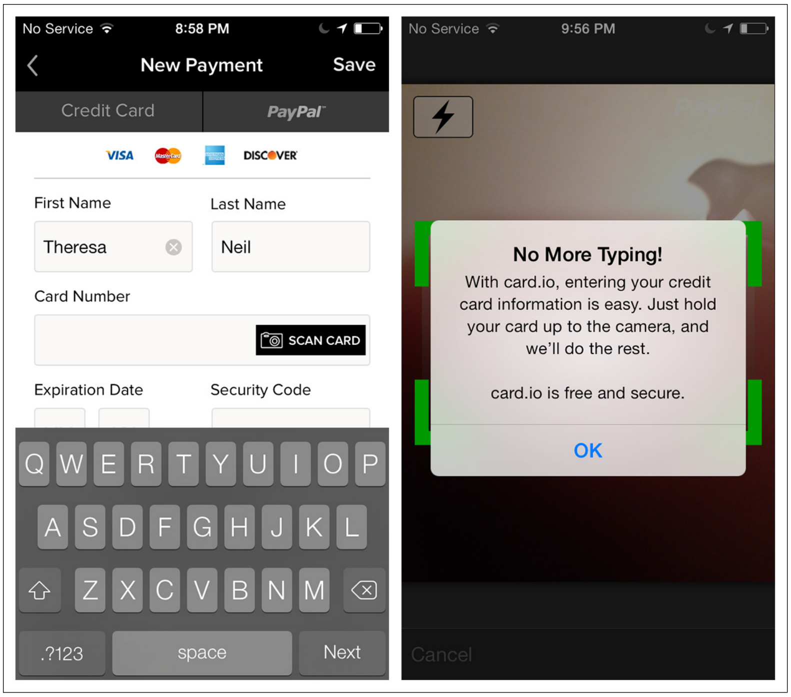
AutoFill

Complete this form in no time using your address book.

Would you like to use AutoFill now?

Cancel | Use AutoFill

FIGURE 2-41. Gilt and RuLaLa for iOS: optional import/autofill for entering addresses


No Service 8:58 PM

New Payment Save

Credit Card | PayPal

First Name: Theresa

Last Name: Neil

Card Number: SCAN CARD

Expiration Date

Security Code

No Service 9:56 PM

No More Typing!

With card.io, entering your credit card information is easy. Just hold your card up to the camera, and we'll do the rest.

card.io is free and secure.

OK

Cancel

FIGURE 2-42. Gilt for iOS: a Scan Card option via card.io

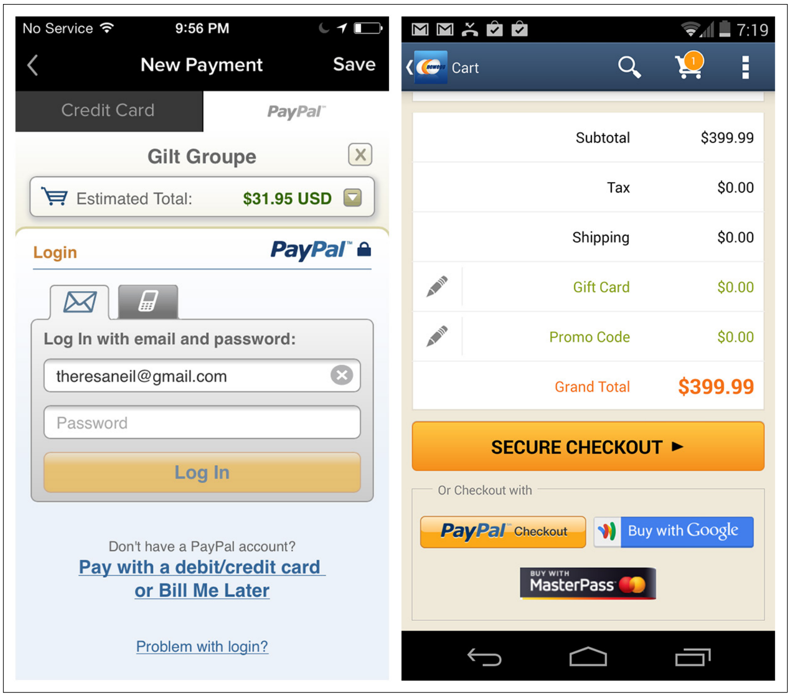


FIGURE 2-43. Gilt for iOS and Newegg for Android: alternative payment options via PayPal and Google Wallet

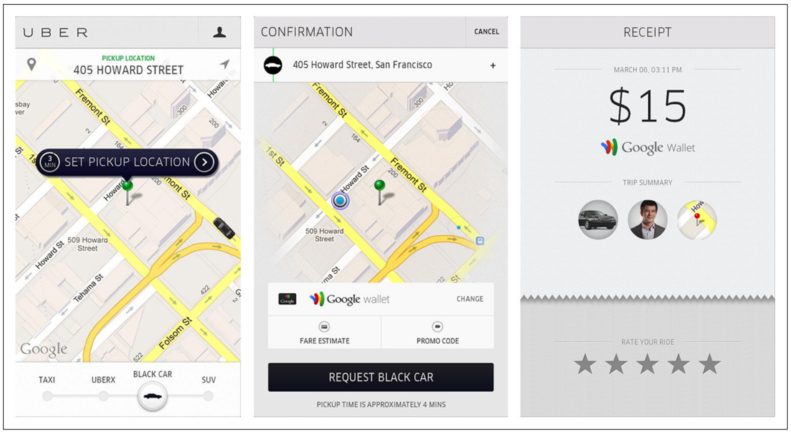


FIGURE 2-44. Uber for iOS integrates Google Wallet to simplify booking a car

Tip #4: Offer Express Checkout

Consider offering an ultra-streamlined checkout process for registered users. The Apple Store prompts users with an option to set up Express Checkout. Amazon offers 1-Click checkout right on the product details page. In the example shown, there are two buttons for Mobile 1-Click, both in bright, call-to-action orange and sporting the 1-Click icon.

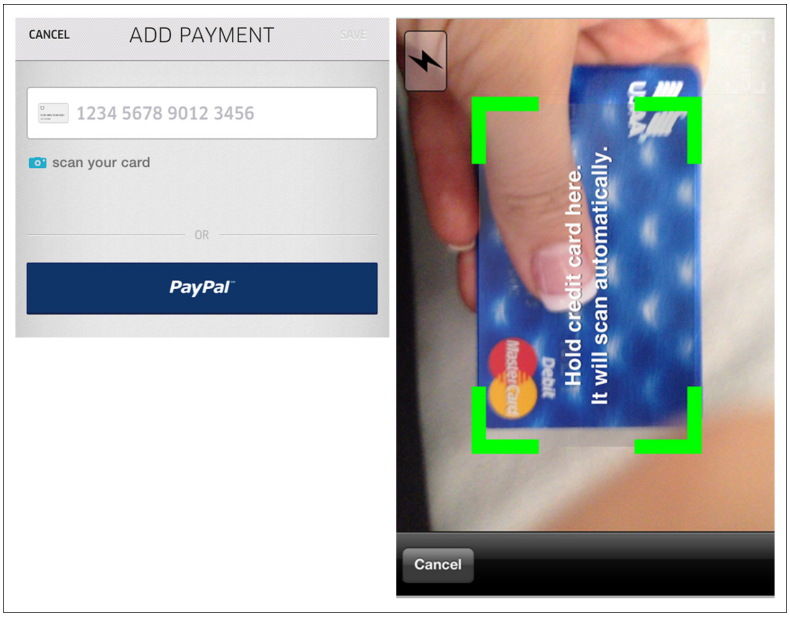


FIGURE 2-45.
Uber for iOS also offers credit card scan and PayPal options

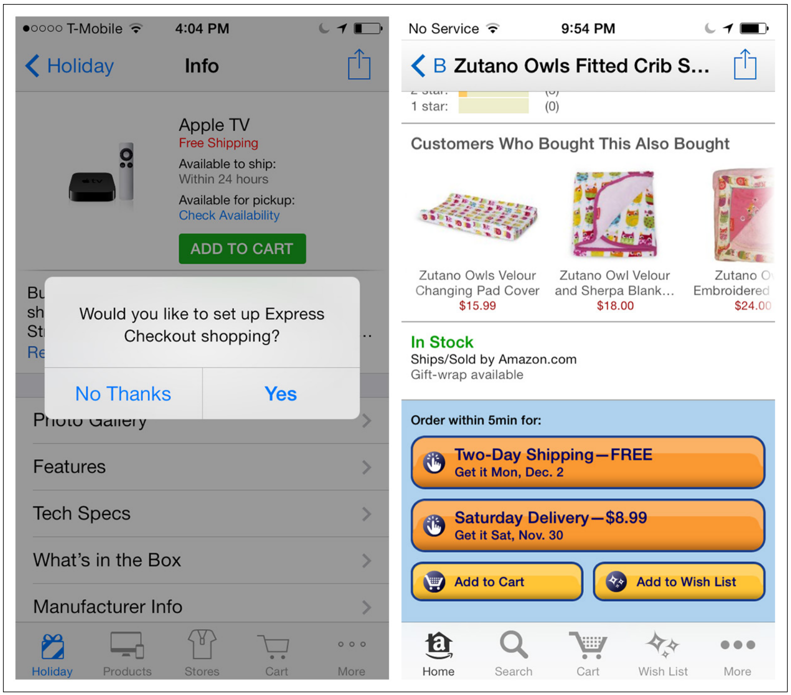


FIGURE 2-46.
Apple Store and Amazon for iOS: express checkout options

Tip #5: Forget the Web

Shopping on the Web has familiarized us all with the shopping cart metaphor and the multi-step checkout process, but the mobile retail space is ripe for innovation. Apple, Walmart, Target, and other retailers are experimenting with new checkout experiences both in and outside of the stores, with an eye to converting more sales on mobile.

Walmart's Scan & Go feature, for instance, lets in-store customers skip the checkout line by scanning their own items as they add them to their shopping carts. Walmart reports that over half of all first-time users eventually use the feature again.

[NOTE]

Design for mobile conversion by streamlining the checkout flow, eliminating unnecessary steps, and providing shortcuts. Look past web shopping conventions and take advantage of what native mobile technology can do.

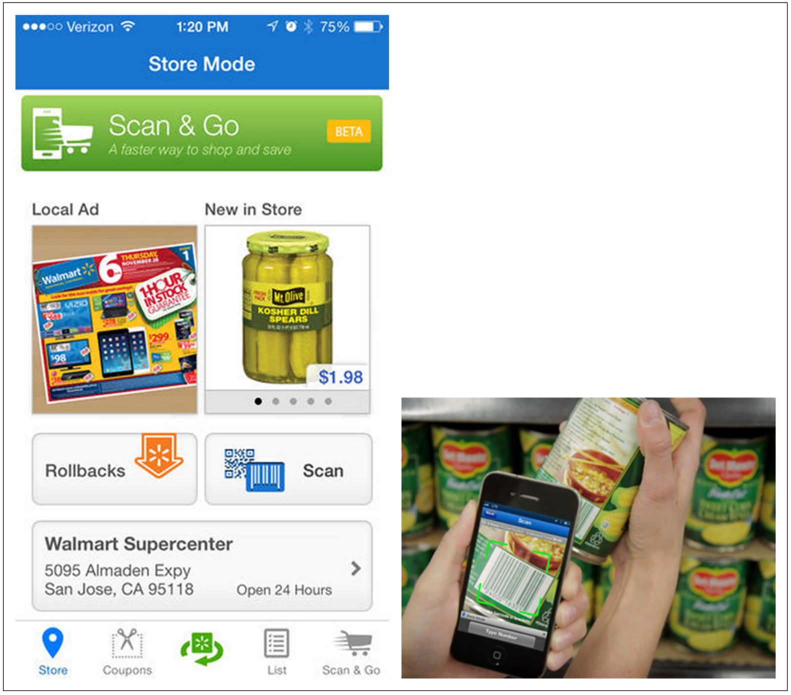


FIGURE 2-47.
Walmart for iOS: Scan & Go feature lets you skip the checkout line by scanning your own items

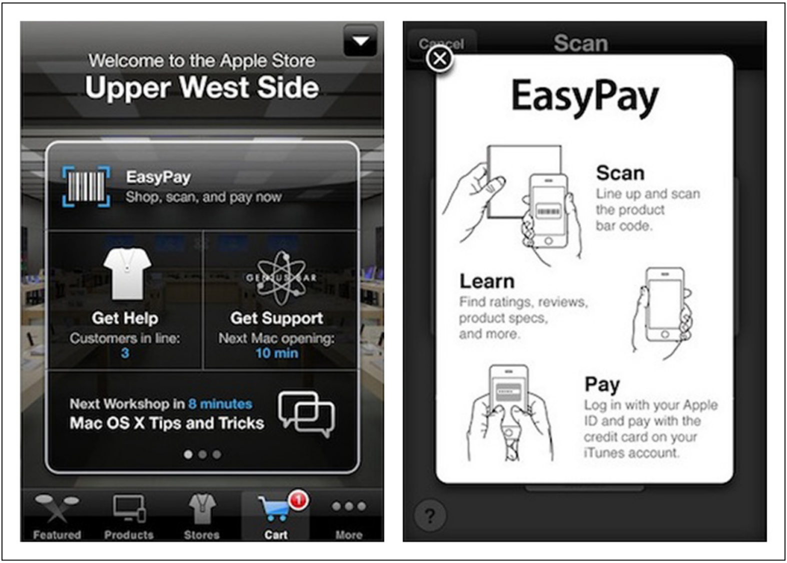

Welcome to the Apple Store
Upper West Side
EasyPay
Shop, scan, and pay now
Get Help
Customers in line: 3
Get Support
Next Mac opening: 10 min
Next Workshop in 8 minutes
Mac OS X Tips and Tricks
Featured
Products
Stores
Cart
More
Cancel
Scan
EasyPay
Scan
Line up and scan the product bar code.
Learn
Find ratings, reviews, product specs, and more.
Pay
Log in with your Apple ID and pay with the credit card on your iTunes account.

FIGURE 2-48. The Apple Store includes the EasyPay self-checkout feature

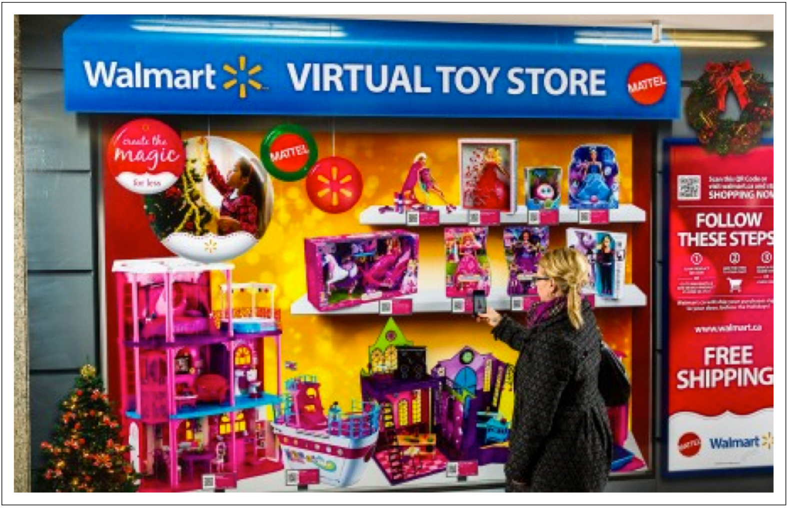


FIGURE 2-49. Walmart Canada and Mattel's Virtual Toy Store (*http://bit.ly/1g3f9Ld*): scan a QR code to purchase an item

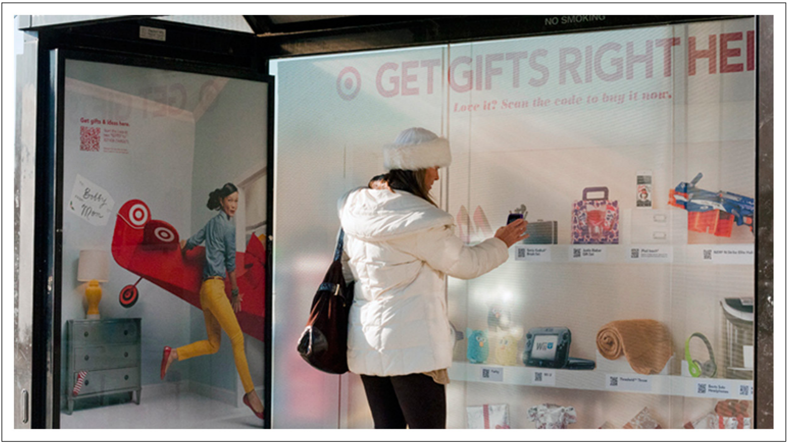


FIGURE 2-50. Target and CBS Outdoors (*http://bit.ly/1g3fi14*): a bus stop becomes a "digital holiday experience"

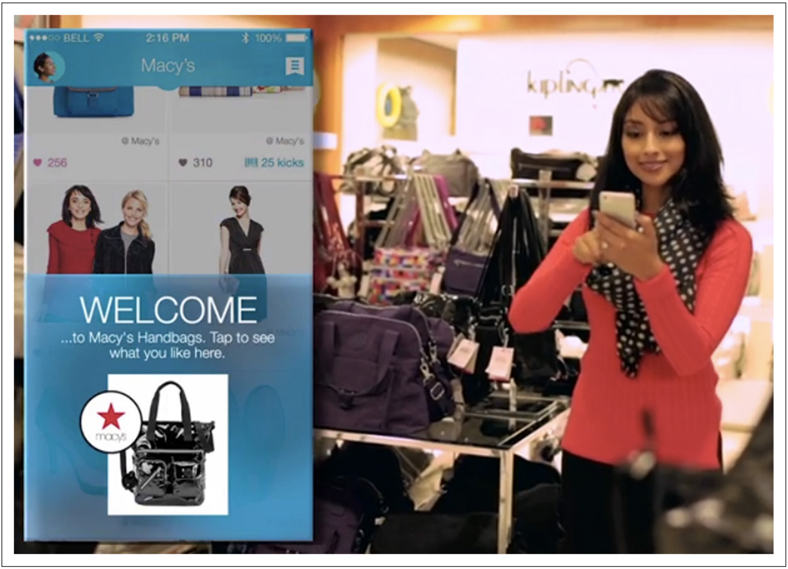
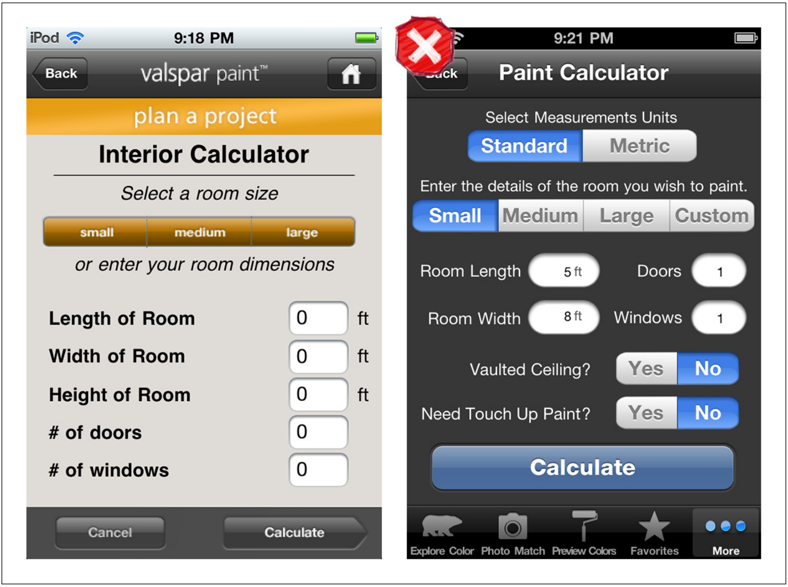


FIGURE 2-51. ShopKick's ShopBeacon (*http://tcrn.ch/1g3fLR2*) for finding deals and PayPal Beacon (*http://bit.ly/1g3fQUG*) for accepting payments both use proximity-based Bluetooth to personalize and simplify mobile purchases

Calculator Forms

Calculator-style apps, like weight trackers, tax estimators, and loan calculators, all require user input. And although these forms can accommodate custom controls and layouts, it is still important to follow basic conventions to make sure they are readable.

Alignment, labels, fonts, button placement, contrast, and colors all affect the usability of mobile forms. For example, compare the readability of the Valspar Paint Calculator, with its well-aligned fields and labels, with that of the Behr Paint Calculator.

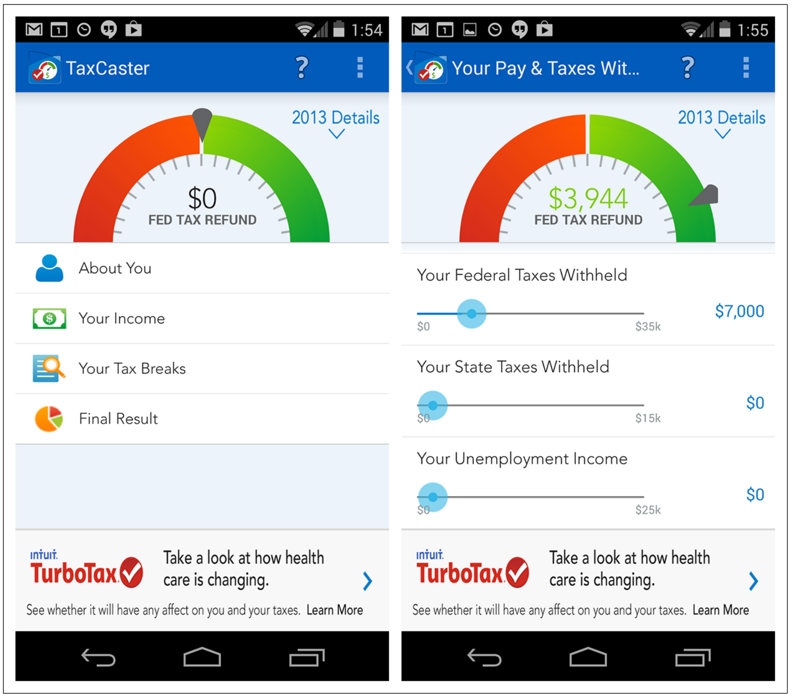


Length of Room	0	ft
Width of Room	0	ft
Height of Room	0	ft
# of doors	0	
# of windows	0	

Room Length 5 ft
Doors 1
Room Width 8 ft
Windows 1
Vaulted Ceiling? Yes [✓ No]
Need Touch Up Paint? Yes [✓ No]

FIGURE 2-52.
The Valspar Paint Calculator, with well-aligned fields, is easier to read than the Behr Paint Calculator

The best calculation apps tightly correlate the input with a visual result. TaxCaster uses a gauge-style chart to visualize the amount of taxes due or to be refunded. The gauge updates as data is entered.



$0
FED TAX REFUND

$3,944
FED TAX REFUND

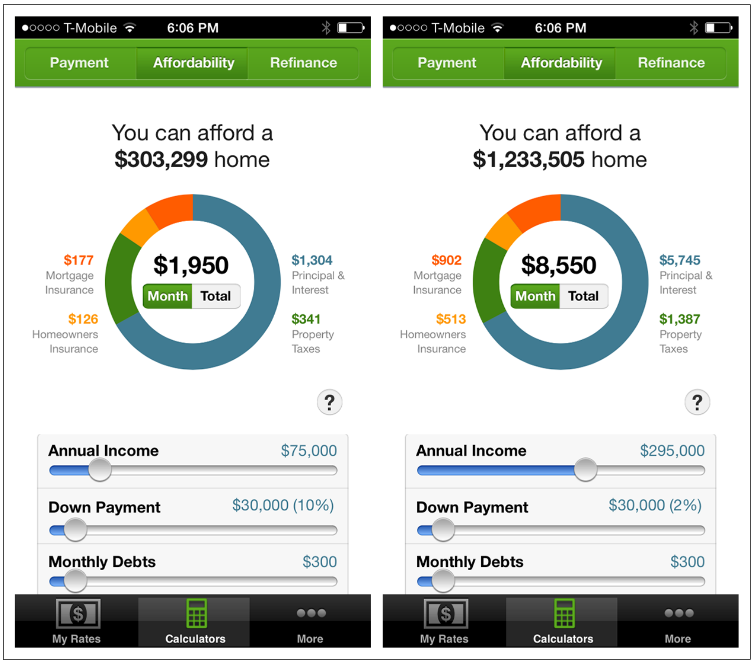
Your Federal Taxes Withheld $0 – $35k: $7,000
Your State Taxes Withheld $0 – $15k: $0
Your Unemployment Income $0 – $25k: $0

FIGURE 2-53.
TaxCaster for Android: gauge updates as input is changed

[NOTE]

Use standard form conventions for calculator form layout. Add interactive visualizations if they are appropriate for the way the app will be used.

The Zillow and Trulia Real Estate Calculators also provide a real-time view of data inputs.



You can afford a $303,299 home

$1,950

$177 Mortgage Insurance

$126 Homeowners Insurance

$1,304 Principal & Interest

$341 Property Taxes

Annual Income $75,000

Down Payment $30,000 (10%)

Monthly Debts $300

You can afford a $1,233,505 home

$8,550

$902 Mortgage Insurance

$513 Homeowners Insurance

$5,745 Principal & Interest

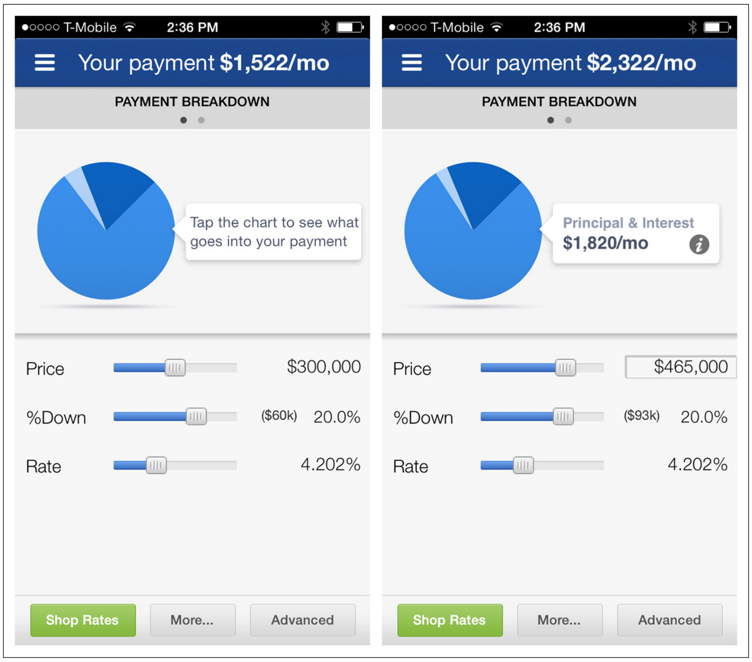
$1,387 Property Taxes

Annual Income $295,000

Down Payment $30,000 (2%)

Monthly Debts $300

FIGURE 2-54. Trulia Real Estate Calculator for iOS: real-time feedback



Your payment $1,522/mo

Tap the chart to see what goes into your payment

Price $300,000

%Down ($60k) 20.0%

Rate 4.202%

Your payment $2,322/mo

Principal & Interest $1,820/mo

Price $465,000

%Down ($93k) 20.0%

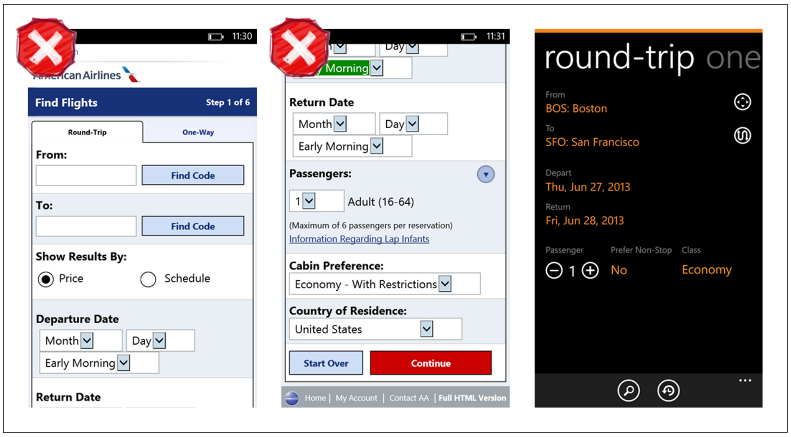
Rate 4.202%

FIGURE 2-55. Zillow Mortgage Calculator for iOS: display changes with data input

Search Forms

Some searches require multiple inputs to generate results. Like the other form patterns, Search forms should have only the essential or most requested fields and provide sensible defaults. You can always offer a filter option on the results page to let people refine the results list. I'll focus on the form itself here; see Chapter 4 for more on search, sort, and filter patterns.

Compare the confusing layout of the American Airlines Search form with the clean design in Kayak.



From:

To:

Show Results By: [✓ Price] Schedule

Departure Date: Month Day Early Morning

Return Date: Month Day Early Morning

Passengers: 1 Adult (16-64)

(Maximum of 6 passengers per reservation)

Information Regarding Lap Infants

Cabin Preference: Economy - With Restrictions

Country of Residence: United States

From: BOS: Boston

To: SFO: San Francisco

Depart: Thu, Jun 27, 2013

Return: Fri, Jun 28, 2013

Passenger: 1 | Prefer Non-Stop: No | Class: Economy

FIGURE 2-56. American Airlines (2013) and Kayak for Windows Phone: clutter versus clean

Zillow has a solid design that offers a preview of the number of results directly on the form. If you register with Zillow, you can also save this search, to save time and effort in future searches.

Hipmunk offers a concise Search form, as well as an added bonus of fare alerts. Fare alerts are similar to saved searches in that they provide an extra level of efficiency for the mobile user by saving the search criteria; but unlike a simple saved search, fare alerts provide in-app notification when fares change. This is a critical part of Hipmunk's success, since the alerts bring the users back into the app again and again.

FIGURE 2-57.
Zillow for iOS displays the number of results as inputs are entered on the form

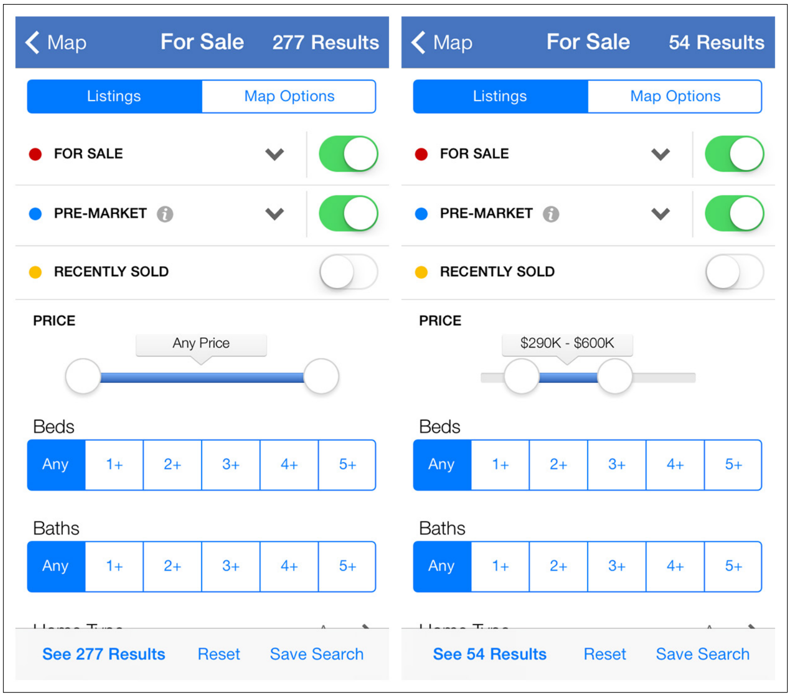
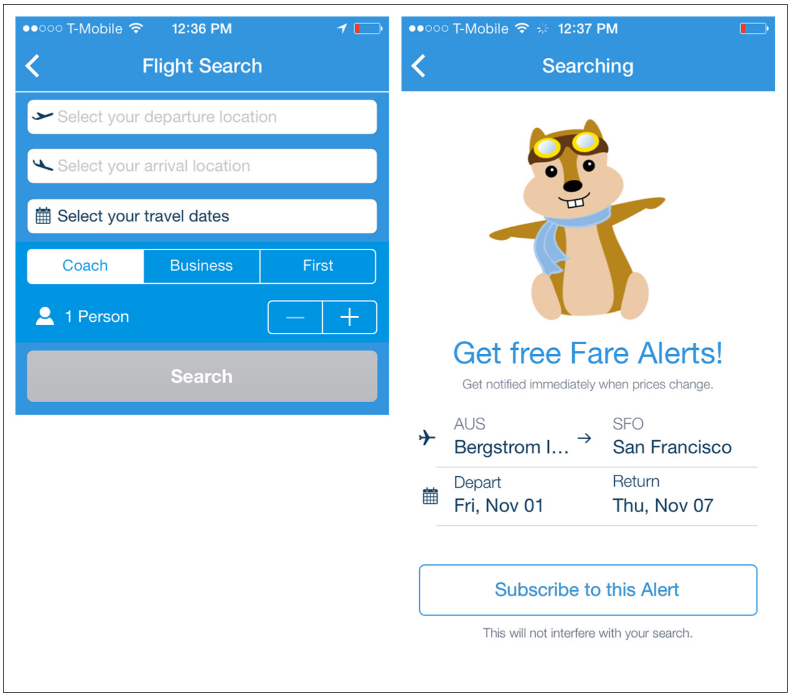


FIGURE 2-58.
Hipmunk for iOS: fare alerts add money-saving utility to saved searches



Let's look at the OpenTable Search form from 2011 and compare it with the more recent iOS 7 app. The early design is a full Search form with four to five fields and a large red call-to-action button.

The iOS 7 design opens up with a list of nearby restaurants and possible seating times for today. This is an example of an Implicit Search, as discussed in Chapter 4. Search is now just an overlay with three fields, with autosuggest enabled for the restaurant name field.

[NOTE]

Keep Search forms short and simple; aim for a single page of criteria or less. Offer reasonable defaults and the option to save the search for later.

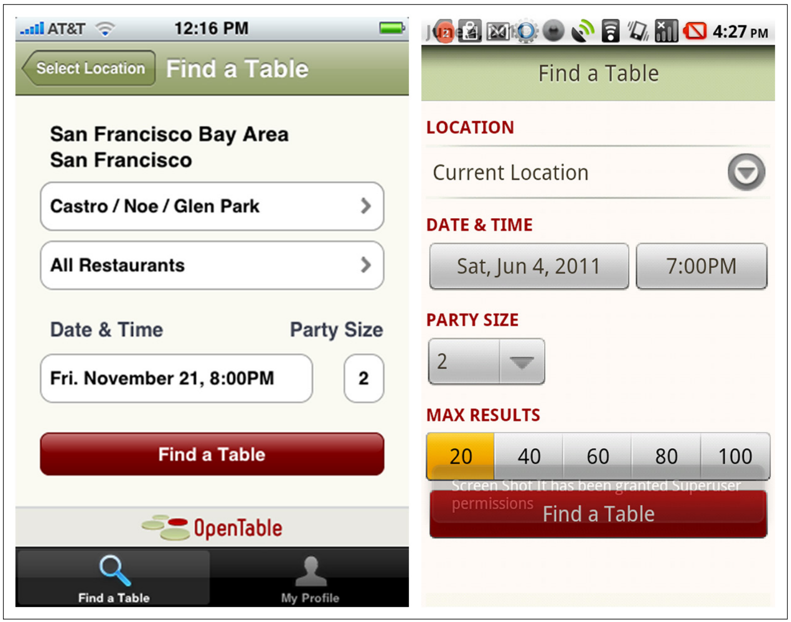


FIGURE 2-59. OpenTable for iOS and Android (2011): user must enter all Search criteria

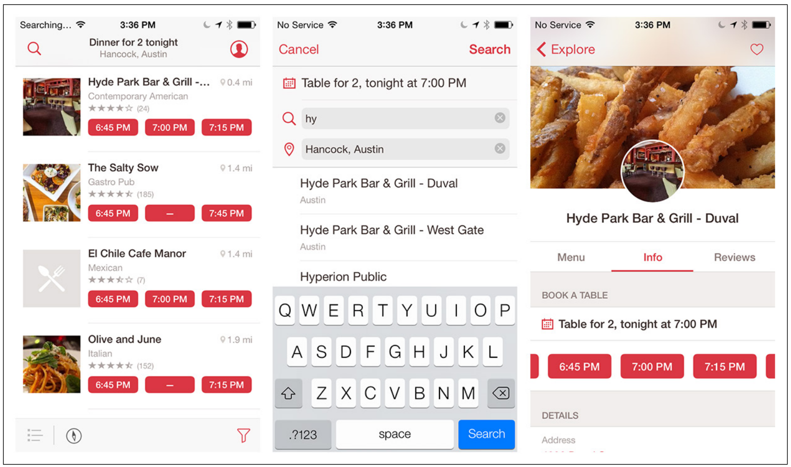
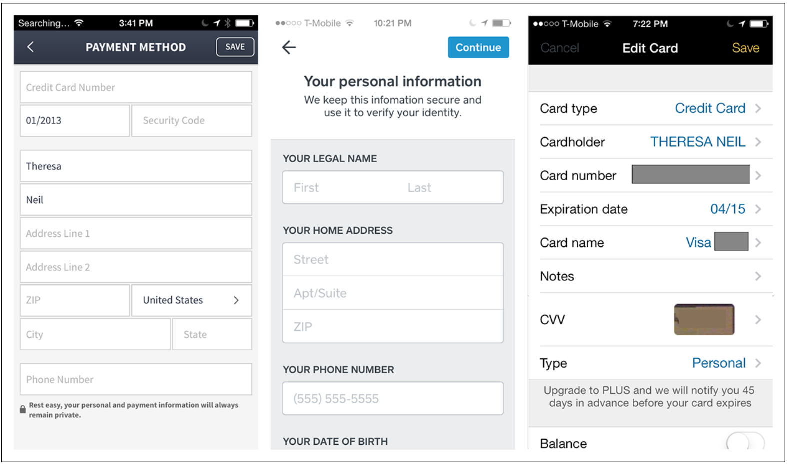


FIGURE 2-60. OpenTable for iOS 7: Implicit Search autosuggests nearby options

Long Forms

Some forms can't fit on a single screen. In these cases, a long scrolling page is vastly preferable to a form broken up across multiple pages. The trickiest part of the Long Form is where to put the Command and Escape buttons.

In most iOS apps, forms are presented in a modal context. The iOS 7 design guidelines (*http://bit.ly/1g3h0j5*) recommend that the Command button reside at the top right and the Escape button (typically Back or Cancel) at the top left.



Rest easy, your personal and payment information will always remain private.

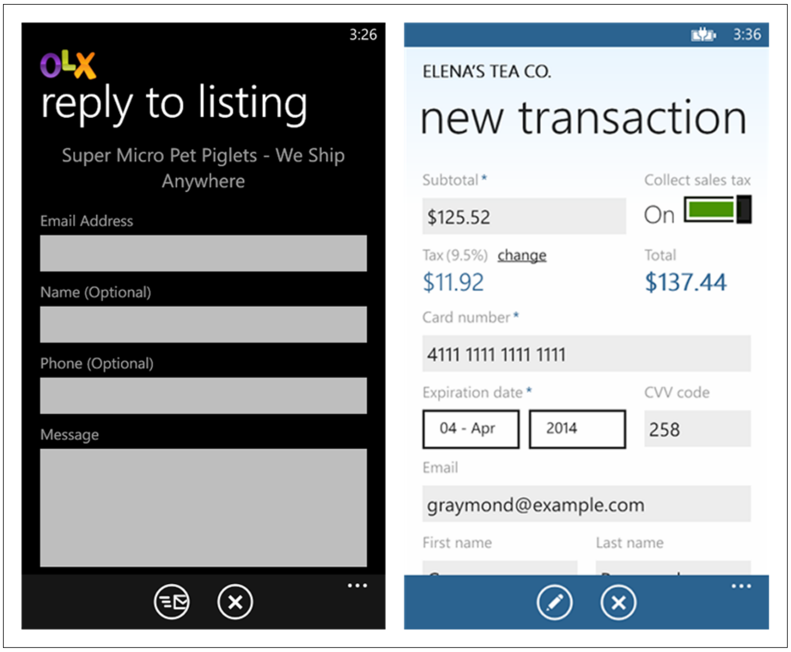
Your personal information

We keep this infomation secure and use it to verify your identity.

Upgrade to PLUS and we will notify you 45 days in advance before your card expires

FIGURE 2-61.
HauteLook, Square, and Lemon Wallet for iOS: Command button at top right

Windows Phone 8 design guidelines (*http://bit.ly/1g3h4PM*) suggest that the Command button should reside in the App Bar (which runs across the bottom of the screen).


3:26

OLX

reply to listing

Super Micro Pet Piglets - We Ship Anywhere

Email Address

Name (Optional)

Phone (Optional)

Message

3:36

ELENA'S TEA CO.

new transaction

Subtotal *	Collect sales tax
$125.52	On
Tax (9.5%) change	Total
$11.92	$137.44
Card number *	
4111 1111 1111 1111	
Expiration date *	CVV code
04 - Apr 2014	258
Email	
graymond@example.com	
First name	Last name

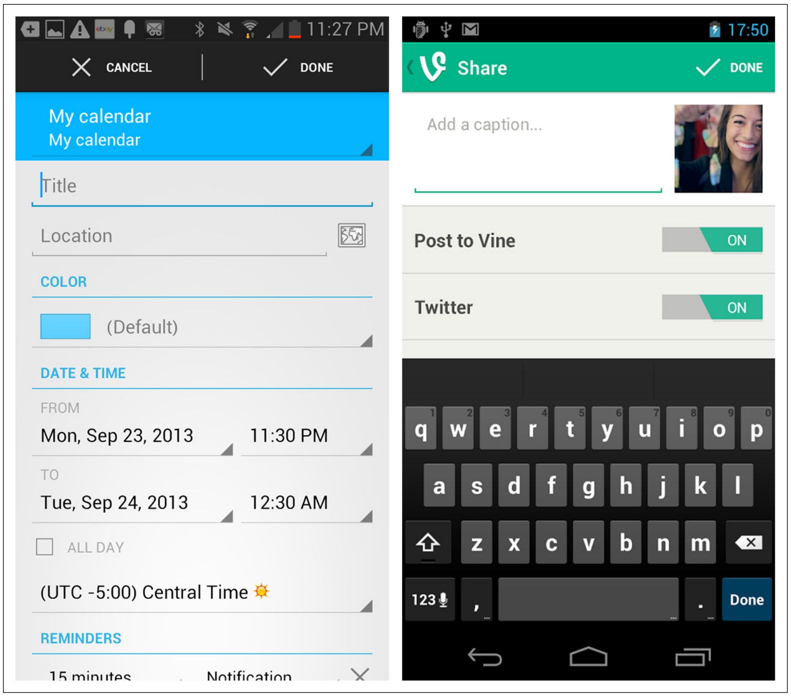
FIGURE 2-62.
OLX and Innerfence for Windows Phone: Command button in App Bar

And, yes, Android has a completely different recommendation (*http://developer.android.com/design/patterns/actionbar.html*). Since the release of Jelly Bean (Android 4), Android's design guidelines recommend that the Command button be located in the Action Bar (across the top).

Unfortunately, as I write this in late 2013, this Android design guideline doesn't always test well. In user testing for a number of our clients, a majority of users didn't see or couldn't find the buttons in the Action Bar. This usability issue will likely decline over time as more users upgrade their devices and OS and get familiar with the new navigation conventions. In the meantime, some Android apps rely on a fixed footer to display the Command button.

[NOTE]

Don't artificially break the form into multipage steps—scrolling on one page is preferable. But do ruthlessly edit any unnecessary fields. Follow OS standards for button placement.


11:27 PM

CANCEL | DONE

My calendar
My calendar

Title

Location

COLOR

(Default)

DATE & TIME

FROM
Mon, Sep 23, 2013 11:30 PM

TO
Tue, Sep 24, 2013 12:30 AM

ALL DAY

(UTC -5:00) Central Time

REMINDERS

15 minutes Notification

17:50

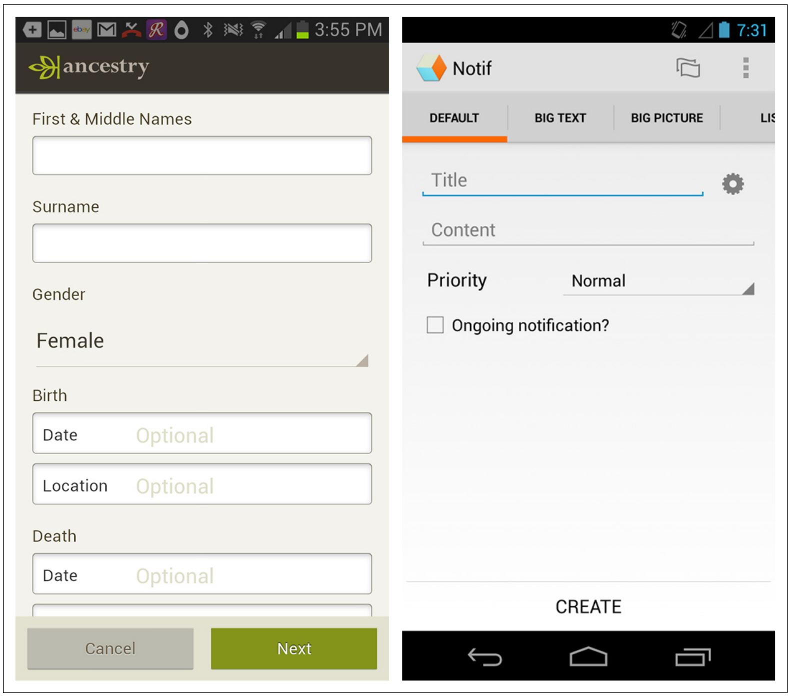
Share DONE

Add a caption...

Post to Vine ON

Twitter ON

FIGURE 2-63. DigiCal and Vine for Android: examples of modal form and simple share form, respectively, with Command button in Action Bar


3:55 PM

ancestry

First & Middle Names

Surname

Gender

Female

Birth

Date Optional

Location Optional

Death

Date Optional

Cancel Next

7:31

Notif

DEFAULT | BIG TEXT | BIG PICTURE | LIS

Title

Content

Priority Normal

Ongoing notification?

CREATE

FIGURE 2-64. Ancestry and Notif for Android: fixed Command button in footer

[3]

Tables

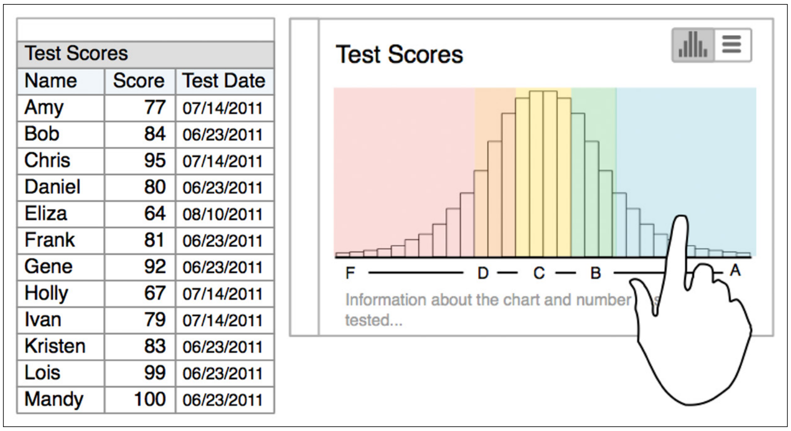
Patterns

Basic Table, Headerless Table, Fixed Column, Overview plus Data, Grouped Rows, Tables with Visual Indicators, Editable Tables

In the first edition of this book, I introduced this chapter by mentioning that many of my company's clients have enterprise applications that require dense displays of data. Since they are familiar with using tables to read this data, they are curious to know how we're going to make those tables work on a mobile device. And my answer, then as now, is "We're not." At least, not without accounting for the demands the mobile form factor imposes on designers.

Displaying tabular data in mobile presents a challenge *and* an opportunity. The challenge is finding usable ways to display the data on small screens. The opportunity is that we can take a more critical view of the data to determine what the user really needs to take away from it, and then develop creative solutions to display the data so that it will be even more useful.

To revisit my example from last time, a long table of student test results can be better represented as a chart that users can drill into to see all students who scored in a certain band of the bell curve.



Test Scores

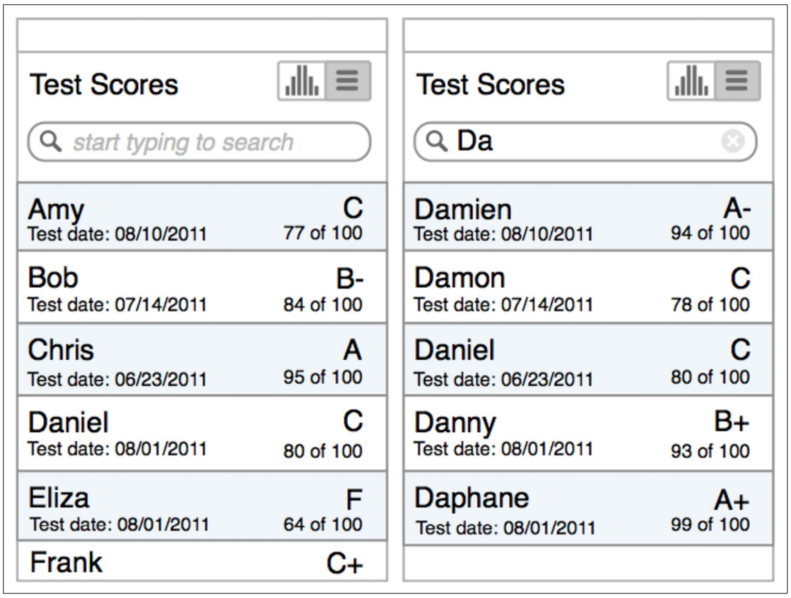
Name	Score	Test Date
Amy	77	07/14/2011
Bob	84	06/23/2011
Chris	95	07/14/2011
Daniel	80	06/23/2011
Eliza	64	08/10/2011
Frank	81	06/23/2011
Gene	92	06/23/2011
Holly	67	07/14/2011
Ivan	79	07/14/2011
Kristen	83	06/23/2011
Lois	99	06/23/2011
Mandy	100	06/23/2011

Test Scores

Information about the chart and number tested...

FIGURE 3-1. Redesigned table: converting to an interactive chart may be more useful

And for an alternate view of the information, we can provide a Headerless Table with Dynamic Search for quickly accessing a specific student's results.



Test Scores

start typing to search

Amy — C
Test date: 08/10/2011 — 77 of 100

Bob — B-
Test date: 07/14/2011 — 84 of 100

Chris — A
Test date: 06/23/2011 — 95 of 100

Daniel — C
Test date: 08/01/2011 — 80 of 100

Eliza — F
Test date: 08/01/2011 — 64 of 100

Frank — C+

Test Scores

Da

Damien — A-
Test date: 08/10/2011 — 94 of 100

Damon — C
Test date: 07/14/2011 — 78 of 100

Daniel — C
Test date: 06/23/2011 — 80 of 100

Danny — B+
Test date: 08/01/2011 — 93 of 100

Daphane — A+
Test date: 08/01/2011 — 99 of 100

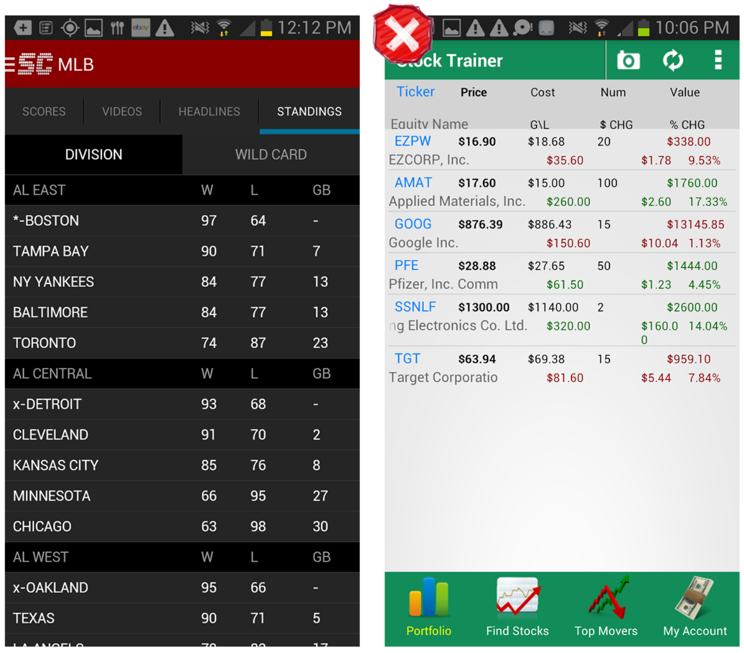
FIGURE 3-2. Headerless Table with Dynamic Search: alternative to the bell curve chart

Though the patterns have largely stayed the same from a couple of years ago, designers have become more adept at using them to display tabular data clearly and elegantly. Once you've identified the key data your app needs to display, check out the following table patterns for inspiration.

Basic Table

The Basic Table pattern is just a standard table with fixed column headers and a grid layout. Alternating table row colors, also called *zebra striping*, or placing a thin horizontal line between rows may enhance readability.

It's now common to omit the vertical gridlines to reduce visual noise. That's fine, but be sure to maintain column alignment. To see why, compare the readability of the ESPN SportsCenter app with the table in Stock Trainer.



AL EAST	W	L	GB
*-BOSTON	97	64	-
TAMPA BAY	90	71	7
NY YANKEES	84	77	13
BALTIMORE	84	77	13
TORONTO	74	87	23
AL CENTRAL	W	L	GB
x-DETROIT	93	68	-
CLEVELAND	91	70	2
KANSAS CITY	85	76	8
MINNESOTA	66	95	27
CHICAGO	63	98	30
AL WEST	W	L	GB
x-OAKLAND	95	66	-
TEXAS	90	71	5

Ticker	Price	Cost	Num	Value
Equity Name		G\L	$ CHG	% CHG
EZPW	$16.90	$18.68	20	$338.00
EZCORP, Inc.		$35.60	$1.78	9.53%
AMAT	$17.60	$15.00	100	$1760.00
Applied Materials, Inc.		$260.00	$2.60	17.33%
GOOG	$876.39	$886.43	15	$13145.85
Google Inc.		$150.60	$10.04	1.13%
PFE	$28.88	$27.65	50	$1444.00
Pfizer, Inc. Comm		$61.50	$1.23	4.45%
SSNLF	$1300.00	$1140.00	2	$2600.00
ng Electronics Co. Ltd.		$320.00	$160.00	14.04%
TGT	$63.94	$69.38	15	$959.10
Target Corporatio		$81.60	$5.44	7.84%

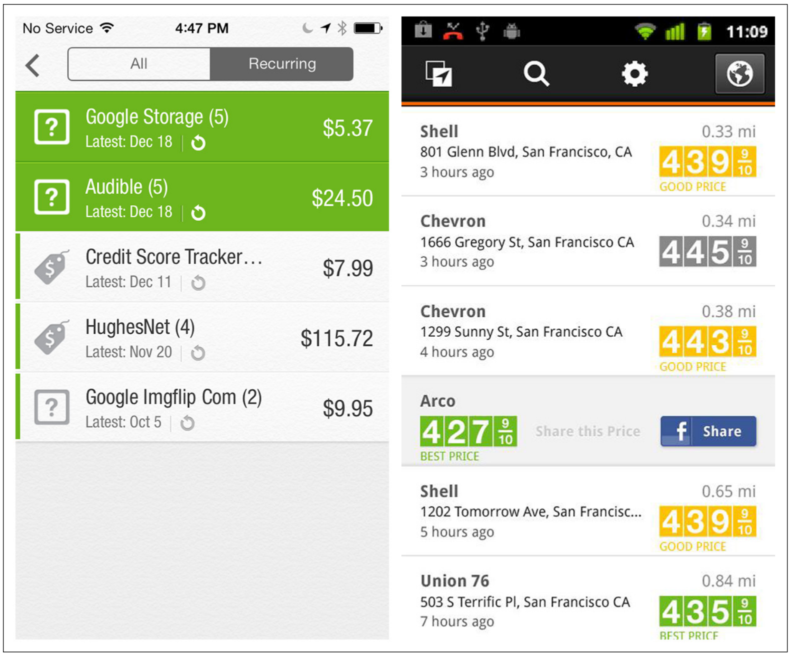
FIGURE 3-3.
ESPN SportsCenter and Stock Trainer for Android: if skipping vertical gridlines, keep columns aligned

[NOTE]

Avoid using dark gridlines; if you're leaving out vertical gridlines, make sure the columns are aligned. Left-align text and right-align numbers. Consider an alternate pattern if there is too much information to fit on a single screen.

Headerless Table

The Headerless Table is characterized by fat rows displaying multiple variables for an object, and no column labels. It is common practice to make the row identifier—a key piece of information—stand out. BillGuard does this with icons, while Gas Guru uses a larger, darker font.



Google Storage (5) Latest: Dec 18	$5.37
Audible (5) Latest: Dec 18	$24.50
Credit Score Tracker… Latest: Dec 11	$7.99
HughesNet (4) Latest: Nov 20	$115.72
Google Imgflip Com (2) Latest: Oct 5	$9.95

Shell 801 Glenn Blvd, San Francisco, CA 3 hours ago	0.33 mi 4 39 9/10 GOOD PRICE
Chevron 1666 Gregory St, San Francisco CA 3 hours ago	0.34 mi 4 45 9/10
Chevron 1299 Sunny St, San Francisco CA 4 hours ago	0.38 mi 4 43 9/10 GOOD PRICE
Arco 4 27 9/10 BEST PRICE	
Shell 1202 Tomorrow Ave, San Francisc… 5 hours ago	0.65 mi 4 39 9/10 GOOD PRICE
Union 76 503 S Terrific Pl, San Francisco CA 7 hours ago	0.84 mi 4 35 9/10 BEST PRICE

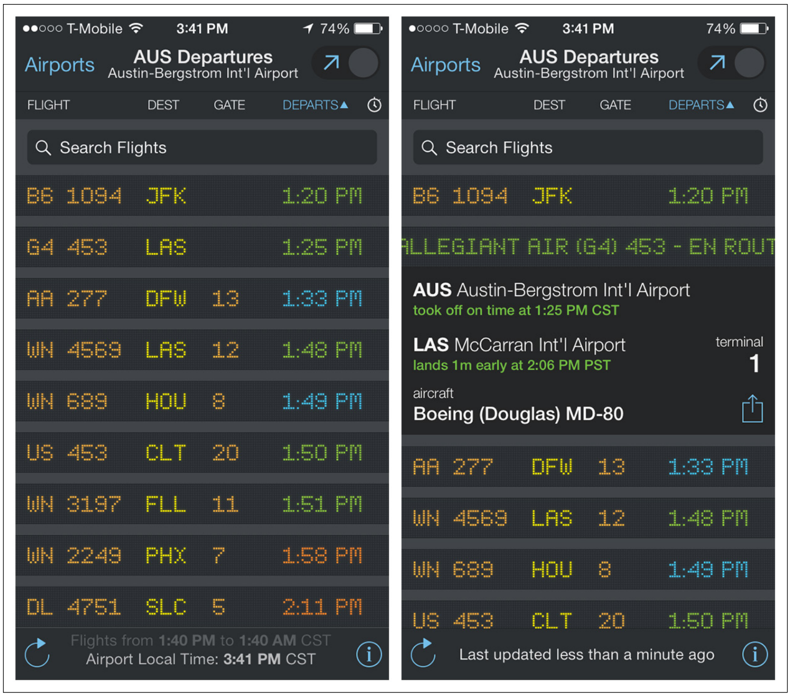
FIGURE 3-4. BillGuard for iOS and Gas Guru for Android: conspicuous row identifiers

[NOTE]

Skip the noise (extra visual elements like icons and borders), and create strong alignment for easy scanning. Use a smaller and/or lighter font for less important details. Don't guess what the most important information is—ask your customers, then validate the designs through testing.

Headerless Tables are ideal for displaying collections of items (like inventory, recipes, albums, etc.) and search results. FlightBoard shows the flights for the selected airport. When users tap on a row, the flight details are shown inline instead of on a new screen.

Like a list, Headerless Tables are meant for quick scanning and action. The visual design elements of alignment, font, and color are critically important. See how the Realtor.com table is easier to scan than the one in Redfin, for instance.



●●○○○ T-Mobile 3:41 PM 74%

Airports | AUS Departures, Austin-Bergstrom Int'l Airport

FLIGHT	DEST	GATE	DEPARTS▲
B6 1094	JFK		1:20 PM
G4 453	LAS		1:25 PM
AA 277	DFW	13	1:33 PM
WN 4569	LAS	12	1:48 PM
WN 689	HOU	8	1:49 PM
US 453	CLT	20	1:50 PM
WN 3197	FLL	11	1:51 PM
WN 2249	PHX	7	1:58 PM
DL 4751	SLC	5	2:11 PM

Search Flights

Flights from 1:40 PM to 1:40 AM CST
Airport Local Time: 3:41 PM CST

●○○○○ T-Mobile 3:41 PM 74%

Airports | AUS Departures, Austin-Bergstrom Int'l Airport

FLIGHT	DEST	GATE	DEPARTS▲
B6 1094	JFK		1:20 PM

ALLEGIANT AIR (G4) 453 - EN ROUT

AUS Austin-Bergstrom Int'l Airport
took off on time at 1:25 PM CST

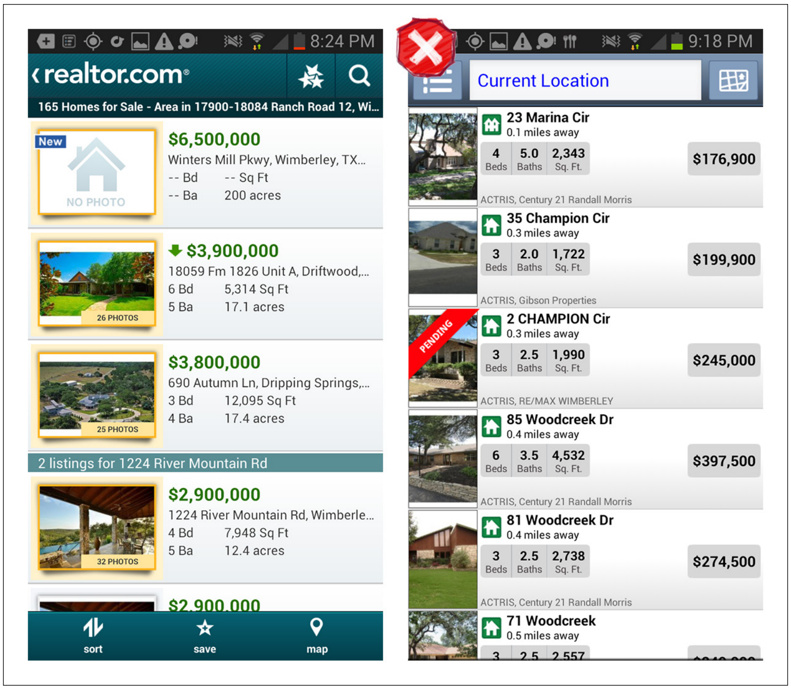
LAS McCarran Int'l Airport
lands 1m early at 2:06 PM PST
terminal 1

aircraft
Boeing (Douglas) MD-80

FLIGHT	DEST	GATE	DEPARTS▲
AA 277	DFW	13	1:33 PM
WN 4569	LAS	12	1:48 PM
WN 689	HOU	8	1:49 PM
US 453	CLT	20	1:50 PM

Last updated less than a minute ago

FIGURE 3-5.
FlightBoard for iOS: Headerless Table with inline expand on tap



8:24 PM

realtor.com

165 Homes for Sale - Area in 17900-18084 Ranch Road 12, Wi...

New
NO PHOTO
$6,500,000
Winters Mill Pkwy, Wimberley, TX...
-- Bd -- Sq Ft
-- Ba 200 acres

26 PHOTOS
$3,900,000
18059 Fm 1826 Unit A, Driftwood,...
6 Bd 5,314 Sq Ft
5 Ba 17.1 acres

25 PHOTOS
$3,800,000
690 Autumn Ln, Dripping Springs,...
3 Bd 12,095 Sq Ft
4 Ba 17.4 acres

2 listings for 1224 River Mountain Rd

32 PHOTOS
$2,900,000
1224 River Mountain Rd, Wimberle...
4 Bd 7,948 Sq Ft
5 Ba 12.4 acres

$2,900,000

sort | save | map

9:18 PM

Current Location

Address	Distance	Beds	Baths	Sq. Ft.	Price	Listing
23 Marina Cir	0.1 miles away	4	5.0	2,343	$176,900	ACTRIS, Century 21 Randall Morris
35 Champion Cir	0.3 miles away	3	2.0	1,722	$199,900	ACTRIS, Gibson Properties
2 CHAMPION Cir	0.3 miles away	3	2.5	1,990	$245,000	ACTRIS, RE/MAX WIMBERLEY
85 Woodcreek Dr	0.4 miles away	6	3.5	4,532	$397,500	ACTRIS, Century 21 Randall Morris
81 Woodcreek Dr	0.4 miles away	3	2.5	2,738	$274,500	ACTRIS, Century 21 Randall Morris
71 Woodcreek	0.5 miles away	3	2.5	2,557		

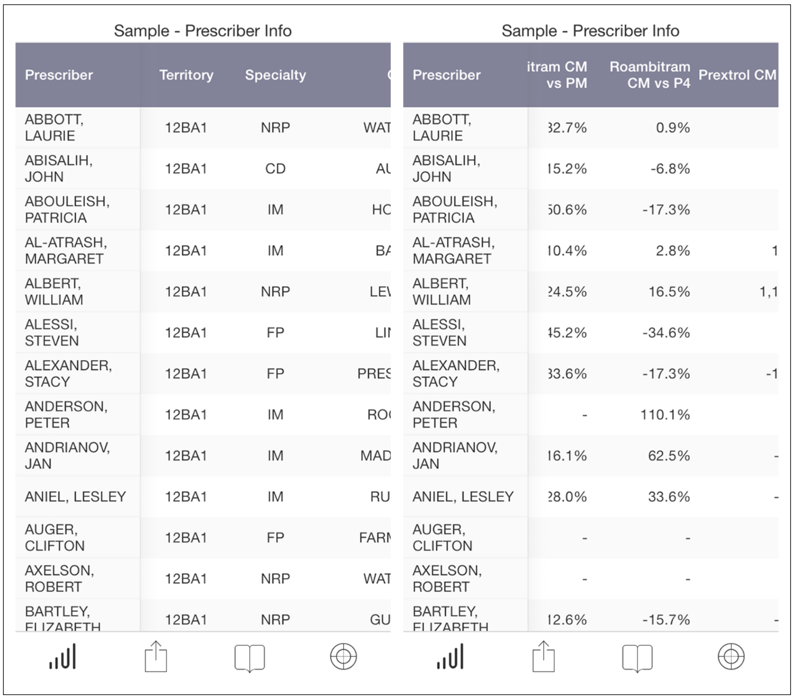
FIGURE 3-6.
Realtor.com compared to Redfin for Android: design and alignment are critical in Headerless Tables

Fixed Column

For larger tables, the Fixed Column pattern may be a viable solution. In the examples from Roambi and Fidelity, when the user is not scrolling vertically, the leftmost column is fixed and the other columns swipe side-to-side. In Roambi's ultra-flat design, at first glance it's a little difficult to see that the left column is fixed, but you can see that more information is available to the right. Fidelity's design helpfully includes visual affordance that the first column is fixed and sorted.

[NOTE]

Provide visual affordance that more columns are visible on swipe. Show the most important columns on the screen by default.



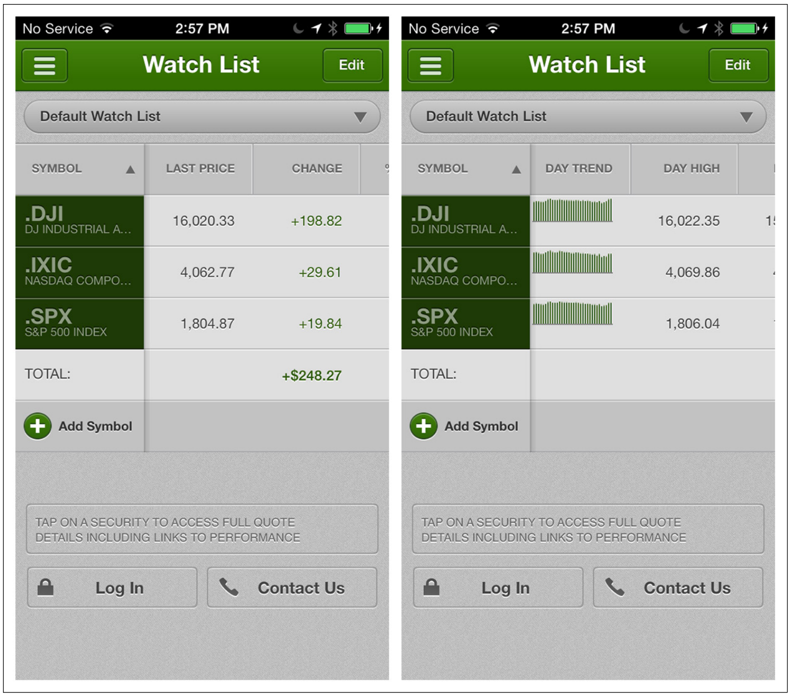
Sample - Prescriber Info

Prescriber	Territory	Specialty	C
ABBOTT, LAURIE	12BA1	NRP	WAT
ABISALIH, JOHN	12BA1	CD	AU
ABOULEISH, PATRICIA	12BA1	IM	HC
AL-ATRASH, MARGARET	12BA1	IM	BA
ALBERT, WILLIAM	12BA1	NRP	LEV
ALESSI, STEVEN	12BA1	FP	LIN
ALEXANDER, STACY	12BA1	FP	PRES
ANDERSON, PETER	12BA1	IM	ROC
ANDRIANOV, JAN	12BA1	IM	MAD
ANIEL, LESLEY	12BA1	IM	RU
AUGER, CLIFTON	12BA1	FP	FARM
AXELSON, ROBERT	12BA1	NRP	WAT
BARTLEY, ELIZABETH	12BA1	NRP	GU

Sample - Prescriber Info

Prescriber	itram CM vs PM	Roambitram CM vs P4	Prextrol CM
ABBOTT, LAURIE	32.7%	0.9%	
ABISALIH, JOHN	15.2%	-6.8%	
ABOULEISH, PATRICIA	50.6%	-17.3%	
AL-ATRASH, MARGARET	10.4%	2.8%	1
ALBERT, WILLIAM	24.5%	16.5%	1,1
ALESSI, STEVEN	45.2%	-34.6%	
ALEXANDER, STACY	33.6%	-17.3%	-1
ANDERSON, PETER	-	110.1%	
ANDRIANOV, JAN	16.1%	62.5%	-
ANIEL, LESLEY	28.0%	33.6%	-
AUGER, CLIFTON	-	-	
AXELSON, ROBERT	-	-	
BARTLEY, ELIZABETH	12.6%	-15.7%	-

FIGURE 3-7. Roambi for iOS: note that leftmost column is fixed (indicated with subtle shadow)


No Service
2:57 PM
Watch List
Edit
Default Watch List

SYMBOL ▲	LAST PRICE	CHANGE
.DJI DJ INDUSTRIAL A...	16,020.33	+198.82
.IXIC NASDAQ COMPO...	4,062.77	+29.61
.SPX S&P 500 INDEX	1,804.87	+19.84
TOTAL:		+$248.27

SYMBOL ▲	DAY TREND	DAY HIGH
.DJI DJ INDUSTRIAL A...		16,022.35
.IXIC NASDAQ COMPO...		4,069.86
.SPX S&P 500 INDEX		1,806.04
TOTAL:		

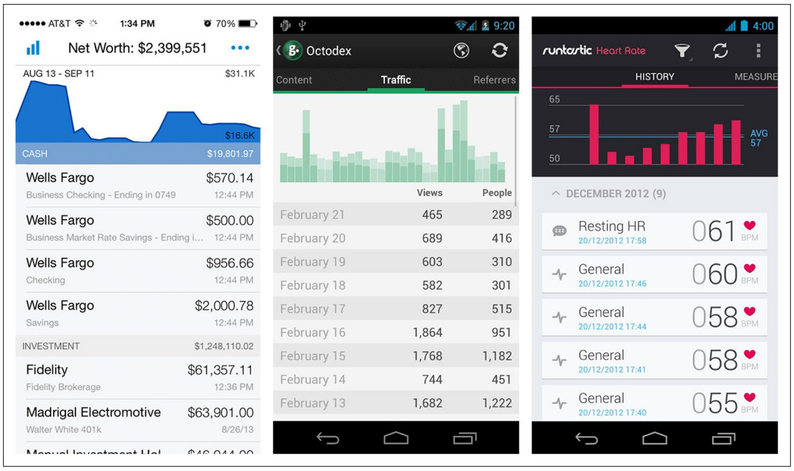
Add Symbol
TAP ON A SECURITY TO ACCESS FULL QUOTE DETAILS INCLUDING LINKS TO PERFORMANCE
Log In
Contact Us

FIGURE 3-8. Fidelity for iOS: affordance reveals that left column is fixed, while swiping reveals more columns

Overview plus Data

The Overview plus Data pattern features a summary of the table's content displayed above the rows of data. This is a common pattern in financial apps, but it's useful in any app where the user wants to see totals or trends over time.

The overview can be text but is most often a chart-style graphic, as shown in the following examples.



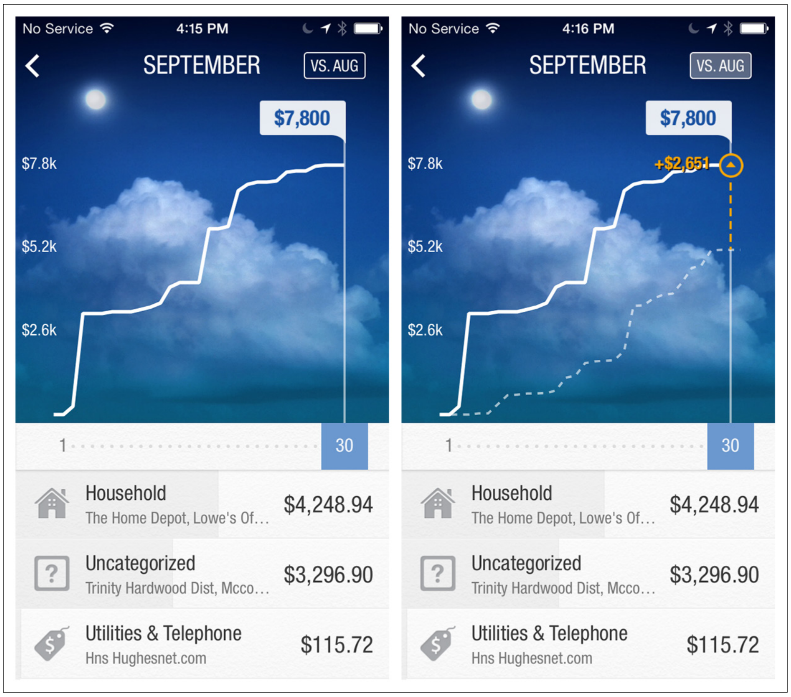
CASH	$19,801.97
Wells Fargo Business Checking - Ending in 0749	$570.14 12:44 PM
Wells Fargo Business Market Rate Savings - Ending i...	$500.00 12:44 PM
Wells Fargo Checking	$956.66 12:44 PM
Wells Fargo Savings	$2,000.78 12:44 PM
INVESTMENT	$1,248,110.02
Fidelity Fidelity Brokerage	$61,357.11 12:36 PM
Madrigal Electromotive Walter White 401k	$63,901.00 8/26/13

	Views	People
February 21	465	289
February 20	689	416
February 19	603	310
February 18	582	301
February 17	827	515
February 16	1,864	951
February 15	1,768	1,182
February 14	744	451
February 13	1,682	1,222

Resting HR	20/12/2012 17:58	061 BPM
General	20/12/2012 17:46	060 BPM
General	20/12/2012 17:44	058 BPM
General	20/12/2012 17:41	058 BPM
General	20/12/2012 17:40	055 BPM

FIGURE 3-9. Personal Capital for iOS and Runtastic Heart Rate for Android: Overviews plus Data

BillGuard's overview is interactive. In the example, tapping "VS. AUG" draws the comparison line and shows the difference in the amount spent.



Household The Home Depot, Lowe's Of...	$4,248.94
Uncategorized Trinity Hardwood Dist, Mcco...	$3,296.90
Utilities & Telephone Hns Hughesnet.com	$115.72

FIGURE 3-10. BillGuard for iOS: interactive overview

If the overview is visualized as a pie or donut chart and the chart and legend take up the whole screen, the Drill Down pattern may work better, as shown with Roambi. See Chapter 6 for more examples.

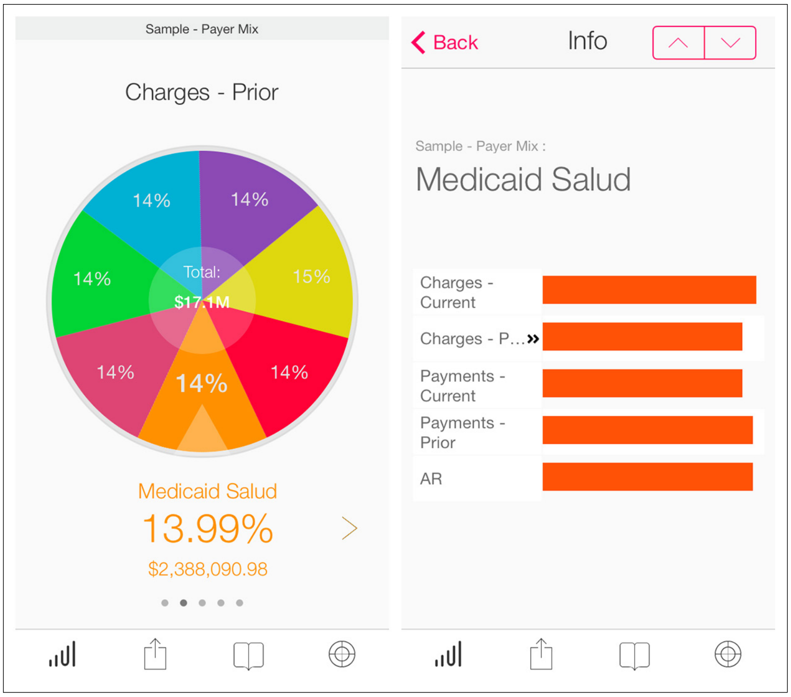


FIGURE 3-11.
Roambi for iOS: chart consumes entire screen, so Drill Down works better than Overview plus Data

[NOTE]

Position the overview above the individual rows of data. If the chart overview is too large, consider the Drill Down pattern instead. See Chapter 6 for tips on designing effective charts.

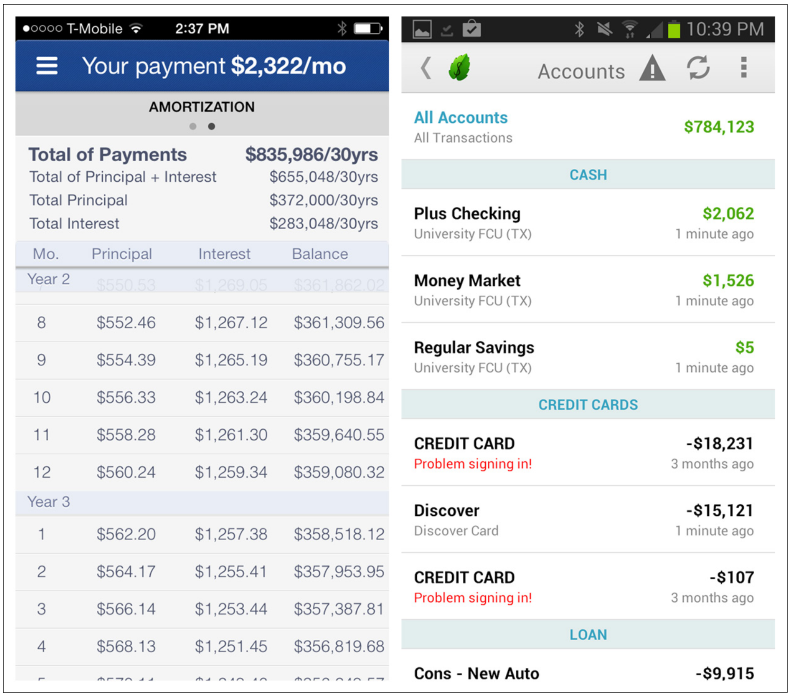
Grouped Rows

Row grouping can make it easier to read a table's data. Grouped Rows might serve as section headers, like transactions grouped by year (as in the Zillow Mortgage Calculator) or by category (as in Mint).

[NOTE]

Visually differentiate the summary rows from the other rows in the table. In general, the summary rows should be thin and subtle.

FIGURE 3-12.
Zillow Mortgage Calculator and Mint for Android: Grouped Rows



●○○○○ T-Mobile 2:37 PM

Your payment **$2,322/mo**

AMORTIZATION

Total of Payments	**$835,986/30yrs**
Total of Principal + Interest	$655,048/30yrs
Total Principal	$372,000/30yrs
Total Interest	$283,048/30yrs

Mo.	Principal	Interest	Balance
Year 2	$550.53	$1,269.05	$361,862.02
8	$552.46	$1,267.12	$361,309.56
9	$554.39	$1,265.19	$360,755.17
10	$556.33	$1,263.24	$360,198.84
11	$558.28	$1,261.30	$359,640.55
12	$560.24	$1,259.34	$359,080.32
Year 3			
1	$562.20	$1,257.38	$358,518.12
2	$564.17	$1,255.41	$357,953.95
3	$566.14	$1,253.44	$357,387.81
4	$568.13	$1,251.45	$356,819.68

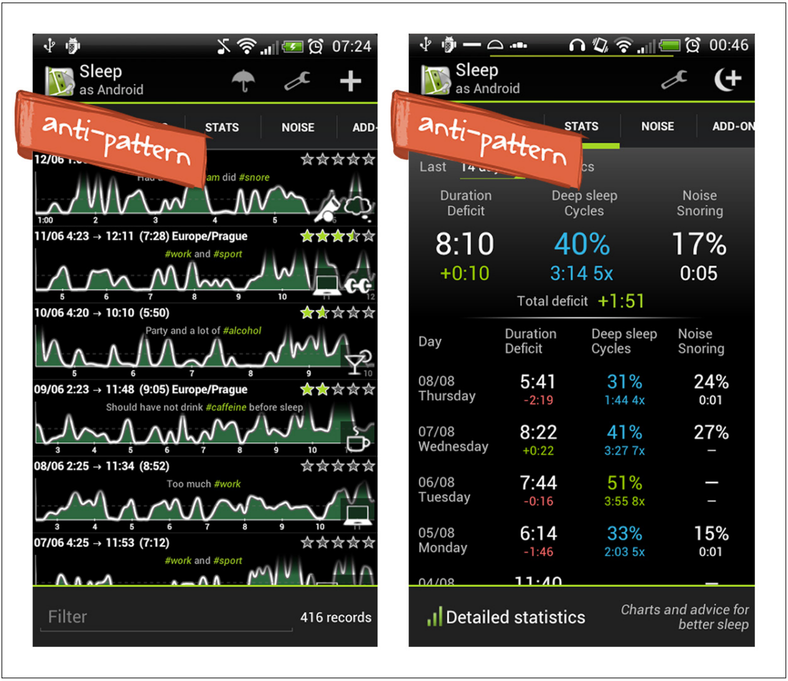
10:39 PM

Accounts

All Accounts All Transactions	**$784,123**
CASH	
Plus Checking University FCU (TX)	**$2,062** 1 minute ago
Money Market University FCU (TX)	**$1,526** 1 minute ago
Regular Savings University FCU (TX)	**$5** 1 minute ago
CREDIT CARDS	
CREDIT CARD Problem signing in!	**-$18,231** 3 months ago
Discover Discover Card	**-$15,121** 1 minute ago
CREDIT CARD Problem signing in!	**-$107** 3 months ago
LOAN	
Cons - New Auto	**-$9,915**

Table with Visual Indicators

In the Table with Visual Indicators pattern, Sparklines and icons can enhance the table's information display, but you must be careful not to overload the table with chart junk, like in the Sleep Charts design.



11/06 4:23 → 12:11 (7:28) Europe/Prague
#work and #sport
10/06 4:20 → 10:10 (5:50)
Party and a lot of #alcohol
09/06 2:23 → 11:48 (9:05) Europe/Prague
Should have not drink #caffeine before sleep
08/06 2:25 → 11:34 (8:52)
Too much #work
07/06 4:25 → 11:53 (7:12)
#work and #sport

Duration Deficit	Deep sleep Cycles	Noise Snoring
8:10 +0:10	40% 3:14 5x	17% 0:05

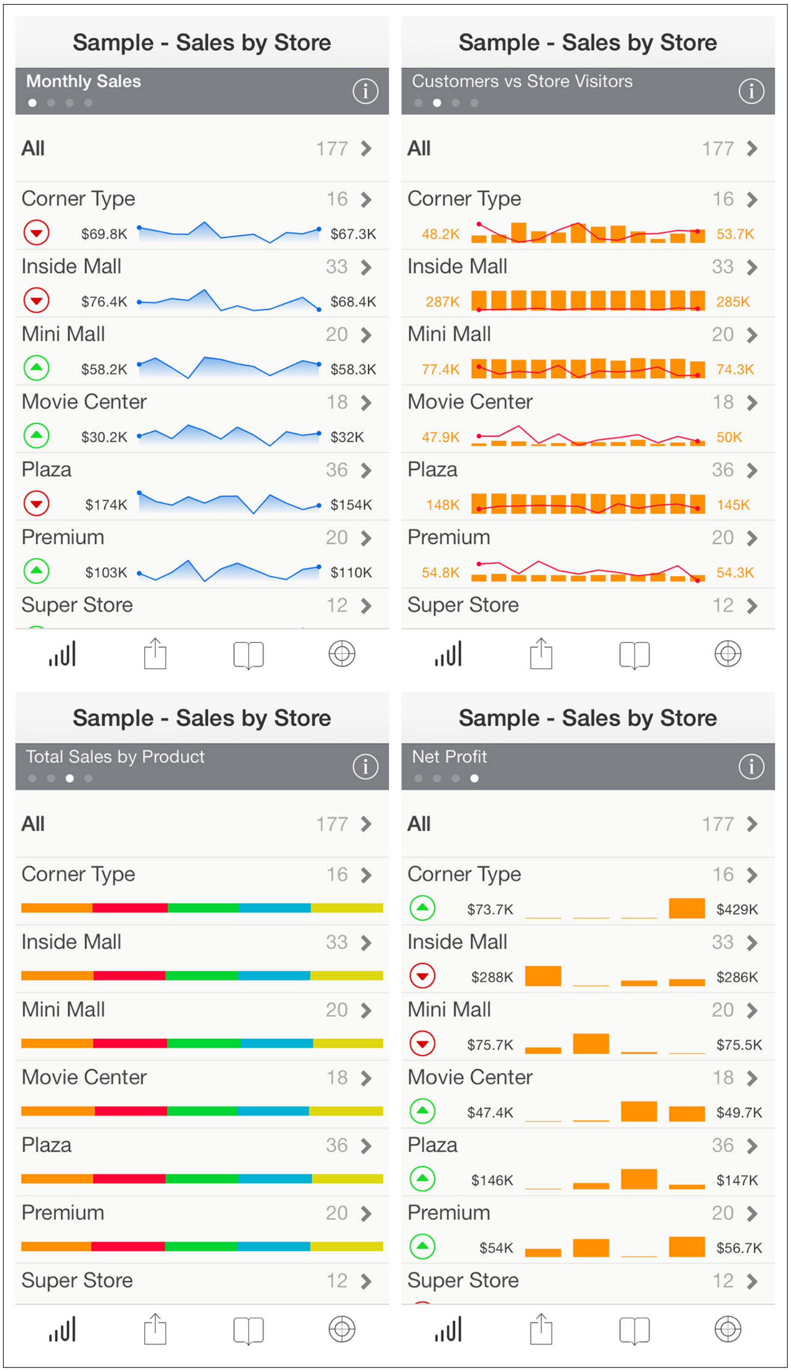
Total deficit +1:51

Day	Duration Deficit	Deep sleep Cycles	Noise Snoring
08/08 Thursday	5:41 -2:19	31% 1:44 4x	24% 0:01
07/08 Wednesday	8:22 +0:22	41% 3:27 7x	27% –
06/08 Tuesday	7:44 -0:16	51% 3:55 8x	– –
05/08 Monday	6:14 -1:46	33% 2:03 5x	15% 0:01

FIGURE 3-13.
Sleep Charts for Android: don't overload designs with chart junk

On the other hand, the visual design of Roambi Sales Reports enhances the data rather than obscuring it. See Chapter 6 for more information about using Sparklines in mobile apps.

FIGURE 3-14.
Roambi Sales Reports for iOS: design elements, including Sparklines, enhance the data



Sample - Sales by Store

Monthly Sales

All			177
Corner Type	$69.8K	$67.3K	16
Inside Mall	$76.4K	$68.4K	33
Mini Mall	$58.2K	$58.3K	20
Movie Center	$30.2K	$32K	18
Plaza	$174K	$154K	36
Premium	$103K	$110K	20
Super Store			12

Sample - Sales by Store

Customers vs Store Visitors

All			177
Corner Type	48.2K	53.7K	16
Inside Mall	287K	285K	33
Mini Mall	77.4K	74.3K	20
Movie Center	47.9K	50K	18
Plaza	148K	145K	36
Premium	54.8K	54.3K	20
Super Store			12

Sample - Sales by Store

Total Sales by Product

All	177
Corner Type	16
Inside Mall	33
Mini Mall	20
Movie Center	18
Plaza	36
Premium	20
Super Store	12

Sample - Sales by Store

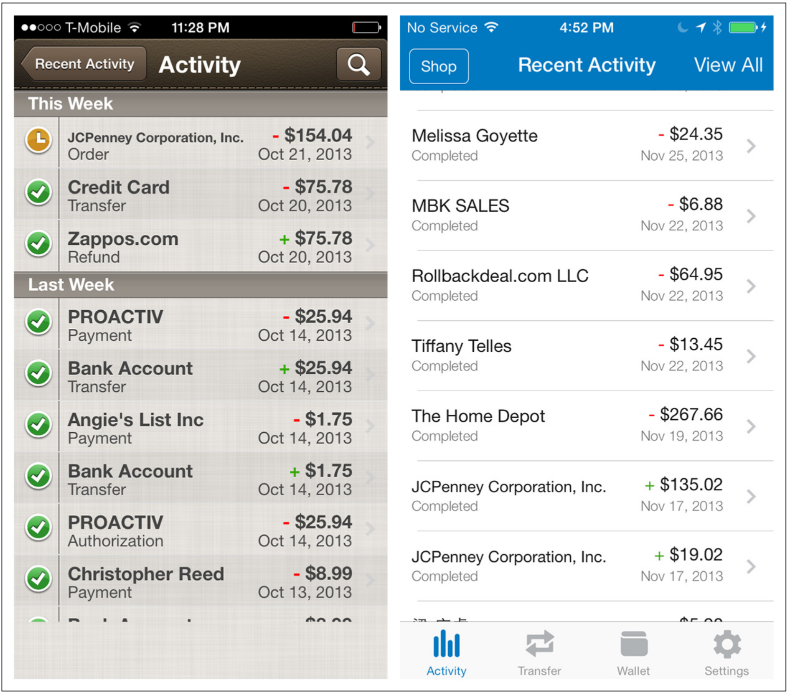
Net Profit

All			177
Corner Type	$73.7K	$429K	16
Inside Mall	$288K	$286K	33
Mini Mall	$75.7K	$75.5K	20
Movie Center	$47.4K	$49.7K	18
Plaza	$146K	$147K	36
Premium	$54K	$56.7K	20
Super Store			12

Choose Visual Indicators that are immediately recognizable, and once again, avoid using icons gratuitously. Compare the last two versions of PayPal for iOS. The newer iOS 7 design has more space for the transaction content without the excess icons.

[NOTE]

Use Visual Indicators only if they will enhance the table data; avoid them otherwise.



●●○○○ T-Mobile 11:28 PM

Recent Activity | Activity

This Week

JCPenney Corporation, Inc.	- $154.04	
Order	Oct 21, 2013	
Credit Card	- $75.78	
Transfer	Oct 20, 2013	
Zappos.com	+ $75.78	
Refund	Oct 20, 2013	

Last Week

PROACTIV	- $25.94
Payment	Oct 14, 2013
Bank Account	+ $25.94
Transfer	Oct 14, 2013
Angie's List Inc	- $1.75
Payment	Oct 14, 2013
Bank Account	+ $1.75
Transfer	Oct 14, 2013
PROACTIV	- $25.94
Authorization	Oct 14, 2013
Christopher Reed	- $8.99
Payment	Oct 13, 2013

No Service 4:52 PM

Shop | Recent Activity | View All

Melissa Goyette	- $24.35
Completed	Nov 25, 2013
MBK SALES	- $6.88
Completed	Nov 22, 2013
Rollbackdeal.com LLC	- $64.95
Completed	Nov 22, 2013
Tiffany Telles	- $13.45
Completed	Nov 22, 2013
The Home Depot	- $267.66
Completed	Nov 19, 2013
JCPenney Corporation, Inc.	+ $135.02
Completed	Nov 17, 2013
JCPenney Corporation, Inc.	+ $19.02
Completed	Nov 17, 2013

FIGURE 3-15.
PayPal for iOS 6 and iOS 7: newer design loses the icons and gains readability

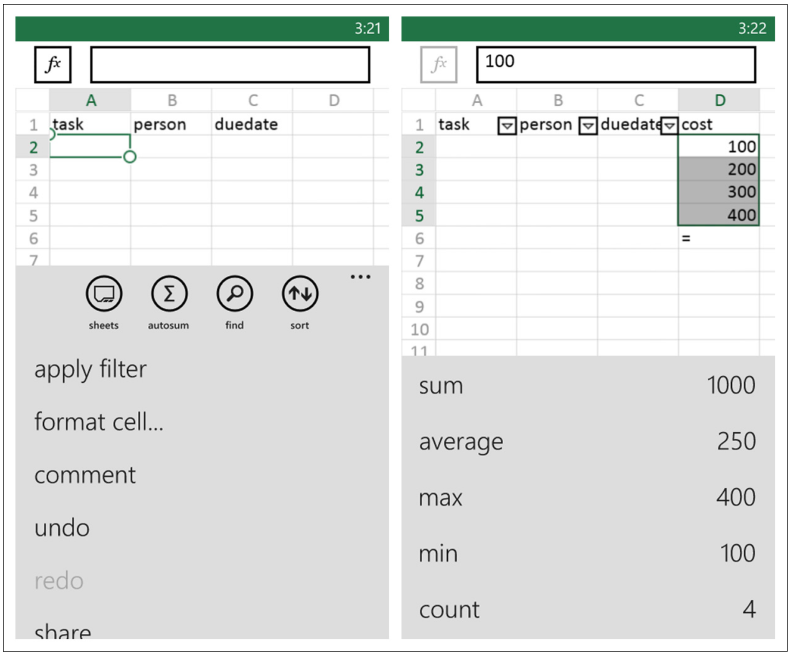
Editable Table

Editable Tables in mobile interfaces are found almost exclusively in spreadsheet applications like Microsoft Office, Google Drive, and Numbers. Many of the same guidelines for Editable Tables on the Web apply to mobile:

- Clearly indicate the cell and/or row selected.
- If there is a specific format for the cell, offer the appropriate editor (selector, spinner, color picker, date picker, etc.).
- It's not necessary to provide confirmation feedback with each change, unless the change prompts an error message; otherwise, provide confirmations just on Save.

In Office for Windows Phone, single-tapping a cell presents cell menu options. Tapping the function icon (the *fx* at the top left) opens the functions menu.

FIGURE 3-16.
Office for Windows Phone: tapping *fx* opens functions menu



	A	B	C	D
1	task	person	duedate	cost
2				100
3				200
4				300
5				400
6				=

Unlike on the desktop, however, Editable Tables on mobile devices are not appropriate for extensive data entry, mainly because mobile keyboards don't support screen navigation. Specifically, you can't tab from cell to cell.

[NOTE]

Follow web and desktop design best practices for Editable Tables where appropriate, but avoid using Editable Tables for bulk data entry, or where extensive editing could be necessary.

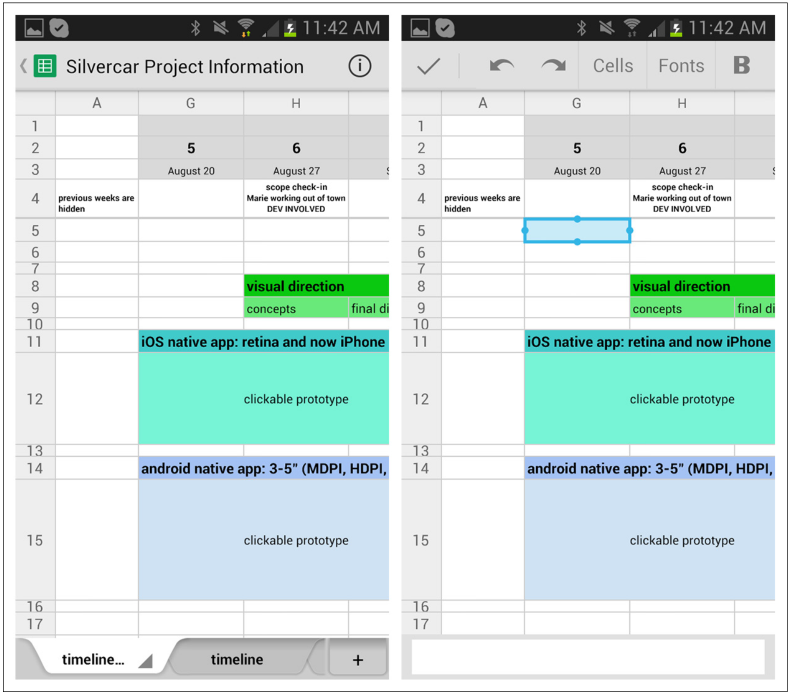


FIGURE 3-17. Google Drive for Android: selecting a cell reveals the input field across the footer

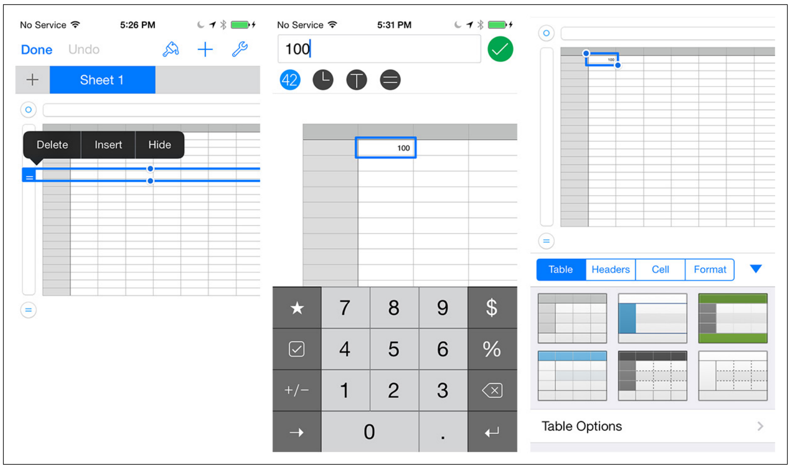


FIGURE 3-18. Numbers for iOS: separate view and edit modes for data entry and formatting

[4]

Search, Sort, and Filter

Search Patterns

Implicit Search; Explicit Search; Auto-Complete; Scoped Search; Dynamic Search; Saved, Recent, and Popular; Search Form; Search Results

Sort Patterns

Onscreen Sort, Sort Overlay, Sort Form

Filter Patterns

Onscreen Filter, Filter Overlay, Filter Form, Filter Drawer, Gesture-Based Filter

Have you looked at AutoDirect, Greensheet, or a similar freebie print ad circular lately? You'll see page after page of classified ads organized in very broad categories, like Trucks, Cars, and Appliances. You practically have to read the whole rag from beginning to end to see if there are any ads that interest you. This should give you a new appreciation for three basic online tools: search, sort, and filter.

We take them for granted in our digital world. But there are some nuances to getting search, sort, and filter right in a mobile application. This chapter explores more than a dozen different approaches.

Search Patterns

Josh Clark, author of *Tapworthy: Designing Great iPhone Apps* (O'Reilly, 2010), says that in touch interface design, "buttons are a hack." That's because touch gives us more direct ways of interacting with content, like *pull to refresh* and *pinch to zoom*. Why use an abstract button when a physical gesture would be more intuitive?

We should think of mobile search the same way. As our apps become more "aware" of our individual needs, they can reduce instances where we have to explicitly search for what's relevant to us.

For instance, Google "knows" that I have a meeting downtown and tells me when to leave and how to get there. It also knows that I often take the kids to the movies on Saturday, so it "suggests" some shows at our favorite theater. And when I am near a mall that has some of my favorite stores, RetailMeNot shows me all the deals they are running.

This emerging pattern is called Implicit Search. We'll explore it further, and take a fresh look at the classic search, sort, and filter techniques covered in the earlier edition.

In this section we'll look at search patterns specific to mobile applications, including patterns for Implicit Search; Explicit Search; Auto-Complete; Scoped Search; Dynamic Search; Saved, Recent, and Popular; Search Forms; and Search Results.

Implicit Search

One night before I had a meeting with a new client, I Googled the client's address on my PC. As I prepared to leave the next morning, I opened the new version of Google Maps and typed in the first number of the address, and Maps immediately knew where I wanted to go.

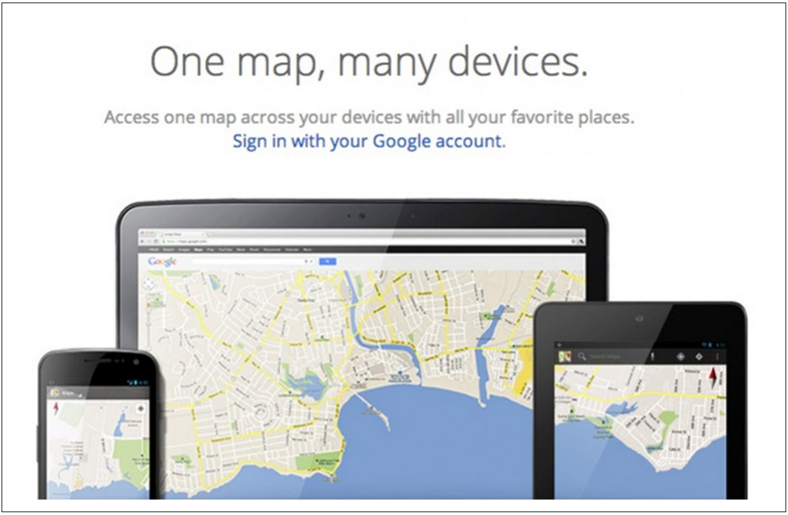
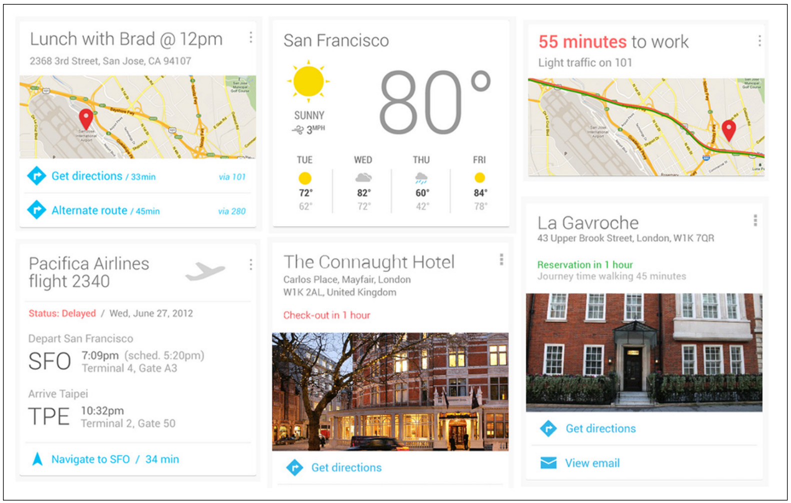

One map, many devices.
Access one map across your devices with all your favorite places.
Sign in with your Google account.

FIGURE 4-1.
Google Maps: cross-platform integration

With the new app, Google synchronized my information across channels and performed an Implicit Search for me. *Wow*, I thought, *that was helpful*. But then Google Now really took Implicit Search to a new level, showing me where my following meeting was located, when I should leave, and how to get there. I rarely ever need to explicitly search in Google Maps now.


Lunch with Brad @ 12pm
2368 3rd Street, San Jose, CA 94107
Get directions / 33min via 101
Alternate route / 45min via 280

San Francisco
SUNNY 3MPH
80°
TUE 72° 62°
WED 82° 72°
THU 60° 42°
FRI 84° 78°

55 minutes to work
Light traffic on 101

Pacifica Airlines flight 2340
Status: Delayed / Wed, June 27, 2012
Depart San Francisco
SFO 7:09pm (sched. 5:20pm) Terminal 4, Gate A3
Arrive Taipei
TPE 10:32pm Terminal 2, Gate 50
Navigate to SFO / 34 min

The Connaught Hotel
Carlos Place, Mayfair, London W1K 2AL, United Kingdom
Check-out in 1 hour
Get directions

La Gavroche
43 Upper Brook Street, London, W1K 7QR
Reservation in 1 hour
Journey time walking 45 minutes
Get directions
View email

FIGURE 4-2.
Google Now: taking Implicit Search to a new level

I had a similar delightful experience with the RetailMeNot application: as I was driving around running errands, I heard a "cha-ching" from my purse. Wondering why my phone sounded like a cash register, I saw a RetailMeNot notification telling me that my favorite stores at the mall nearby were running some great deals. Once I was in a store, the app surfaced in-store coupons I could use to save on my purchase. This relevant information found me, without my having to look for it.

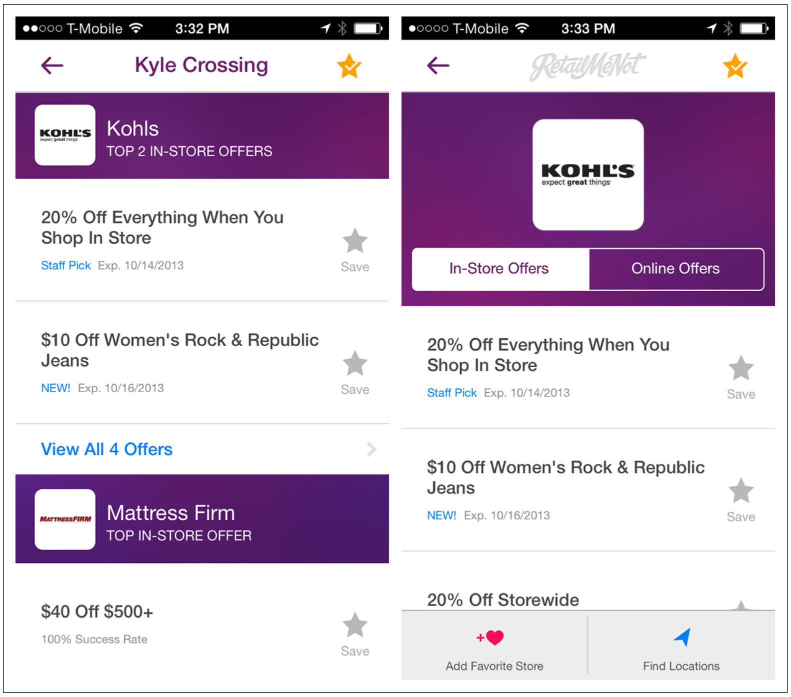


FIGURE 4-3. RetailMeNot for iOS: proximity-driven Implicit Search

For me, this is a much more efficient way to find deals than explicitly searching for a store and then searching to see if it is running any special offers. And it is definitely working for RetailMeNot, who saw a fourfold increase in engagement with the introduction of this "geofencing" feature.

[NOTE]

Consider the possibilities of Implicit Search before choosing another search pattern. It could introduce an element of delight to the user experience.

There are many other examples of Implicit Search. If location-based services are enabled in Zillow and similar real estate apps, the apps immediately reveal all the properties for sale or rent in the area. Badoo, a social meetup tool, uses the same technique to show nearby people looking to connect.

Foodspotting and Hungry Now highlight nearby restaurants on their landing pages. The former uses a carousel to show pictures and details about each restaurant, encouraging the user to start rating her dining experiences, whereas the latter shows the restaurants on a map.

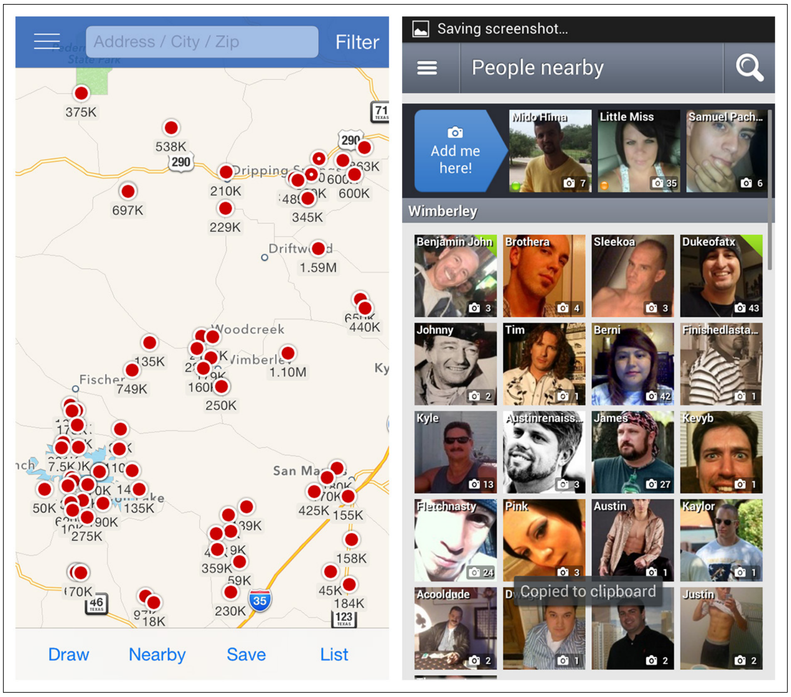


FIGURE 4-4. Zillow for iOS and Badoo for Android: location-based Implicit Search

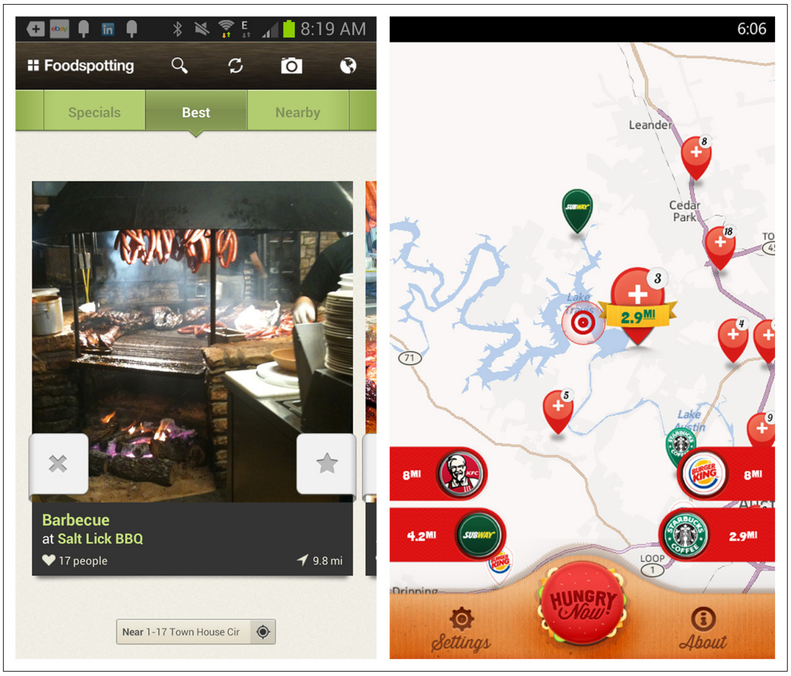


FIGURE 4-5. Foodspotting for Android and Hungry Now for Windows Phone: more location-based results

Apps like Wikitude and Layar use a combination of the device's location and the accelerometer to create an "augmented reality" for the user—no search terms necessary.

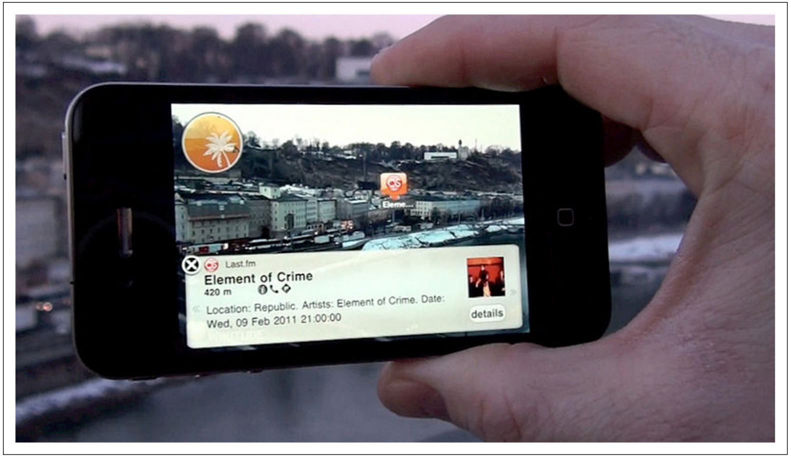

Last.fm
Element of Crime
420 m
Location: Republic. Artists: Element of Crime. Date: Wed, 09 Feb 2011 21:00:00
details

FIGURE 4-6. Wikitude World Browser: Implicit Search uses augmented reality

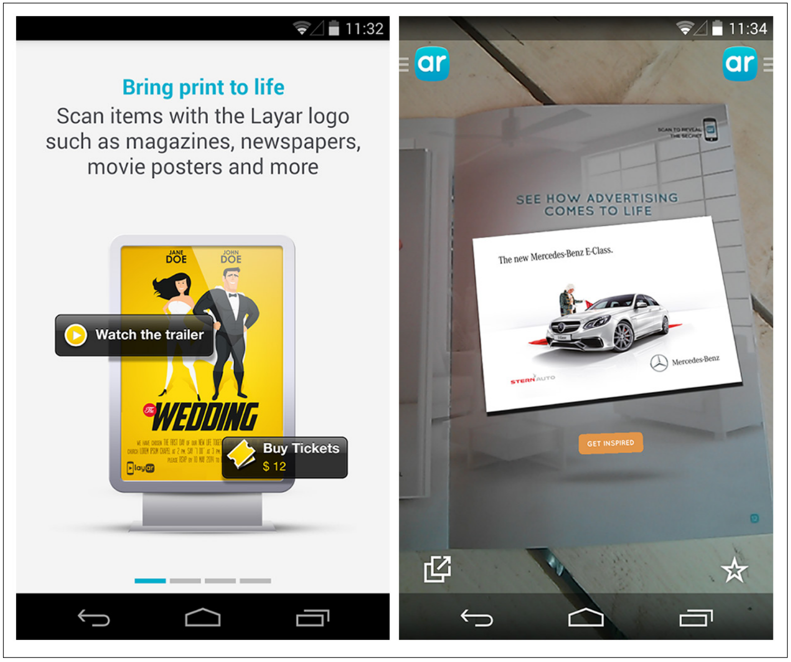

11:32
Bring print to life
Scan items with the Layar logo such as magazines, newspapers, movie posters and more
Watch the trailer
WEDDING
Buy Tickets $ 12
11:34
ar
SEE HOW ADVERTISING COMES TO LIFE
The new Mercedes-Benz E-Class.
GET INSPIRED

FIGURE 4-7. Layar for Android: another way to use augmented reality for Implicit Search

Explicit Search

While Implicit Search can create richer user experiences, there are still valid cases for the Explicit Search pattern. As you might guess, Explicit Search relies on explicit user action to perform the search and get results.

The eBay app on Windows Phone 8 is a simple example. Type the search term, then tap on the search icon or hit Return on the keyboard to see the results. But by being just a little smarter, eBay for Android manages to be a lot more helpful.

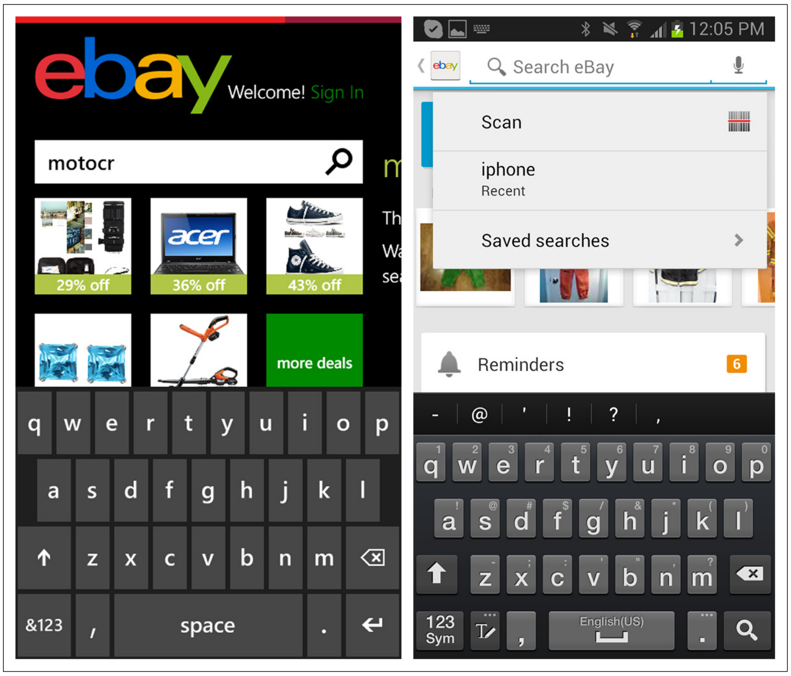
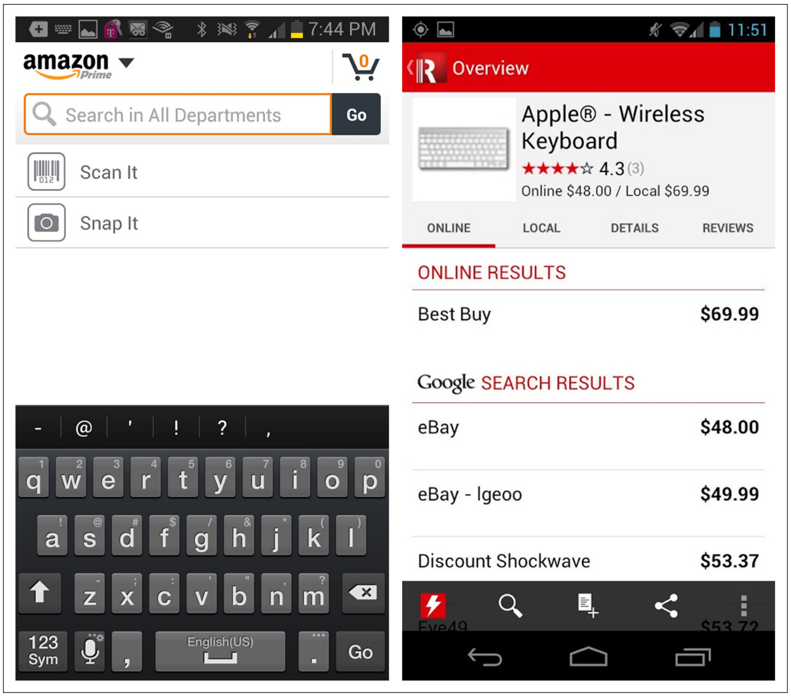


FIGURE 4-8.
eBay for Windows Phone and Android

Tapping in the search field in the Android app provides a number of options: scan an item instead of typing it, reuse a recent search, or access saved searches. Once the user starts typing, the app surfaces suggestions that match the text entered. Minimizing the need to type in this way increases search efficiency and reduces the chance of error. Also see the next pattern, Search with Auto-Complete.

As eBay for Android suggests, Explicit Search needn't be confined to text entry. Amazon and RedLaser offer photo and barcode scanning options for quick in-store lookups. These mobile-friendly search features have helped drive the showrooming phenomenon (*http://en.wikipedia.org/wiki/Showrooming*) that has changed the retail shopping dynamic in recent years.



amazon Prime
Search in All Departments
Go
Scan It
Snap It
Overview
Apple® - Wireless Keyboard
4.3 (3)
Online $48.00 / Local $69.99
ONLINE
LOCAL
DETAILS
REVIEWS

ONLINE RESULTS

Best Buy	$69.99

Google SEARCH RESULTS

eBay	$48.00
eBay - Igeoo	$49.99
Discount Shockwave	$53.37

FIGURE 4-9. Amazon and RedLaser for Android: Explicit Search via barcode scanning

Voice-based search also can be useful, but it is dependent on the quality of the voice recognition program. We've all heard funny stories of Siri wildly misunderstanding user questions (see the screenshots from WhySiriWhy.com), but voice search has already come a long way, and I expect its refinement to continue.

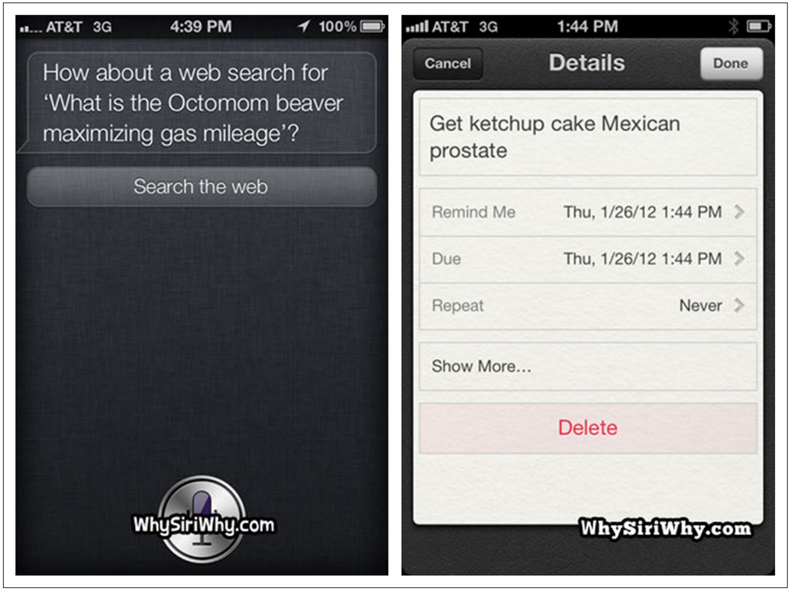


FIGURE 4-10.
WhySiriWhy.com: a site devoted to voice searches gone wrong

Another option for Explicit Search is via direct manipulation. Trulia and Soundwave both offer options to physically draw search boundaries on a map.

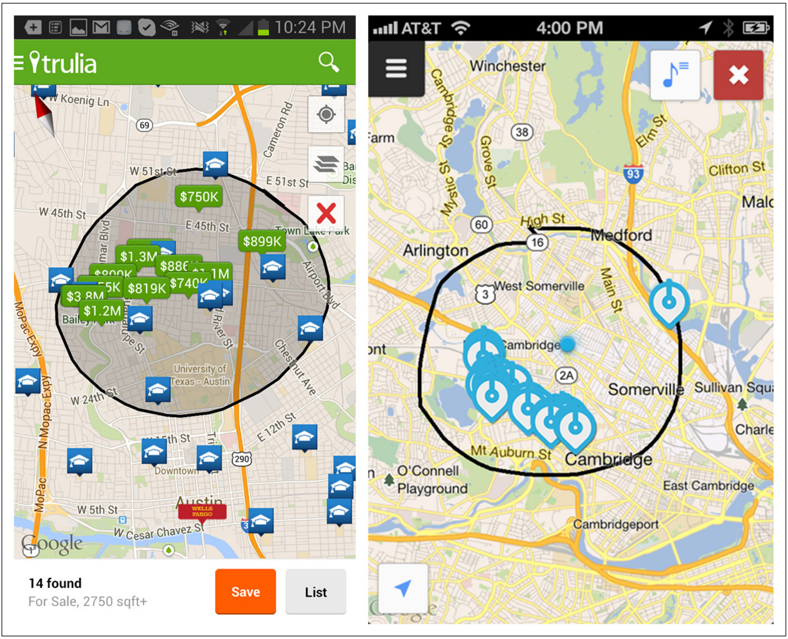
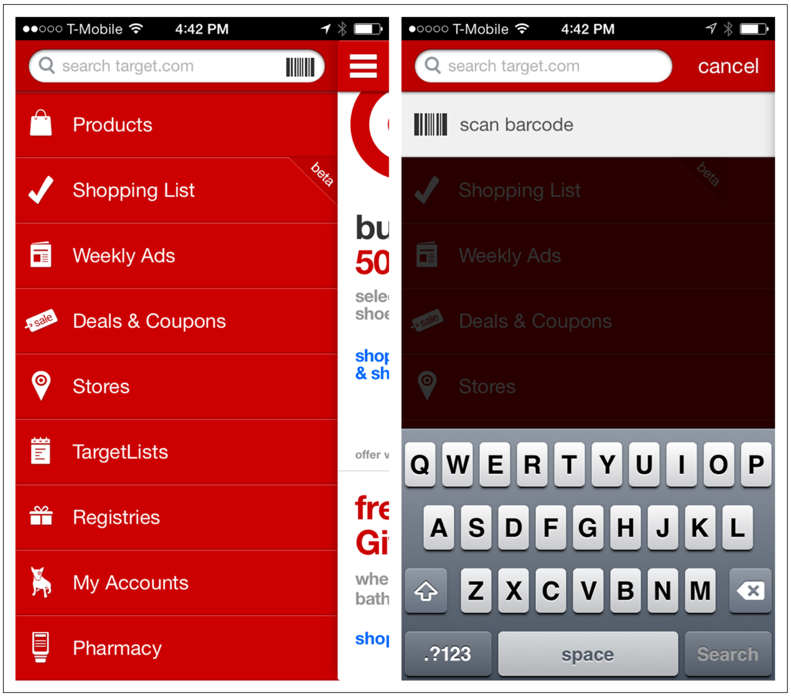


FIGURE 4-11.
Trulia for Android and Soundwave for iOS use gestures to draw search boundaries

One more emerging pattern in Explicit Search is Modal Search. In this example from Target, the search field is shown in the navigation drawer, but as soon as it is tapped, "search mode" displays a full search screen with keyboard.

FIGURE 4-12.
Target for iOS: tapping on the search field opens a new search screen



TripAdvisor and RetailMeNot use the same pattern, but in these examples, search lives on the home page instead of in a navigation drawer.

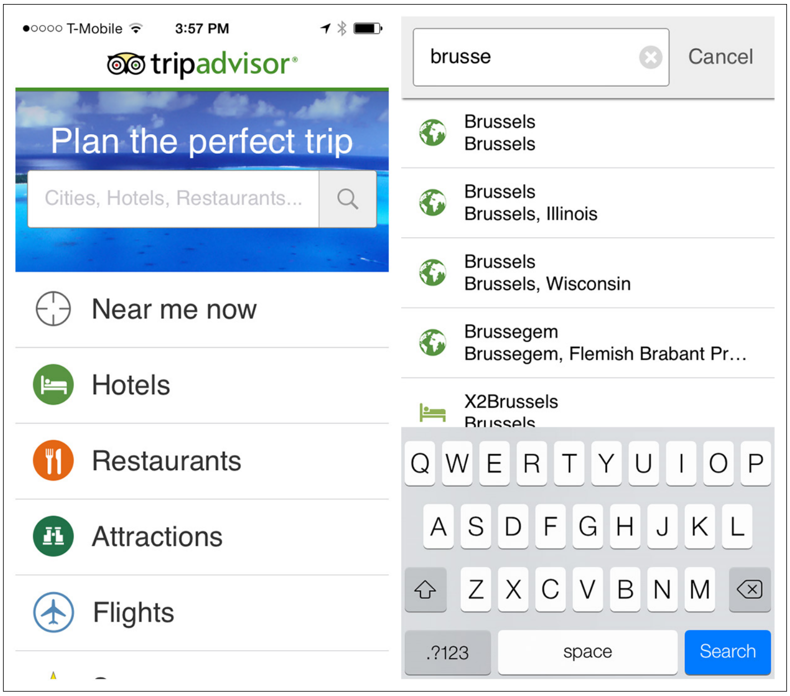


FIGURE 4-13. TripAdvisor for iOS: Modal Search slides a search screen in from the right

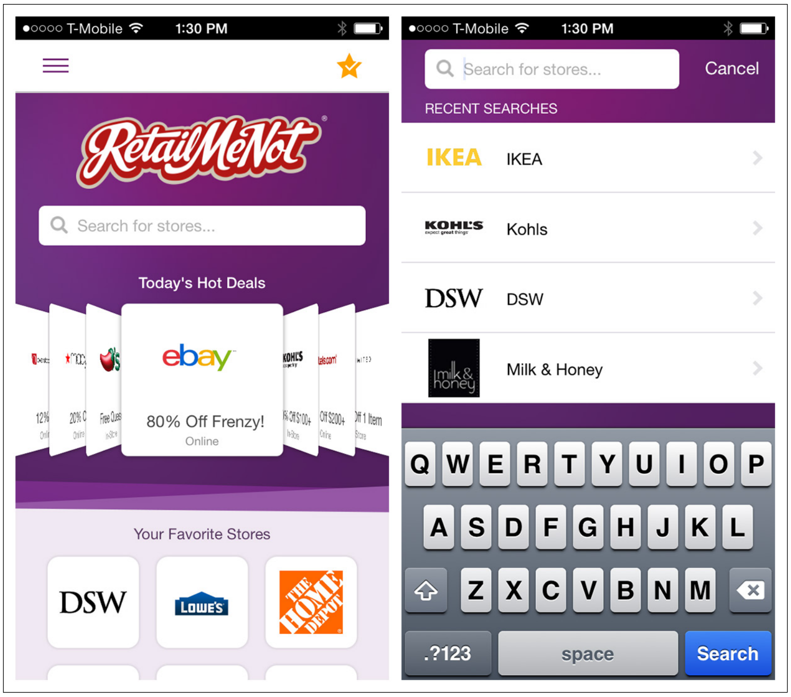


FIGURE 4-14. RetailMeNot for iOS: the Modal Search screen slides up

[NOTE]

Offer a Clear button and an option to cancel a Modal Search. Use feedback to show that the search is being performed (see Chapter 8).

The main benefit of Modal Search is the additional real estate the full search screen offers. Just remember to offer a way back (e.g., Cancel) for users who decide not to search after all.

Search with Auto-Complete

At this stage in mobile design's maturity, Auto-Complete should be standard for Explicit Search. I was stunned that fewer than 10% of the Windows Phone 8 apps I researched had this functionality, even though these design patterns have been around since 2004 on the Web, and even longer on desktop. Shockingly, even Dictionary.com on Windows Phone doesn't offer Auto-Complete, and who needs it more than someone using a dictionary app?

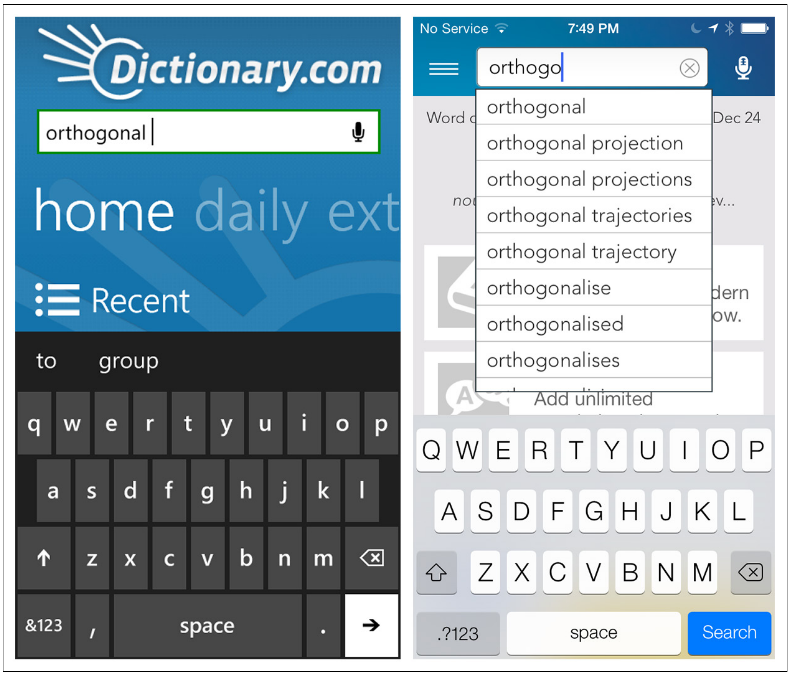


FIGURE 4-15. Dictionary.com for Windows Phone and iOS: Auto-Complete should be standard

Auto-Complete should be implemented so that as text is entered, a set of possible results surfaces. As the user continues to enter text, the search results narrow accordingly. A tap on any result initiates the search. Tapping a button (on the screen or keyboard) should also be an option to initiate search on the currently highlighted result.

Ideally, Auto-Complete results will display immediately, but a progress indicator ("Searching...") should be used to give feedback. Fidelity displays feedback where the results will eventually be displayed.

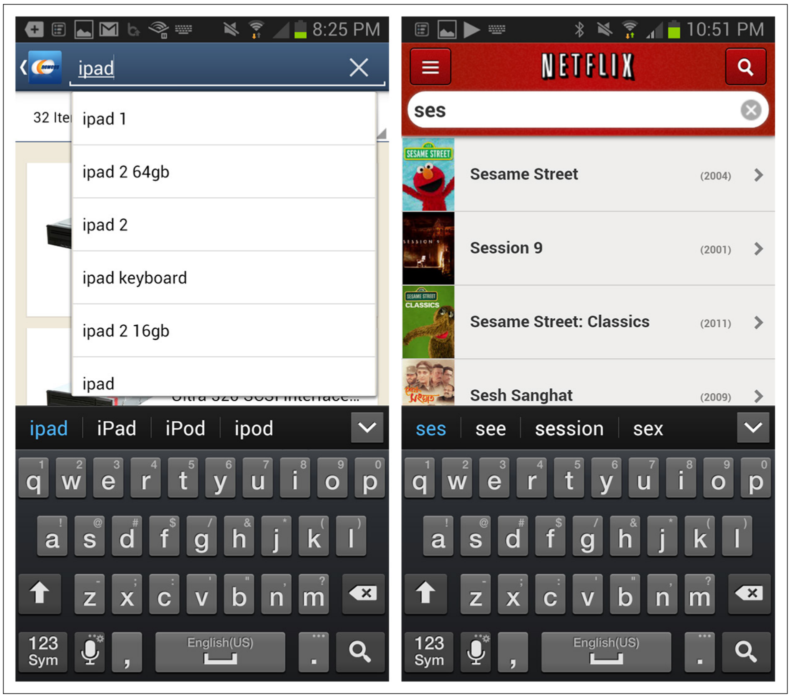


FIGURE 4-16. Newegg and Netflix for Android: Auto-Complete can offer multiple ways to initiate search

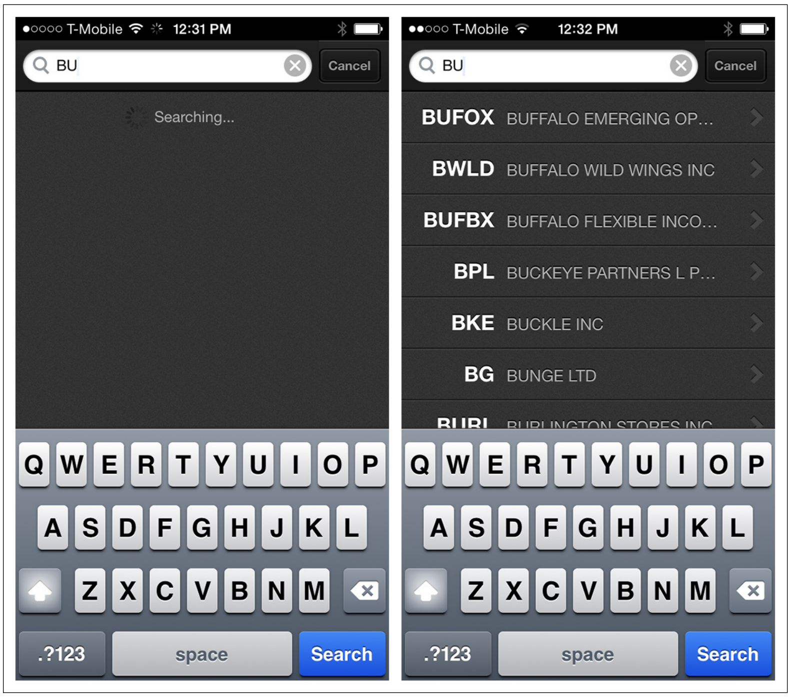

T-Mobile 12:31 PM
BU
Cancel
Searching...
T-Mobile 12:32 PM
BU
Cancel
BUFOX BUFFALO EMERGING OP...
BWLD BUFFALO WILD WINGS INC
BUFBX BUFFALO FLEXIBLE INCO...
BPL BUCKEYE PARTNERS L P...
BKE BUCKLE INC
BG BUNGE LTD
.?123
space
Search

FIGURE 4-17. Fidelity for iOS provides feedback for Auto-Complete progress below the search field

[NOTE]

Show a loading indicator if there could be a delay in displaying Auto-Complete results. Consider grouping the suggestions to improve search efficiency.

Target's Android app provides an enhanced Auto-Complete that shows the possible categories for each suggestion. This makes it easier for users to navigate directly to the most relevant search results. Songza also has an enhanced Auto-Complete that shows groupings.

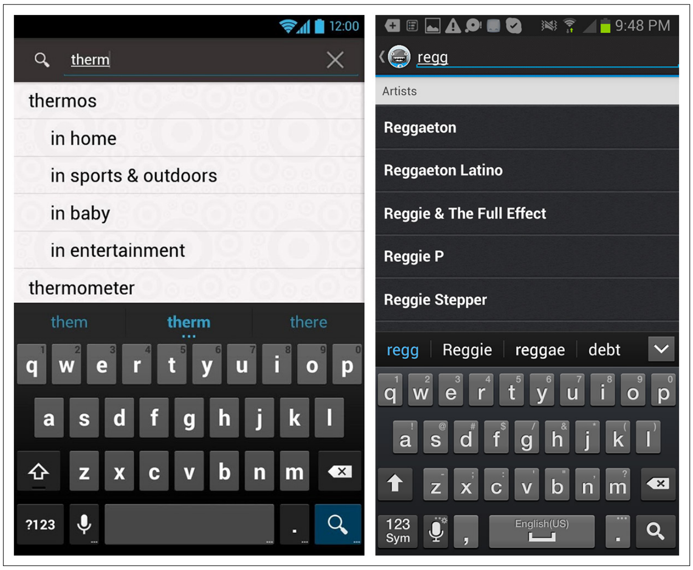


FIGURE 4-18. Target and Songza for Android: enhanced Auto-Complete options

Dynamic Search

The Dynamic Search pattern may also be considered dynamic filtering. Here, a blank search field returns all possible category results, and entering a search string dynamically filters down the list. In the Audible example, you can see that my entire audiobook library is shown in the background. When I start to type, only the matching titles remain.

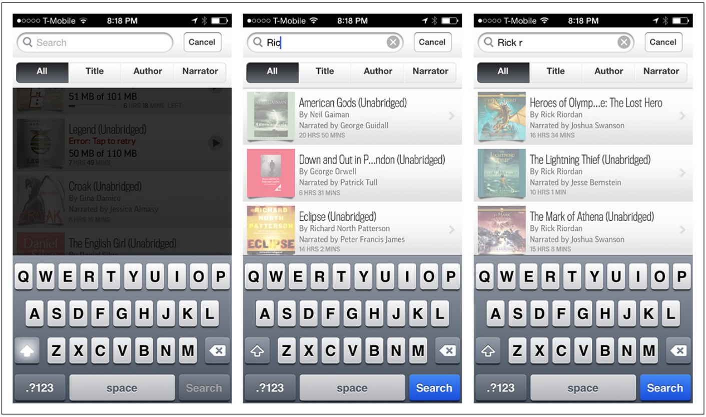

Search
Cancel
All
Title
Author
Narrator
Ric
Rick r
American Gods (Unabridged)
Down and Out in P...ndon (Unabridged)
Eclipse (Unabridged)
Heroes of Olymp...e: The Lost Hero
The Lightning Thief (Unabridged)
The Mark of Athena (Unabridged)

FIGURE 4-19. Dynamic Search in Audible for iOS narrows results as users type

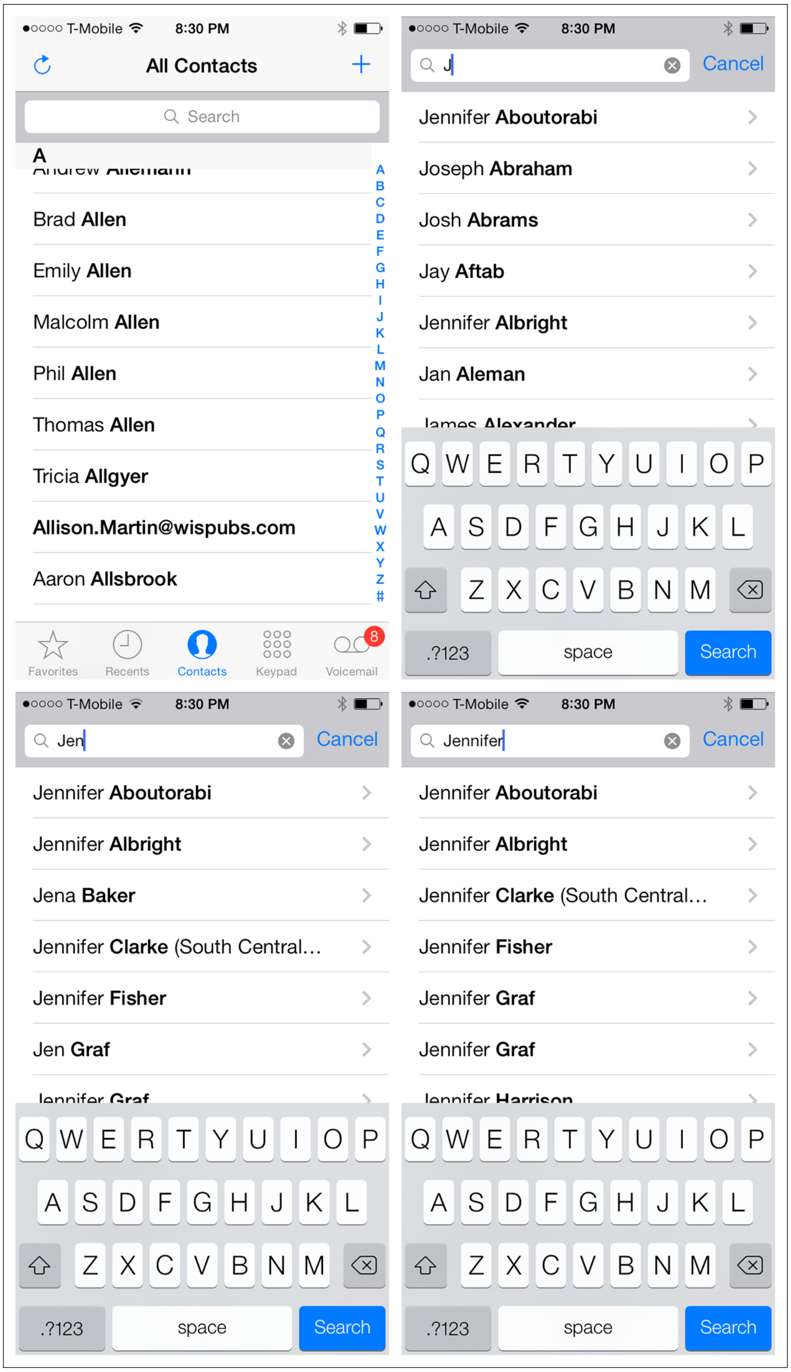


FIGURE 4-20.
Dynamic Search in Contacts for iOS quickly winnows results of search

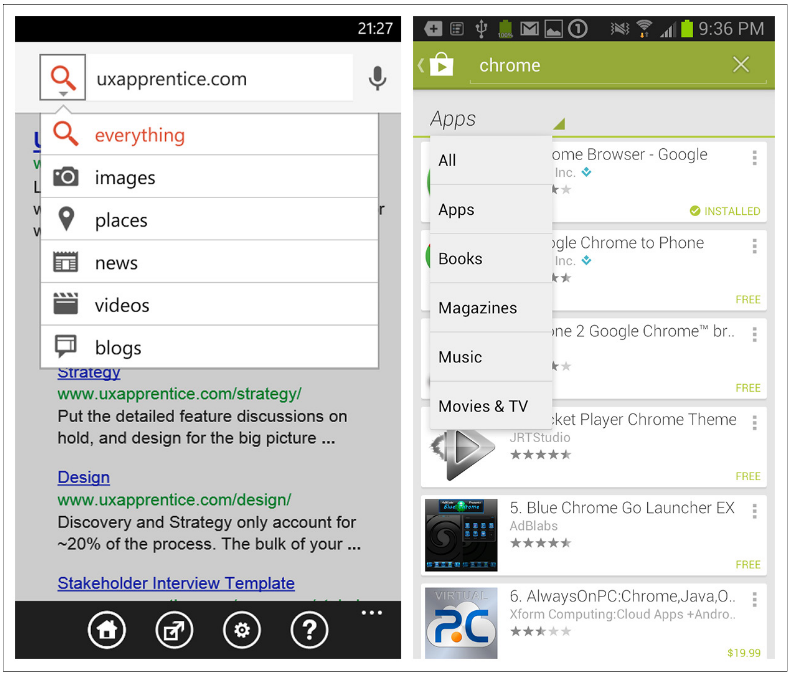
[NOTE]

Dynamic Search works well for constrained data sets, like an address book or a personal media library, but it should not be used for searching huge data sets, like a retailer's inventory.

Scoped Search

Sometimes users can get search results faster and easier if you let them narrow the scope of the search before they actually initiate it. Google on Windows Phone 8 offers a menu for specifying a category, while the Google Play Store for Android uses a Spinner control nestled under the search field.

FIGURE 4-21.
Google for Windows Phone and Google Play Store for Android: menus to scope searches



Strategy
www.uxapprentice.com/strategy/
Put the detailed feature discussions on hold, and design for the big picture ...

Design
www.uxapprentice.com/design/
Discovery and Strategy only account for ~20% of the process. The bulk of your ...

Stakeholder Interview Template

ome Browser - Google
Inc.

gle Chrome to Phone
Inc.

ne 2 Google Chrome™ br..

ket Player Chrome Theme
JRTStudio

5. Blue Chrome Go Launcher EX
AdBlabs

6. AlwaysOnPC:Chrome,Java,O..
Xform Computing:Cloud Apps +Andro..

It is common to see a segmented control in iOS for Scoped Search, as in iTunes, but there are other UI options, like Scrolling Tabs or a Pill Bar.

[NOTE]

Offer reasonable scoping options based on the data set. Three to five scoping options is plenty. Consider a Search Form to provide advanced search capabilities.

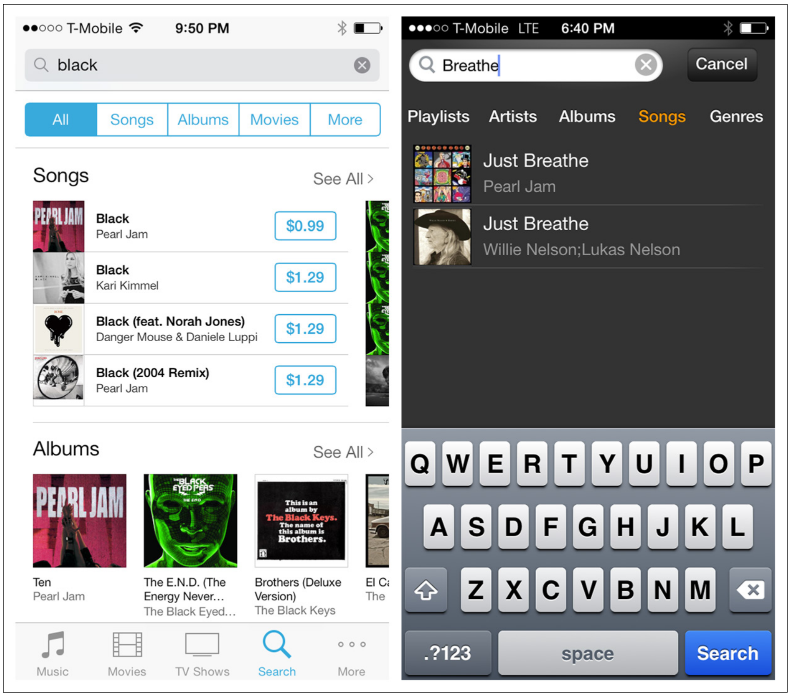


FIGURE 4-22.
iTunes and Amazon Cloud Player for iOS: two options to narrow search scope

Saved, Recent, and Popular Search

Well-designed mobile interfaces follow a basic usability maxim: respect the user's effort. Saved, Recent, and Popular Searches do this by making it easy to select from previous searches instead of retyping the same keywords or search criteria.

[NOTE]

Saved Search typically requires an additional step to name the search for later use, whereas a Recent Search is automatically saved and surfaced. Consider which one will best serve the needs of your users.

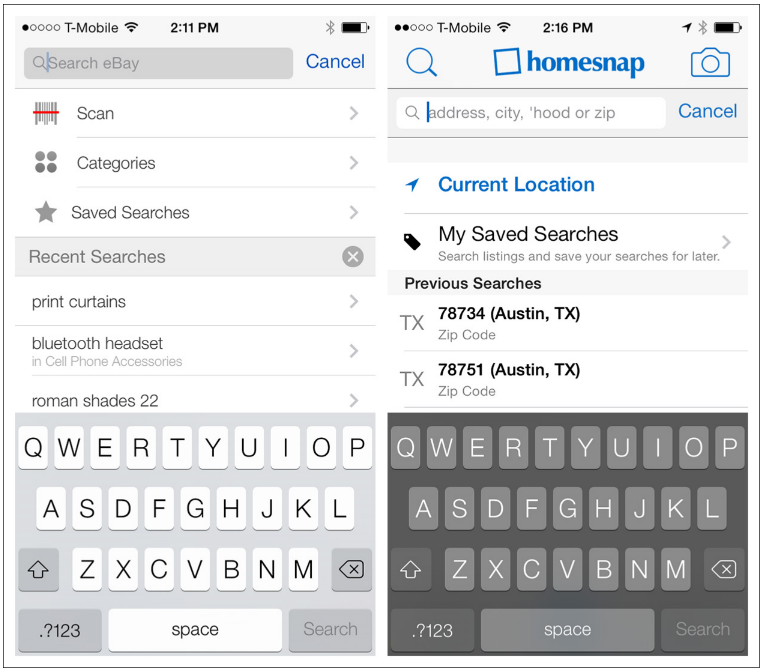


FIGURE 4-23.
eBay and Homesnap for iOS: Saved and Recent Searches

Groupon and CheckPay surface users' most popular searches and most popular search options, respectively.

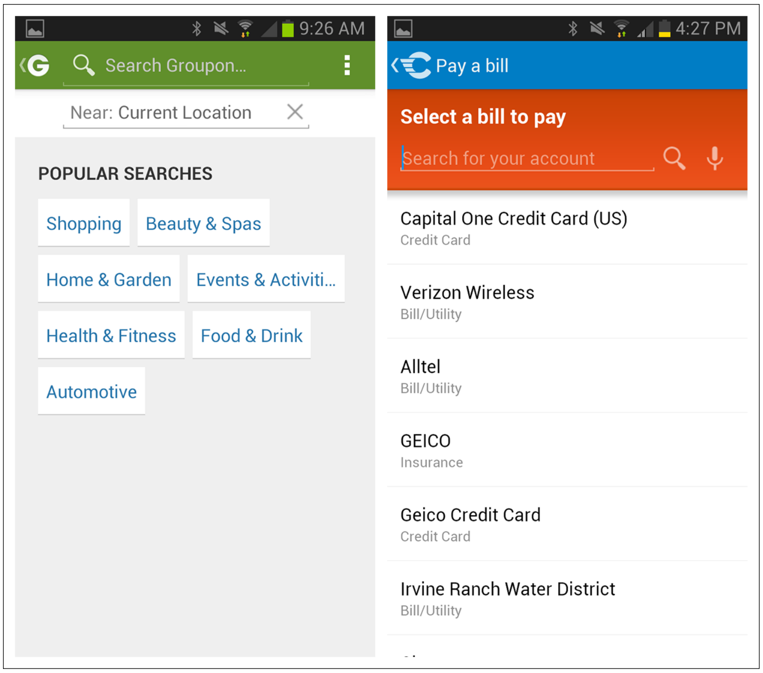


FIGURE 4-24.
Groupon and CheckPay for Android: surfacing popular searches

Other techniques to respect the user's effort include location-based searching, as in Airbnb and Foursquare.

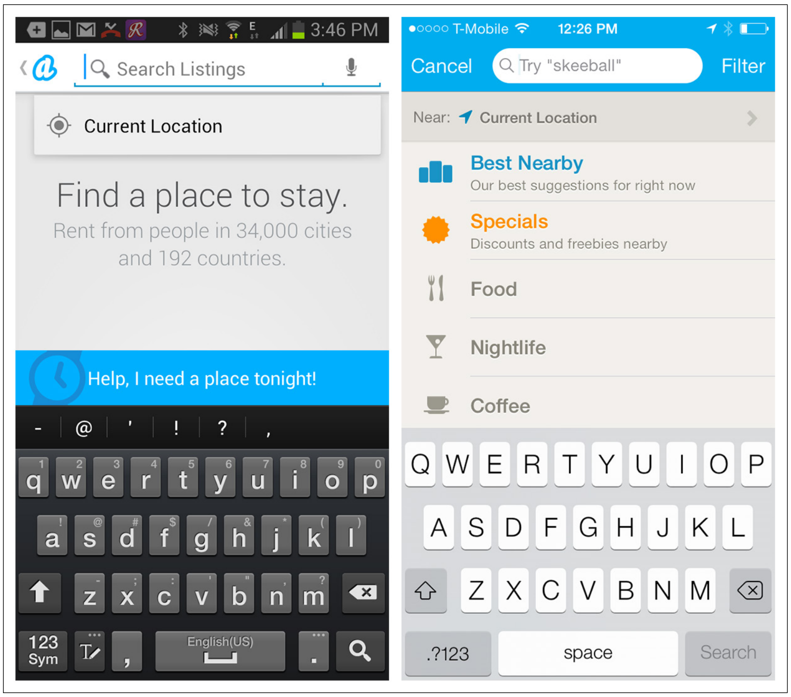
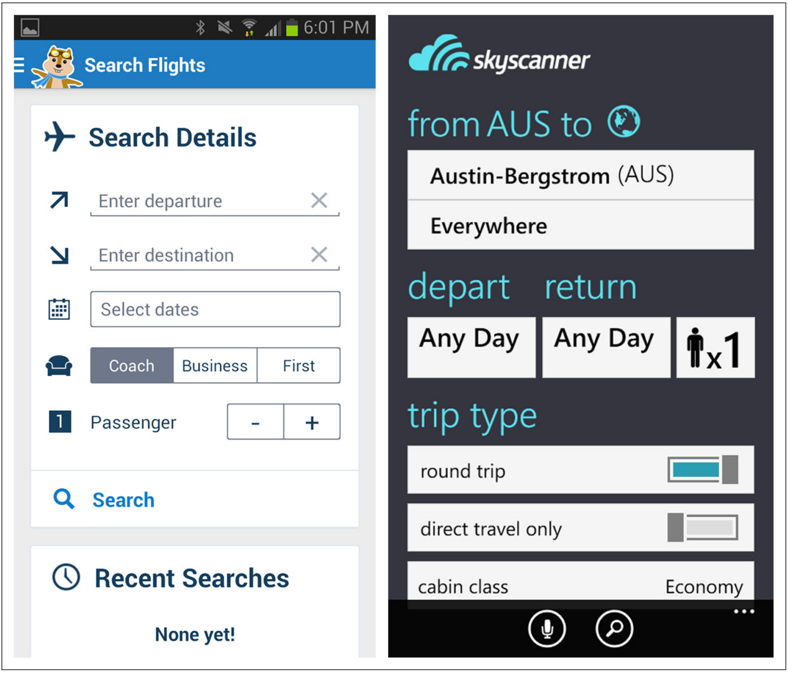


FIGURE 4-25.
Airbnb for Android and Foursquare for iOS: location-based searching

Search Form

This pattern is characterized by a separate form for entering multiple criteria, along with an explicit search button. Hipmunk and Skyscanner use Search Forms to set the necessary criteria for searching flights and hotels. See more examples in Chapter 2.

FIGURE 4-26.
Hipmunk for Android and Skyscanner for Windows Phone: Search Form examples



[NOTE]

Minimize the number of input fields. Use OS-specific input controls properly. Follow form design best practices for alignment, labels, size, and so on.

Expedia for both iOS and Android uses an elegant design that animates the origin and destination fields. Both versions also include only the most essential search fields.

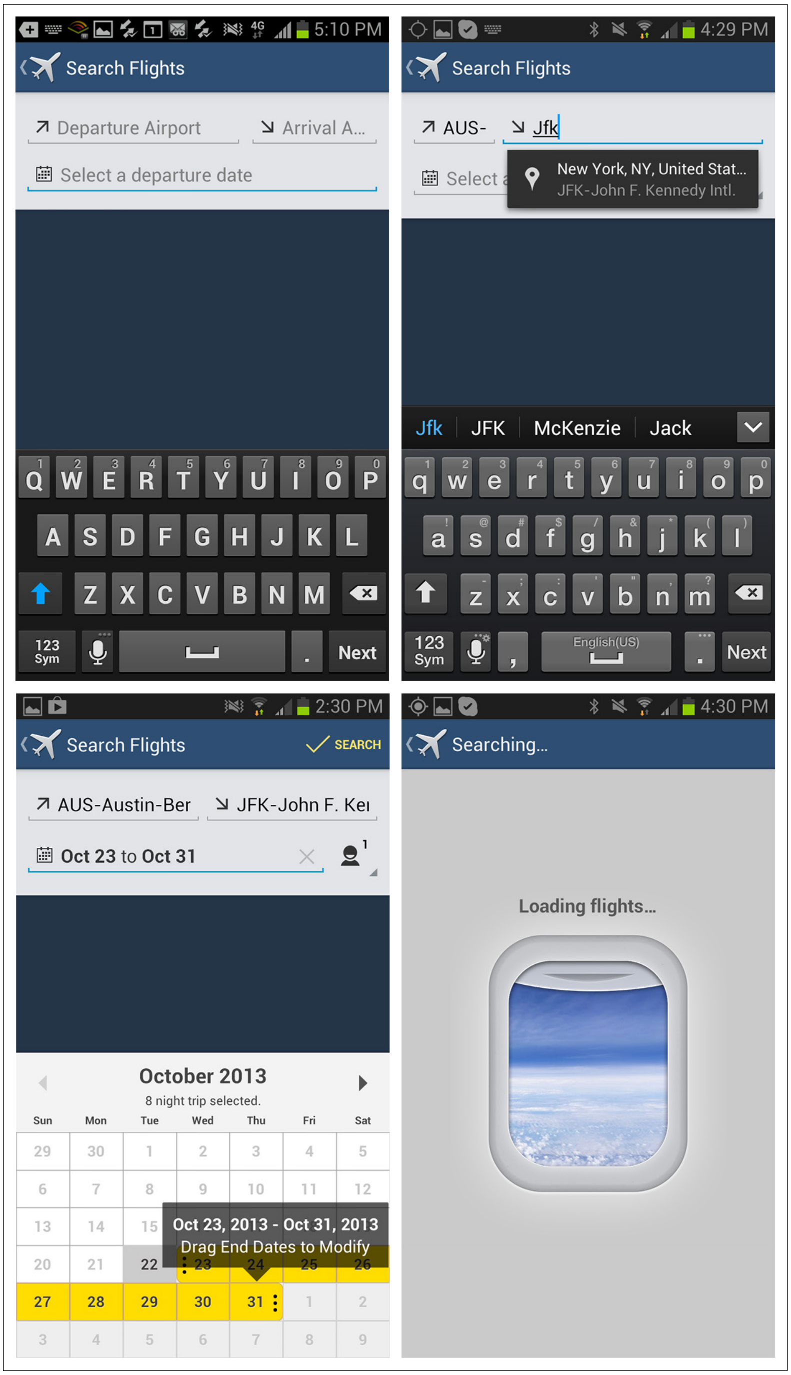
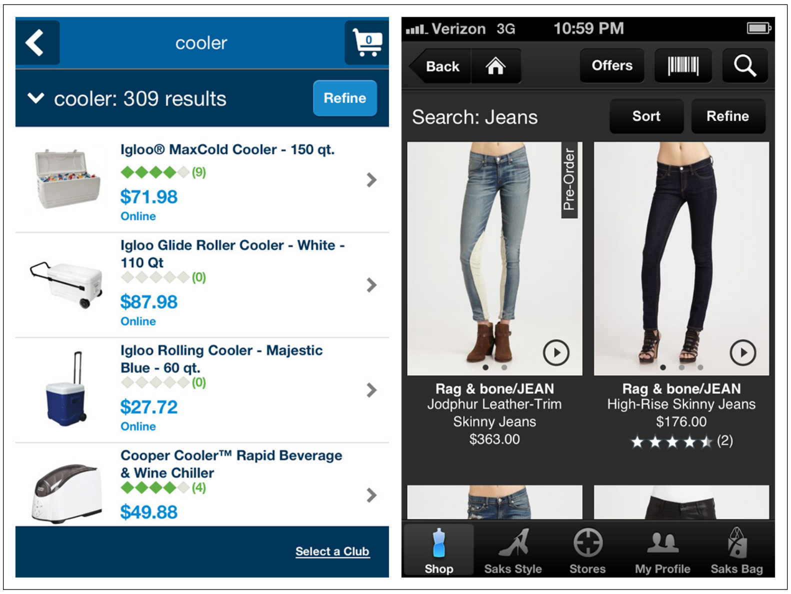


FIGURE 4-27.
Expedia for Android: a helpful, elegant Search Form design

Search Results/View Results

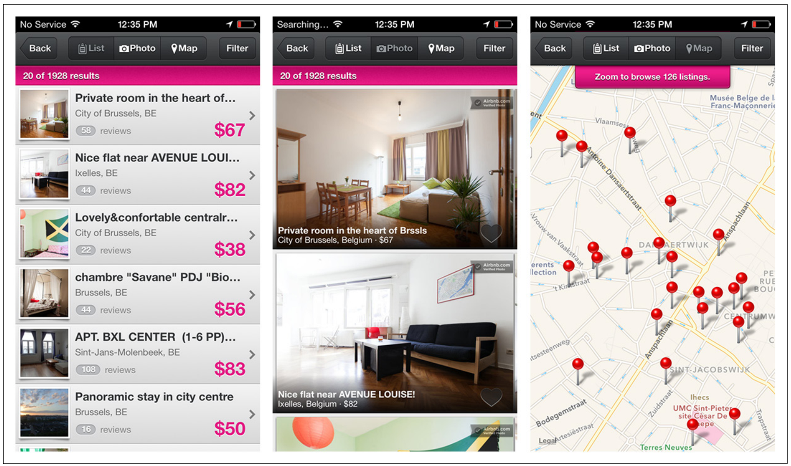
Once a search is performed, the results can be displayed on the same screen or on a dedicated results screen. Results may be displayed in a table or list, on a map or satellite image, or as thumbnails.

FIGURE 4-28.
Sam's Club and Saks for iOS: list view and tile view Search Results, respectively

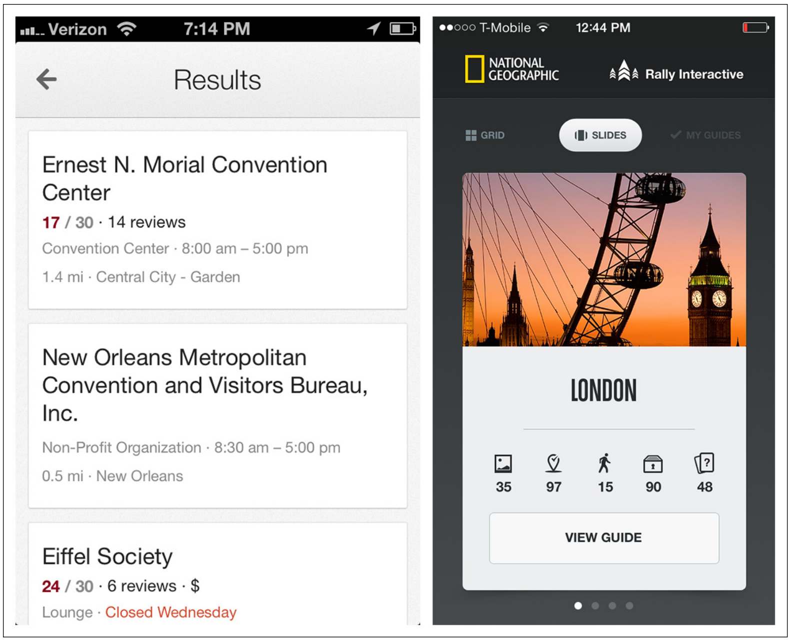


Multiple View Results options are available depending on the type of results and user preferences.

FIGURE 4-29.
Airbnb for iOS: list, photo, and map Search Result views



Another emerging trend for displaying Search Results is to show each result on a card, slide, or tile. Users can navigate these by swiping through them.


Verizon 7:14 PM

Results

Ernest N. Morial Convention Center
17 / 30 · 14 reviews
Convention Center · 8:00 am – 5:00 pm
1.4 mi · Central City - Garden

New Orleans Metropolitan Convention and Visitors Bureau, Inc.
Non-Profit Organization · 8:30 am – 5:00 pm
0.5 mi · New Orleans

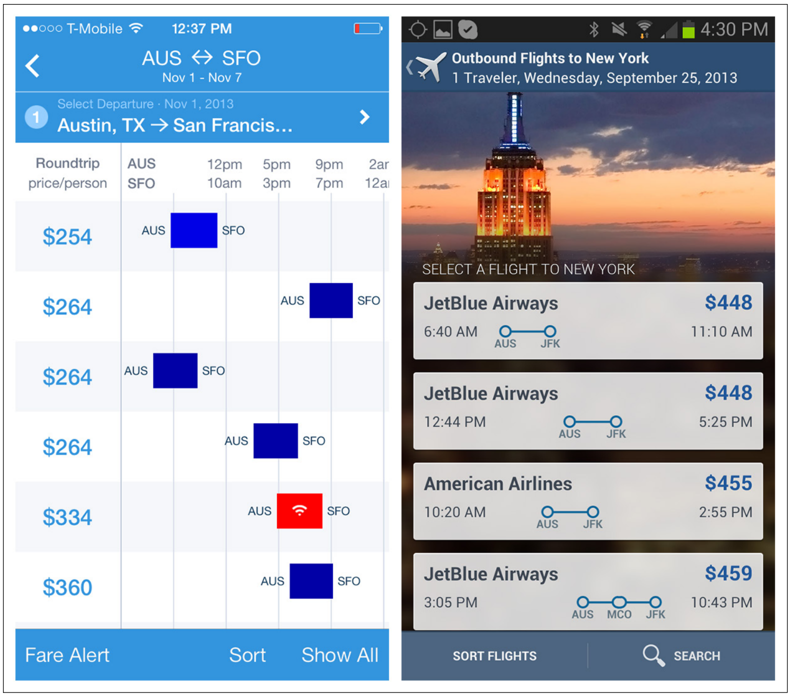
Eiffel Society
24 / 30 · 6 reviews · $
Lounge · Closed Wednesday

FIGURE 4-30.
Google Now's Search Results on cards; National Geographic's on slides

Hipmunk has pioneered visualizing flight results with a Gantt chart–style timeline. Expedia's take on it helps visualize the flight duration in context with the ticket cost and departure time.

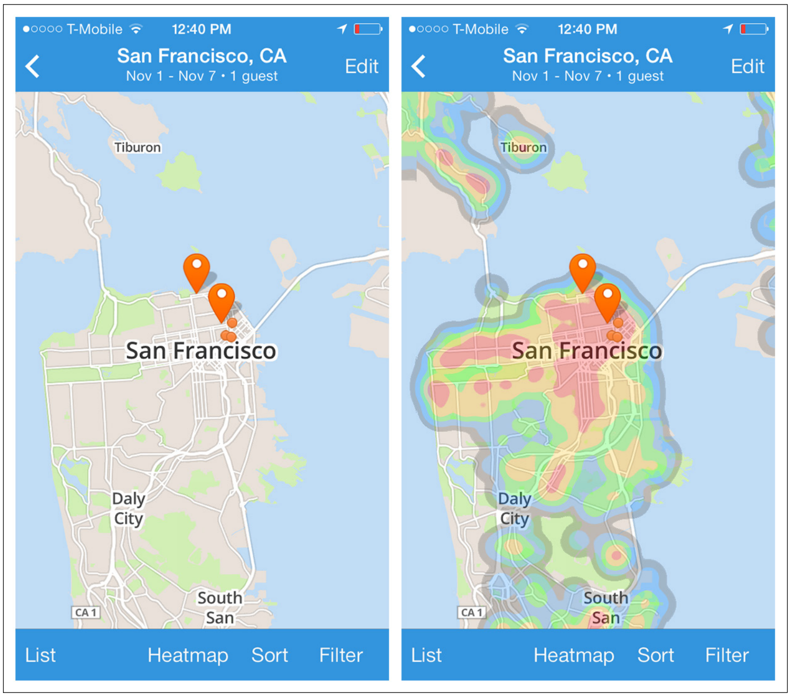
Hipmunk also offers an alternative way to view hotel search results. The results are shown on a map—pretty standard, right? But there's a heat map overlay option for viewing the hotels with respect to area crime, shopping, and nightlife.

FIGURE 4-31.
Hipmunk for iOS and Expedia for Android

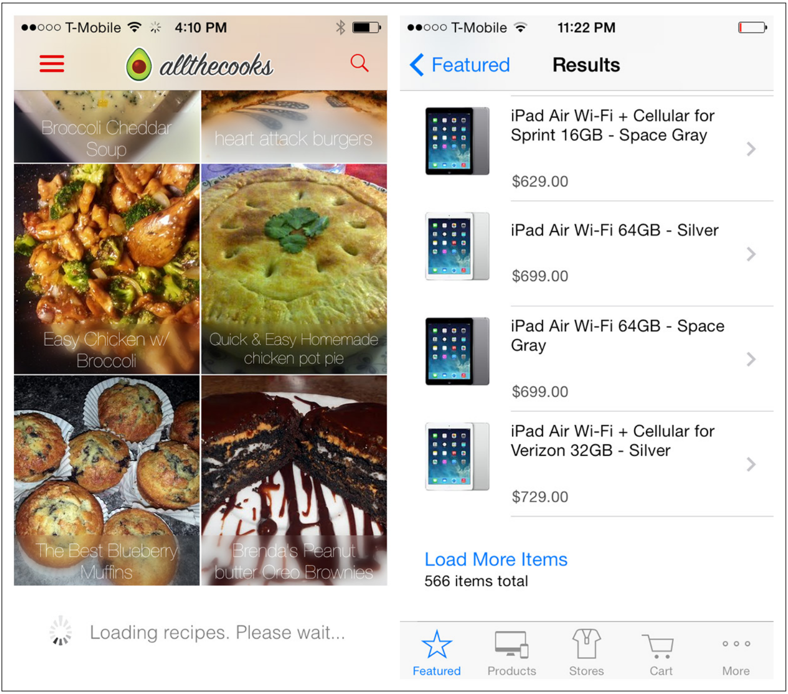


●●○○○ T-Mobile 12:37 PM
AUS ⇔ SFO
Nov 1 - Nov 7
Select Departure · Nov 1, 2013
Austin, TX → San Francis...
Roundtrip price/person
AUS SFO
12pm 10am
5pm 3pm
9pm 7pm
2am 12am
$254 AUS SFO
$264 AUS SFO
$264 AUS SFO
$264 AUS SFO
$334 AUS SFO
$360 AUS SFO
Fare Alert
Sort
Show All
4:30 PM
Outbound Flights to New York
1 Traveler, Wednesday, September 25, 2013
SELECT A FLIGHT TO NEW YORK
JetBlue Airways $448 6:40 AM AUS JFK 11:10 AM
JetBlue Airways $448 12:44 PM AUS JFK 5:25 PM
American Airlines $455 10:20 AM AUS JFK 2:55 PM
JetBlue Airways $459 3:05 PM AUS MCO JFK 10:43 PM
SORT FLIGHTS
SEARCH

FIGURE 4-32.
Hipmunk for iOS: showing a heat map overlay for various statistics



Lazy loading is a common technique for displaying partial results while the rest are being loaded. Many applications, like Allthecooks, automatically load more results when the screen is swiped. Alternatively, the Apple Store provides a link to load more items.



iPad Air Wi-Fi + Cellular for Sprint 16GB - Space Gray
$629.00

iPad Air Wi-Fi 64GB - Silver
$699.00

iPad Air Wi-Fi 64GB - Space Gray
$699.00

iPad Air Wi-Fi + Cellular for Verizon 32GB - Silver
$729.00

Load More Items
566 items total

FIGURE 4-33. Allthecooks and Apple Store for iOS: lazy loading of results

Avoid paged tables—they break the natural interaction model of viewing information on a mobile device.

[NOTE]

Label the results with the number of items returned. Use lazy loading instead of paging. Apply a reasonable default sort order.

Sort Patterns

Apple earns praise for some of its user-centric designs, but I'd argue the App Store search function shouldn't be one of them. Search "finance," for example, and you'll get 2,200+ results. As you start flicking through hundreds of apps, you might wonder, are these in any kind of order, like most popular, highest rated, or recently released? There's no way to tell. Odds are good you'll need to go elsewhere to research which financial apps will work best for you, and then search for those specific app names.

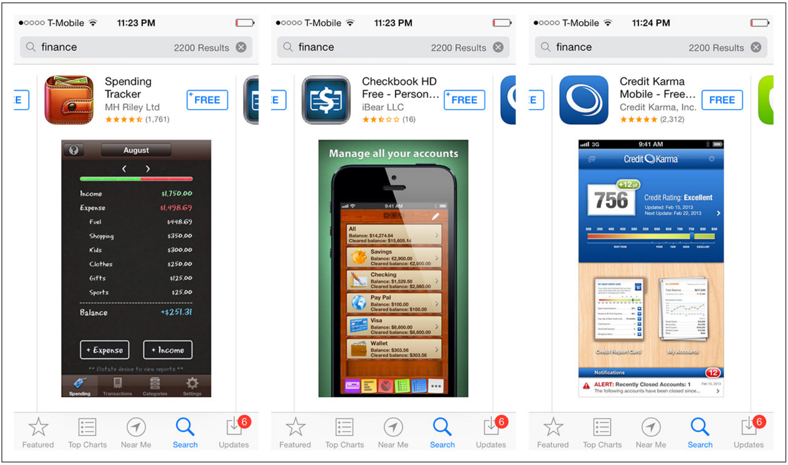


FIGURE 4-34. App Store for iOS: 2,200 unsorted results for finance apps

Likewise, having the ability to manipulate search results in Google Maps would be a huge help. I assumed the default result for "gas," say, would be the gas station closest to my current location, but I found that typically it isn't.

Instead, I'm forced to open the results list to check the distances of each result. Of course, even this is less than perfect, because distance and drive time are not the same thing. Having the ability to arrange the list by highest rated, distance, or drive time would be super useful. Alas, no such luck.

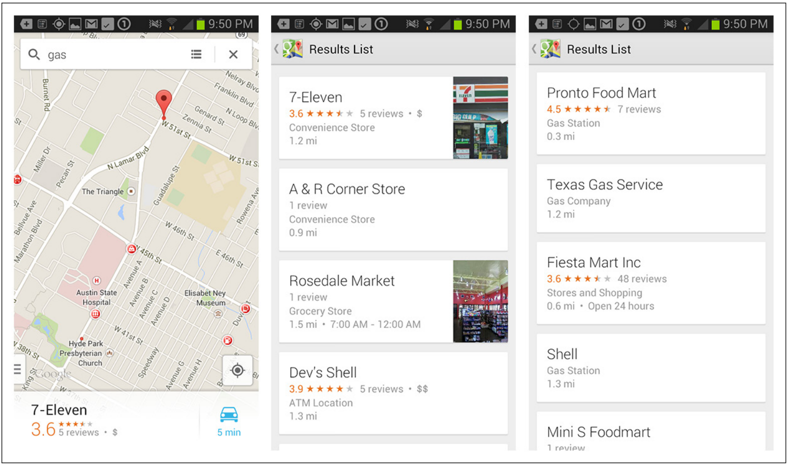


FIGURE 4-35. Google Maps for Android: the closest and highest-rated result is hidden on page 2 (Pronto Food Mart)

Although in these instances Apple and Google seem to have forgotten the value of it, the sort pattern can greatly enhance search usability. Consider integrating one of the following patterns with your search results:

- Onscreen Sort
- Sort Overlay
- Sort Form

Onscreen Sort

When you need only a few sort options, an Onscreen Sort can provide a simple one-tap solution. But as we'll see, many iOS apps have moved away from this pattern in favor of a more space-saving option, like the Sort Overlay.

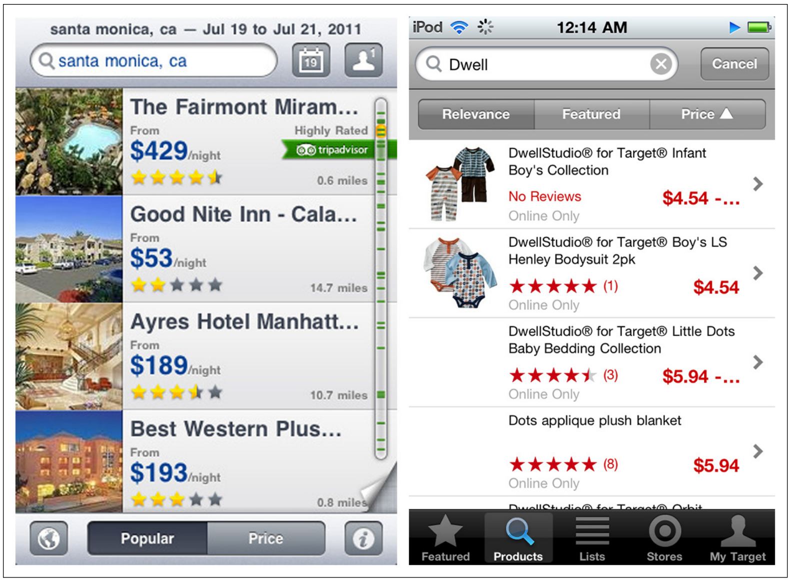
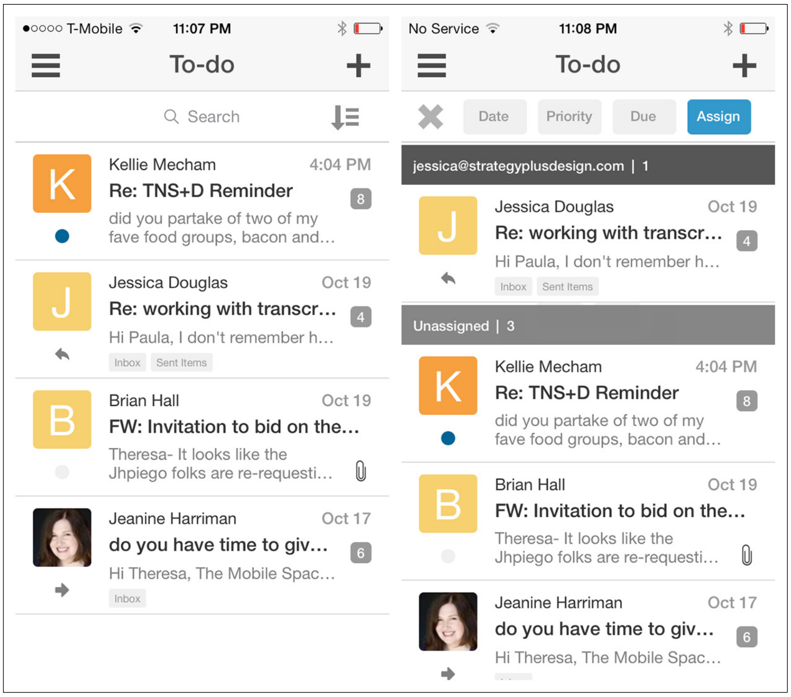


FIGURE 4-36.
Onscreen Sort examples from the first edition of this book: Expedia and Target for iOS

The email app Boxer reveals Onscreen Sort options only after the sort icon has been tapped, and keeps them visible until the user closes them.

In Android apps, the Spinner control can work nicely for selecting the sort order. Though it doesn't show all sort options at a glance, it clearly shows which option is active.

FIGURE 4-37.
Boxer for iOS



Kellie Mecham 4:04 PM
Re: TNS+D Reminder 8
did you partake of two of my fave food groups, bacon and…

Jessica Douglas Oct 19
Re: working with transcr… 4
Hi Paula, I don't remember h…
Inbox Sent Items

Brian Hall Oct 19
FW: Invitation to bid on the…
Theresa- It looks like the Jhpiego folks are re-requesti…

Jeanine Harriman Oct 17
do you have time to giv… 6
Hi Theresa, The Mobile Spac…
Inbox

jessica@strategyplusdesign.com | 1

Jessica Douglas Oct 19
Re: working with transcr… 4
Hi Paula, I don't remember h…
Inbox Sent Items

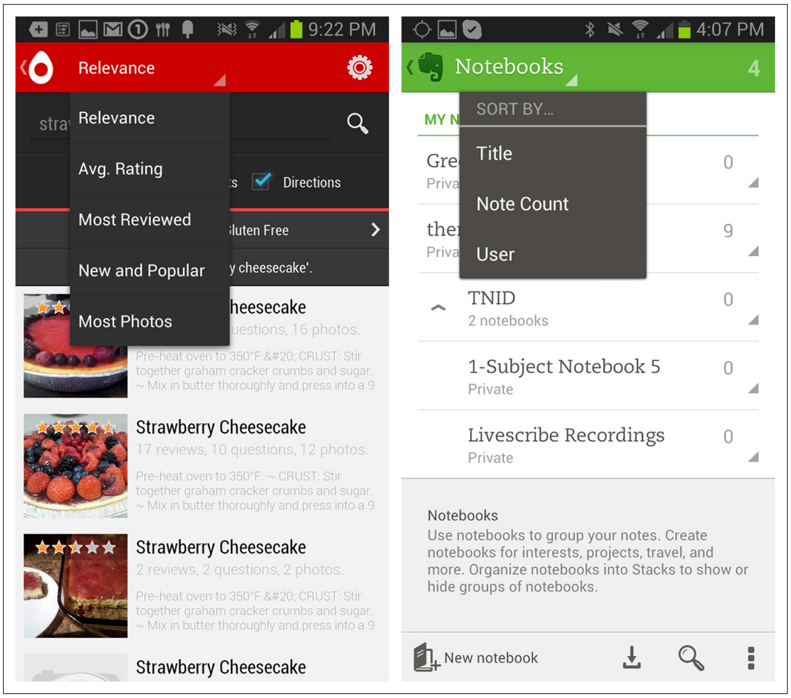
Unassigned | 3

Kellie Mecham 4:04 PM
Re: TNS+D Reminder 8
did you partake of two of my fave food groups, bacon and…

Brian Hall Oct 19
FW: Invitation to bid on the…
Theresa- It looks like the Jhpiego folks are re-requesti…

Jeanine Harriman Oct 17
do you have time to giv… 6
Hi Theresa, The Mobile Spac…

FIGURE 4-38.
Allthecooks and Evernote for Android: Spinner control for sort options



y cheesecake'.

heesecake
uestions, 16 photos.
Pre-heat oven to 350°F.&#20; CRUST: Stir together graham cracker crumbs and sugar. ~ Mix in butter thoroughly and press into a 9

Strawberry Cheesecake
17 reviews, 10 questions, 12 photos.
Pre-heat oven to 350°F. ~ CRUST: Stir together graham cracker crumbs and sugar. ~ Mix in butter thoroughly and press into a 9

Strawberry Cheesecake
2 reviews, 2 questions, 2 photos.
Pre-heat oven to 350°F.&#20; CRUST: Stir together graham cracker crumbs and sugar. ~ Mix in butter thoroughly and press into a 9

Strawberry Cheesecake

Gre 0
Priva

the 9
Priva

TNID 0
2 notebooks

1-Subject Notebook 5 0
Private

Livescribe Recordings 0
Private

Notebooks
Use notebooks to group your notes. Create notebooks for interests, projects, travel, and more. Organize notebooks into Stacks to show or hide groups of notebooks.

Sort Overlay

The Sort Overlay pattern is a good alternative to Onscreen Sort. It doesn't take up valuable screen real estate or force a truncated label when a longer, more explicit one would work better. The user can initiate the overlay by tapping a sort label or icon, and it can be placed at the top, middle, or bottom of the results screen. Audible's design is one of the most helpful since it shows which sort option is active, even when the overlay is closed.

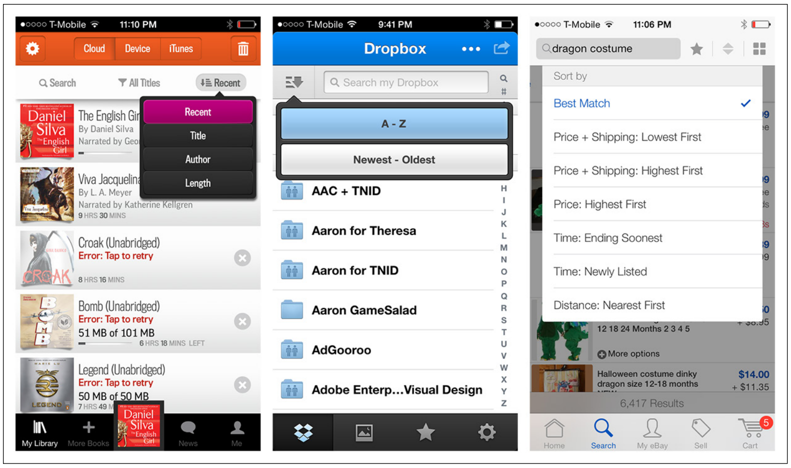


FIGURE 4-39. Audible, Dropbox, and eBay for iOS: top-sort overlays

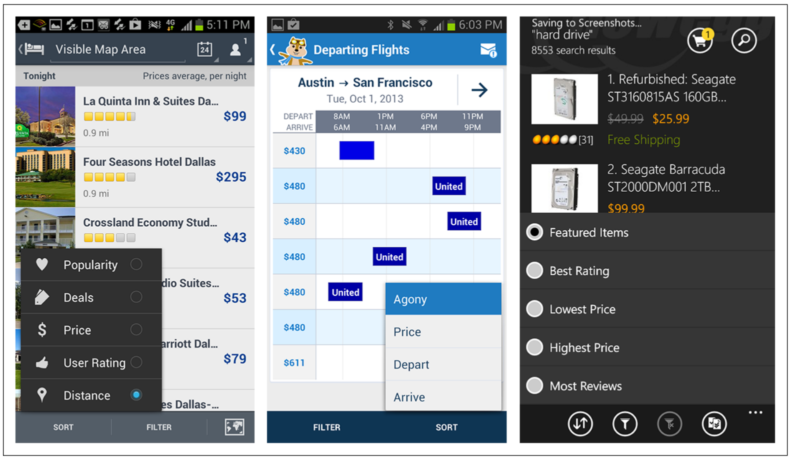
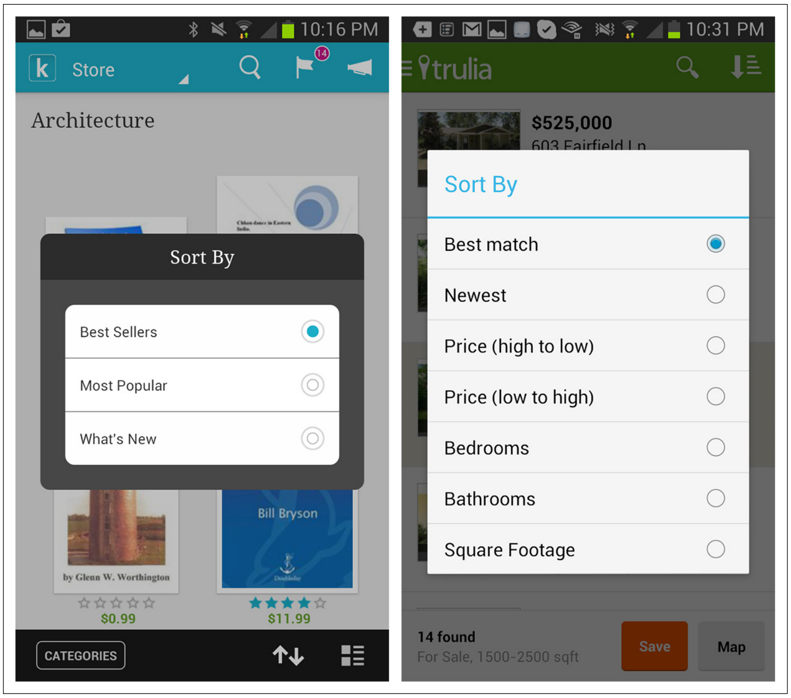


FIGURE 4-40. Expedia and Hipmunk for Android, and Newegg for Windows Phone: bottom-sort overlays

FIGURE 4-41.
Kobo and Trulia for Android: Sort Overlay dialogs



[NOTE]

Sort options should be located near other tools for manipulating the results list, like filters, view toggles, and the "clear search" button. Clearly show which sort option is active.

Wunderlist offers contextual tools, including a sort option, accessible from the bottom-right corner.

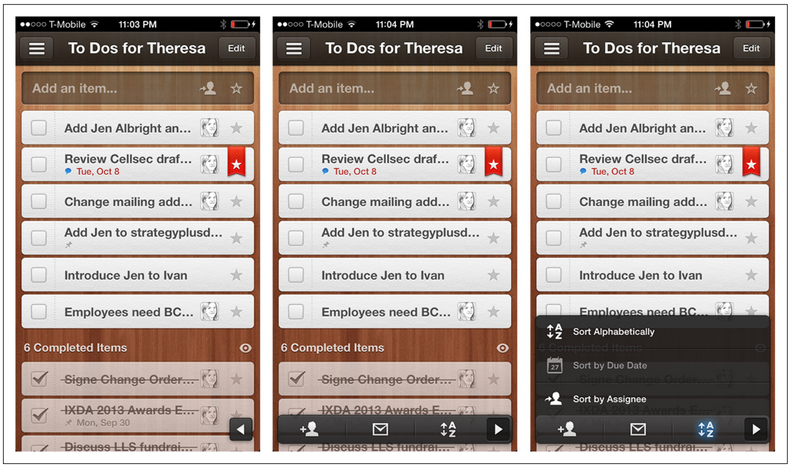
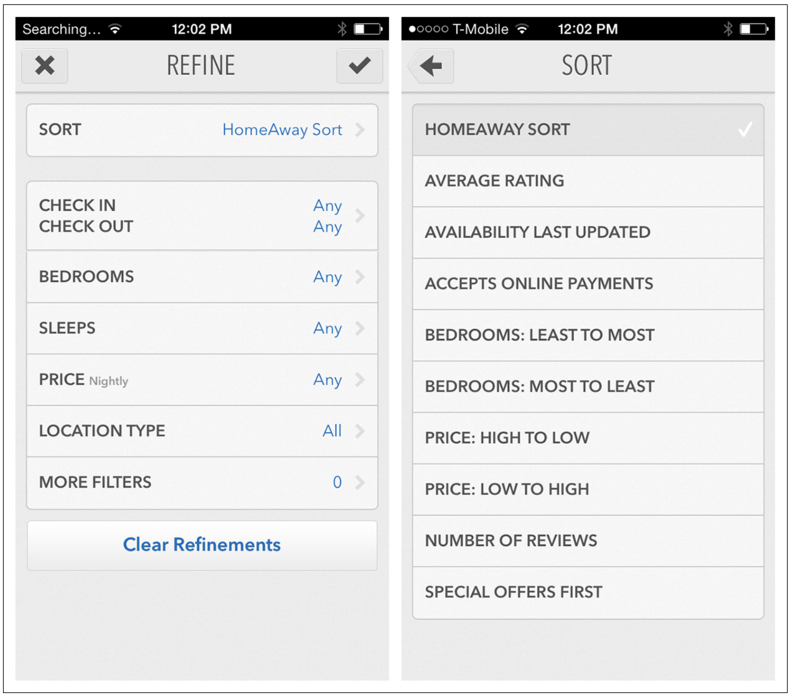


FIGURE 4-42.
Wunderlist for iOS

Sort Form

The Sort Form may require more effort from the user, who must open the form, select an option, and potentially tap “done,” “apply,” or “back.”



SORT	HomeAway Sort
CHECK IN CHECK OUT	Any Any
BEDROOMS	Any
SLEEPS	Any
PRICE Nightly	Any
LOCATION TYPE	All
MORE FILTERS	0

Clear Refinements

HOMEAWAY SORT ✓
AVERAGE RATING
AVAILABILITY LAST UPDATED
ACCEPTS ONLINE PAYMENTS
BEDROOMS: LEAST TO MOST
BEDROOMS: MOST TO LEAST
PRICE: HIGH TO LOW
PRICE: LOW TO HIGH
NUMBER OF REVIEWS
SPECIAL OFFERS FIRST

FIGURE 4-43.
HomeAway for iOS

Hipmunk uses the Sort Overlay pattern for Android, but chose a Sort Form for iOS. The sort selection is applied as soon as it is tapped—no “apply” or “done” button required.

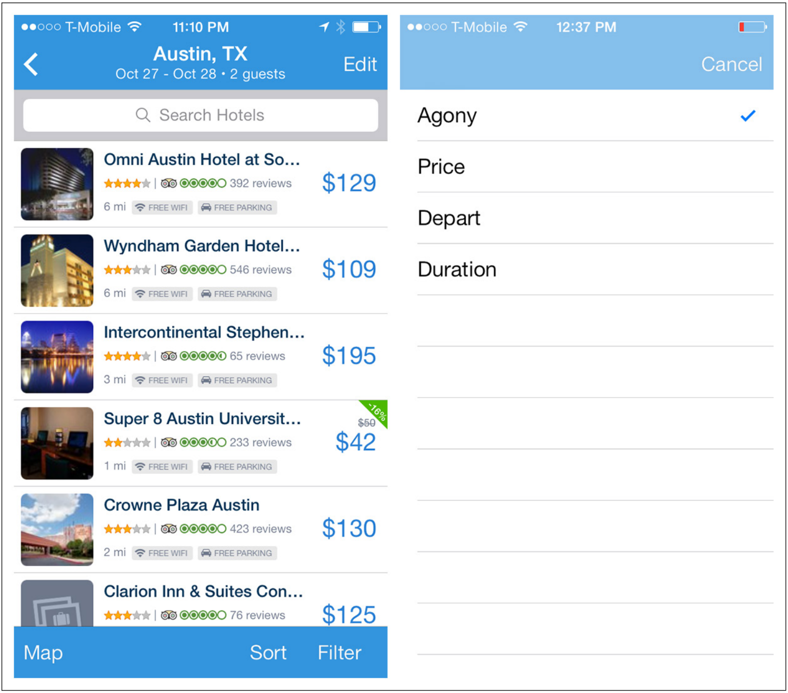

T-Mobile 11:10 PM
Austin, TX
Oct 27 - Oct 28 • 2 guests
Edit
Search Hotels
Omni Austin Hotel at So...
392 reviews
6 mi FREE WIFI FREE PARKING
$129
Wyndham Garden Hotel...
546 reviews
6 mi FREE WIFI FREE PARKING
$109
Intercontinental Stephen...
65 reviews
3 mi FREE WIFI FREE PARKING
$195
Super 8 Austin Universit...
233 reviews
1 mi FREE WIFI FREE PARKING
-16%
$50
$42
Crowne Plaza Austin
423 reviews
2 mi FREE WIFI FREE PARKING
$130
Clarion Inn & Suites Con...
76 reviews
$125
Map
Sort
Filter
T-Mobile 12:37 PM
Cancel
Agony ✓
Price
Depart
Duration

FIGURE 4-44.
Hipmunk for iOS

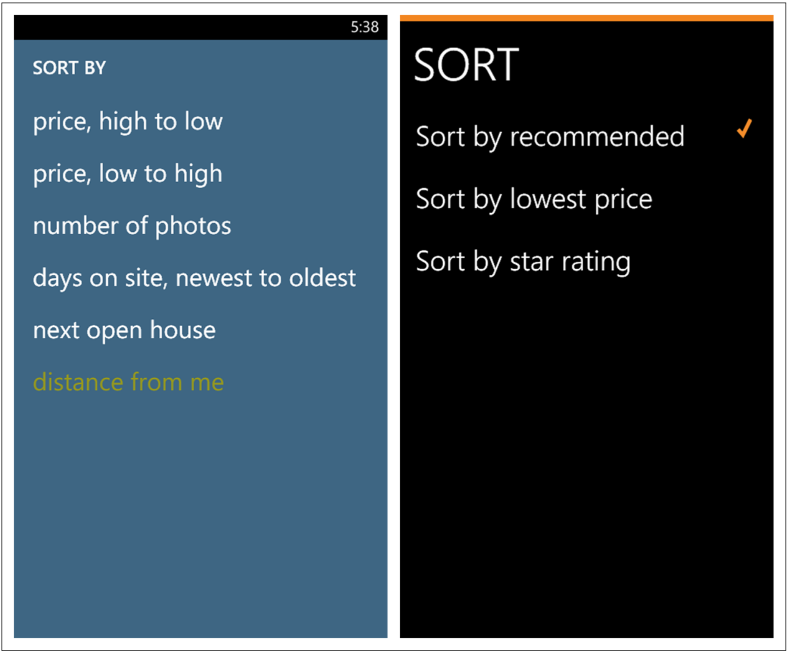
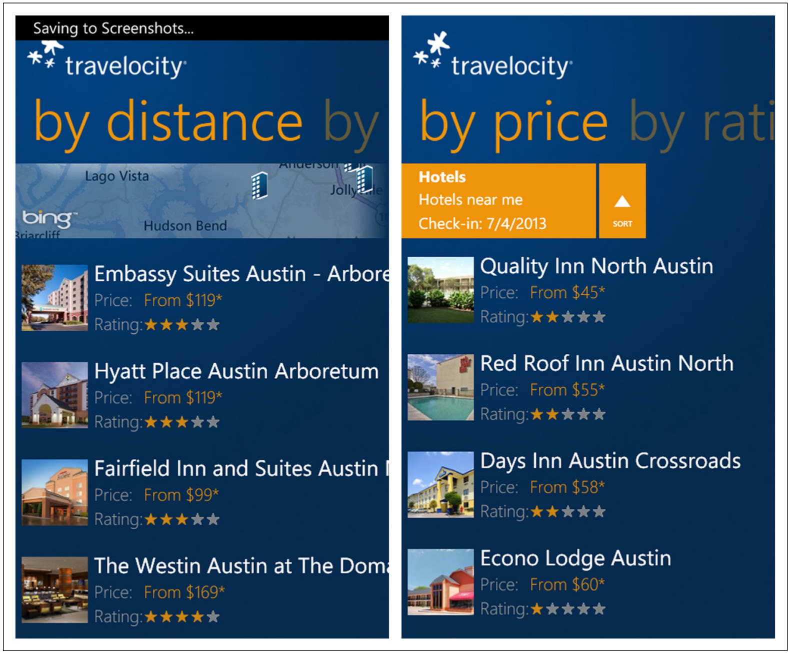


FIGURE 4-45.
Realtor.com and Kayak for Windows Phone

Unfortunately, in Windows Phone apps the Sort Form seems to be the predominate pattern, with Newegg, which uses a Sort Overlay, being a welcome exception. Another option to consider for Windows Phone apps is the Pivot control, as shown in the Travelocity example.



Saving to Screenshots...

travelocity

by distance by

Embassy Suites Austin - Arbore
Price: From $119*
Rating: ★★★★★

Hyatt Place Austin Arboretum
Price: From $119*
Rating: ★★★★★

Fairfield Inn and Suites Austin
Price: From $99*
Rating: ★★★★★

The Westin Austin at The Dom
Price: From $169*
Rating: ★★★★★

travelocity

by price by rati

Hotels
Hotels near me
Check-in: 7/4/2013
SORT

Quality Inn North Austin
Price: From $45*
Rating: ★★★★★

Red Roof Inn Austin North
Price: From $55*
Rating: ★★★★★

Days Inn Austin Crossroads
Price: From $58*
Rating: ★★★★★

Econo Lodge Austin
Price: From $60*
Rating: ★★★★★

FIGURE 4-46.
Travelocity for Windows Phone: Pivot control for sort options

Some apps combine sort and filter patterns in a single form. This can seem to make sense, as both are search refinement options. But as with Priceline and Yelp for iOS, it can result in long and crowded screens that veer into anti-pattern territory (see Chapter 11). Yelp for Windows Phone and Foursquare for iOS offer cleaner, single-page designs.

[NOTE]

Consider the more efficient Onscreen Sort or Sort Overlay patterns before opting for a Sort Form. If combining Sort and Filter in a single form, keep the screen as short and uncluttered as possible.

FIGURE 4-47.
Priceline and Yelp for iOS

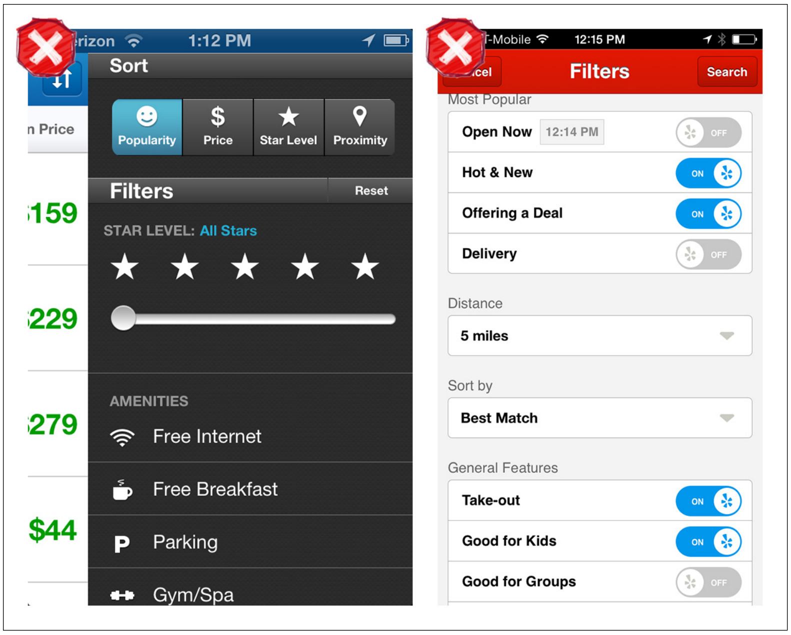
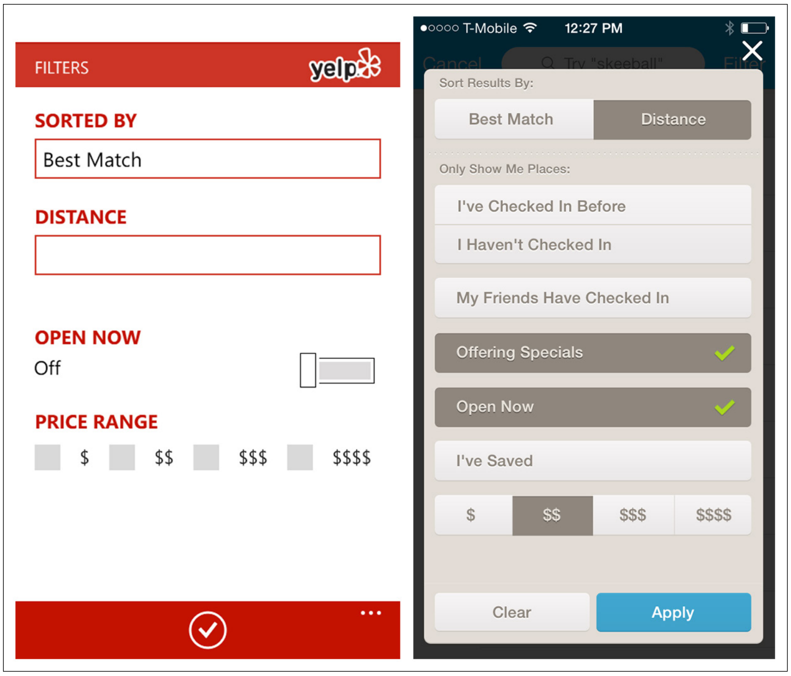


FIGURE 4-48.
Yelp for Windows Phone and Foursquare for iOS



Filter Patterns

Large sets of data can be so unwieldy as to be almost useless. To make sense of them, users often need to filter, or refine, the results. Filters let users select criteria to reduce data sets to their most manageable, relevant results. Common filtering patterns include:

- Onscreen Filter
- Filter Overlay
- Filter Form
- Filter Drawer
- Gesture-Based Filtering

Also see the earlier search pattern, Scoped Search, for more filtering techniques.

Onscreen Filter

Like the Onscreen Sort, the Onscreen Filter is displayed on the Search Results screen. With one tap, the filter is applied.

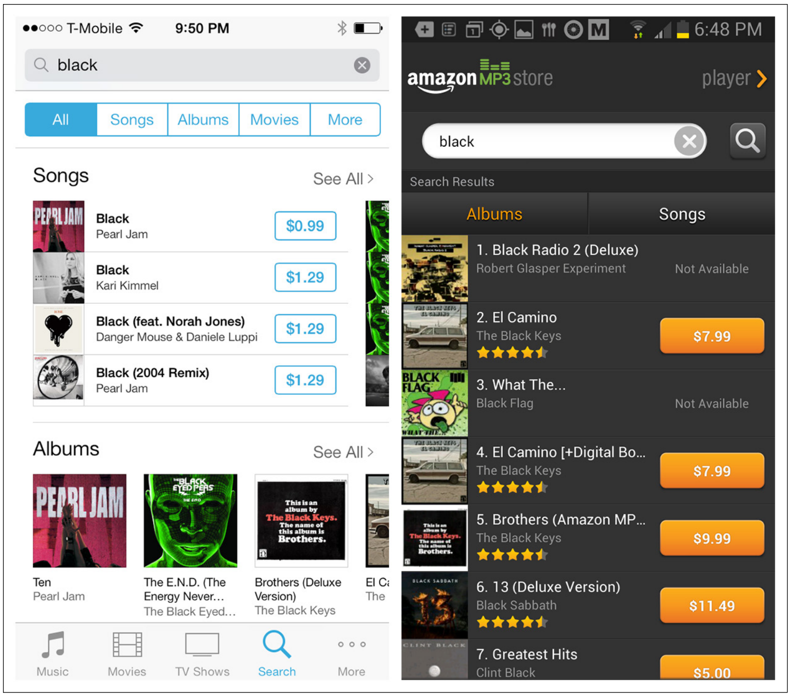
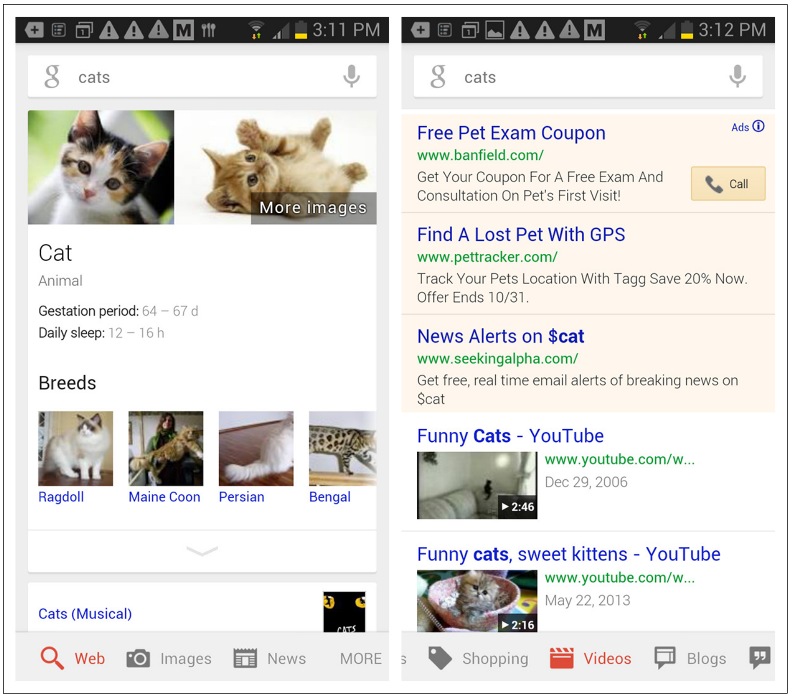

●●○○○ T-Mobile 9:50 PM
black
All Songs Albums Movies More
Songs See All
Black Pearl Jam $0.99
Black Kari Kimmel $1.29
Black (feat. Norah Jones) Danger Mouse & Daniele Luppi $1.29
Black (2004 Remix) Pearl Jam $1.29
Albums See All
Ten Pearl Jam
The E.N.D. (The Energy Never… The Black Eyed…
Brothers (Deluxe Version) The Black Keys
El Ca The
Music Movies TV Shows Search More
6:48 PM
amazon MP3 store
player
black
Search Results
Albums Songs
1. Black Radio 2 (Deluxe) Robert Glasper Experiment Not Available
2. El Camino The Black Keys $7.99
3. What The... Black Flag Not Available
4. El Camino [+Digital Bo... The Black Keys $7.99
5. Brothers (Amazon MP... The Black Keys $9.99
6. 13 (Deluxe Version) Black Sabbath $11.49
7. Greatest Hits Clint Black $5.00

FIGURE 4-49.
iTunes for iOS and Amazon Cloud Player for Android: Onscreen Filters at top

Google for Android shows its three most common Onscreen Filters across the bottom of the screen. Tapping More reveals other filter options. As a user scrolls the results, the filters hide, so more of the results are visible.

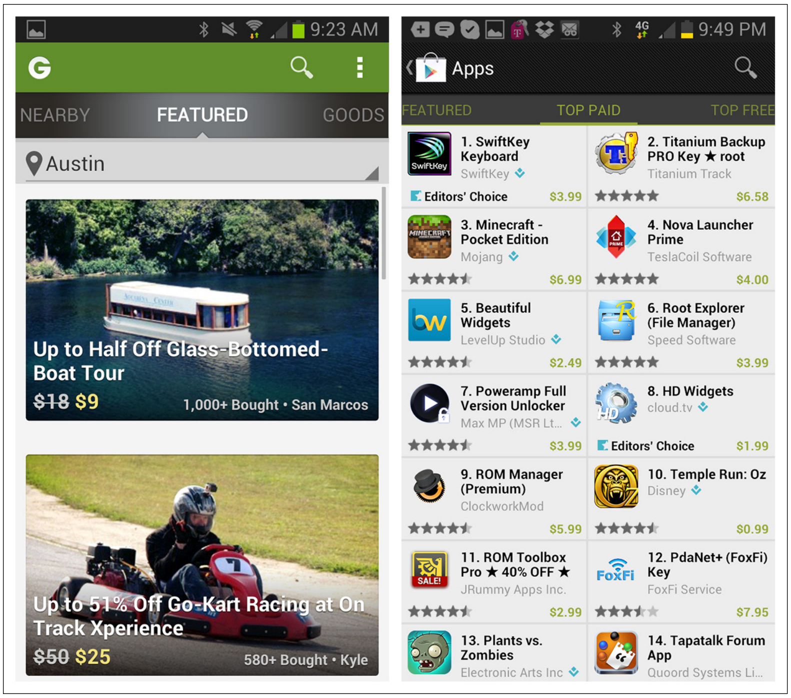
FIGURE 4-50.
Google for Android: Onscreen Filters across the bottom


3:11 PM
cats
More images
Cat
Animal
Gestation period: 64 – 67 d
Daily sleep: 12 – 16 h
Breeds
Ragdoll
Maine Coon
Persian
Bengal
Cats (Musical)
Web Images News MORE

3:12 PM
cats
Ads
Free Pet Exam Coupon
www.banfield.com/
Get Your Coupon For A Free Exam And Consultation On Pet's First Visit!
Call
Find A Lost Pet With GPS
www.pettracker.com/
Track Your Pets Location With Tagg Save 20% Now. Offer Ends 10/31.
News Alerts on $cat
www.seekingalpha.com/
Get free, real time email alerts of breaking news on $cat
Funny Cats - YouTube
www.youtube.com/w...
Dec 29, 2006
2:46
Funny cats, sweet kittens - YouTube
www.youtube.com/w...
May 22, 2013
2:16
Shopping Videos Blogs

The Android versions of Groupon and the Play Store use a side-scrolling filter bar to let users quickly find certain types of coupons and apps, respectively. Android calls this control *Scrolling Tabs*, whereas Windows refers to it as a *Pivot Header*.

SXSW GO has a two-row filter for selecting the date, session type, and other advanced filter options. You can see when advanced filters are on because the color changes and the text is updated from Filter Off to Filter On.


9:23 AM

NEARBY FEATURED GOODS

Austin

Up to Half Off Glass-Bottomed-Boat Tour
~~$18~~ $9 1,000+ Bought • San Marcos

Up to 51% Off Go-Kart Racing at On Track Xperience
~~$50~~ $25 580+ Bought • Kyle

9:49 PM

Apps

FEATURED TOP PAID TOP FREE

1. SwiftKey Keyboard
SwiftKey
Editors' Choice $3.99

2. Titanium Backup PRO Key ★ root
Titanium Track
★★★★★ $6.58

3. Minecraft - Pocket Edition
Mojang
★★★★ $6.99

4. Nova Launcher Prime
TeslaCoil Software
★★★★★ $4.00

5. Beautiful Widgets
LevelUp Studio
★★★★ $2.49

6. Root Explorer (File Manager)
Speed Software
★★★★★ $3.99

7. Poweramp Full Version Unlocker
Max MP (MSR Lt...
★★★★ $3.99

8. HD Widgets
cloud.tv
Editors' Choice $1.99

9. ROM Manager (Premium)
ClockworkMod
★★★★ $5.99

10. Temple Run: Oz
Disney
★★★★ $0.99

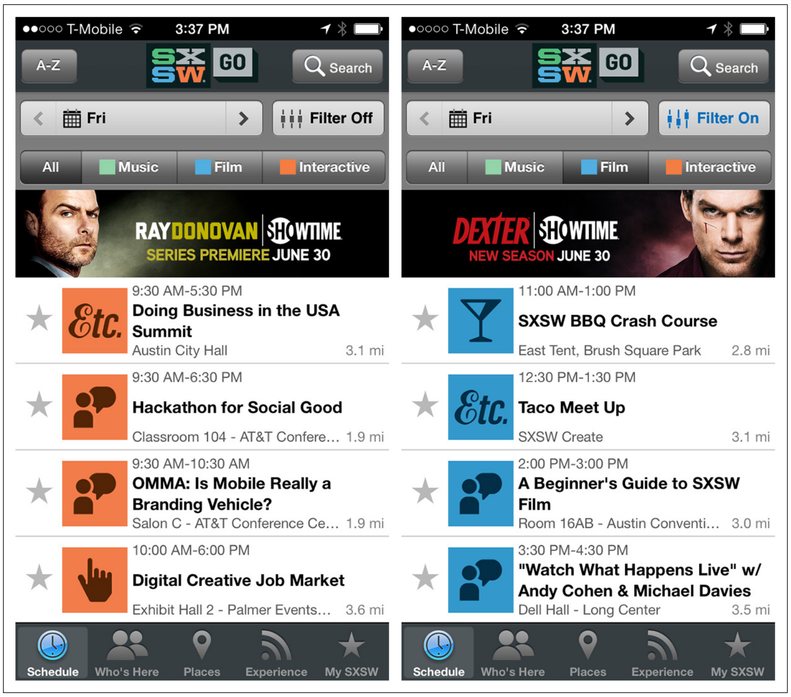
11. ROM Toolbox Pro ★ 40% OFF ★
JRummy Apps Inc.
★★★★ $2.99

12. PdaNet+ (FoxFi) Key
FoxFi Service
★★★ $7.95

13. Plants vs. Zombies
Electronic Arts Inc

14. Tapatalk Forum App
Quoord Systems Li...

FIGURE 4-51.
Groupon and Play Store for Android: Scrolling Tabs provide filtering


T-Mobile 3:37 PM

A-Z SXSW GO Search

Fri Filter Off

All Music Film Interactive

RAY DONOVAN SHOWTIME SERIES PREMIERE JUNE 30

9:30 AM-5:30 PM
Doing Business in the USA Summit
Austin City Hall 3.1 mi

9:30 AM-6:30 PM
Hackathon for Social Good
Classroom 104 - AT&T Confere... 1.9 mi

9:30 AM-10:30 AM
OMMA: Is Mobile Really a Branding Vehicle?
Salon C - AT&T Conference Ce... 1.9 mi

10:00 AM-6:00 PM
Digital Creative Job Market
Exhibit Hall 2 - Palmer Events... 3.6 mi

Schedule Who's Here Places Experience My SXSW

T-Mobile 3:37 PM

A-Z SXSW GO Search

Fri Filter On

All Music Film Interactive

DEXTER SHOWTIME NEW SEASON JUNE 30

11:00 AM-1:00 PM
SXSW BBQ Crash Course
East Tent, Brush Square Park 2.8 mi

12:30 PM-1:30 PM
Taco Meet Up
SXSW Create 3.1 mi

2:00 PM-3:00 PM
A Beginner's Guide to SXSW Film
Room 16AB - Austin Conventi... 3.0 mi

3:30 PM-4:30 PM
"Watch What Happens Live" w/ Andy Cohen & Michael Davies
Dell Hall - Long Center 3.5 mi

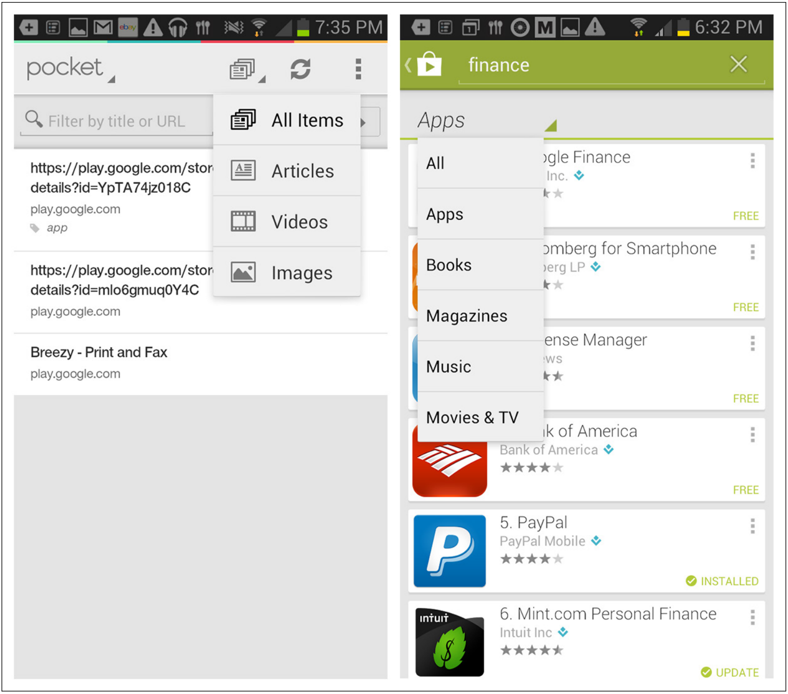
Schedule Who's Here Places Experience My SXSW

FIGURE 4-52.
SXSW GO for iOS: double-decker filter

[NOTE]

Filtering options should be clearly worded and easy to understand. When possible, provide visual cues to show the filters that are applied or "on," especially if the filter controls are sometimes hidden.

In Android apps, the Spinner control can work nicely for filtering a list. Though it doesn't show all filter options at a glance, it can clearly show what is selected.



https://play.google.com/store/details?id=YpTA74jz018C
play.google.com
app

https://play.google.com/store/details?id=mlo6gmuq0Y4C
play.google.com

Breezy - Print and Fax
play.google.com

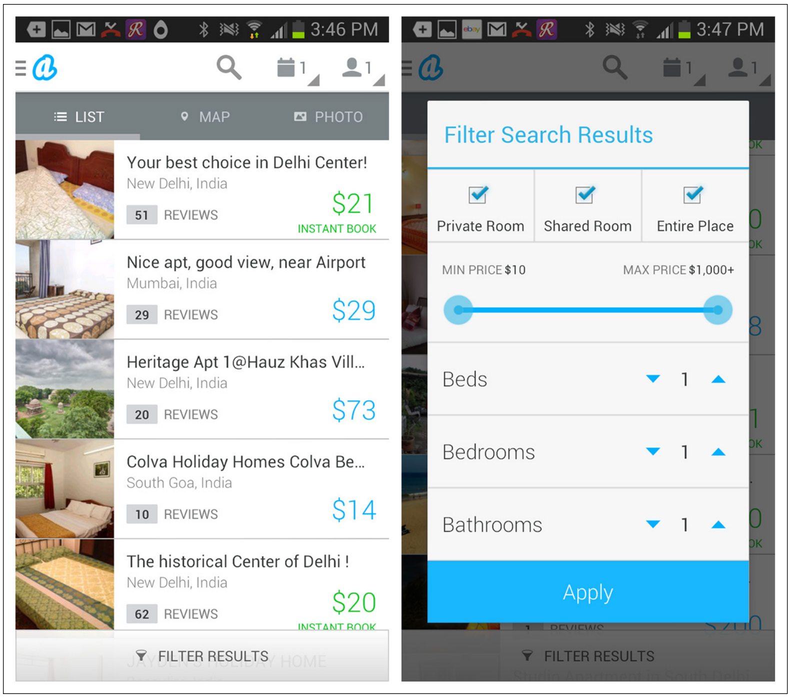
5. PayPal
PayPal Mobile
INSTALLED

6. Mint.com Personal Finance
Intuit Inc
UPDATE

FIGURE 4-53.
Pocket and Play Store for Android: Spinner control filter

Filter Overlay

The Filter Overlay pattern is a viable alternative to the Onscreen Filter. It doesn't take up valuable screen real estate or force a short label where a longer, more explicit one would work better. The Overlay may be initiated from a Filter or Refine label, or icons that clearly depict the filtering criteria that can be applied.



Your best choice in Delhi Center!
New Delhi, India
51 REVIEWS $21 INSTANT BOOK

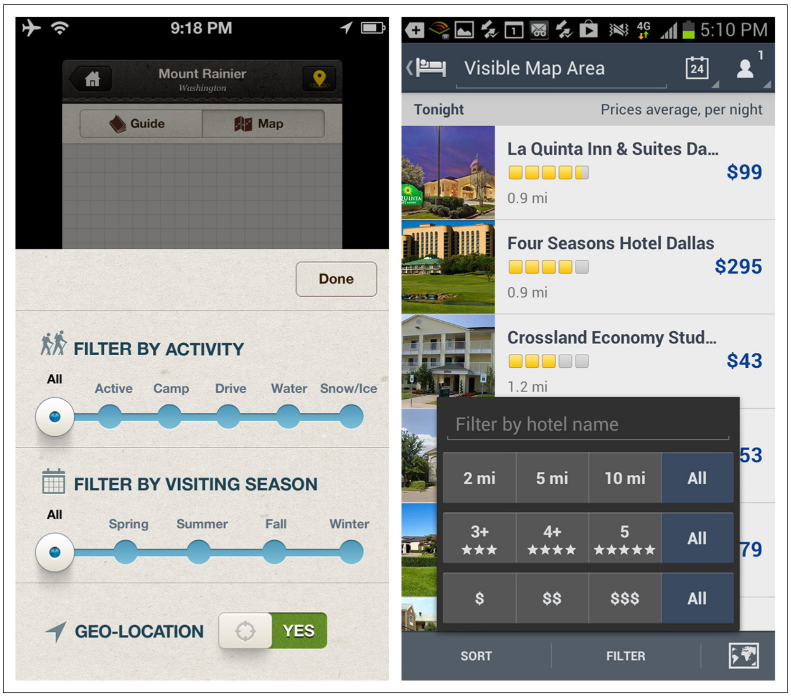
Nice apt, good view, near Airport
Mumbai, India
29 REVIEWS $29

Heritage Apt 1@Hauz Khas Vill...
New Delhi, India
20 REVIEWS $73

Colva Holiday Homes Colva Be...
South Goa, India
10 REVIEWS $14

The historical Center of Delhi !
New Delhi, India
62 REVIEWS $20 INSTANT BOOK

FIGURE 4-54.
Airbnb for Android: Filter Overlay



La Quinta Inn & Suites Da... $99
0.9 mi

Four Seasons Hotel Dallas $295
0.9 mi

Crossland Economy Stud... $43
1.2 mi

FIGURE 4-55.
National Parks for iOS and Expedia for Android: Filter Overlays

[NOTE]

Filter Overlays are useful for preserving screen real estate and including more advanced filtering options than Onscreen Filters. But they require more user time and effort, so consider the trade-offs before choosing this pattern.

Ness uses icons in the title bar to offer three filtering criteria, with each having its own distinct Overlay. The refined selections display beneath the segmented control.

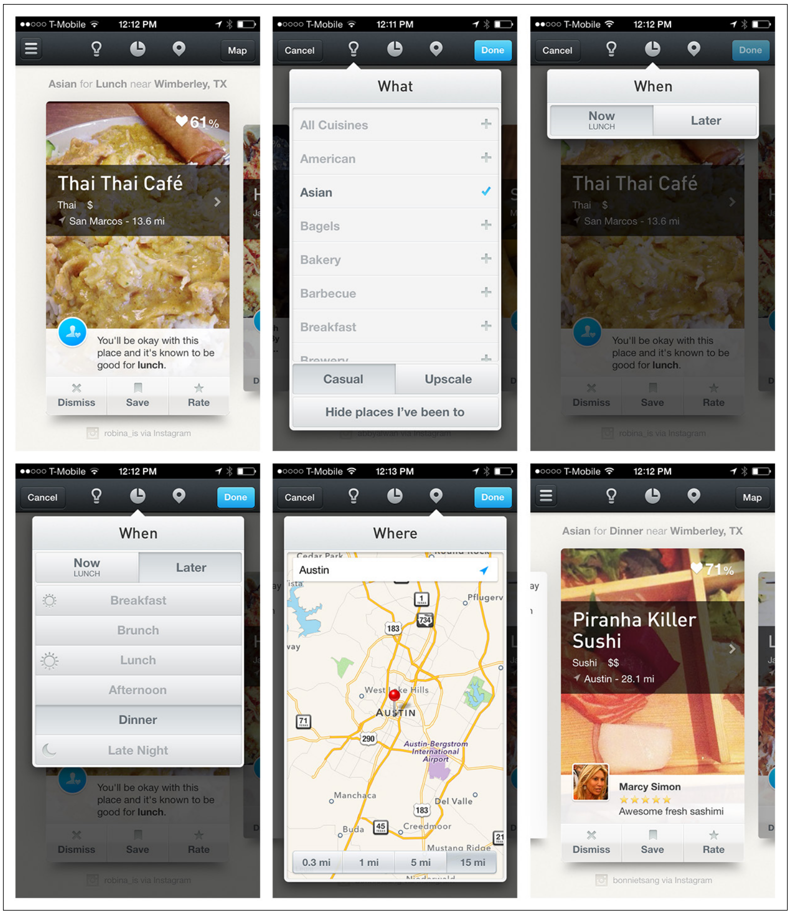


FIGURE 4-56.
Ness for iOS: Filter Overlays for each filtering option

Filter Form

The Filter Form also requires more effort from the user, who must open the form, select one or more options, and explicitly "apply" them. Filter Forms might be the best fit where you have a large number of filter options that lend themselves to being grouped visually.

By necessity, Filter Forms momentarily hide the results being acted on. Note how Zillow for iOS dynamically updates the number of results as selections are made—this helps the user determine when the results list is manageable.

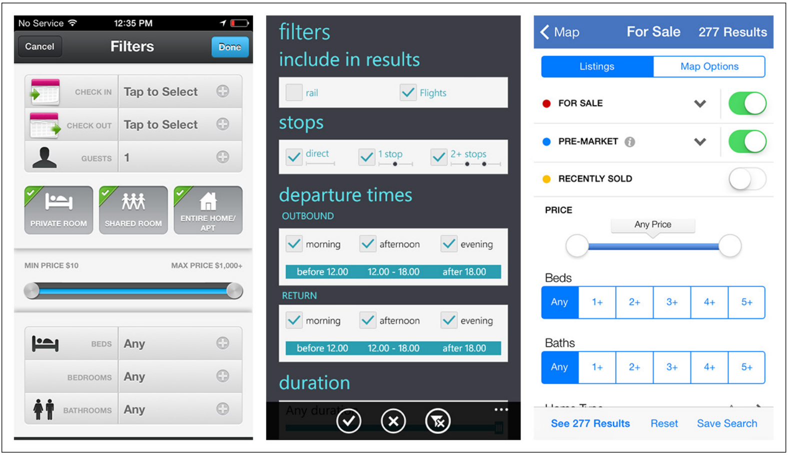


FIGURE 4-57. Airbnb for iOS, Skyscanner for Windows Phone, and Zillow for iOS 7: Filter Forms

The Filter Form also works well for nested, or hierarchal, selections, as illustrated in the Walmart app for iOS 7.

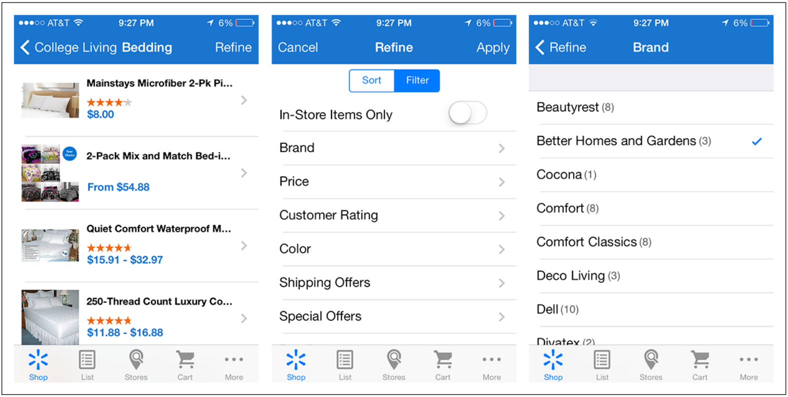


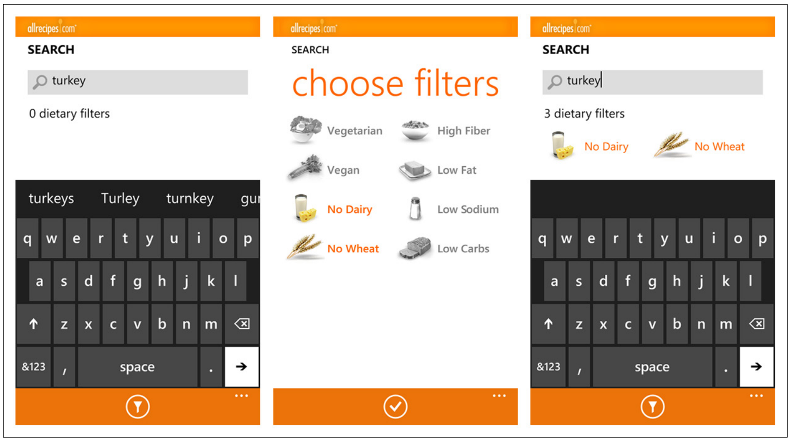
FIGURE 4-58. Walmart for iOS 7: nested/hierarchal Filter Form

[NOTE]

As with Search Forms, keep Filter Forms as spare as possible and follow OS guidelines for form design. Resist the urge to innovate new, "clever" types of filter controls to avoid creating an anti-pattern (see Chapter 11).

Allrecipes for Windows Phone offers a Filter Form in context with the search field, similar to the Scoped Search pattern illustrated earlier in this chapter.

FIGURE 4-59. Allrecipes for Windows Phone: Filter Form in context with search field

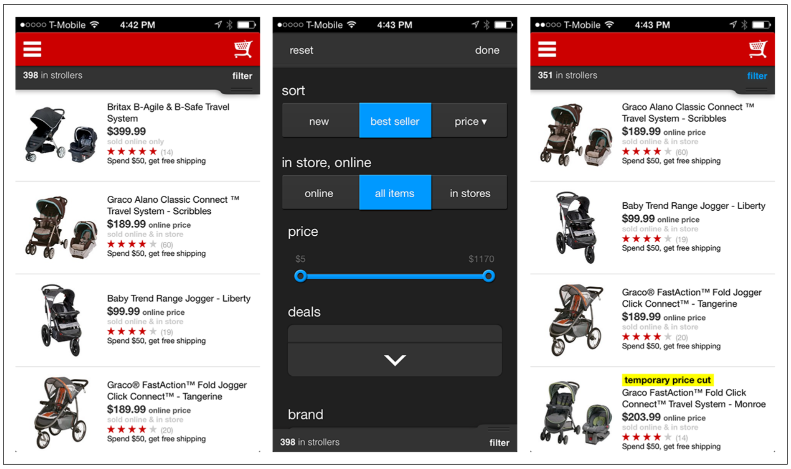


Filter Drawer

The Filter Drawer is very similar in some ways to both the Filter Overlay and the Filter Form. Like the Overlay and Form, it requires an extra tap of "apply" or "done" to get the filtered results. Its main distinction is that it appears to slide out from the current screen, thus allowing the user to stay in context with the search results being refined. Ideally, the Filter Drawer will reveal a glimpse of the results behind it.

In the Target app for iOS, the Filter Drawer slides down, completely obscuring the search results. Once the drawer is closed, there is no indication which filters have been applied. The only feedback that filtering is active is that the label "filter" is now blue.

FIGURE 4-60. Target for iOS: Filter Drawer


398 in strollers
filter
Britax B-Agile & B-Safe Travel System
$399.99
Graco Alano Classic Connect ™ Travel System - Scribbles
$189.99
Baby Trend Range Jogger - Liberty
$99.99
Graco® FastAction™ Fold Jogger Click Connect™ - Tangerine
$189.99
reset
done
sort
new
best seller
price
in store, online
online
all items
in stores
price
deals
brand
351 in strollers
temporary price cut
Graco FastAction™ Fold Click Connect™ Travel System - Monroe
$203.99

Here's an example of a redesign that follows best practices for a Filter Drawer:

- Symmetrical actions to open and close the drawer
- Dynamic update of the number of search results
- Search results still visible in the background
- Explicit feedback when filters are applied

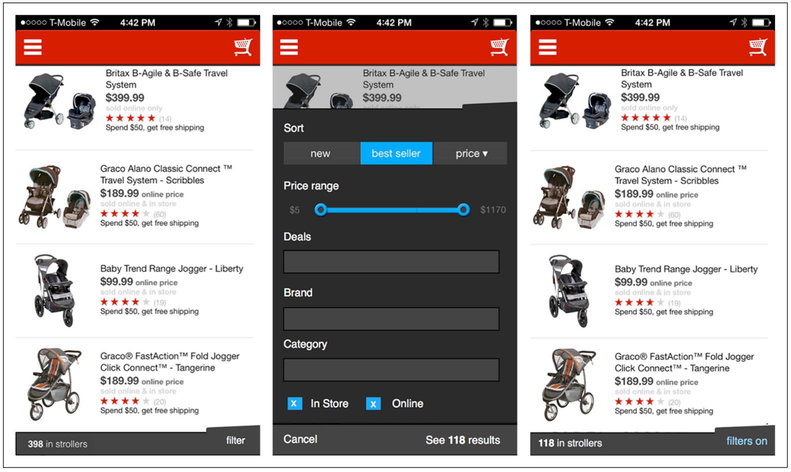


FIGURE 4-61. Target for iOS: Filter Drawer, redesigned

ToDo for iOS offers filtering in the Navigation Drawer. This will work only for simple filtering, and should be user tested. It could introduce inefficiencies if users would rather open a list and filter it directly.

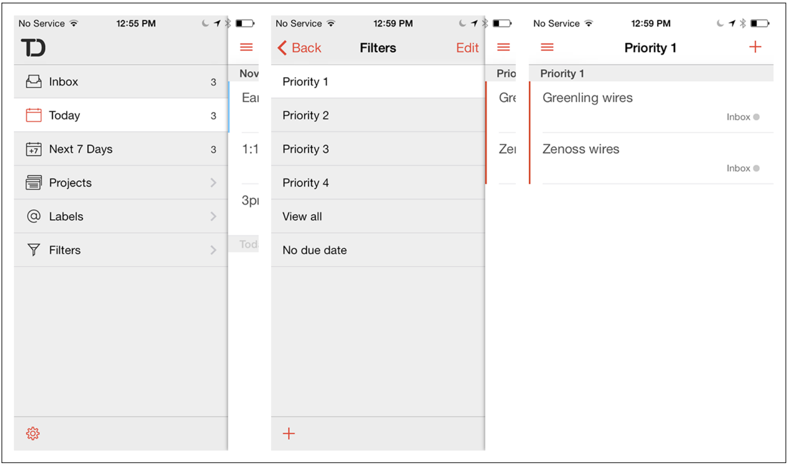


FIGURE 4-62. ToDo for iOS: filters in the Navigation Drawer

[NOTE]

The Filter Drawer can help users stay in context with the results being refined. Show the updated number of results as options are applied, and provide a visual indication of whether filtering is active in the drawer's closed state.

eBay for iOS has a robust, multilevel Filter Drawer. Tapping Refine on the Search Results screen slides in the Filter Drawer from the right, showing all the possible refinement options.

From the Search Results screen, you can also directly refine specific options—like Category, Platform, and Buying Format—by tapping on those labels, which will reveal the Filter Drawer open at the appropriate level.

The number of results is always displayed at the top of the drawer, and when it closes, the control bar indicates which filters are currently applied. Take a look at the video to see exactly how the interaction design works.

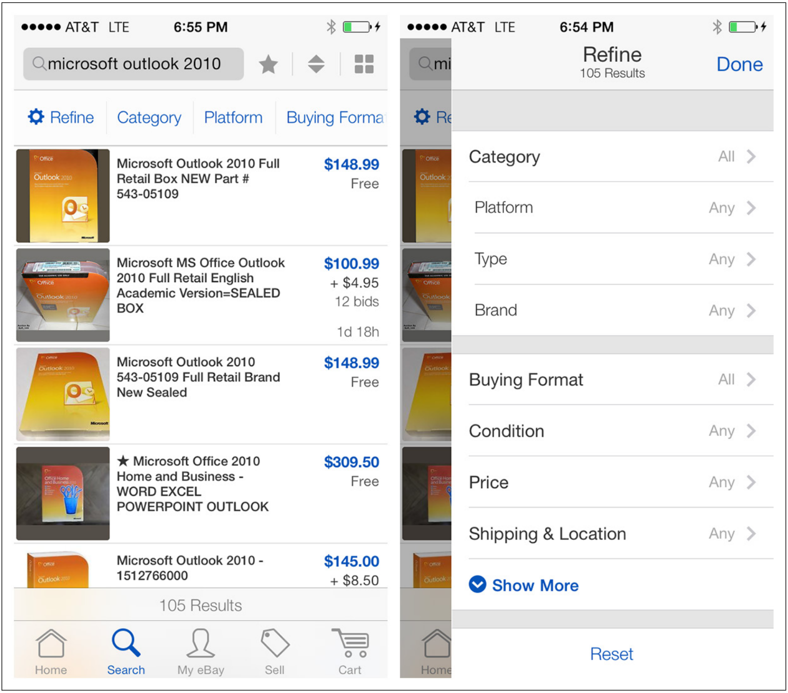


FIGURE 4-63. eBay for iOS: multilevel Filter Drawer (*http://www.youtube.com/watch?v=M_R3eSFcML0*)

Gesture-Based Filtering

Pinch, zoom, and pan gestures can be used for filtering results whose relevance is dependent on location, as on a map, chart, or graph. HomeAway for iOS shows a default view of a certain radius. Pinch–zoom in to reduce the radius and thus the results shown; pinch–zoom out to widen the radius and show more results. Kayak for Windows offers the same functionality.

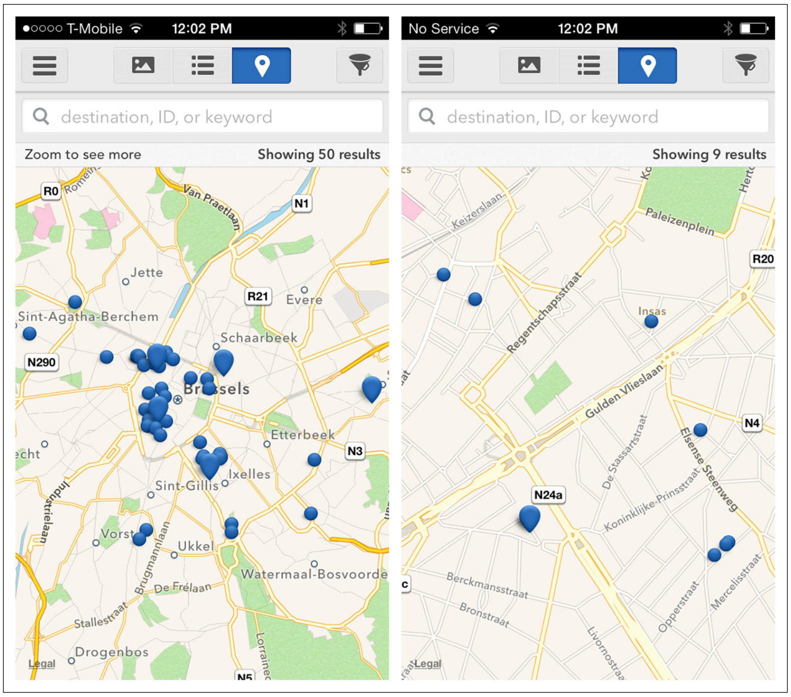


FIGURE 4-64.
HomeAway for iOS: Gesture-Based Filtering

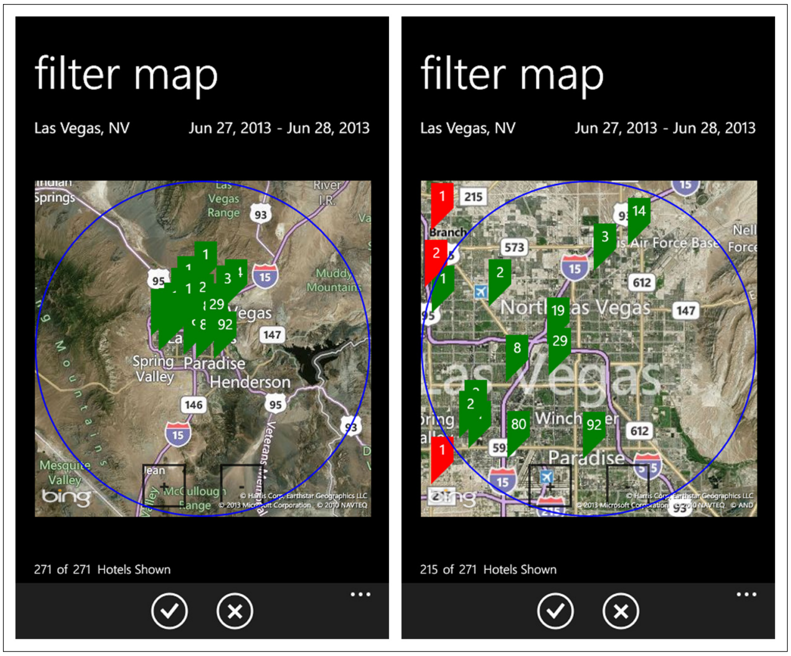


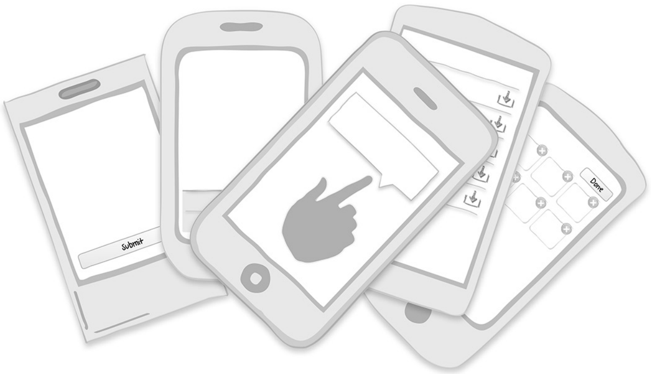
FIGURE 4-65.
Kayak for Windows Phone: Gesture-Based Filtering

[NOTE]

Gesture-Based Filtering provides an intuitive way to refine results whose relevance to the user depends on their location. Consider combining it with other filtering options, since location may be only one of the user's criteria.

[5]

Tools



Patterns

Toolbar, Toolbox, Call to Action Button, Inline Actions, Multi-State Buttons, Contextual Tools, Bulk Actions, Lock Screen Controls

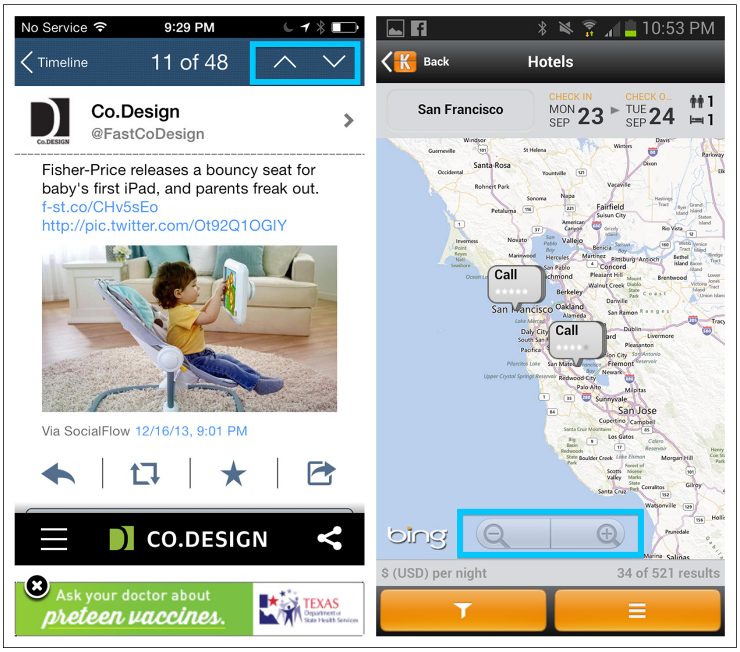
In Chapter 1, we looked at how screen size constraints are forcing designers to think off-canvas and explore new solutions. Before diving into this chapter, I encourage you to embrace another challenge—shed three decades of abstract desktop metaphors and start designing, really designing, for touch interfaces. For inspiration, start with Josh Clark's "Buttons Are a Hack" campaign (*http://globalmoxie.com/blog/buttons-are-a-hack.shtml*):

> **Buttons are a hack.** As in the real world, they're often necessary, but they work at a distance—secondary tools to work on primary objects. A light switch here turns on a lightbulb there. These indirect interactions must be learned; they're not contextually obvious. The revolution that touchscreen devices are working is that they allow us, more and more, to use primary content as a control, to create the illusion of direct interaction.

> I don't mean to suggest that we throw out all of our familiar buttons entirely. Light switches shall remain necessary, after all, and so shall buttons, especially where it's necessary to trigger abstract actions ("share via Twitter," for example). But it's important to recognize those devices for what they are: necessary hacks for moments when direct interaction isn't possible. Touchscreen interfaces allow that direct interaction in many more contexts. As new solutions arise, we should be open to putting our time-tested workarounds aside. When designing an interaction for touch, always ask: do I really need another button or control for this?

Let's look at examples from TweetCaster and Kayak. In TweetCaster, the main interface is a list of tweets. Tapping one opens it in a new screen. To navigate to the previous or next tweet, you use two buttons (up and down arrows) in the navigation bar. But do we really need buttons for navigating to next or previous items, or is this just a holdover from desktop design? Page Swiping is a more efficient and natural way to navigate content on a touchscreen, as you'll see when we look at that pattern later in this chapter.

And what about the plus/minus magnifying glasses on the Kayak map? I think I remember those from my first computer in the '90s. Ditch the zoom buttons, people—the pinch-to-zoom gesture's got this covered.



Fisher-Price releases a bouncy seat for baby's first iPad, and parents freak out. f-st.co/CHv5sEo http://pic.twitter.com/Ot92Q1OGIY

FIGURE 5-1. TweetCaster for iOS and Kayak for Android: outdated desktop metaphors

I'm fairly certain that by the time the next edition of this book comes out, some new, creative, touch-based tool patterns will have emerged. For now, we'll look at the most common ones today. True, some of these patterns are versions of the old desktop metaphors—they're simply triggered by a touch instead of a click. But others incorporate touch to respond to users in ways that desktop interfaces can't.

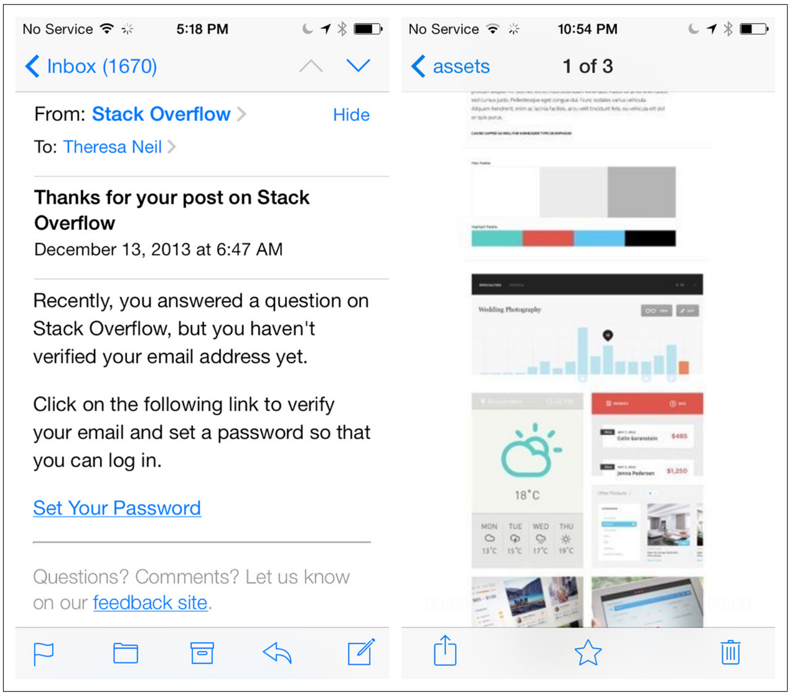
Toolbar

The Toolbar is one of the most common ways to provide screen-specific actions. Each operating system has its own terminology and guidelines for the Toolbar.

iOS

The iOS Human Interface Guideline (*http://bit.ly/NoLrna*) says:

> Although a toolbar looks similar to a navigation bar or a tab bar, it doesn't enable navigation. Instead, a toolbar gives users controls that act on the contents of the current screen. It always appears at the bottom edge of a screen or view on iPhone.



From: Stack Overflow Hide
To: Theresa Neil

Thanks for your post on Stack Overflow
December 13, 2013 at 6:47 AM

Recently, you answered a question on Stack Overflow, but you haven't verified your email address yet.

Click on the following link to verify your email and set a password so that you can log in.

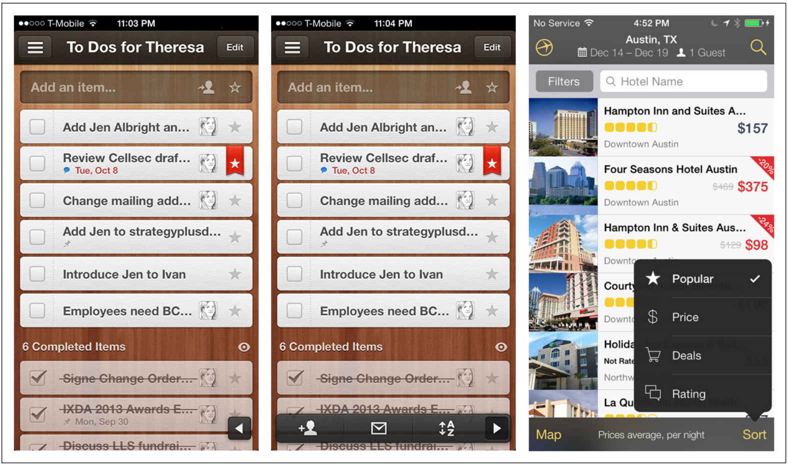
Set Your Password

Questions? Comments? Let us know on our feedback site.

FIGURE 5-2.
Mail and Dropbox for iOS: don't confuse Toolbars with navigation bars

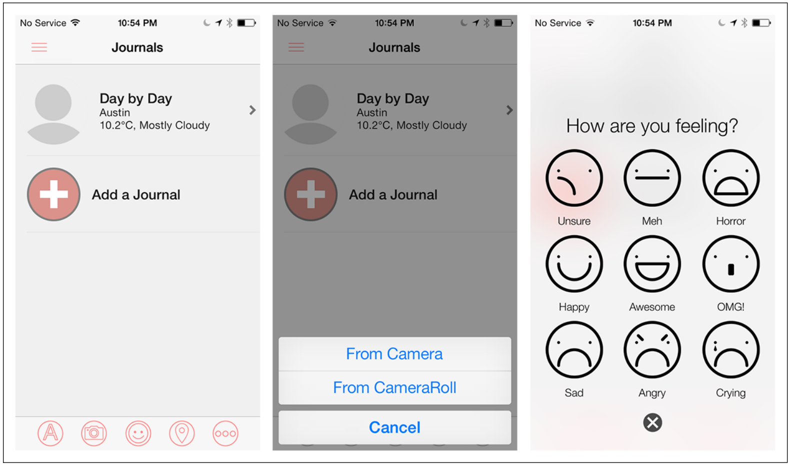
Expedia has created a cascading menu from the base Toolbar, and Wunderlist designed a custom collapsing Toolbar to save real estate.

FIGURE 5-3.
Expedia and Wunderlist Custom Toolbars



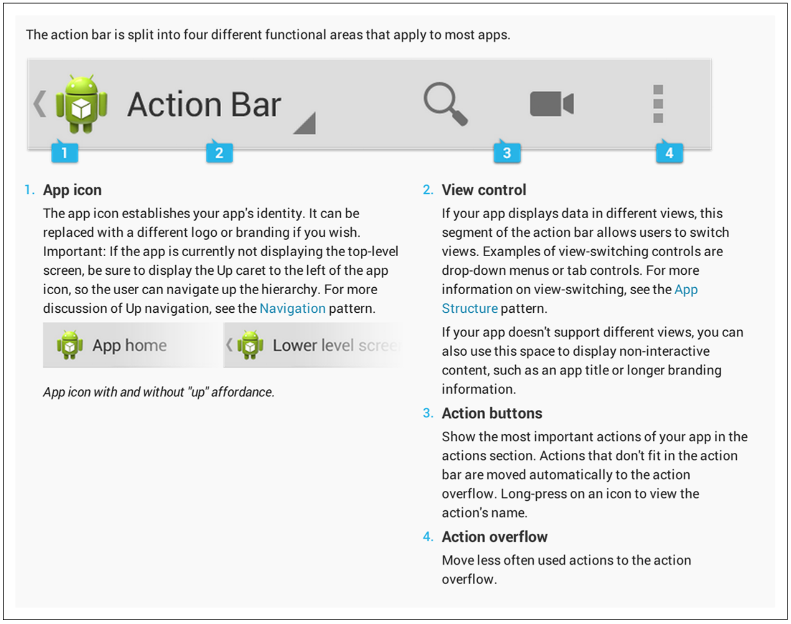
Alternatively, an action button may launch an Action Sheet, which displays additional options for the selected button. In Narrato, for instance, the photo button opens a standard Action Sheet for choosing the photo source, while the smiley face button opens a custom Action Sheet for selecting a mood. This is an example of a smart design that stays within the spirit—if not the letter—of the iOS Design Guide.

FIGURE 5-4.
Narrato for iOS: two different Action Sheet designs



Android

The Jelly Bean release brought some changes to the Android interface (*http://developer.android.com/design/patterns/actionbar.html*). There is a not a dedicated Toolbar, as in iOS. Instead, action buttons are assigned to the top right of the Action Bar, a dedicated piece of real estate at the top of each screen that is generally persistent throughout the app.



The action bar is split into four different functional areas that apply to most apps.

1. **App icon**
   The app icon establishes your app's identity. It can be replaced with a different logo or branding if you wish. Important: If the app is currently not displaying the top-level screen, be sure to display the Up caret to the left of the app icon, so the user can navigate up the hierarchy. For more discussion of Up navigation, see the Navigation pattern.

   App icon with and without "up" affordance.

2. **View control**
   If your app displays data in different views, this segment of the action bar allows users to switch views. Examples of view-switching controls are drop-down menus or tab controls. For more information on view-switching, see the App Structure pattern.

   If your app doesn't support different views, you can also use this space to display non-interactive content, such as an app title or longer branding information.

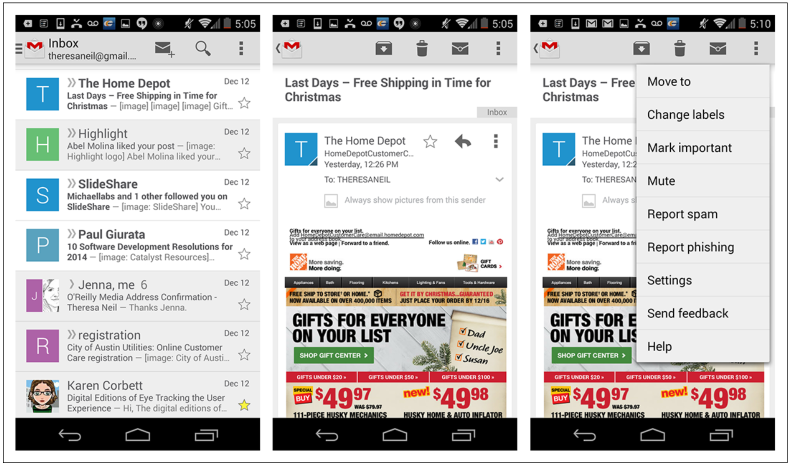
3. **Action buttons**
   Show the most important actions of your app in the actions section. Actions that don't fit in the action bar are moved automatically to the action overflow. Long-press on an icon to view the action's name.

4. **Action overflow**
   Move less often used actions to the action overflow.

FIGURE 5-5. The Action Bar is split into four functional areas that apply to most apps

The action buttons should be specific to the current page context, like in Gmail. Primary actions should be visible in the Action Bar at the top, but secondary actions belong in the Overflow Menu, which can be accessed via the vertical ellipsis icon.

FIGURE 5-6.
Gmail for Android: Action Bar buttons are determined by screen context



The Home Depot — Dec 12
Last Days – Free Shipping in Time for Christmas – [image] [image] [image] Gift...

Highlight — Dec 12
Abel Molina liked your post – [image: Highlight logo] Abel Molina liked your...

SlideShare — Dec 12
Michaellabs and 1 other followed you on SlideShare – [image: SlideShare] You...

Paul Giurata — Dec 12
10 Software Development Resolutions for 2014 – [image: Catalyst Resources]...

Jenna, me 6 — Dec 12
O'Reilly Media Address Confirmation - Theresa Neil – Thanks Jenna.

registration — Dec 12
City of Austin Utilities: Online Customer Care registration – [image: City of Austi...

Karen Corbett — Dec 12
Digital Editions of Eye Tracking the User Experience – Hi, The digital editions of...

Last Days – Free Shipping in Time for Christmas

The Home Depot
HomeDepotCustomerC...
Yesterday, 12:26 PM
To: THERESANEIL
Always show pictures from this sender

One of the nice features of Android is that a long press on an action button brings up a tooltip explaining what the button is for. One of the not-so-nice features is that the Action Bar has to hold any necessary navigation controls (title, drawer icon, up button, spinner, etc.), as well as the action buttons, so it can get crowded very quickly.

Windows Phone

The Toolbar in Windows Phone apps is called the Application Bar (*http://bit.ly/NoMtPY*). The primary actions should be displayed as labeled icons, and secondary actions (called Menu Items) can be tucked under the ellipsis icon.

I was surprised to see that Amazon is trying to make the Application Bar a primary navigation control (see the Home, Search, and Cart icons at the bottom of every screen). It makes me think that the product design was driven by iOS aficionados, rather than a team familiar with Windows Phone design paradigms.

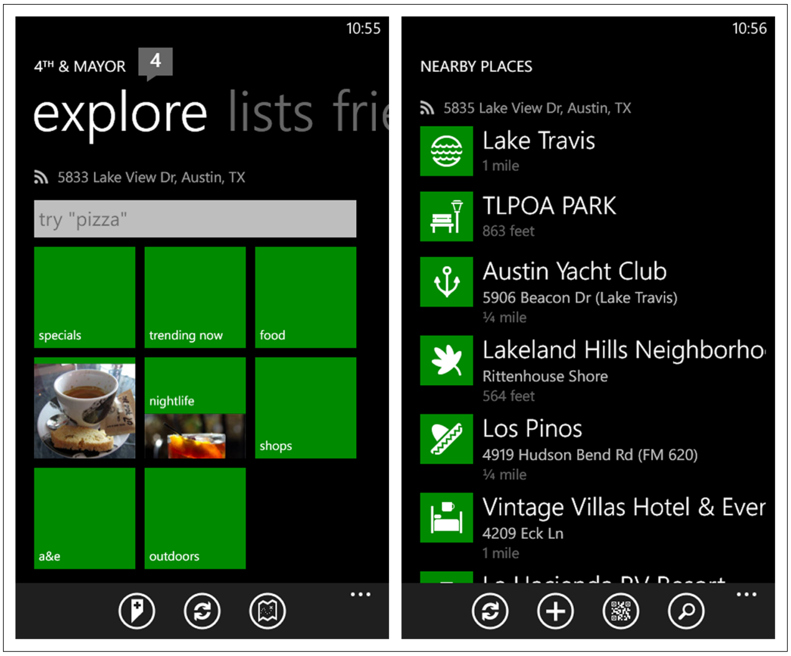


FIGURE 5-7. 4th & Mayor for Windows Phone: the Application Bar is for primary actions

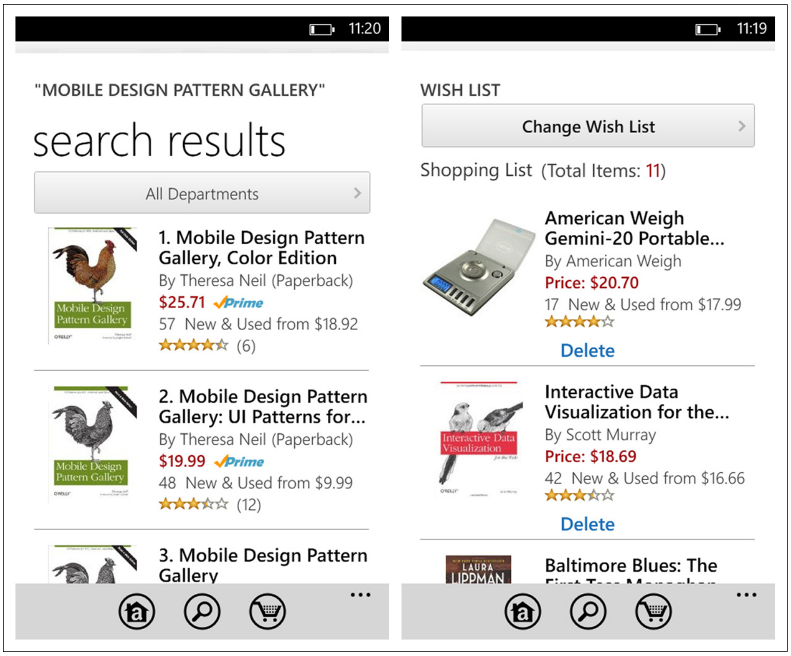

11:20
"MOBILE DESIGN PATTERN GALLERY"
search results
All Departments
1. Mobile Design Pattern Gallery, Color Edition
By Theresa Neil (Paperback)
$25.71 Prime
57 New & Used from $18.92
(6)
2. Mobile Design Pattern Gallery: UI Patterns for...
By Theresa Neil (Paperback)
$19.99 Prime
48 New & Used from $9.99
(12)
3. Mobile Design Pattern Gallery
11:19
WISH LIST
Change Wish List
Shopping List (Total Items: 11)
American Weigh Gemini-20 Portable...
By American Weigh
Price: $20.70
17 New & Used from $17.99
Delete
Interactive Data Visualization for the...
By Scott Murray
Price: $18.69
42 New & Used from $16.66
Delete
Baltimore Blues: The

FIGURE 5-8. Amazon for Windows Phone: incorrectly using the Application Bar for primary navigation

Like Android, Windows Phone also offers a way to expose the icon labels. Tapping the ellipsis icon heightens the Application Bar just a bit to reveal the labels below the icons.

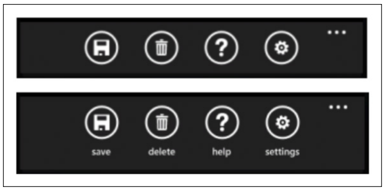


FIGURE 5-9. Windows Phone Application Bar: tapping the ellipsis reveals labels

[NOTE]

Follow OS-specific recommendations for Toolbar placement and behaviors. Choose icons that are familiar and easy to recognize.

OS-Neutral Pattern: Contextual Toolbar

A Contextual Toolbar can also serve the action buttons for a text field or text area, like the formatting and attachment options shown in the Twitter, Evernote, and OneNote Toolbars.

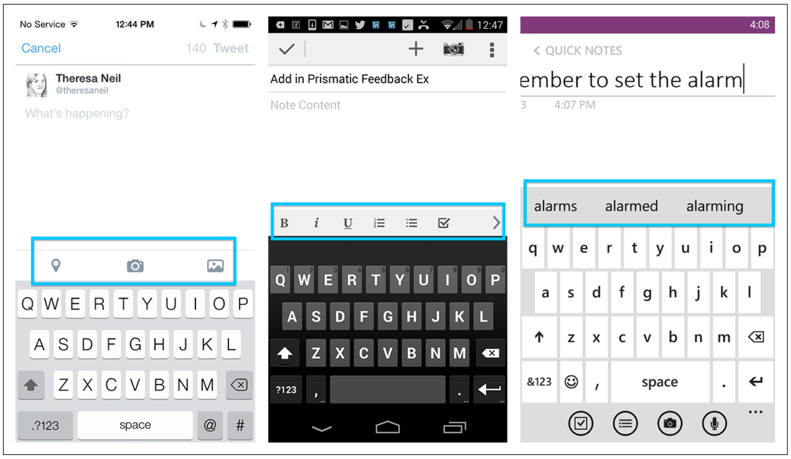


FIGURE 5-10. Twitter for iOS, Evernote for Android, and OneNote for Windows Phone: Contextual Toolbars for text entry actions

Toolbox

A Toolbox is like a Toolbar on steroids. You'll see this pattern most often in photography and design apps that offer a lot of tools for effects and treatments.

Typically, the main Toolbox is positioned across the bottom of the screen. The options may exceed the screen width and scroll off the screen. Selecting an option from the main Toolbox can reveal a new set of options specific to the selected tool. In Pixlr, for example, selecting Adjustment shows all the possible Adjustment options, like Whiten, Touch Up, Focal Blur, and more.

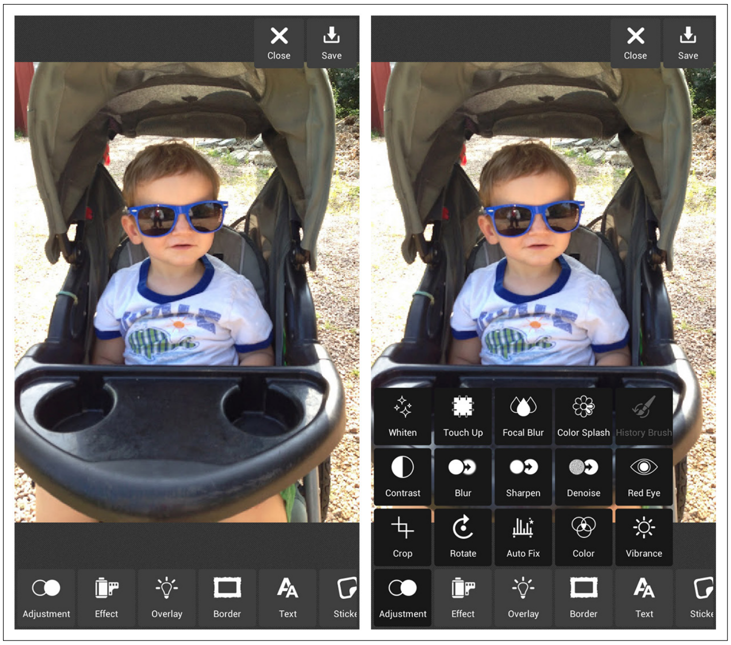


FIGURE 5-11.
Pixlr for Android: tool options are shown when a tool is selected from the Toolbox

Repix and Oggl use the same pattern, but instead of an overlay menu of options, a second row of tools is displayed to show the selected tool's options.

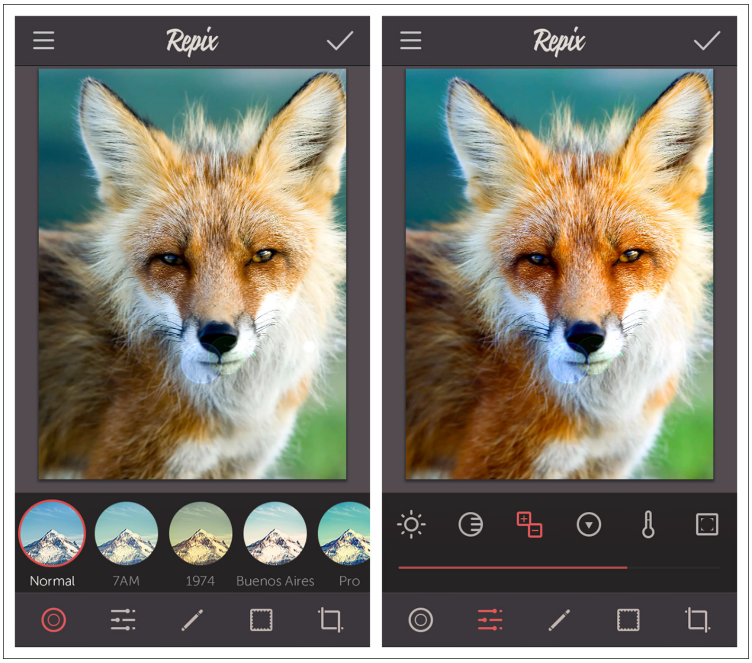
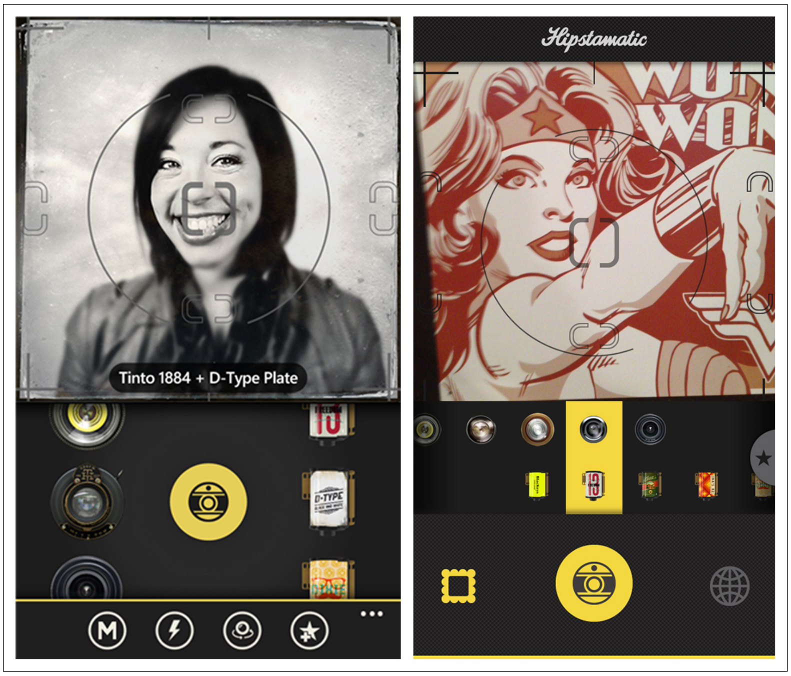


FIGURE 5-12.
Repix for iOS: tool options appear as a second row above the Toolbox

FIGURE 5-13.
Oggl for Windows Phone and iOS: Toolbox design varies with OS



Another implementation shows the primary set of tools and, once one is selected, reveals the suboptions for that tool, hiding the primary options. In the example from Aviary, orientation is selected first, and then the orientation options are displayed. If you use this pattern, keep two things in mind: it's best to restate which menu item is in effect since the main Toolbar is now out of sight, and you should offer an escape from this mode, such as a Cancel button.

[NOTE]

Labels plus icons improve the usability of Toolbars and Toolboxes. If tool options hide the main Toolbox, use some means (like a screen label) to let users know where they are, and be sure to include a Cancel button.

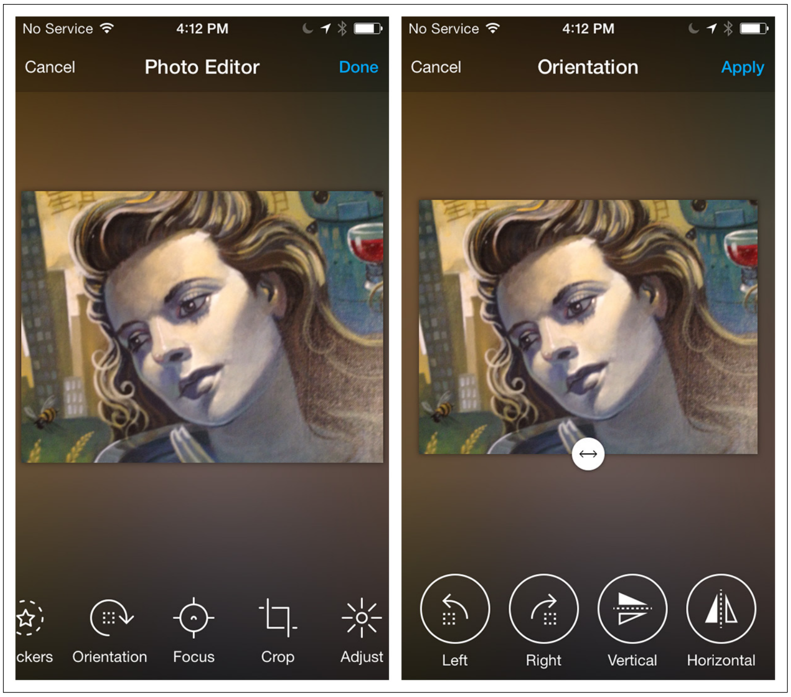


FIGURE 5-14.
Aviary for iOS: options for selected tool (orientation) are shown on right

Virtual Makeover uses this pattern to present many different makeup tools. Its pie-style version of the Toolbox is surprisingly easy to navigate.

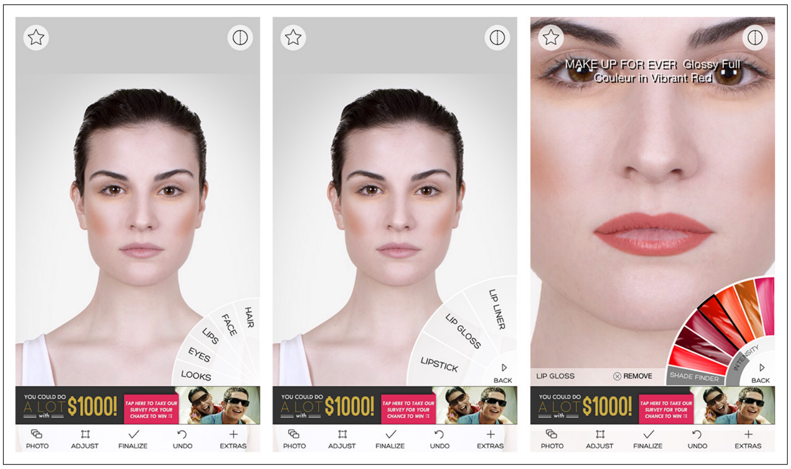
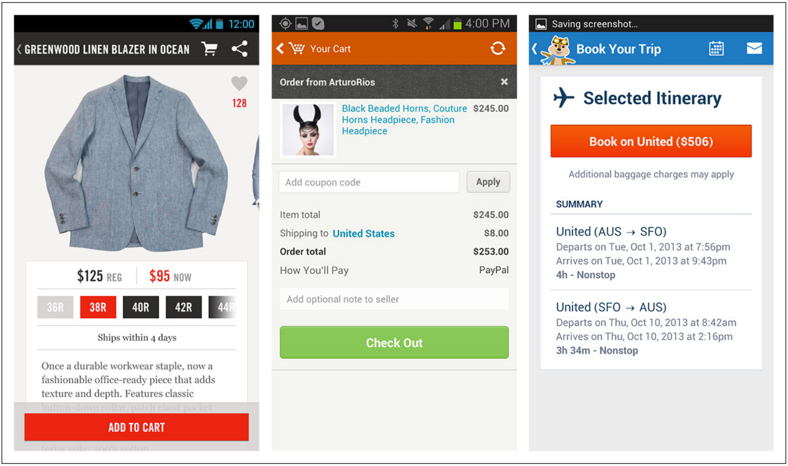


FIGURE 5-15.
Virtual Makeover for iOS: pie-style Toolbox

Call to Action Button

Sometimes a Call to Action (CTA) Button may be a better option than a Toolbar when you are presenting a single action on the screen. Frank & Oak, Etsy, and Hipmunk are examples.

FIGURE 5-16.
Frank & Oak, Etsy, and Hipmunk for Android: prominent CTA Buttons



Ships within 4 days

Once a durable workwear staple, now a fashionable office-ready piece that adds texture and depth. Features classic

Black Beaded Horns, Couture Horns Headpiece, Fashion Headpiece $245.00

Add coupon code

Item total	$245.00
Shipping to United States	$8.00
Order total	$253.00
How You'll Pay	PayPal

Add optional note to seller

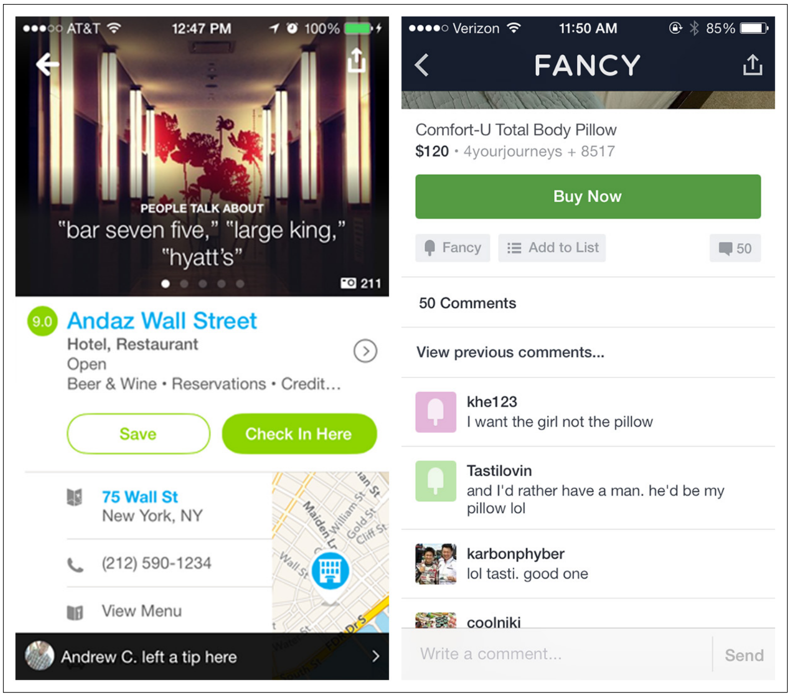
Additional baggage charges may apply

United (AUS → SFO)
Departs on Tue, Oct 1, 2013 at 7:56pm
Arrives on Tue, Oct 1, 2013 at 9:43pm
4h - Nonstop

United (SFO → AUS)
Departs on Thu, Oct 10, 2013 at 8:42am
Arrives on Thu, Oct 10, 2013 at 2:16pm
3h 34m - Nonstop

This pattern may also work for screens with one primary and one ancillary CTA, as in Foursquare and Fancy. Just make sure to differentiate the primary CTA visually from the other buttons.

In those examples, the CTAs are screen-specific and, more importantly, flow-specific. Over the years, designers have struggled with where and how to position a global CTA Button; that is, one that is always accessible throughout the app. In Chapter 1, we looked at variations of the standard Tab Bar that included a single Action Button in the middle of the bar, like Instagram and RunKeeperPro.



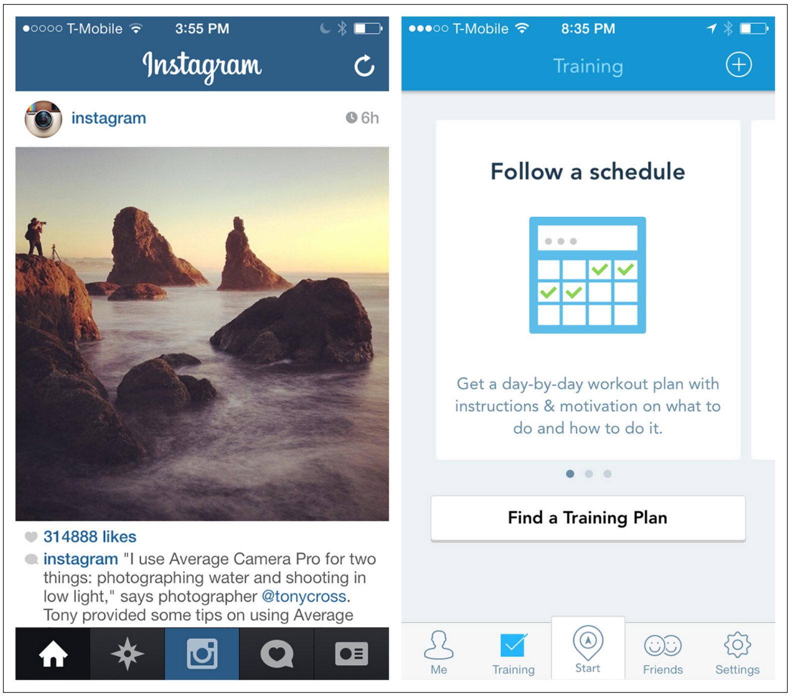
khe123
I want the girl not the pillow

Tastilovin
and I'd rather have a man. he'd be my pillow lol

karbonphyber
lol tasti. good one

coolniki

FIGURE 5-17. Foursquare and Fancy for iOS: primary CTA is visually different from secondary CTAs



instagram "I use Average Camera Pro for two things: photographing water and shooting in low light," says photographer @tonycross. Tony provided some tips on using Average

Get a day-by-day workout plan with instructions & motivation on what to do and how to do it.

FIGURE 5-18. Instagram and RunKeeperPro for iOS: global CTAs in Tab Bar

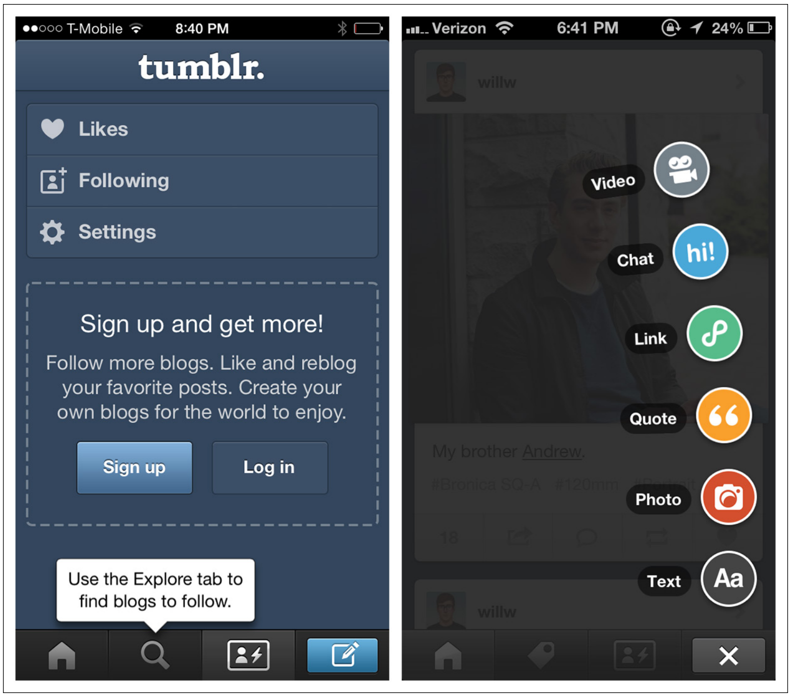


FIGURE 5-19.
Tumblr for iOS 6: unbalanced right-side global CTA Button with flyout options

The Tumblr app for iOS 6 revealed a cascading menu of options from the global CTA Button. However, in the iOS 7 design, the global CTA Button opens a full screen of options.

One popular trend is a floating CTA Button positioned at the bottom of the screen. Foursquare, Sphere, and Rove's floating CTA Buttons are examples.

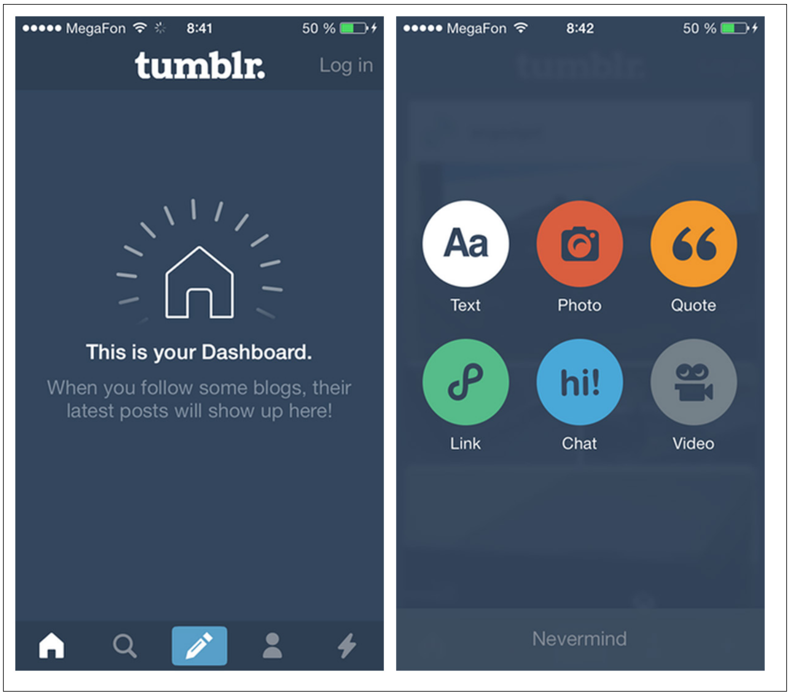


FIGURE 5-20.
Tumblr for iOS 7 centers the global CTA Button, and presents a full screen of action options

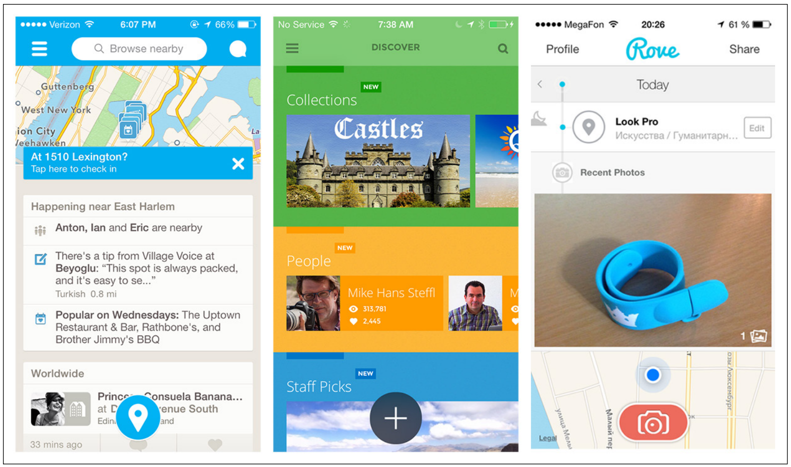
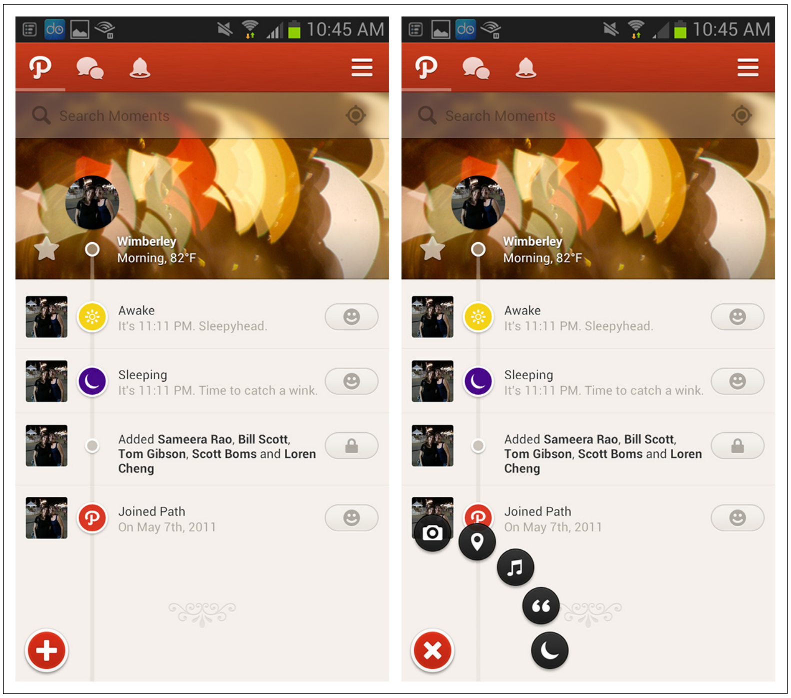


FIGURE 5-21.
Foursquare, Sphere, and Rove for iOS: floating CTAs

Path, Myspace, and QuickBooks reveal additional options when the floating CTA Button is tapped. In all three, the CTA Button shifts from a + to an x. By the way, this is the proper way to design symmetrical interactions (e.g., tap to open and tap to close in the same location).

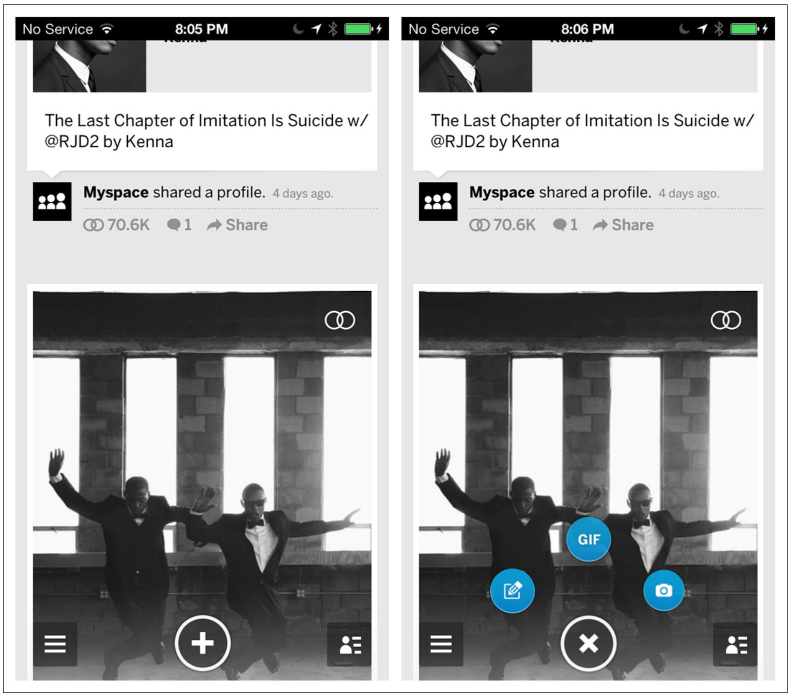
[NOTE]

Consider using the CTA Button to help users complete a flow successfully, or quickly engage with applications that have a specific global driving action (like taking photos, sharing, or recording entries).



10:45 AM
Search Moments
Wimberley
Morning, 82°F
Awake
It's 11:11 PM. Sleepyhead.
Sleeping
It's 11:11 PM. Time to catch a wink.
Added Sameera Rao, Bill Scott, Tom Gibson, Scott Boms and Loren Cheng
Joined Path
On May 7th, 2011

FIGURE 5-22.
Path for Android: when tapped, the floating CTA reveals floating options



No Service
8:05 PM
8:06 PM
The Last Chapter of Imitation Is Suicide w/ @RJD2 by Kenna
Myspace shared a profile. 4 days ago.
70.6K
1
Share
GIF

FIGURE 5-23.
Myspace for iOS: note that the CTA icon changes to an x (close) in its opened state

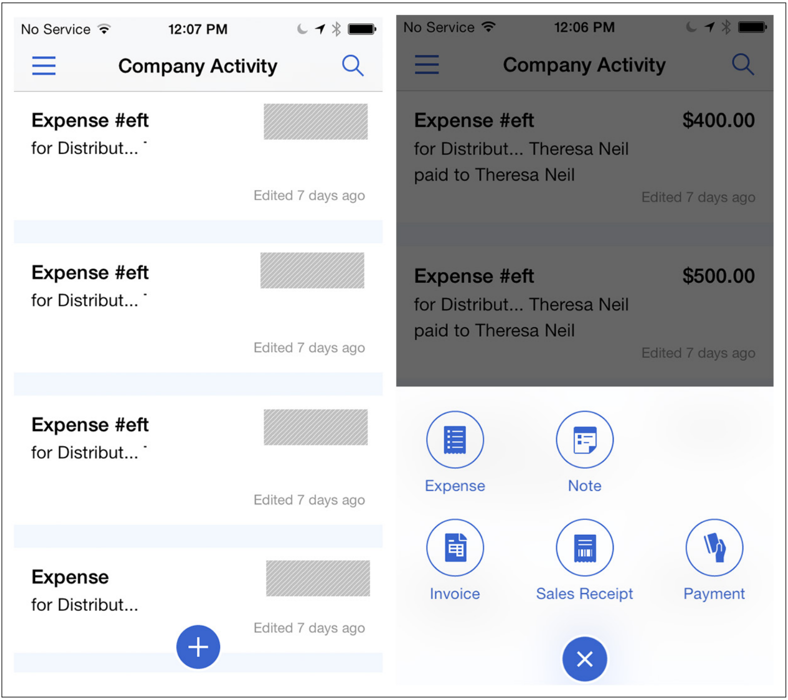


FIGURE 5-24. QuickBooks for iOS: another variation of the open/close floating CTA

Inline Actions

Inline Actions refer to action buttons that are inline with the object they affect, as opposed to being at a global or screen level. In The Nearby and Foodspotting, for example, each item in the list has an Inline Action button that can show two states (follow/following).

Many applications rely on stateful buttons for the Inline Actions, like the star buttons that can be toggled on and off in RetailMeNot and Gmail. See the next pattern, the Multi-State Button, for incorporating more than two states.

FIGURE 5-25. The Nearby and Foodspotting for iOS: Inline Action buttons that can show two states

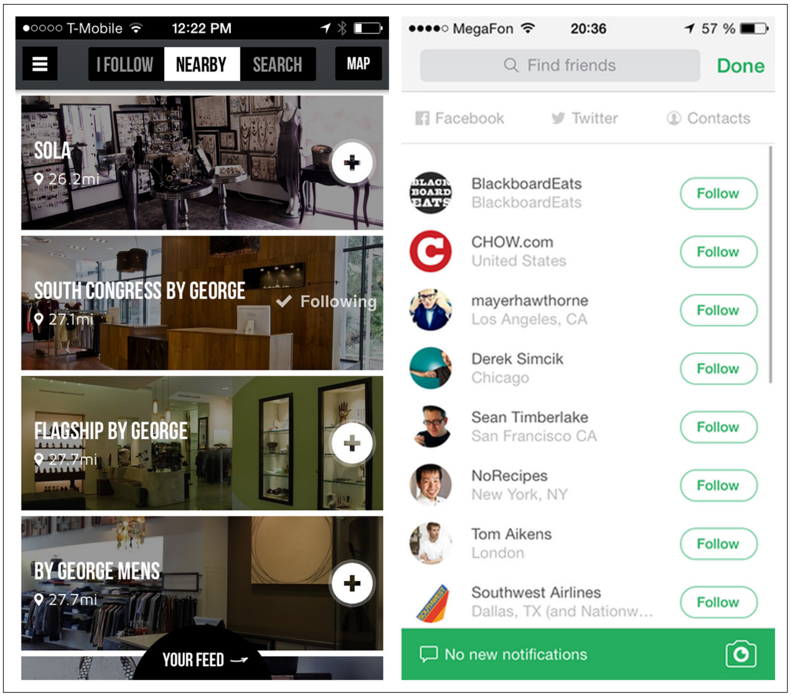
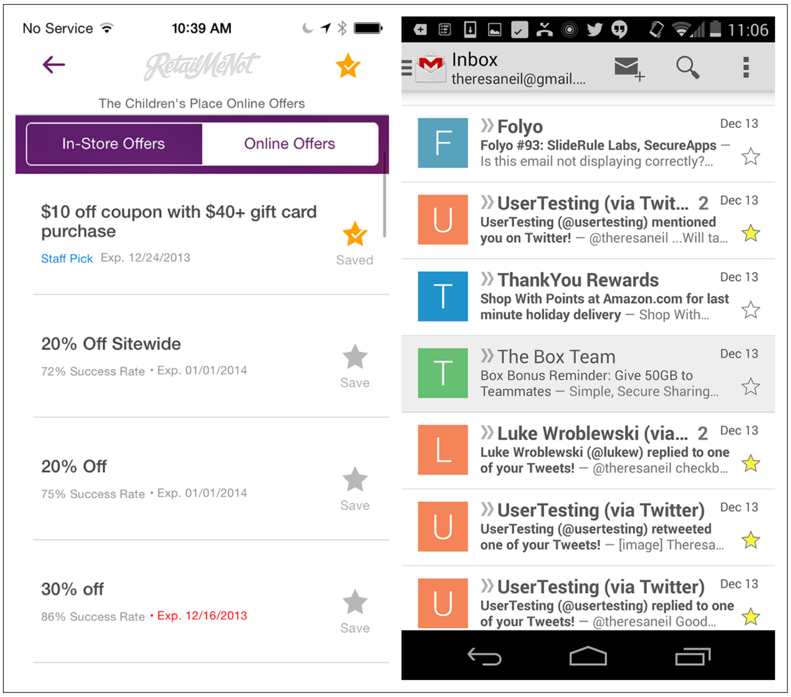


FIGURE 5-26. RetailMeNot for iOS and Gmail for Android: stateful star buttons


No Service 10:39 AM

RetailMeNot

The Children's Place Online Offers

In-Store Offers | Online Offers

$10 off coupon with $40+ gift card purchase
Staff Pick Exp. 12/24/2013
Saved

20% Off Sitewide
72% Success Rate • Exp. 01/01/2014
Save

20% Off
75% Success Rate • Exp. 01/01/2014
Save

30% off
86% Success Rate • Exp. 12/16/2013
Save

11:06

Inbox
theresaneil@gmail....

F Folyo — Dec 13
Folyo #93: SlideRule Labs, SecureApps — Is this email not displaying correctly?...

U UserTesting (via Twit... 2 — Dec 13
UserTesting (@usertesting) mentioned you on Twitter! — @theresaneil ...Will ta...

T ThankYou Rewards — Dec 13
Shop With Points at Amazon.com for last minute holiday delivery — Shop With...

T The Box Team — Dec 13
Box Bonus Reminder: Give 50GB to Teammates — Simple, Secure Sharing...

L Luke Wroblewski (via... 2 — Dec 13
Luke Wroblewski (@lukew) replied to one of your Tweets! — @theresaneil checkb...

U UserTesting (via Twitter) — Dec 13
UserTesting (@usertesting) retweeted one of your Tweets! — [image] Theresa...

U UserTesting (via Twitter) — Dec 13
UserTesting (@usertesting) replied to one of your Tweets! — @theresaneil Good...

The examples from LinkedIn and Facebook have two Inline Actions per row. If you want to display more than two actions per row, consider one of the Reveal patterns discussed later in this chapter.

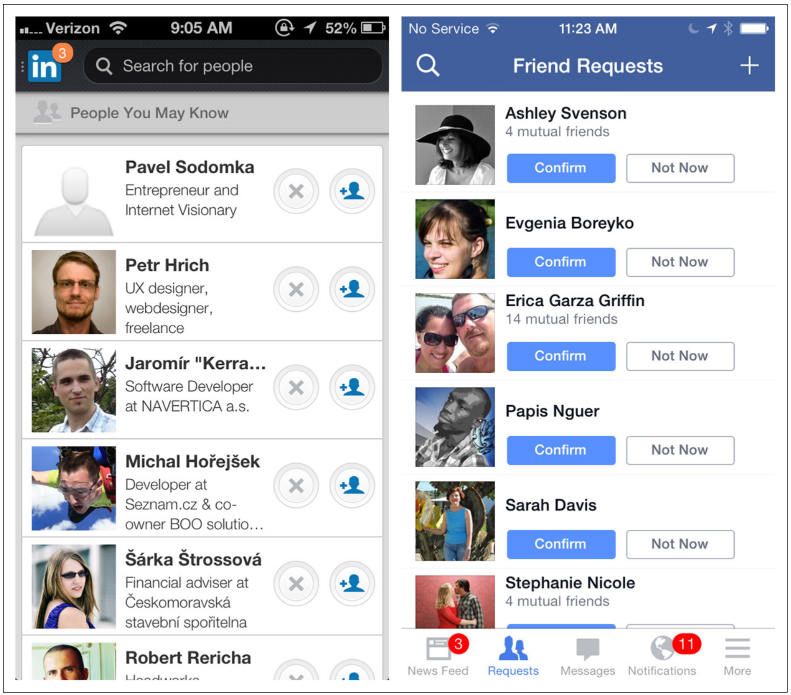
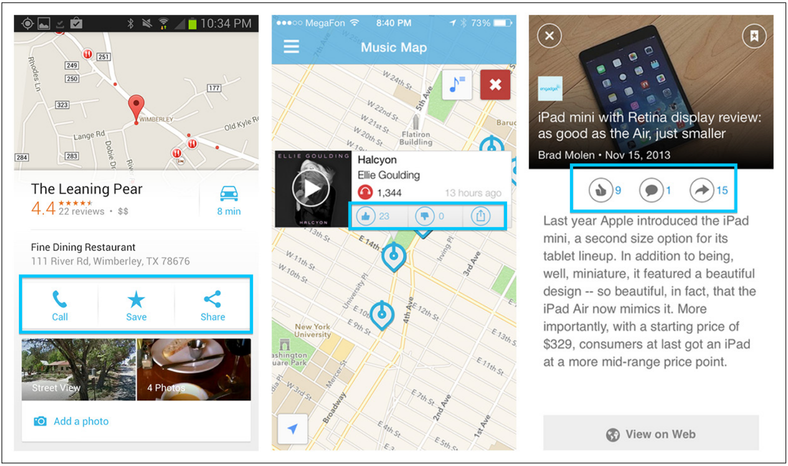


FIGURE 5-27.
LinkedIn and Facebook for iOS: two Inline Actions per row

[NOTE]

Inline Actions should be near the actionable object. Choose familiar icons and consider adding a text label.

Google Maps, Soundwave, and Pulse provide Inline Actions at the object detail view.



Last year Apple introduced the iPad mini, a second size option for its tablet lineup. In addition to being, well, miniature, it featured a beautiful design -- so beautiful, in fact, that the iPad Air now mimics it. More importantly, with a starting price of $329, consumers at last got an iPad at a more mid-range price point.

FIGURE 5-28.
Google Maps for Android, and Soundwave and Pulse for iOS: Inline Actions in object detail views

Multi-State Button

Normally, you shouldn't assign multiple actions to a UI control—it can overload the screen and the user. The Multi-State Button is an exception. This type of button acts as both an action trigger and a feedback mechanism.

For example, take the experience of downloading an app in the App Store for iOS. First you'll see the Inline Action to buy. Tap it again to install. Then it becomes an indicator for the install progress, and finally, once the app has downloaded, the button shows the Open option. See Chapter 9 for more examples.

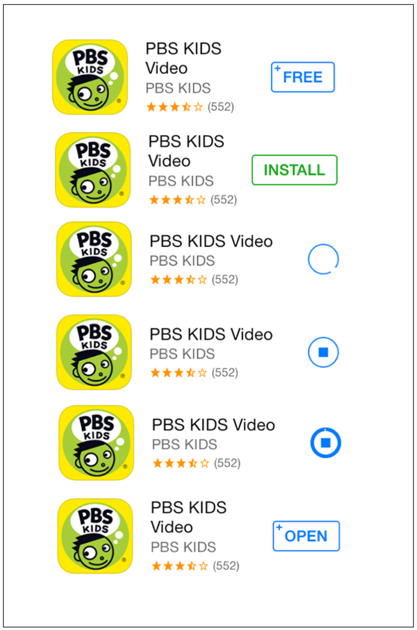
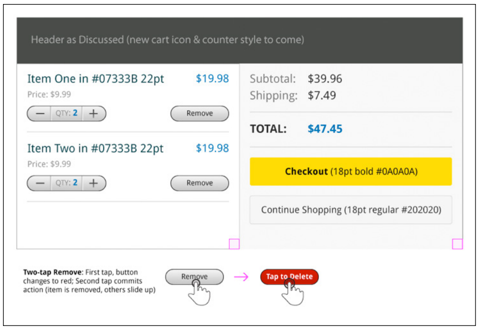


FIGURE 5-29.
App Store for iOS: Multi-State Buttons show buy, install, progress, and open options

[NOTE]
Multi-State Buttons work well for a series of tightly correlated processes that will be performed in rapid succession. Also consider using them instead of a dialog to prompt for confirmation before an irreparable action.

Another common use case for a Multi-State Button is a delete control. In many cases, popping open a delete confirmation dialog will break the user's flow (see Idiot Boxes in Chapter 11). But it makes sense to prompt for confirmation before completing an irreparable action, so the Multi-State Button serves nicely. (By the way, archiving an email is not an irreparable action, but emptying the trash is.)



Two-tap Remove: First tap, button changes to red; Second tap commits action (item is removed, others slide up)

FIGURE 5-30. Wireframe and interaction notes from an Android application with a Multi-State Button for delete

Contextual Tools

Contextual Tools are specific to an object or task. It makes sense (and declutters the interface) if we reveal these tools only after the context has been established.

For example, tapping the ellipsis button on any of the pictures in Luvocracy reveals the Contextual Tools for the photo. This design is far more discoverable than the long-press-and-slide gesture Pinterest implemented. Of course, Pinterest looks cool with the animation, but watch the video of someone trying to use it for the first time.

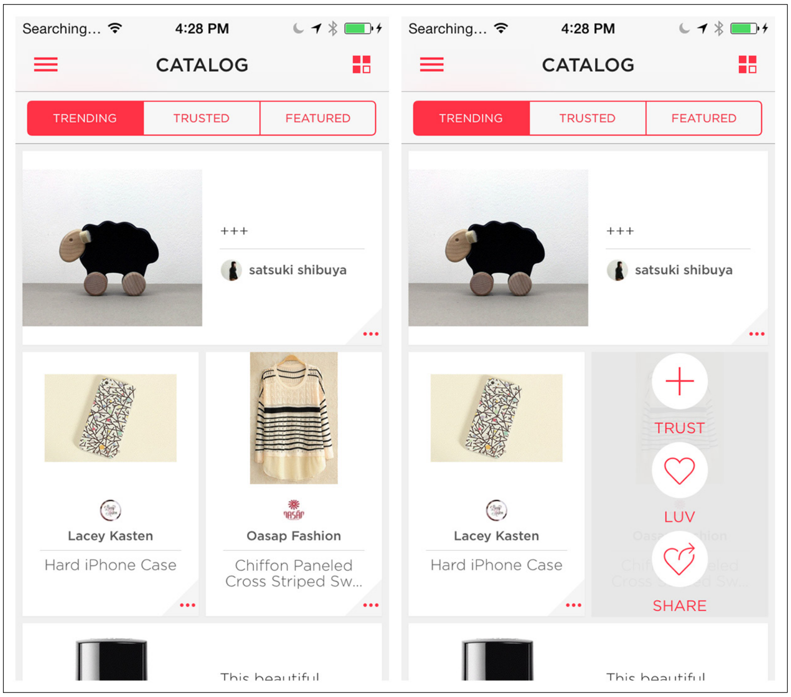


FIGURE 5-31. Luvocracy for iOS: tapping ellipsis reveals Contextual Tools

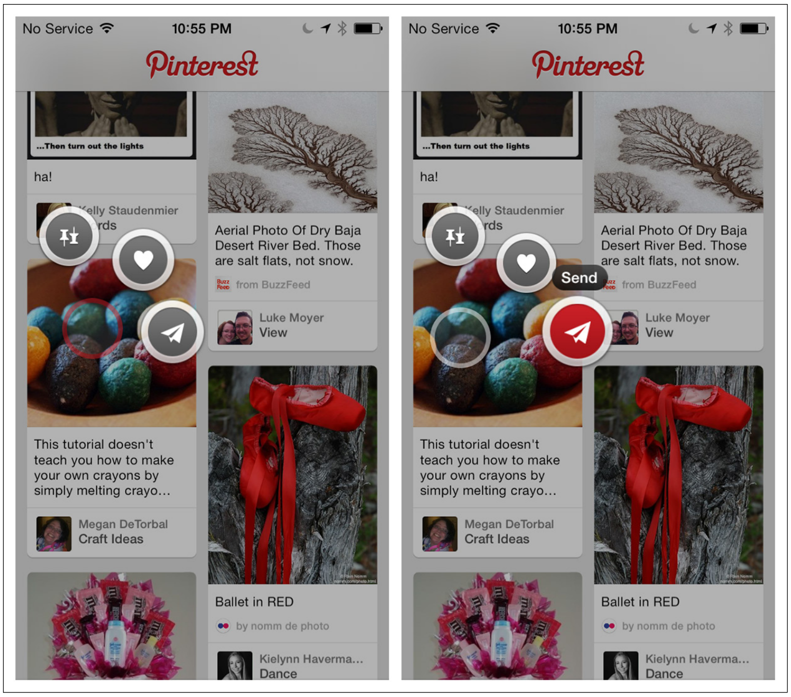

No Service
10:55 PM
Pinterest
...Then turn out the lights
ha!
Kelly Staudenmier
Aerial Photo Of Dry Baja Desert River Bed. Those are salt flats, not snow.
from BuzzFeed
Luke Moyer
View
Send
This tutorial doesn't teach you how to make your own crayons by simply melting crayo...
Megan DeTorbal
Craft Ideas
Ballet in RED
by nomm de photo
Kielynn Haverma...
Dance

FIGURE 5-32. Pinterest for iOS: long-press a Pin, then hold and slide to a button (*http://www.youtube.com/watch?v=dvXYztMT-bI*)

Any.do also uses a simple tap to reveal Contextual Tools including set priority, add reminder, and share.

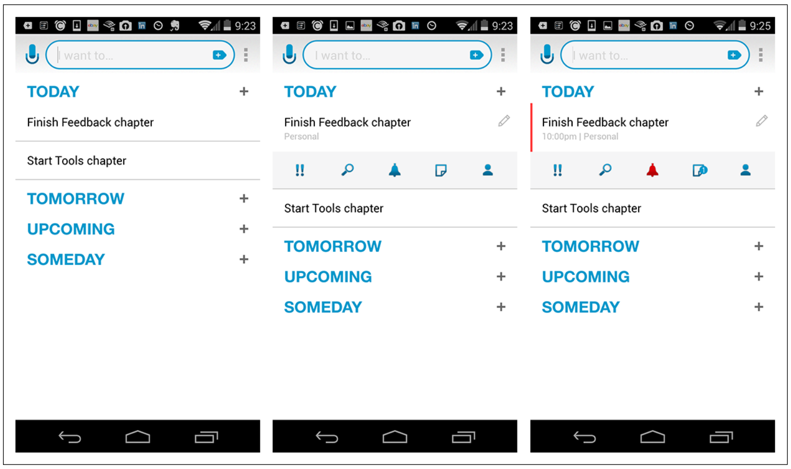
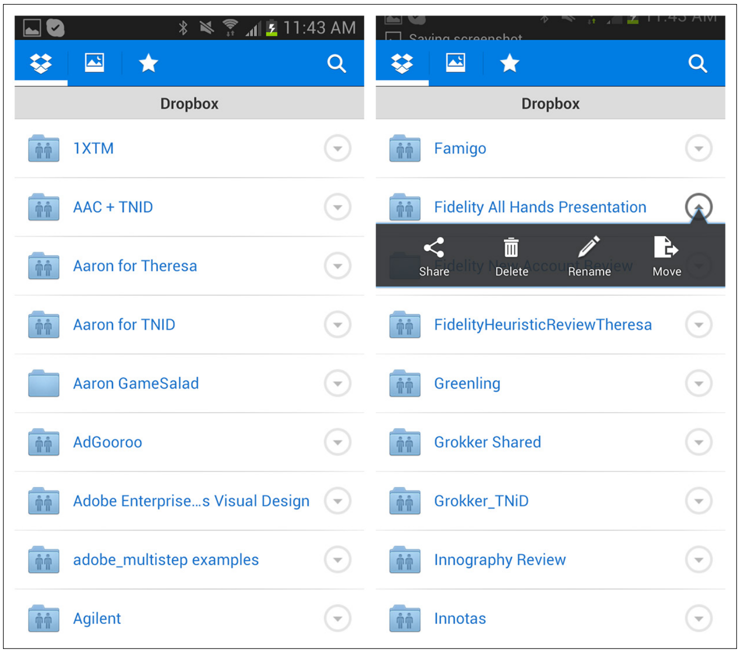


FIGURE 5-33. Any.do for Android: tap to reveal Contextual Tools

What if the rows are already touch targets, like the folders in Dropbox? One idea is to add a "more" icon that, when tapped, will reveal the Contextual Tools. Dropbox uses an overlay to display the options, but you could also go with an inlay that pushes the other rows down.


Dropbox

1XTM

AAC + TNID

Aaron for Theresa

Aaron for TNID

Aaron GameSalad

AdGooroo

Adobe Enterprise...s Visual Design

adobe_multistep examples

Agilent

Famigo

Fidelity All Hands Presentation

FidelityHeuristicReviewTheresa

Greenling

Grokker Shared

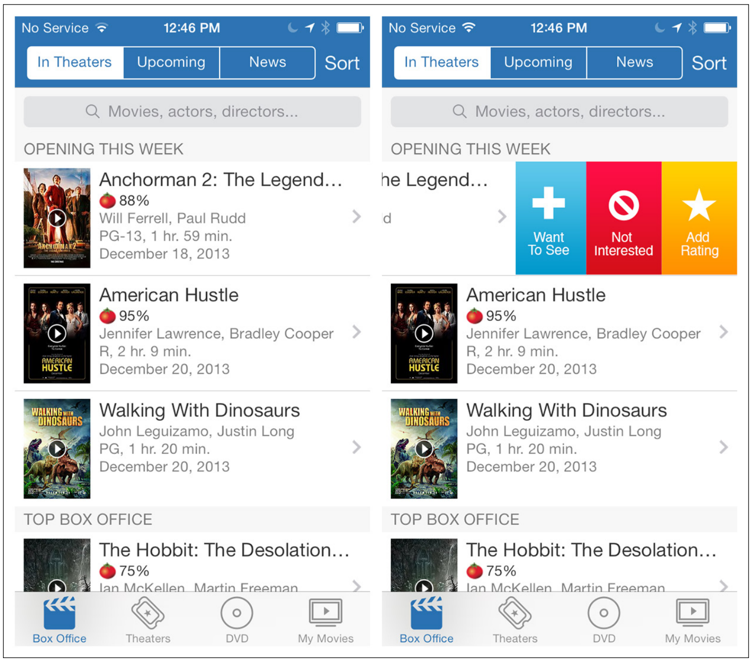
Grokker_TNiD

Innography Review

Innotas

FIGURE 5-34.
Dropbox for Android: tap the "more" icon to reveal the Contextual Tools overlay

Another option is to reveal the tools with a gesture other than tapping, like swiping. Flixster and BaconReader reveal Contextual Tools on horizontal swipe.


OPENING THIS WEEK

Anchorman 2: The Legend...
88%
Will Ferrell, Paul Rudd
PG-13, 1 hr. 59 min.
December 18, 2013

American Hustle
95%
Jennifer Lawrence, Bradley Cooper
R, 2 hr. 9 min.
December 20, 2013

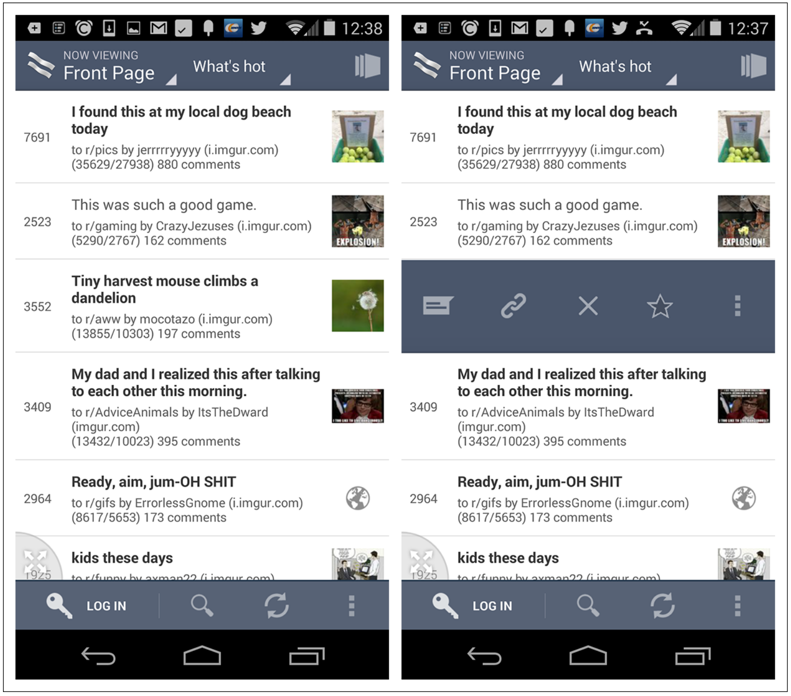
Walking With Dinosaurs
John Leguizamo, Justin Long
PG, 1 hr. 20 min.
December 20, 2013

TOP BOX OFFICE

The Hobbit: The Desolation...
75%
Ian McKellen, Martin Freeman

FIGURE 5-35.
Flixster for iOS: swipe left to reveal Contextual Tools

FIGURE 5-36.
BaconReader for Android: swipe left or right to reveal Contextual Tools



12:38
NOW VIEWING
Front Page
What's hot

7691 **I found this at my local dog beach today**
to r/pics by jerrrrryyyyy (i.imgur.com)
(35629/27938) 880 comments

2523 This was such a good game.
to r/gaming by CrazyJezuses (i.imgur.com)
(5290/2767) 162 comments

3552 **Tiny harvest mouse climbs a dandelion**
to r/aww by mocotazo (i.imgur.com)
(13855/10303) 197 comments

3409 **My dad and I realized this after talking to each other this morning.**
to r/AdviceAnimals by ItsTheDward (imgur.com)
(13432/10023) 395 comments

2964 **Ready, aim, jum-OH SHIT**
to r/gifs by ErrorlessGnome (i.imgur.com)
(8617/5653) 173 comments

1925 **kids these days**

LOG IN

12:37
NOW VIEWING
Front Page
What's hot

7691 **I found this at my local dog beach today**
to r/pics by jerrrrryyyyy (i.imgur.com)
(35629/27938) 880 comments

2523 This was such a good game.
to r/gaming by CrazyJezuses (i.imgur.com)
(5290/2767) 162 comments

3409 **My dad and I realized this after talking to each other this morning.**
to r/AdviceAnimals by ItsTheDward (imgur.com)
(13432/10023) 395 comments

2964 **Ready, aim, jum-OH SHIT**
to r/gifs by ErrorlessGnome (i.imgur.com)
(8617/5653) 173 comments

1925 **kids these days**

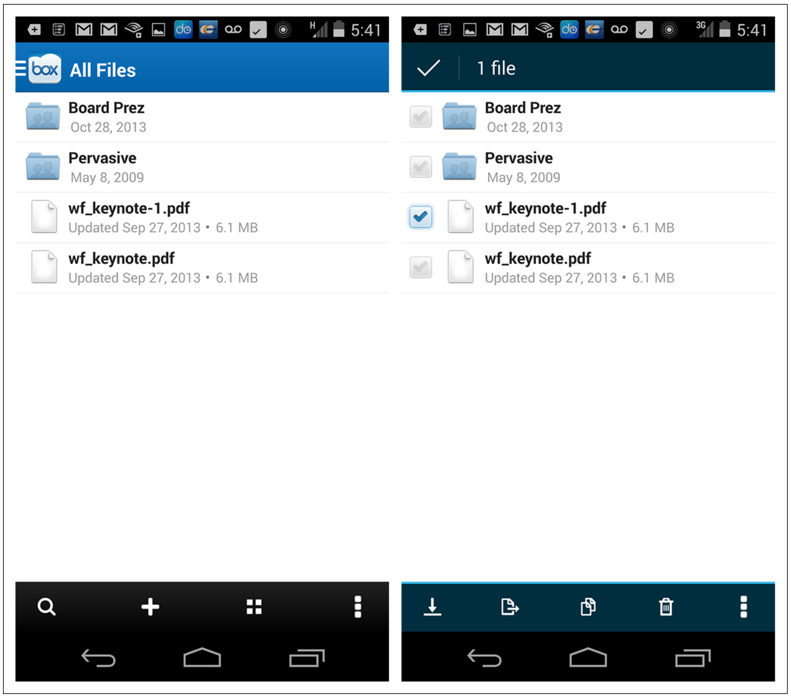
LOG IN

This approach is very popular in productivity tools, like email and task apps. But beware—it is not as easy as it seems to design an intuitive and efficient gesture-based interface.

A long press can also be used to select an object and present Contextual Tools for it. In Box, long-pressing a file triggers the selection mode with the pressed object already selected. More objects can be selected, and the Contextual Tools (download, share, copy, delete, etc.) replace the Action Buttons. See the next pattern, Bulk Actions, for alternate ways to select multiple objects.

[NOTE]

When you choose a gesture to reveal Contextual Tools, start with the simplest solution first and test for discoverability and user efficiency.


All Files

Board Prez	Oct 28, 2013
Pervasive	May 8, 2009
wf_keynote-1.pdf	Updated Sep 27, 2013 • 6.1 MB
wf_keynote.pdf	Updated Sep 27, 2013 • 6.1 MB

FIGURE 5-37.
Box for Android: long-pressing a file selects it and presents Contextual Tools; other items can be selected, too

Bulk Actions

Common Bulk Actions include selection, deletion, and reordering. Instead of cluttering the main screen with all of these options listed for every item, provide a mode for Bulk Actions.

The native Photos app for iOS offers a "selection" mode for choosing photos from the camera roll to share. Once an item is selected, the Contextual Tools (share and delete) are revealed, and more items can be selected.

The iOS Stocks app offers an edit mode for reordering, deleting, and sorting stocks. Per iOS design standards, tapping Done in the top-right corner saves the changes and exits edit mode.

FIGURE 5-38.
Photos for iOS: Contextual Tools enable Bulk Actions for all selected items

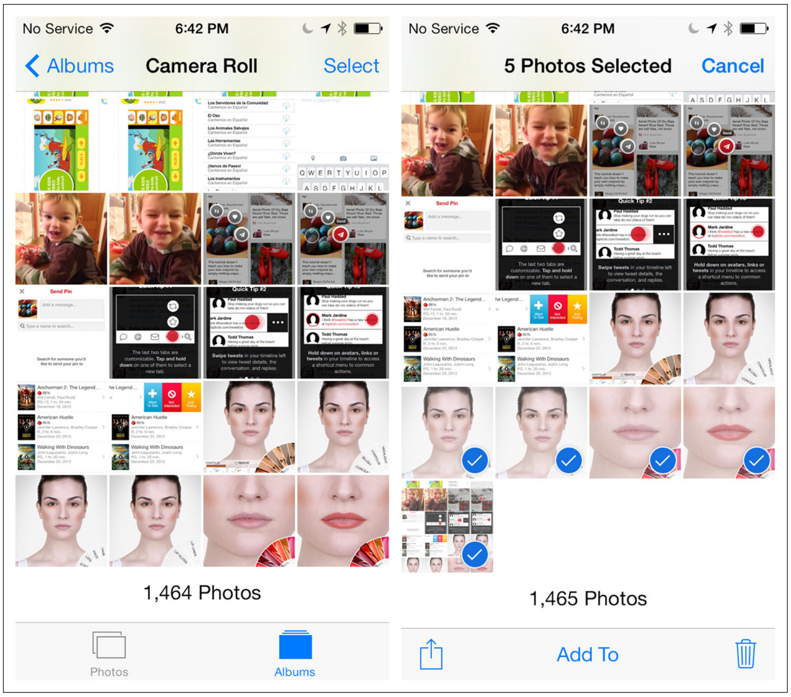
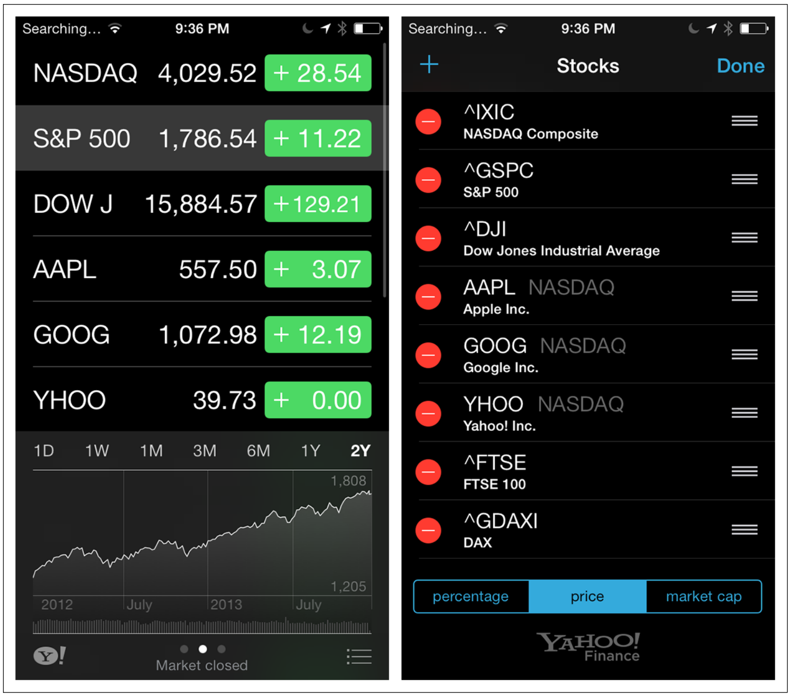
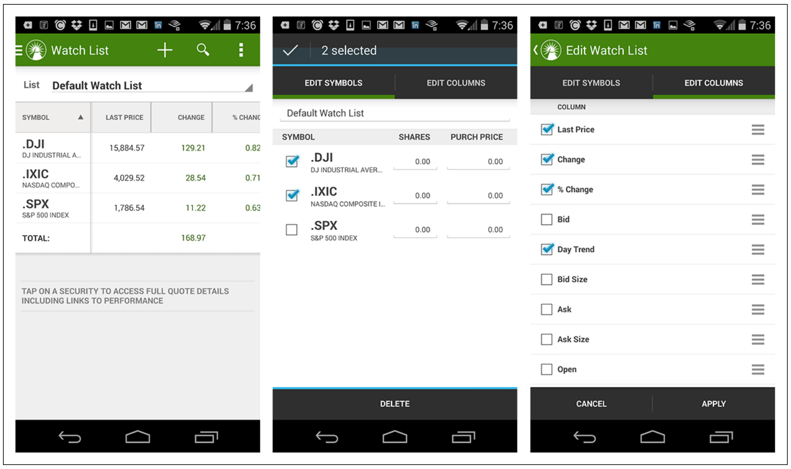


FIGURE 5-39.
Stocks for iOS: Bulk Actions in edit mode



Fidelity for Android uses the same pattern, both for selecting stocks and for selecting and ordering the columns displayed in the Watch List.


7:36
Watch List

List Default Watch List

SYMBOL	LAST PRICE	CHANGE	% CHANG
.DJI DJ INDUSTRIAL A...	15,884.57	129.21	0.82
.IXIC NASDAQ COMPO...	4,029.52	28.54	0.71
.SPX S&P 500 INDEX	1,786.54	11.22	0.63
TOTAL:		168.97	

TAP ON A SECURITY TO ACCESS FULL QUOTE DETAILS INCLUDING LINKS TO PERFORMANCE

7:36
2 selected
EDIT SYMBOLS EDIT COLUMNS
Default Watch List

	SYMBOL	SHARES	PURCH PRICE
✓	.DJI DJ INDUSTRIAL AVER...	0.00	0.00
✓	.IXIC NASDAQ COMPOSITE I...	0.00	0.00
☐	.SPX S&P 500 INDEX	0.00	0.00

DELETE

7:36
Edit Watch List
EDIT SYMBOLS EDIT COLUMNS
COLUMN
- ✓ Last Price
- ✓ Change
- ✓ % Change
- ☐ Bid
- ✓ Day Trend
- ☐ Bid Size
- ☐ Ask
- ☐ Ask Size
- ☐ Open

CANCEL APPLY

FIGURE 5-40.
Fidelity for Android: bulk selection of stocks and Watch List criteria

Path for iOS also offers Bulk Actions in edit mode, like add, remove, and assign a contact to your inner circle (the star icon).

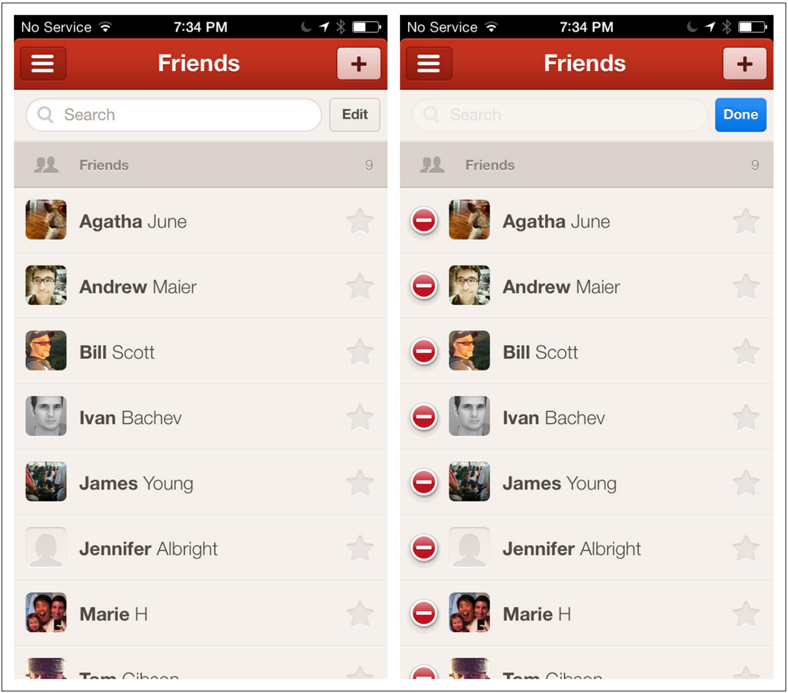


FIGURE 5-41.
Path for iOS: Bulk Actions in edit mode can act on multiple items at once

[NOTE]

Bulk Actions like delete and reorder are best handled in a discrete edit mode. Provide an obvious option for exiting the mode.

To trigger this mode in Path for Android, you long-press any friend in the list. Path could improve this UI design by following Android design conventions and showing the number of selected items, instead of just shading them.

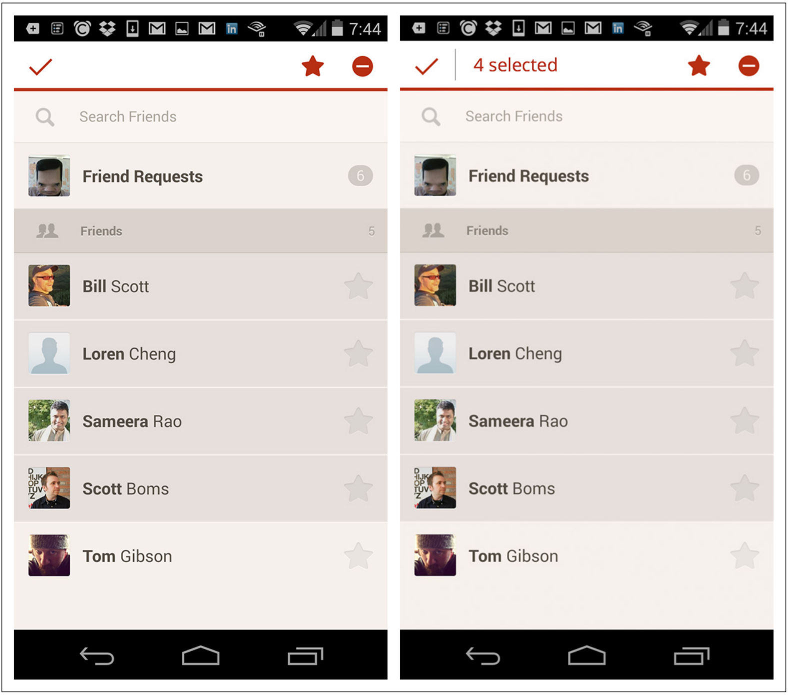


FIGURE 5-42. Path for Android: current design on left; suggested improvement, showing selected number of items, on right

Lock Screen Controls

Both iOS and Android offer the option to display tools on the lock screen. This is seen most often in music apps, but not exclusively. If your application is running in the background and users may need quick access to pause, stop, or adjust it, consider designing tools for the lock screen.

The controls do not need to be limited to playing and pausing audio and video. Any.do for Android uses a widget to prompt app usage first thing in the morning, and also to help with tasks during the day.

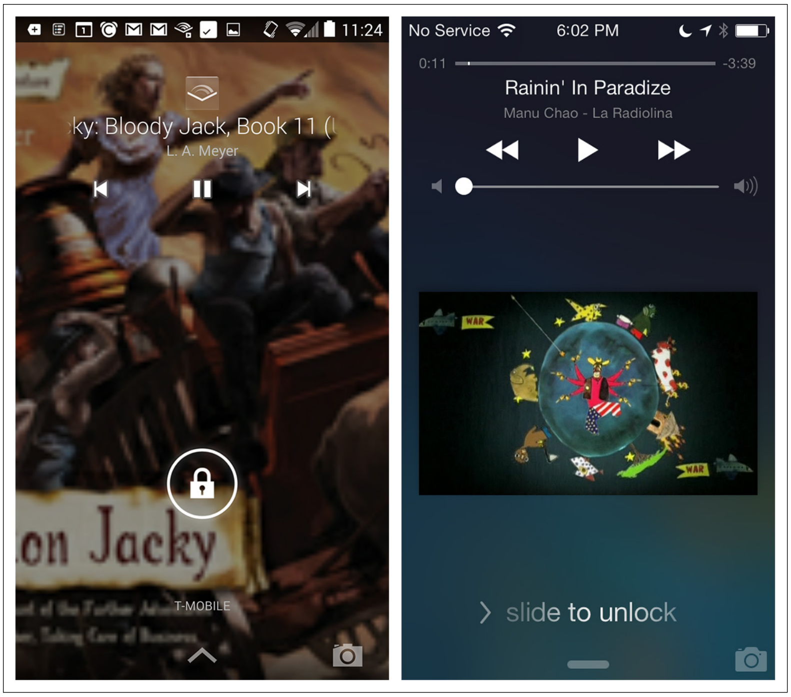
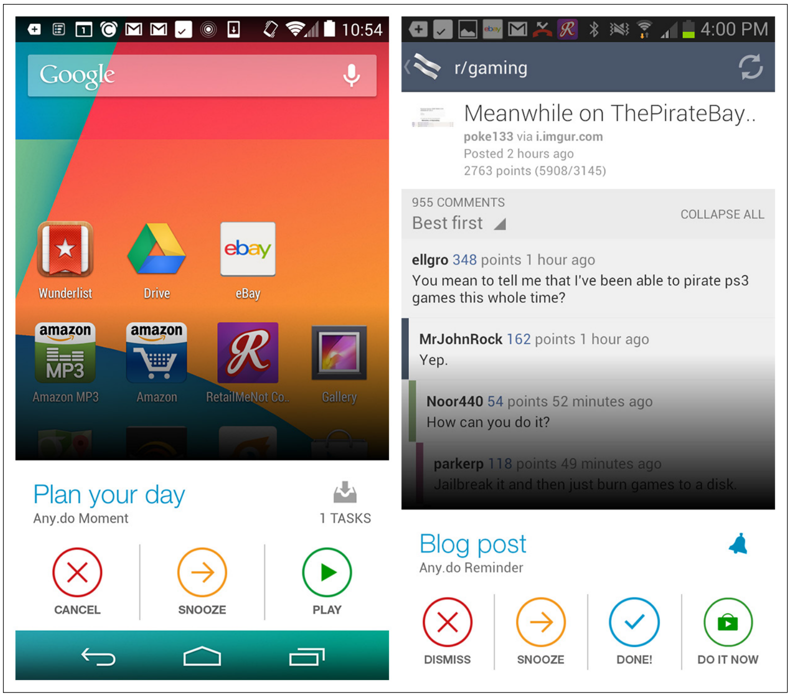


FIGURE 5-43. Audible for Android and iTunes for iOS: lock screen controls



Meanwhile on ThePirateBay..
poke133 via i.imgur.com
Posted 2 hours ago
2763 points (5908/3145)

955 COMMENTS
Best first
COLLAPSE ALL

ellgro 348 points 1 hour ago
You mean to tell me that I've been able to pirate ps3 games this whole time?

MrJohnRock 162 points 1 hour ago
Yep.

Noor440 54 points 52 minutes ago
How can you do it?

parkerp 118 points 49 minutes ago
Jailbreak it and then just burn games to a disk.

FIGURE 5-44. Any.do for Android: widgets offer deeper engagement than notifications

[NOTE]

The mobile user experience may extend past the typical borders of the application. Consider lock screen controls or widgets to enhance the UX.

[6]

Charts

Patterns

Chart with Filters, Interactive Timeline, Data Point Details, Drill Down, Overview plus Data, Interactive Preview, Dashboard, Zoom, Sparklines, Integrated Legend, Thresholds, Pivot Table

Designing charts for the mobile form factor is a challenge. However, it also provides an opportunity to get to the very core of the best practices for data visualization. A chart should tell a story by depicting important relationships in data. If it isn't doing that, it is just a waste of space.

In the first part of this chapter, I offer some tips to help you make sure the charts you design are clear and meaningful to your audience. Along the way, we'll look at some good and bad examples to illustrate these tips. In the second part of the chapter, we'll look at common chart design patterns. Finally, we'll wrap up by looking at a couple of apps that pull everything together in exemplary fashion.

Tip 1: Learn the basics

Many of the guidelines and best practices for print and desktop chart design apply to mobile chart design as well. A great introductory book on this topic is *The Wall Street Journal Guide to Information Graphics* by Donna Wong (Norton, 2013). “Data Visualization Best Practices” (*http://slidesha.re/1fFbP2W*), a presentation on SlideShare by business information analyst Jen Underwood, is a very quick and easy way to learn the basics.

There are many chart styles you can use to present data. Some that you may be familiar with include the bar chart, the line chart, and the pie chart. There is a lot of contention among experts about which charts are best. For instance, many pros, like Jen Underwood, strongly discourage the use of pie charts; others strongly defend them. I’m not going to take sides either way. I’ve seen pie charts that served their purpose well (some of which are included in this chapter), and I’ve seen bar charts that were so poorly designed they were all but indecipherable.

If you look at online design galleries like Dribbble or Behance, you’ll see many beautiful mobile chart designs. Unfortunately, many of them are artistic exercises that aren’t very helpful at communicating information. The two examples shown here look nice, but they are both missing titles that provide context for the data being shared. The designers’ use of color also inadvertently creates correlations in the data where none exist.

The key is to learn the basics so that you use the right chart for the job, and your chart includes all the necessary information and nothing more. At a minimum, the necessary information will include a chart title, clearly labeled axes, and the data.

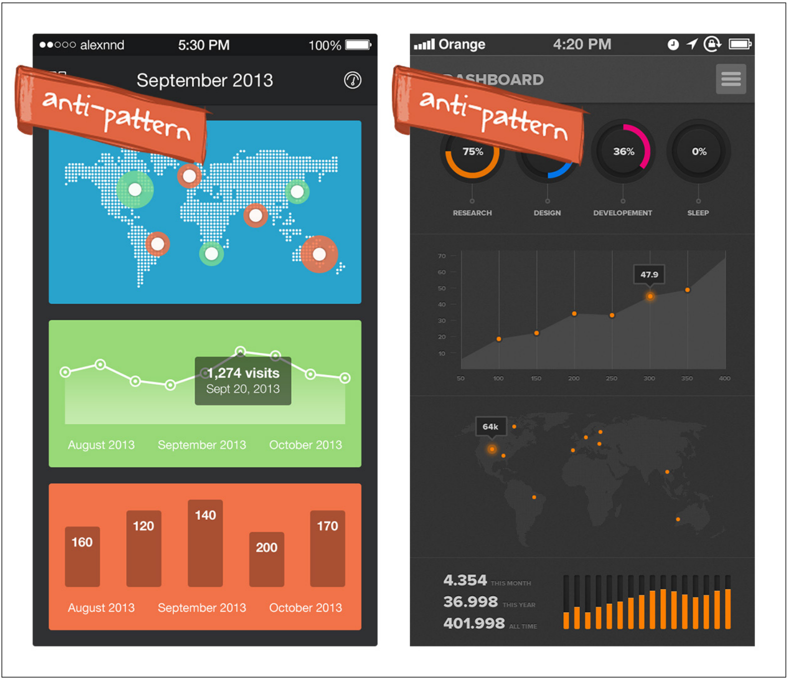


FIGURE 6-1. While pretty, these design examples found on Dribbble are uninformative and confusing

Tip 2: Keep it simple

The simpler your chart, the better. Beware the urge to spice up your charts with extra data or visual effects that decrease their effectiveness. Remember the experts I referred to earlier? They call these excess frills "chart junk," and there's nothing they like better than finding examples of it to ridicule. So do yourself and your users a favor, and don't provide any! See Chapter 11 for more examples of chart junk.

Argus uses basic column and line charts to communicate progress against specific user goals for walking and running.

Other simple read-only charts can be found in Trulia, which uses a donut chart (a variant of the pie chart) to show the breakdown of a mortgage payment, and Zillow Mortgage Calculator, where a line chart shows trends in mortgage rates.

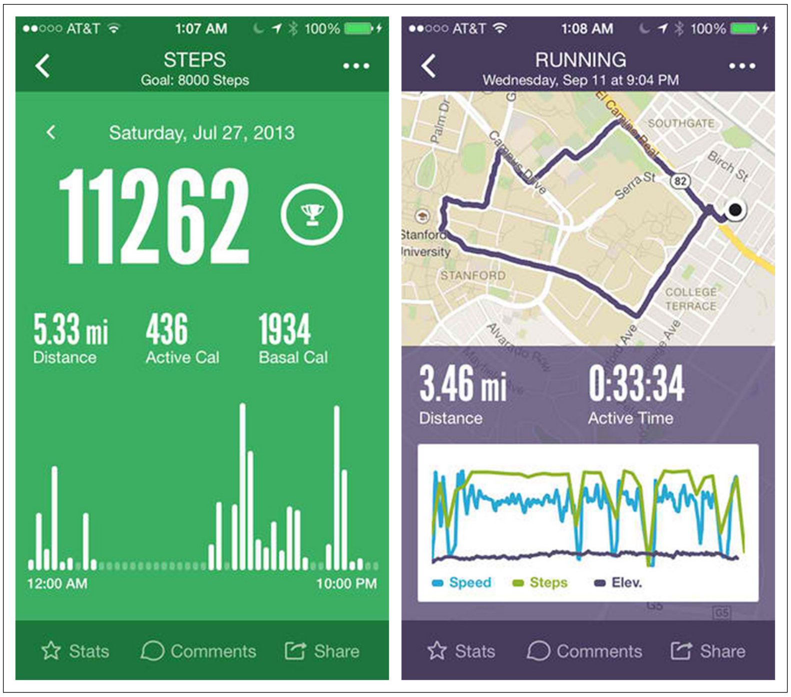


FIGURE 6-2. Argus for iOS 7: simple column and line charts communicate the user's progress toward fitness goals

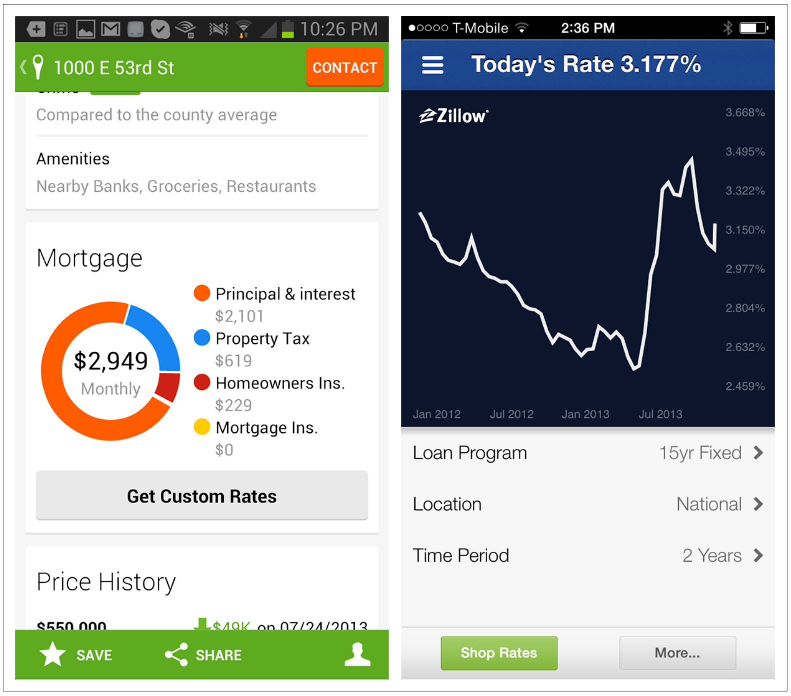


FIGURE 6-3. Simplicity rules: donut chart in Trulia for Android and line chart in Zillow Mortgage Calculator for iOS

Tip 3: Surprise—math quiz!

So your chart looks sexy and everyone on your team likes it. Now the question is, will your users understand it? To find out, when you conduct your user testing, write the usability script like a math test. Ask the participants specific questions about the data. If they can't answer them, the chart is either the wrong type, too complicated, or missing critical labels—or possibly all three.

For instance, in testing the chart from 1Weather for Android, questions I might ask the participant would include:

- What time period does this chart cover?
- What was the chance of rain on Friday? What about on Monday?
- Which day this week will be the hottest? The coolest?

During testing, it would probably become apparent that participants are unsure of the difference between the solid line and the dashed line. A simple label change could remedy this, but test again to be sure. I like to sketch along as participants respond (or ask the participants to sketch) during test sessions and iterate on the chart design until they can answer all the questions correctly.

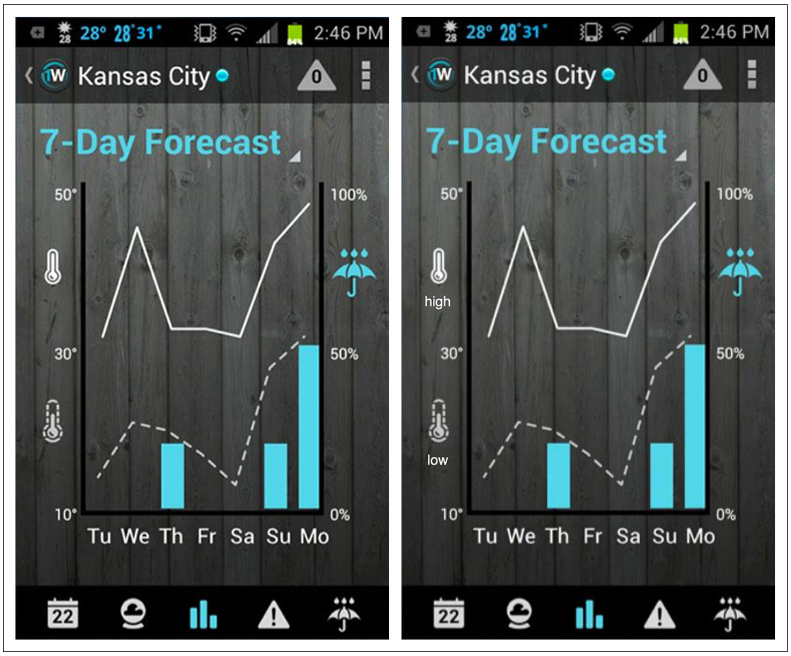


FIGURE 6-4.
1Weather for Android: missing legend on left, added legend on right

Tip 4: Know your toolset

Before cracking open Photoshop, you should get familiar with the charting library your dev team is using. There are many different options available; here are some popular ones worth exploring:

- Core Plot (*https://code.google.com/p/core-plot/*) for iOS
- ShinobiControls (*http://www.shinobicontrols.com/*) for iOS and Android
- TeeChart (*https://components.xamarin.com/view/TeeChart*) for Xamarin
- Telerik RadControls (*http://bit.ly/1fFcbGI*) for Windows Phone
- A JS charting library like AnyChart (*http://www.anychart.com/products/anychart/gallery/*) or amCharts (*http://www.amcharts.com/*)

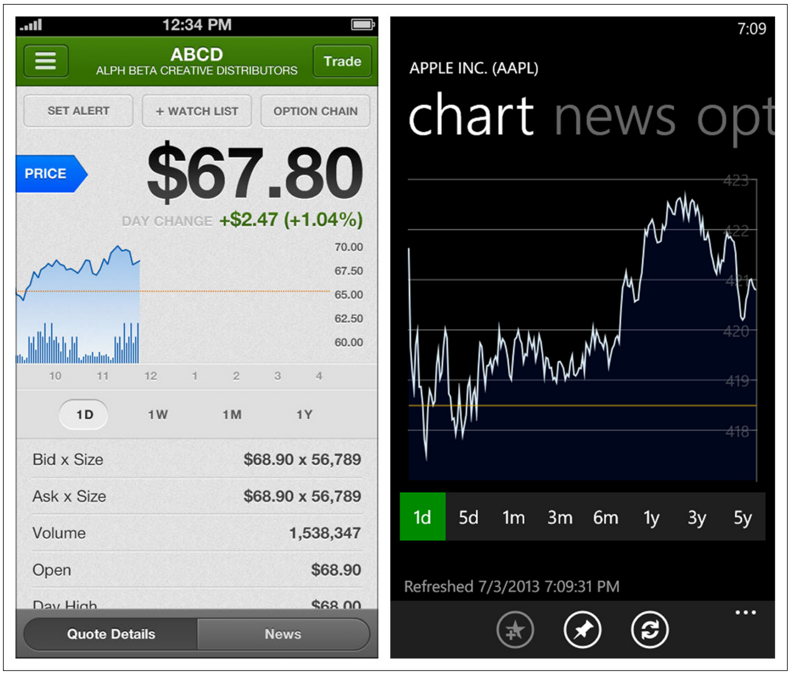
Ask your developers to show you the available features and consult with them on the chart design. Aside from user testing, early collaboration between the designer and developer is the best way to ensure your users will get the charts they need.

Okay, now that you've learned some basic tips, it's time to look at the most common design patterns used with the charts in mobile applications.

Chart with Filters

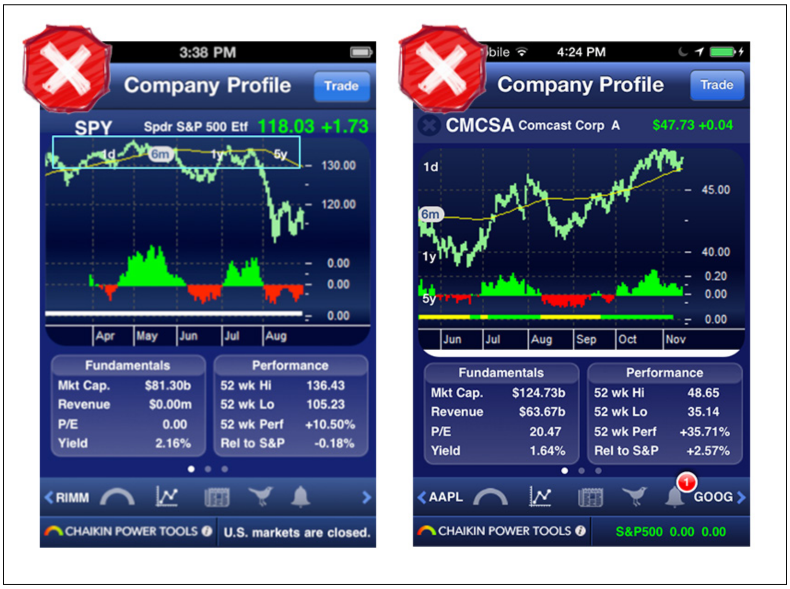
A simple chart can be enhanced with time controls or other filters. In apps like Fidelity and StockPlus, the data can be explored for different time periods.

When you design an Onscreen Filter, provide plenty of space for the touch target. In Chaikin, the filter controls are in the chart, where they are difficult to even see. Since the first release of this book, Chaikin has redesigned this screen and moved the time filters to the left, but that didn't fix the problem at all.



Bid x Size	$68.90 x 56,789
Ask x Size	$68.90 x 56,789
Volume	1,538,347
Open	$68.90
Day High	$68.00

FIGURE 6-5.
Fidelity for iOS and StockPlus for Windows Phone: time period filtering



Fundamentals		Performance	
Mkt Cap.	$81.30b	52 wk Hi	136.43
Revenue	$0.00m	52 wk Lo	105.23
P/E	0.00	52 wk Perf	+10.50%
Yield	2.16%	Rel to S&P	-0.18%

Fundamentals		Performance	
Mkt Cap.	$124.73b	52 wk Hi	48.65
Revenue	$63.67b	52 wk Lo	35.14
P/E	20.47	52 wk Perf	+35.71%
Yield	1.64%	Rel to S&P	+2.57%

FIGURE 6-6.
Two generations of Chaikin for iOS: filter controls are still hard to see

The DailyBurn Tracker app provides a contextual filter; tapping the chart reveals the actions across the top and the time filters across the bottom.

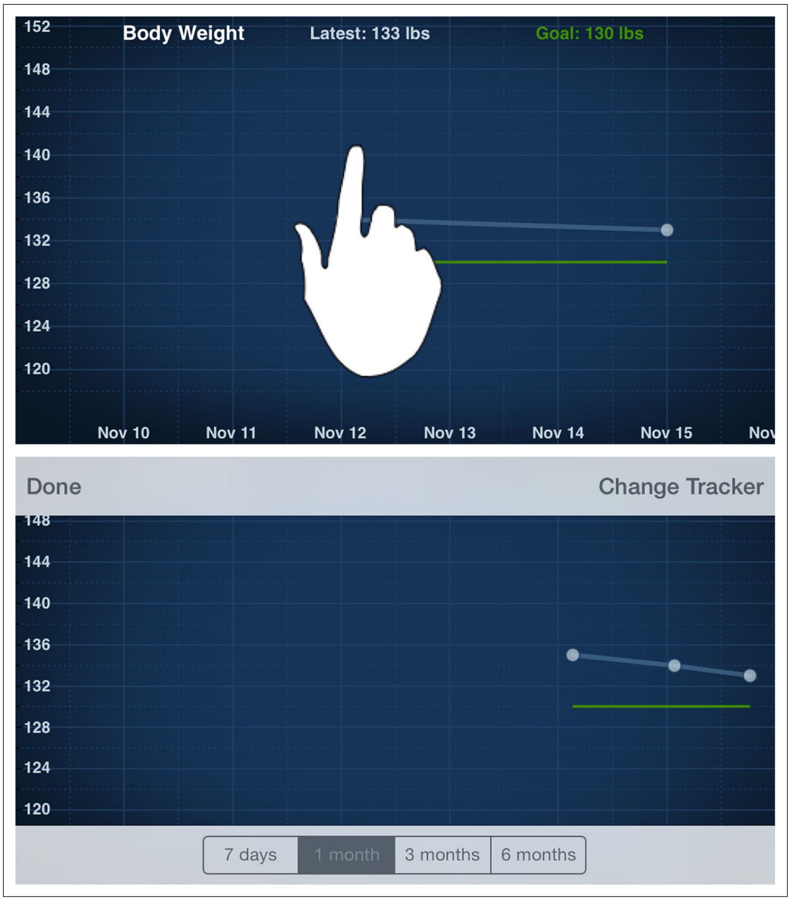


FIGURE 6-7. DailyBurn Tracker for iOS: tapping the chart reveals filters

Time, of course, is not the only possible filtering option. In Fidelity for iOS, for example, data sources can be selected for comparisons.

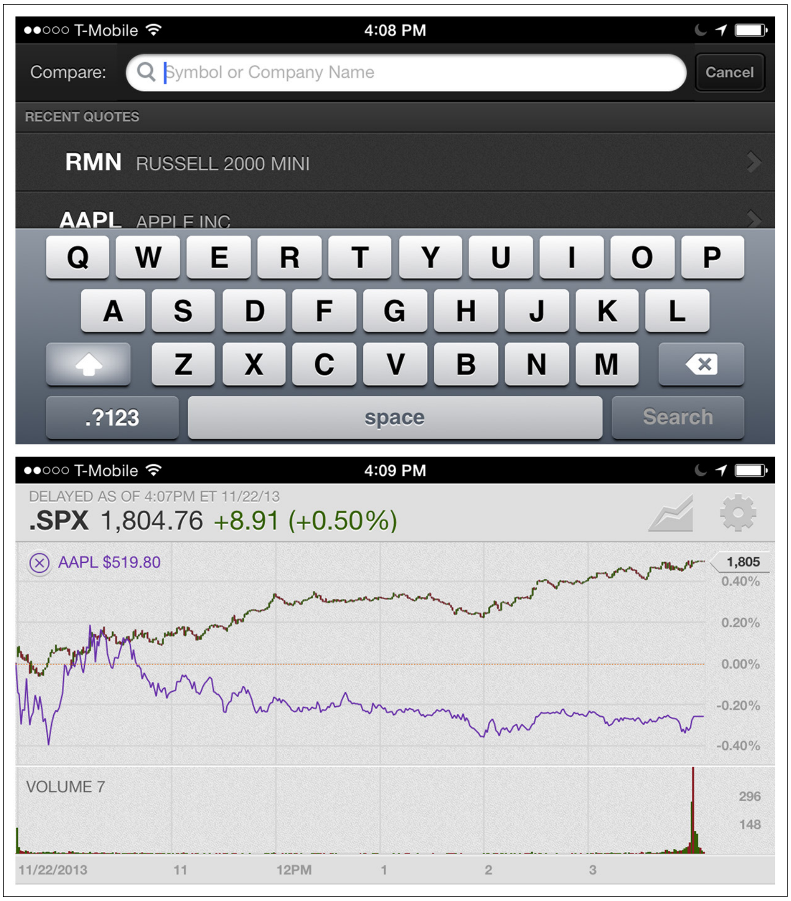


FIGURE 6-8.
Fidelity for iOS: data source comparisons

The Fidelity app also offers configuration options for changing the chart type, thresholds, and pricing axis.

[NOTE]

Use common patterns for filtering, like the OnScreen Filter, Filter Drawer, and Filter Form (see Chapter 4).

FIGURE 6-9.
Fidelity for iOS: comparisons and configuration

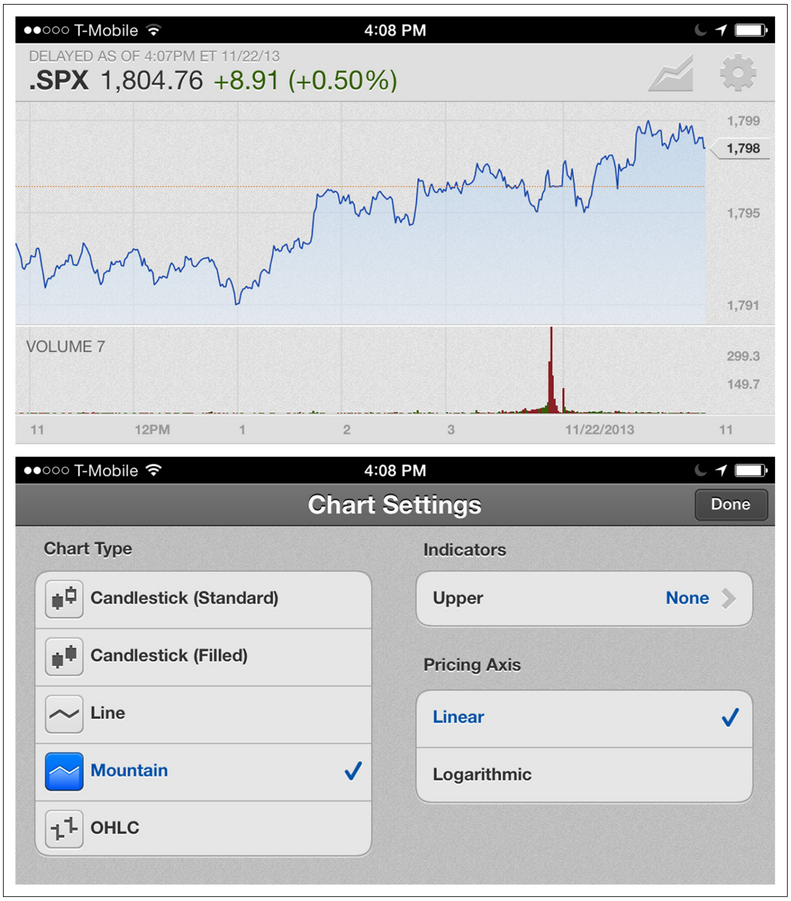


Chart Type

- Candlestick (Standard)
- Candlestick (Filled)
- Line
- Mountain ✓
- OHLC

Indicators

- Upper: None

Pricing Axis

- Linear ✓
- Logarithmic

Interactive Timeline

In the first edition of this book I included a pattern called Scrolling Window, exemplified by Roambi for iOS. I've expanded the pattern to include any type of Interactive Timeline combined with a chart or data visualization.

In the Roambi example, the small chart across the bottom of the screen provides an interactive control (two drag handles) for selecting the point in time displayed in the top, much larger chart.

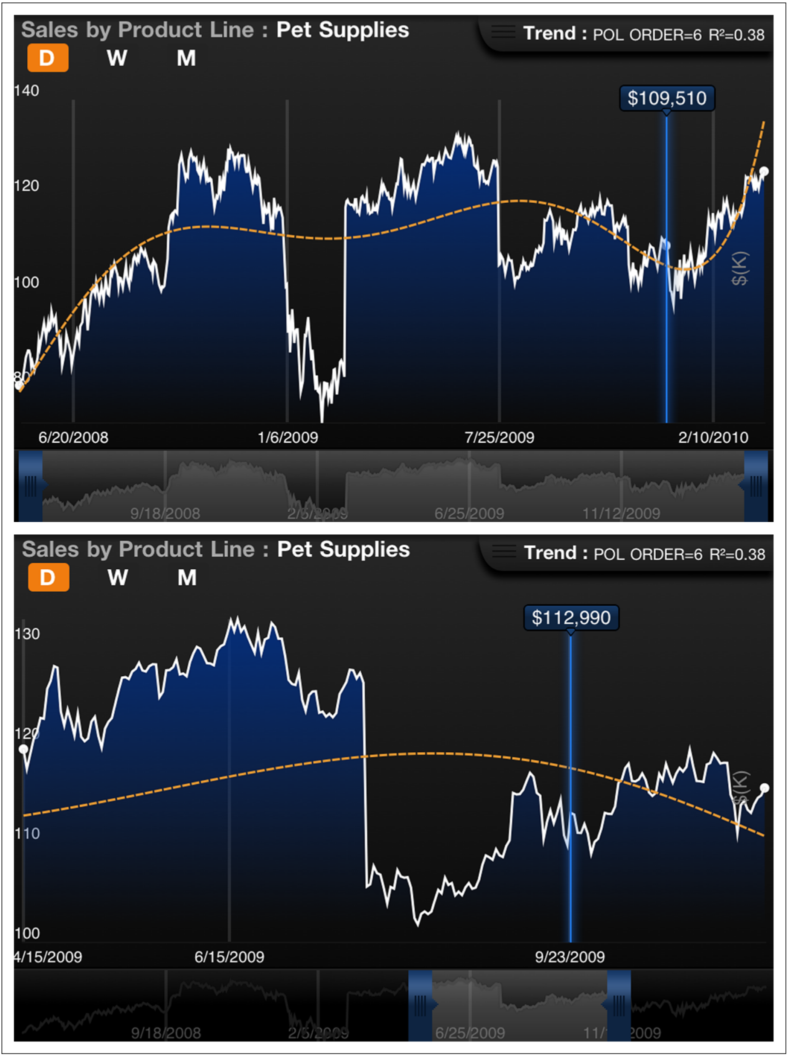


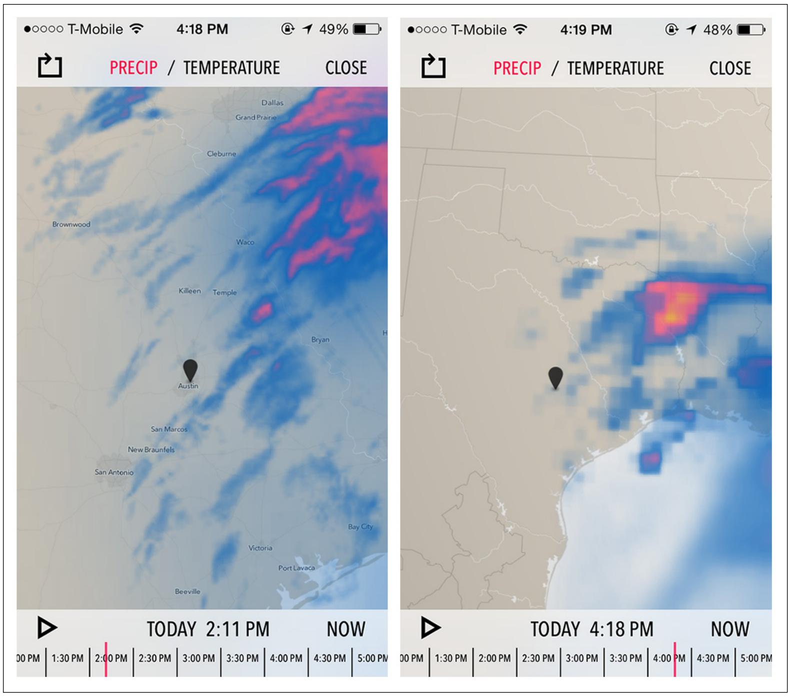
FIGURE 6-10.
Roambi for iOS: handles for selecting a window in time

The Dark Sky weather app provides a timeline, plus a Play button to animate the change over time. It has also added a Now option to pop back to the current point in time.

[NOTE]

An Interactive Timeline can provide users with more freedom and control in selecting context than a static chart or visualization.

FIGURE 6-11.
Dark Sky for iOS: Interactive Timeline plus Play button (*http://youtu.be/d_ZJYVPxRe8*)



Data Point Details

Since hover doesn't exist in mobile and long press isn't very intuitive, a different interaction is needed to show details for a specific data point. In the Zillow Mortgage Calculator for iOS, touching a wedge in the pie chart displays details about the payment breakdown.

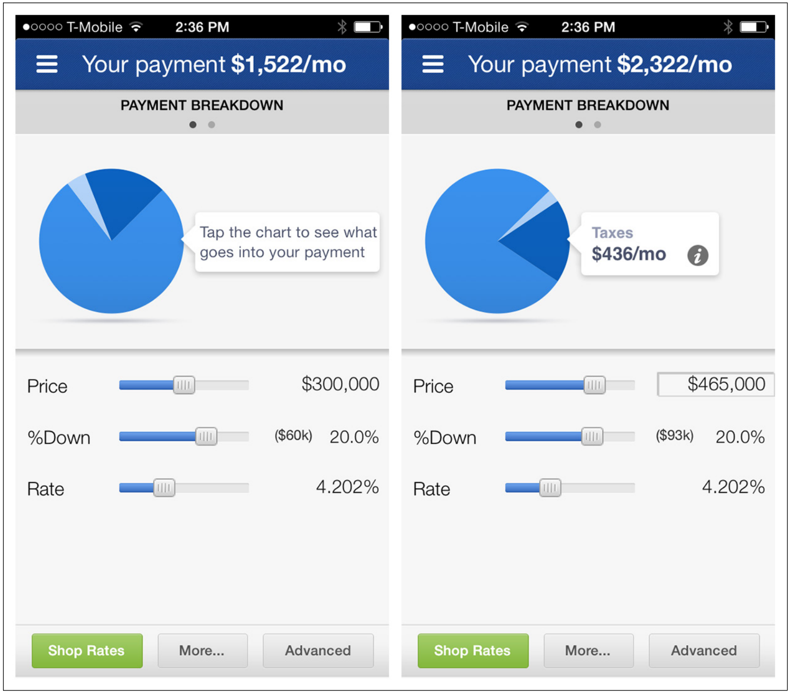
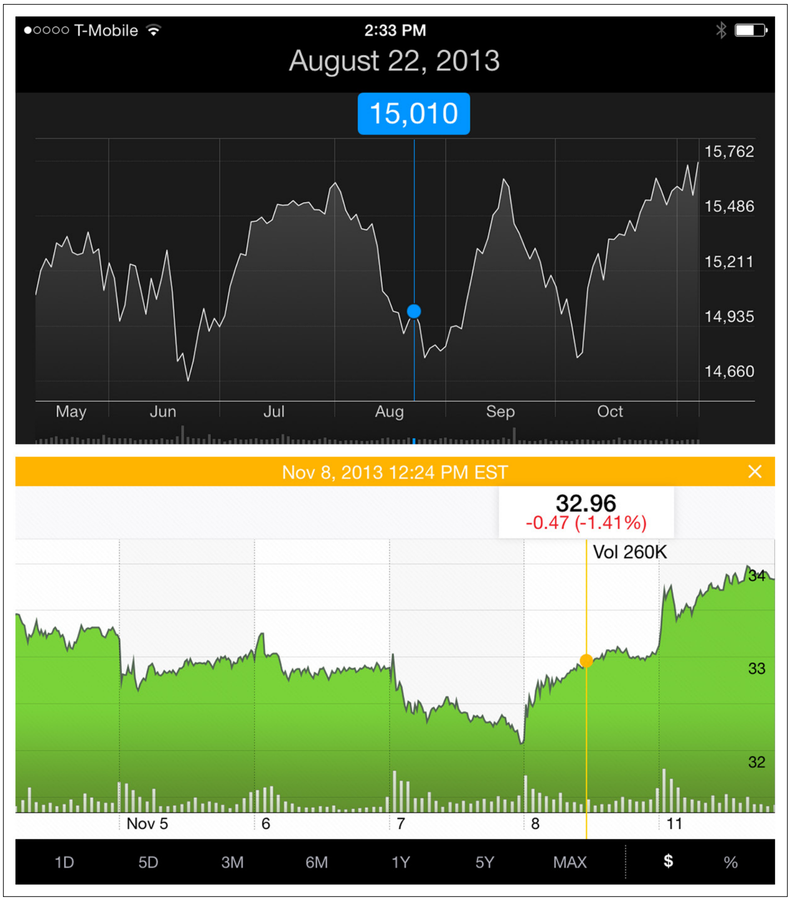


FIGURE 6-12.
Zillow Mortgage Calculator for iOS: touching the chart area reveals Data Point Details

In Apple Stocks and Yahoo! Finance, tapping a data point highlights it in the Preview Window at the bottom of the chart (although you have to look pretty closely to see it). In these apps, the whole chart is a touch target, so you can tap anywhere, and then drag to zero in on the specific date.

FIGURE 6-13.
Apple Stocks and Yahoo! Finance for iOS: tap data points for more info



In the Apple Stocks app, a single touch shows the details for that data point, but touching two points (multitouch) shows the difference between the two points.

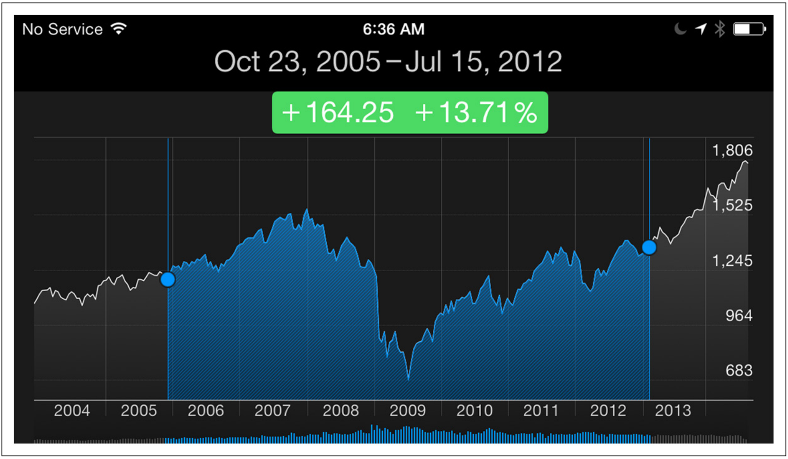


FIGURE 6-14.
Apple Stocks for iOS: single and multitouch Data Point Details

In Traffic for Google Analytics, the data points are large enough to tap, but they also automatically highlight the data for the month you swipe to. As I scroll back in time, first September is highlighted, then August, then back to May, and so on.

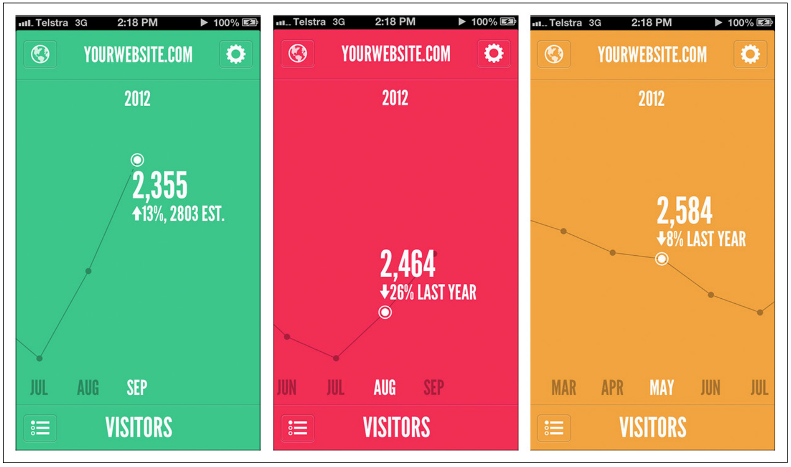


FIGURE 6-15.
Traffic for Google Analyticsfor iOS: gestures let you explore Data Point Details and change time periods (*http://www.youtube.com/watch?v=UqZkxNT3Ggs*)

In its iOS 7 release, Roambi has introduced a clever way to toggle between multiple data sources to see their details by just tapping on the drag handle.

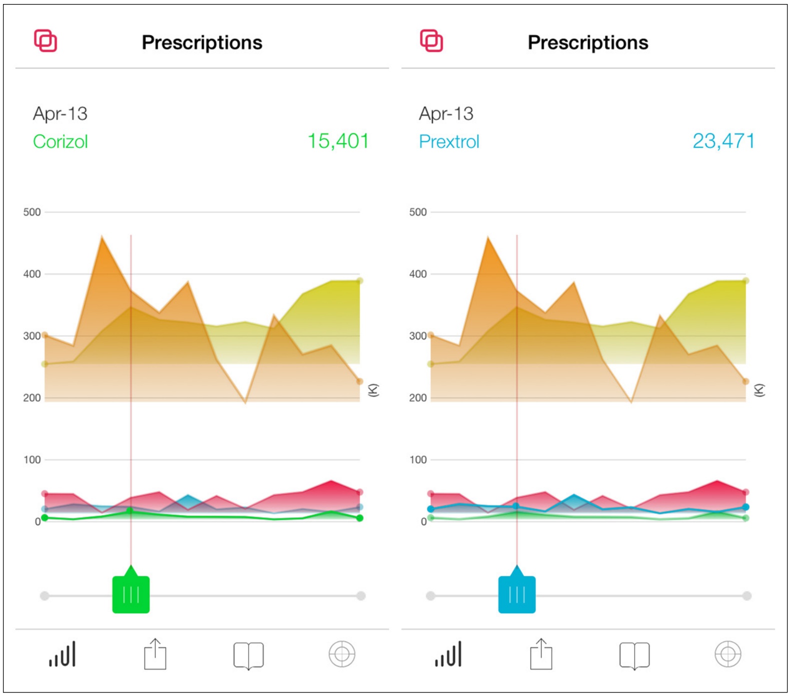


FIGURE 6-16. Roambi for iOS: Data Point Detail toggle (*http://www.youtube.com/watch?v=XBipN_7XMnU*)

Dark Sky encourages users to swipe to see the details. When the week view loads, the first row "bumps" to invite a swipe action. Once the row is swiped, that day's weather details are revealed.

Withings uses a combination of Data Point Details plus the Drill Down pattern, which we'll look at in more detail next. Tapping on the data point shows the details; then, tapping on the details overlay drills down into a new screen for editing or taking other action.

[NOTE]

Our web experiences have set the expectation that Data Point Details will be displayed on hover, which isn't available in mobile apps. Consider serving details when data points are tapped to provide the additional information users want.

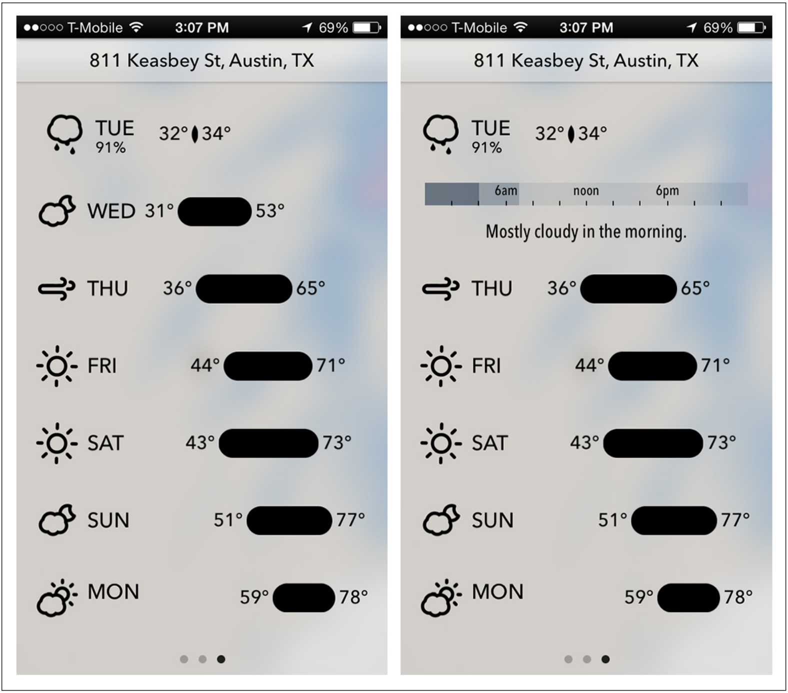


FIGURE 6-17. Dark Sky for iOS: swipe row for details (*http://www.youtube.com/watch?v=d_ZJYVPxRe8*)

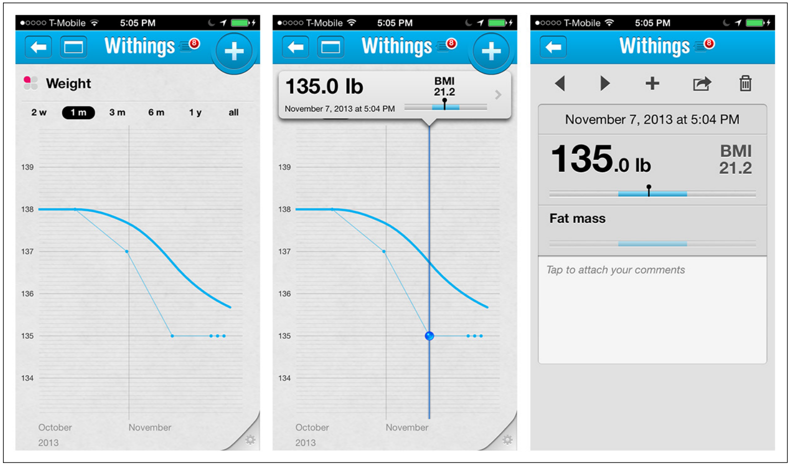


FIGURE 6-18. Withings for iOS: tapping the chart shows the Data Point Details; tapping the details navigates to a new screen with even more details

[NOTE]

Invite the user to Drill Down for more data. Use the OS-appropriate control for navigating back up the chain (i.e., the Back button for iOS and the Up button for Android).

Drill Down

The Data Point Details pattern is usually sufficient for showing a bit more information in context. But sometimes users need to explore the data more deeply. That's when the Drill Down pattern can be useful.

In this example from Mint, the top-level view is the Dashboard, which drills down into Budgets, which drills down again to a specific budget for more detailed data (and an option to edit the threshold).

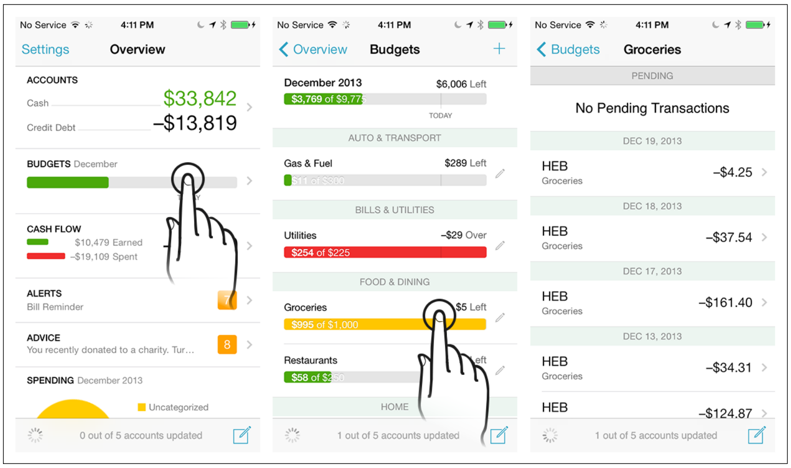


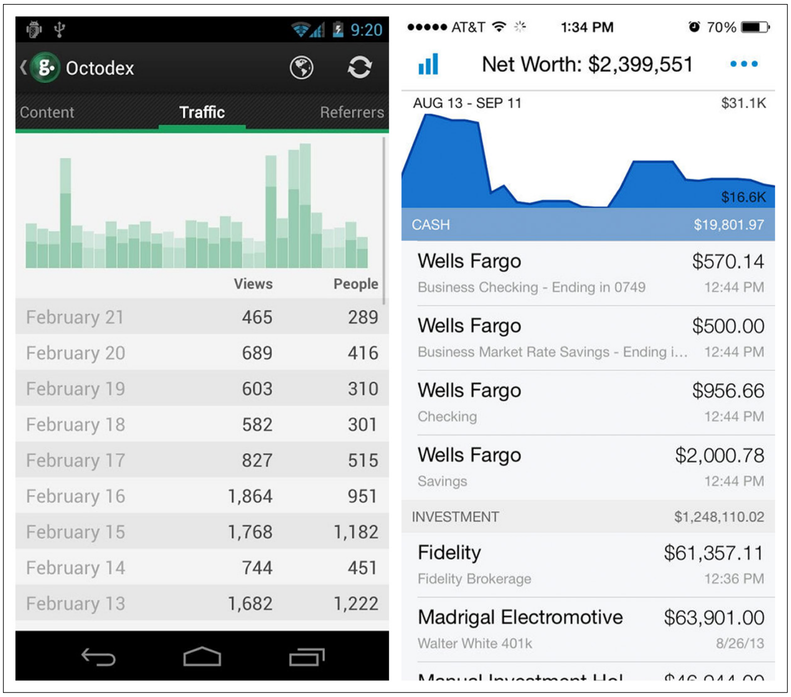
FIGURE 6-19. Mint for iOS: Drill Down reveals layers of details

If there is no clear visual cue that Drill Down is possible, you should use an invitation to encourage first-time users to tap to Drill Down. (See Chapter 8.)

Overview plus Data

The Overview plus Data pattern is also covered in Chapter 3, but in this chapter it refers specifically to using a chart for the overview. This is one of the chart patterns that has evolved the most in the past couple of years.

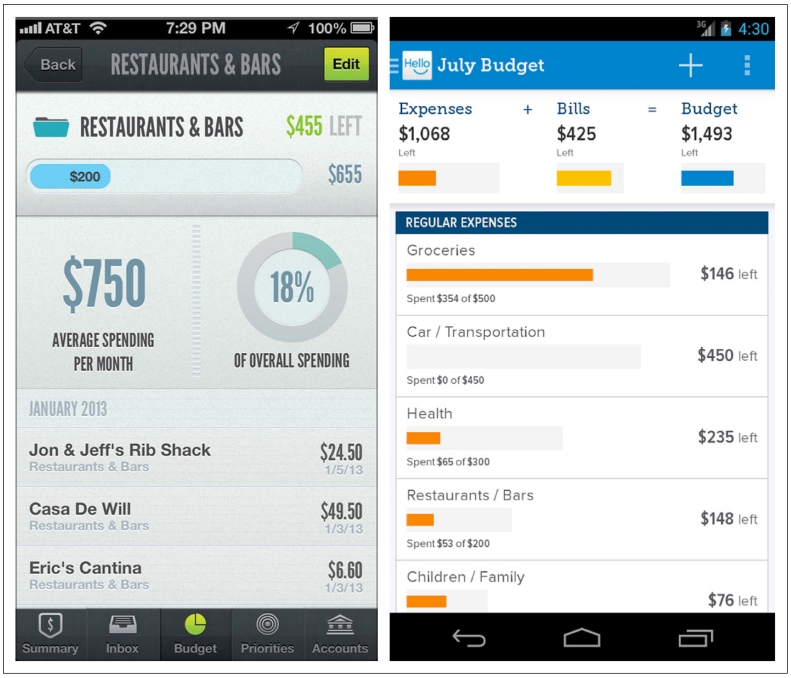
In the first edition, the focus was on designs that leveraged a trend chart on top and a detailed data table below, like Gaug.es and Personal Capital.



	Views	People
February 21	465	289
February 20	689	416
February 19	603	310
February 18	582	301
February 17	827	515
February 16	1,864	951
February 15	1,768	1,182
February 14	744	451
February 13	1,682	1,222

CASH	$19,801.97
Wells Fargo Business Checking - Ending in 0749	$570.14 12:44 PM
Wells Fargo Business Market Rate Savings - Ending i...	$500.00 12:44 PM
Wells Fargo Checking	$956.66 12:44 PM
Wells Fargo Savings	$2,000.78 12:44 PM
INVESTMENT	$1,248,110.02
Fidelity Fidelity Brokerage	$61,357.11 12:36 PM
Madrigal Electromotive Walter White 401k	$63,901.00 8/26/13

FIGURE 6-20. Gaug.es for Android and Personal Capital for iOS: trend chart on top, detailed table below



JANUARY 2013

Jon & Jeff's Rib Shack Restaurants & Bars	$24.50 1/5/13
Casa De Will Restaurants & Bars	$49.50 1/3/13
Eric's Cantina Restaurants & Bars	$6.60 1/3/13

Expenses	+	Bills	=	Budget
$1,068 Left		$425 Left		$1,493 Left

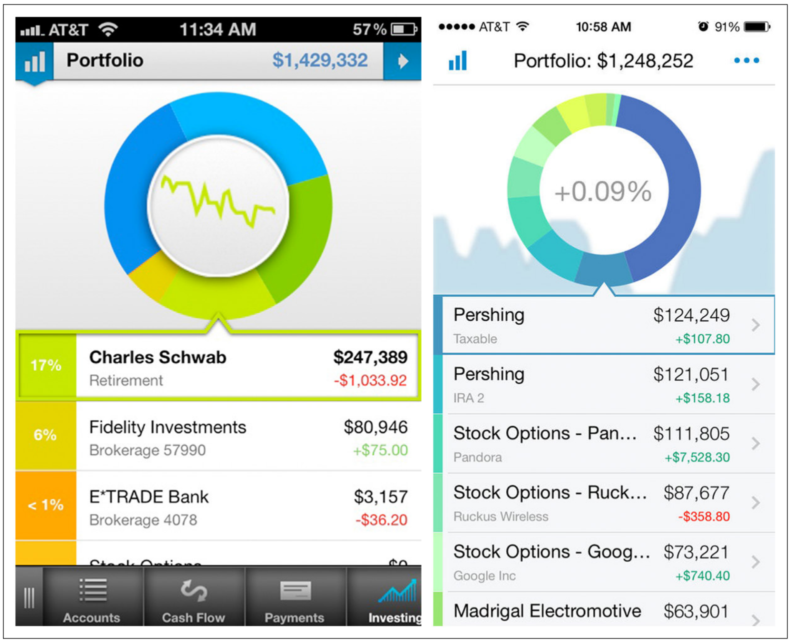
REGULAR EXPENSES

Groceries Spent $354 of $500	$146 left
Car / Transportation Spent $0 of $450	$450 left
Health Spent $65 of $300	$235 left
Restaurants / Bars Spent $53 of $200	$148 left
Children / Family	$76 left

FIGURE 6-21. LearnVest for iOS and HelloWallet for Android

But this pattern is not restricted to read-only charts and their respective data tables. In Personal Capital, for example, an interactive donut chart is used for the overview. Tapping on a wedge highlights the corresponding category and total in the table below.

An earlier version of the app featured a Sparkline (a type of very small chart, covered later in this chapter) in the middle of the donut, affording a bit more context around spending for this category. This has since been replaced with a number indicating the percent increase or decrease, plus an area chart in the background behind the donut showing the trends over time.



17%	Charles Schwab Retirement	$247,389 -$1,033.92
6%	Fidelity Investments Brokerage 57990	$80,946 +$75.00
< 1%	E*TRADE Bank Brokerage 4078	$3,157 -$36.20

Pershing Taxable	$124,249 +$107.80
Pershing IRA 2	$121,051 +$158.18
Stock Options - Pan... Pandora	$111,805 +$7,528.30
Stock Options - Ruck... Ruckus Wireless	$87,677 -$358.80
Stock Options - Goog... Google Inc	$73,221 +$740.40
Madrigal Electromotive	$63,901

FIGURE 6-22. Two iterations of Personal Capital for iOS: Sparkline replaced by background area chart

[NOTE]

Use this pattern where a visual overview accompanying the detailed data will be more valuable to your users than just a list of transactions with no summary.

Another variation on this pattern is from Move for Android and iOS. The overview is a bubble chart and the detailed data is displayed below on a timeline.

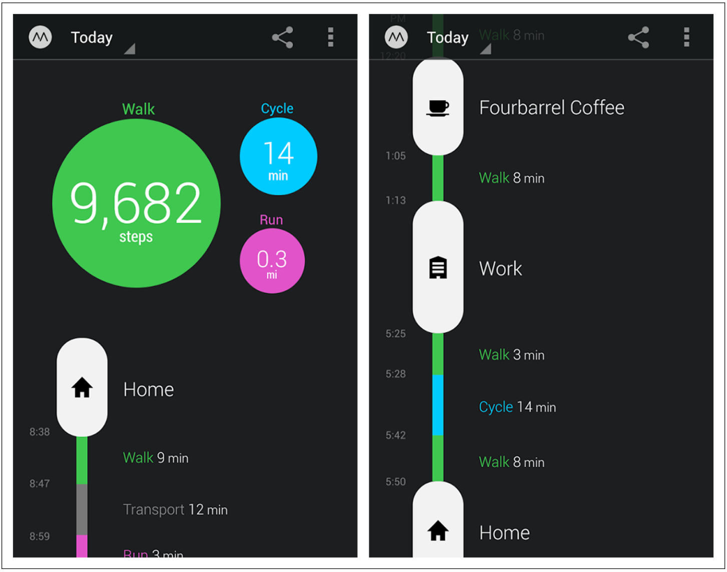


FIGURE 6-23. Move for Android: a different take on Overview plus Data

Interactive Preview

This pattern is also covered in Chapter 2. In the example from the Trulia Mortgage Calculator, you can see that increasing my annual income from 75K to 295K using the slider on the bottom half of the page redraws the pie chart and updates the legend.

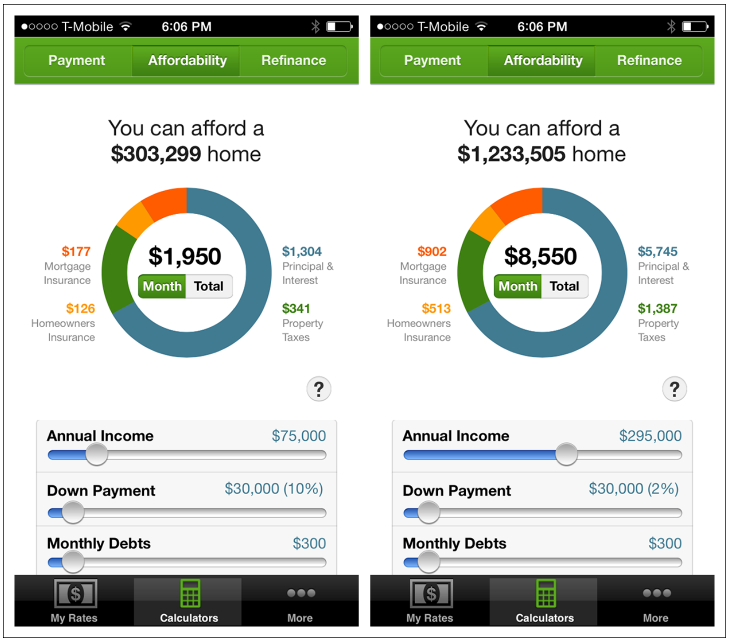


FIGURE 6-24. Trulia Mortgage Calculator for iOS: chart with Interactive Preview

The Zillow Mortgage Calculator and Intuit's TaxCaster utilize the same interaction design.

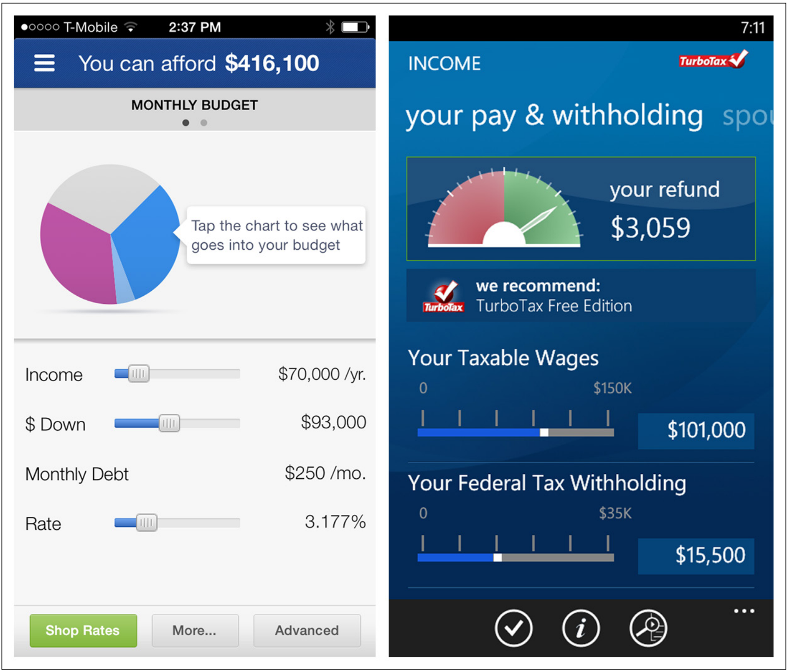
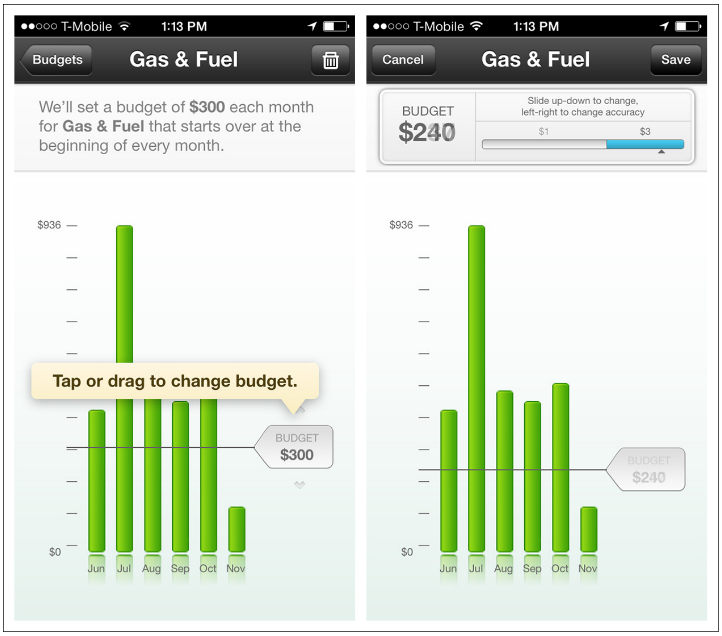


FIGURE 6-25. Zillow Mortgage Calculator for iOS and TaxCaster for Windows Phone: Interactive Previews

[NOTE]

Interactive Previews are useful for displaying multiple forecast scenarios, as in personal finance applications.

Mint offers an Interactive Preview in the Budget screen. The screen initially shows a line chart of the past six months of spending for a selected category. An invitation (see Chapter 8) is also displayed, encouraging the user to "tap or drag to change the budget." If the handle is adjusted, a preview of the new budget is displayed at the top of the screen until the handle is released.



●●○○○ T-Mobile 1:13 PM
Budgets
Gas & Fuel
We'll set a budget of $300 each month for Gas & Fuel that starts over at the beginning of every month.
$936
Tap or drag to change budget.
BUDGET $300
$0
Jun Jul Aug Sep Oct Nov
Cancel
Gas & Fuel
Save
BUDGET $240
Slide up-down to change, left-right to change accuracy
$1 $3
BUDGET $240

FIGURE 6-26. Mint for iOS: interactive chart for setting a budget

Dashboard

This pattern is also covered in Chapter 1. A Dashboard can be used for primary navigation, as in Withings and Mint, which each use a Dashboard as the hub for navigating to specific modules.

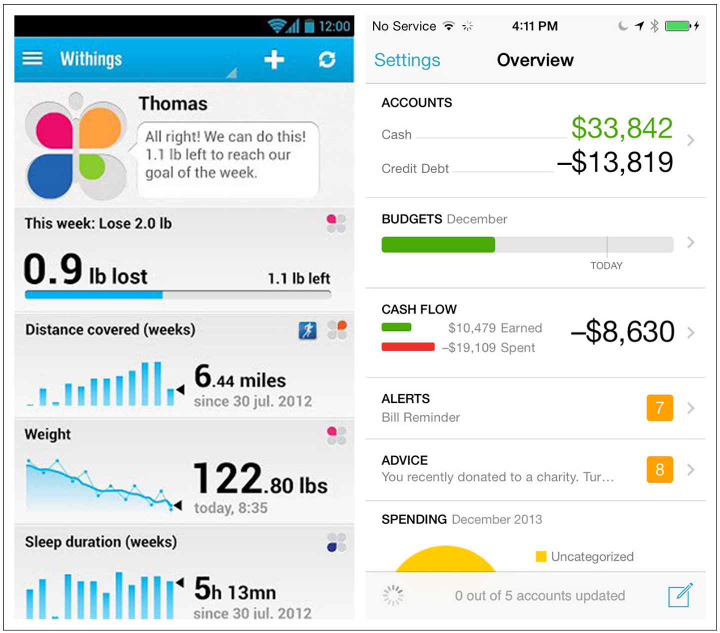
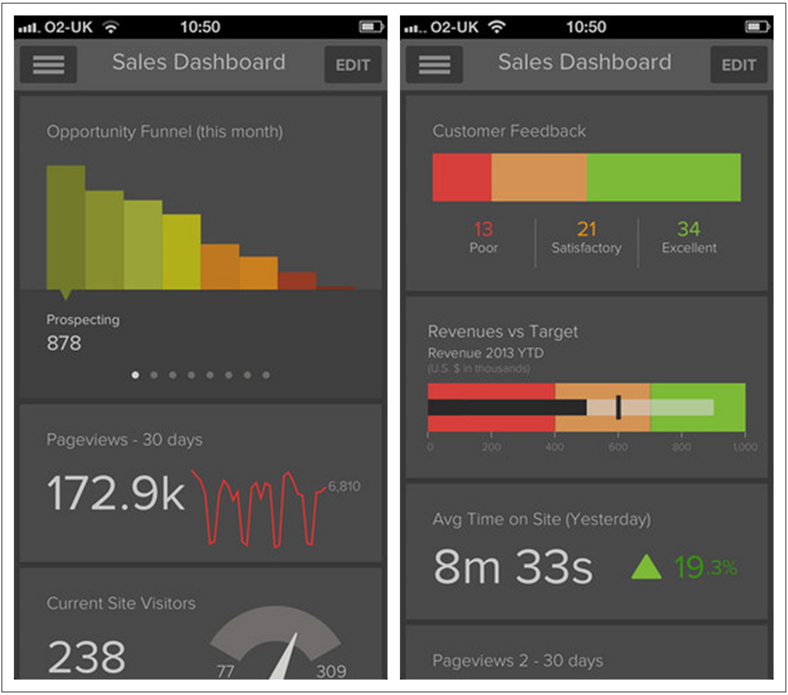


FIGURE 6-27. Withings for Android and Mint for iOS: Dashboard as primary navigation

Gekoboard offers a customizable dashboard for tracking sales data. Widgets can be added or removed, and reordered.

FIGURE 6-28.
Gekoboard for iOS: customizable Dashboard



The Dashboard also can be used for secondary navigation, as in RunKeeper for iOS and Lose It! for Android, which use multiple stacked charts to show progress against a set of goals.

[NOTE]

Use the Dashboard pattern if displaying multiple charts together helps tell an overarching story. Avoid it if it's just consolidating disparate, unrelated data.

Then there's Analytiks, which uses Dashboards for primary *and* secondary navigation. The home screen shows the website's key performance indicators, and you can navigate to a second dashboard with detailed metrics around demographics, browsers, audience, and time on site.

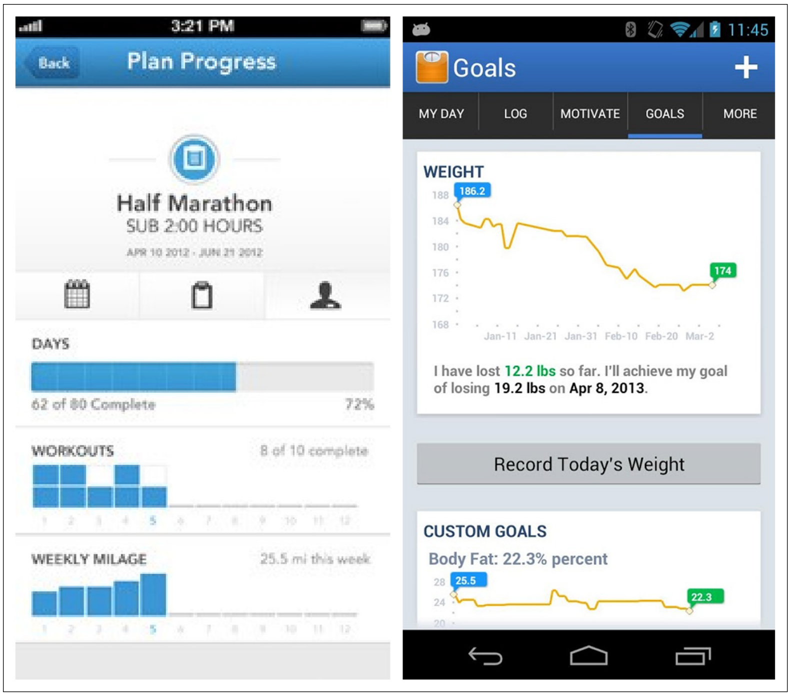


FIGURE 6-29. RunKeeper for iOS and Lose It! for Android: Dashboard as secondary navigation

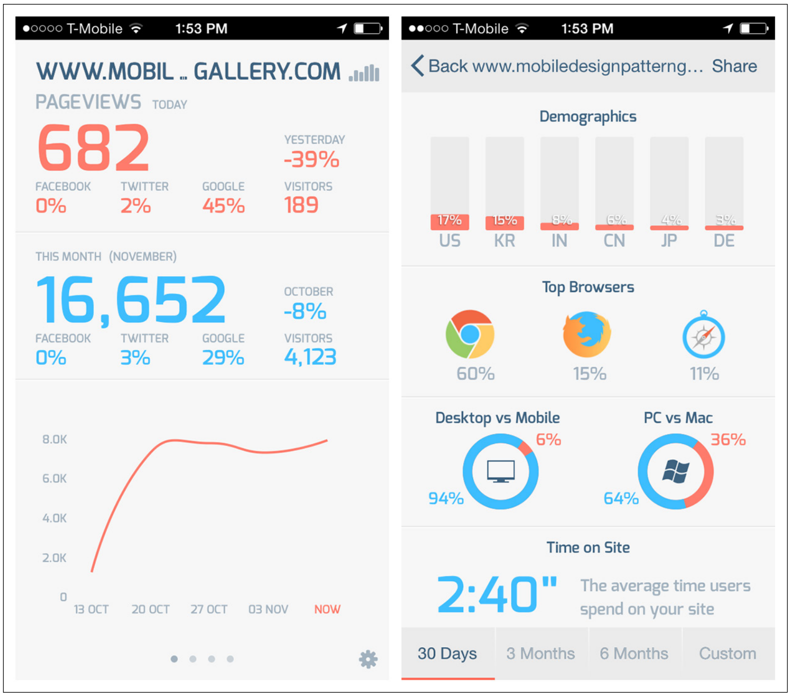


FIGURE 6-30. Analytiks for iOS: well-designed Dashboards as primary and secondary navigation

Zoom

A chart might be only one of many elements on the screen, making it difficult to read. It is common practice to invite the user to rotate her phone to get a full-screen, landscape view. The title and navigation elements are typically hidden to give the chart as much space as possible. Rotating the device back to portrait mode restores the navigation and other controls.

It is important to provide an invitation to rotate the device for the immersive chart view. NASDAQ QMX uses a little illustration of a rotated phone, whereas SigFig shows a prompt to rotate the device when the chart is tapped.

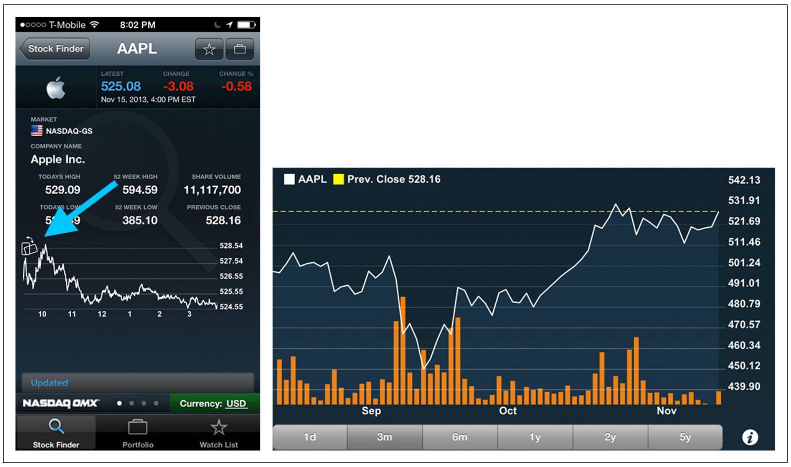


FIGURE 6-31.
NASDAQ QMX for iOS: illustration invites user to rotate phone for detailed view

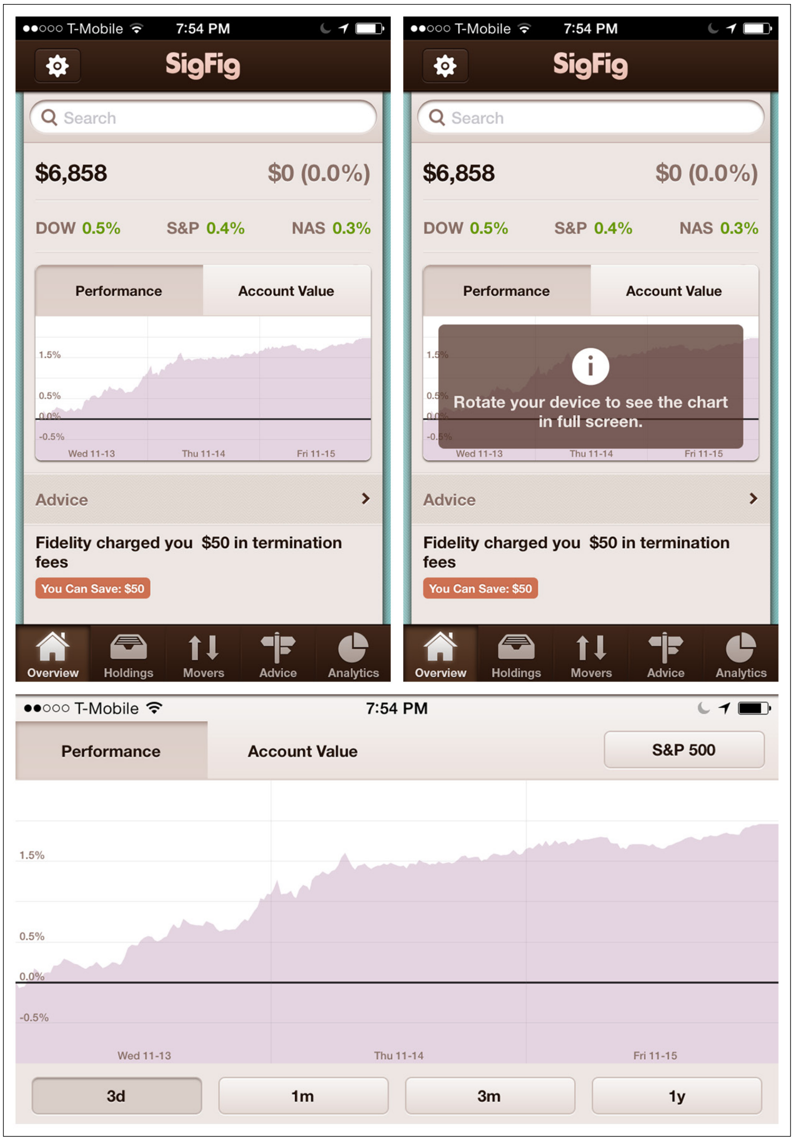


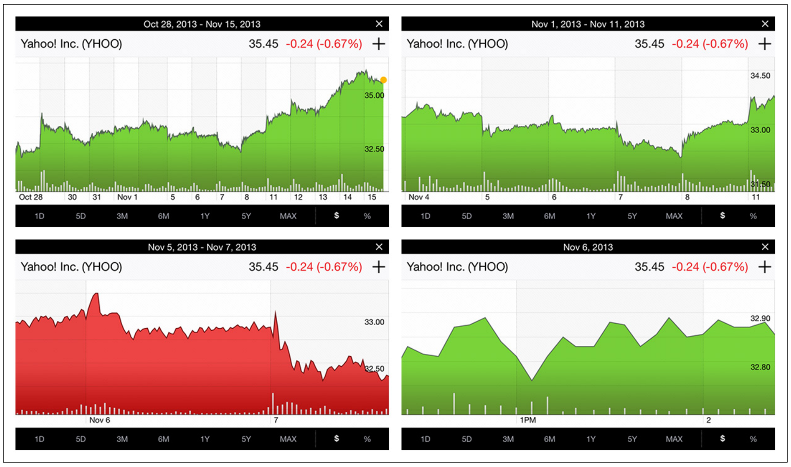
FIGURE 6-32. SigFig for iOS: tapping chart brings up prompt to rotate for detailed view

Once the chart is in landscape mode, the user may still want to look more closely at a specific time frame. In the example from Yahoo!, my first view covered two weeks, then zoomed into one week, then two days, and finally from 12:30 p.m. to 2:20 p.m. on a single day. To see a broader time frame again, I can either tap one of the time filters or pinch the screen.

[NOTE]

Invite the user to rotate to landscape for a full-screen, more detailed view of the chart; automatically restore navigation when the device rotates back to portrait. Try gestures like pinch to zoom or panning for expanding or narrowing a chart's focus.

FIGURE 6-33.
Yahoo! for iOS: pinch/zoom in landscape view allows for adjusting time frame focus


Oct 28, 2013 - Nov 15, 2013
Yahoo! Inc. (YHOO) 35.45 -0.24 (-0.67%)
Nov 1, 2013 - Nov 11, 2013
Nov 5, 2013 - Nov 7, 2013
Nov 6, 2013
1D 5D 3M 6M 1Y 5Y MAX $ %

Sparklines

The Sparkline, also called a microchart, is credited to visual information design guru Edward Tufte, who defines it as "a small intense, simple, word-sized graphic."

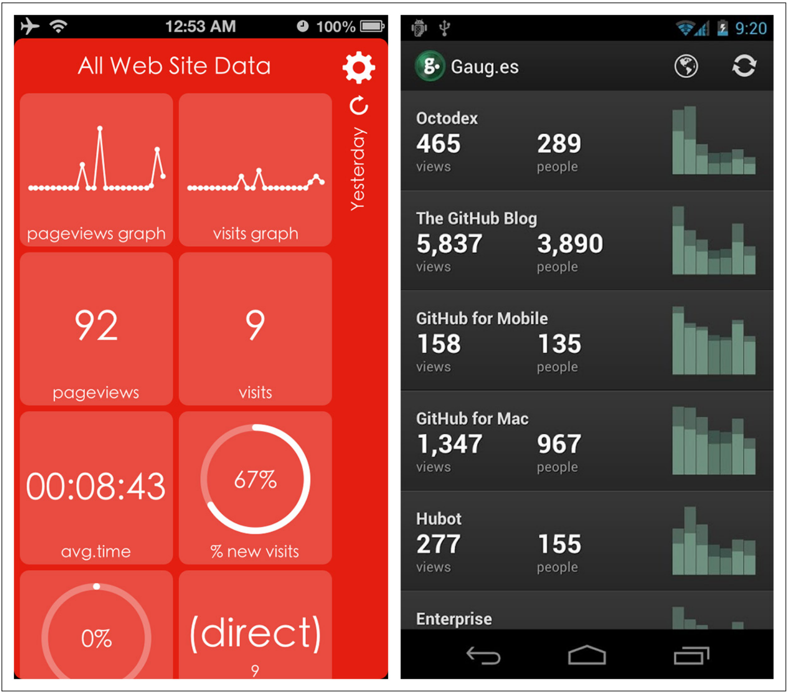
Sparklines are particularly well suited for mobile since they provide an overview of a trend or variation in the data without using much space. They can be, Tufte says, "embedded in a sentence, table, headline, map, spreadsheet, graphic." I think of them as bite-sized charts.

In the Analytics Tiles for iOS example, the top two tiles use Sparklines to communicate the trend in page views and visits. The tiles are an entry point to drill down into the larger and more detailed charts. Similarly, Gaug.es uses one Sparkline per row to communicate the trend in the data.

In the example from Fitbit, a bullet-style Sparkline indicates progress against a preset goal. And in Noom, another health app, micro–donut chart Sparklines indicate the balance of each meal.

[NOTE]

Use Sparklines to provide a quick visual hit of information, but always validate their clarity in user testing. Consider using Sparklines as the entry point to a Drill Down into a more detailed view.

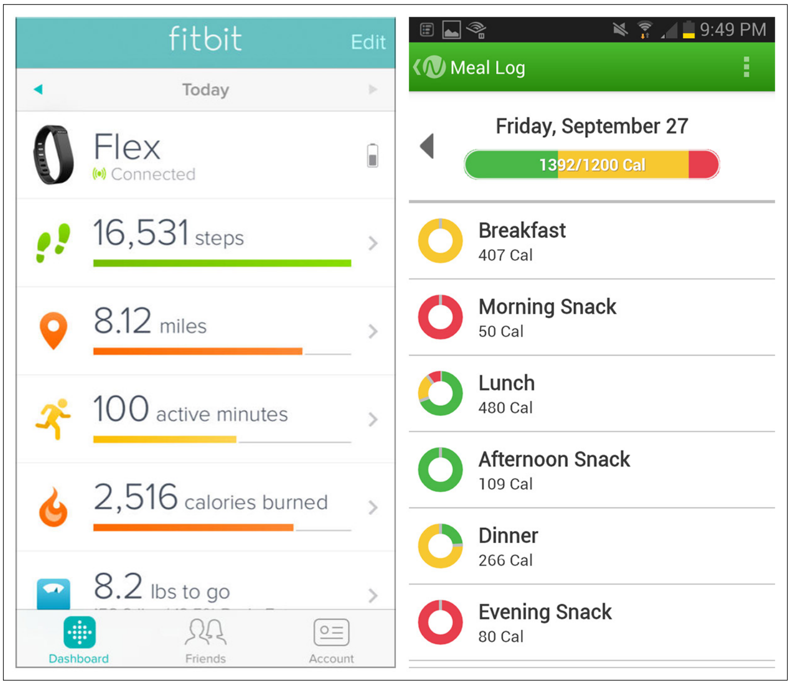


All Web Site Data

pageviews graph	visits graph
92 pageviews	9 visits
00:08:43 avg.time	67% % new visits
0%	(direct) 9

Octodex	465 views	289 people
The GitHub Blog	5,837 views	3,890 people
GitHub for Mobile	158 views	135 people
GitHub for Mac	1,347 views	967 people
Hubot	277 views	155 people
Enterprise		

FIGURE 6-34. Analytics Tiles for iOS and Gaug.es for Android: Sparkline examples



Flex
Connected

16,531 steps
8.12 miles
100 active minutes
2,516 calories burned
8.2 lbs to go

Friday, September 27
1392/1200 Cal

Breakfast	407 Cal
Morning Snack	50 Cal
Lunch	480 Cal
Afternoon Snack	109 Cal
Dinner	266 Cal
Evening Snack	80 Cal

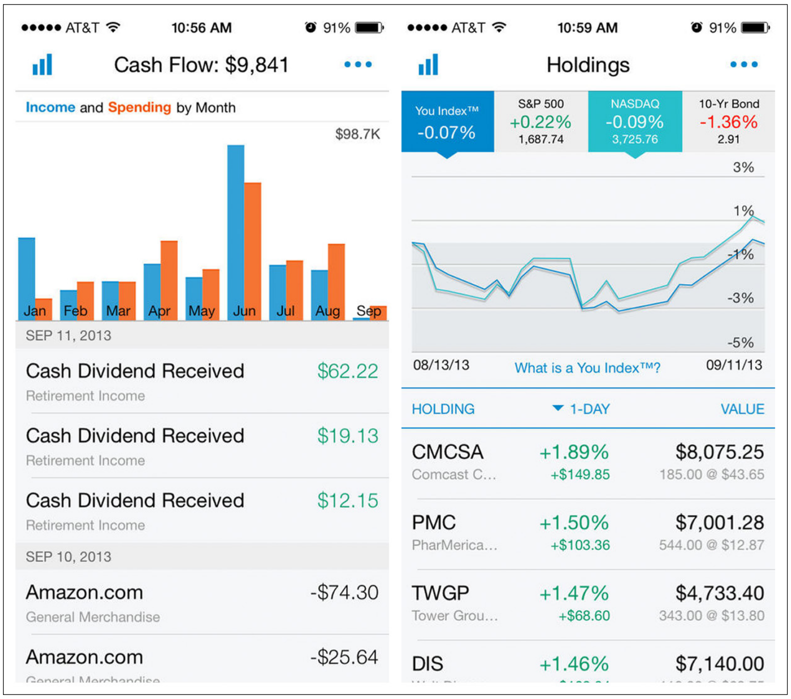
FIGURE 6-35. Fitbit for iOS and Noom for Android: more examples of Sparklines

[NOTE]

Integrated Legends can save precious screen real estate, but consider accessibility guidelines before using this pattern instead of a standalone legend.

Integrated Legend

Another technique to save space is to integrate the legend into either the title of the chart or the data table below. Personal Capital for iOS provides some good examples.



SEP 11, 2013

Cash Dividend Received Retirement Income	$62.22
Cash Dividend Received Retirement Income	$19.13
Cash Dividend Received Retirement Income	$12.15

SEP 10, 2013

Amazon.com General Merchandise	-$74.30
Amazon.com	-$25.64

HOLDING	1-DAY	VALUE
CMCSA Comcast C...	+1.89% +$149.85	$8,075.25 185.00 @ $43.65
PMC PharMerica...	+1.50% +$103.36	$7,001.28 544.00 @ $12.87
TWGP Tower Grou...	+1.47% +$68.60	$4,733.40 343.00 @ $13.80
DIS	+1.46%	$7,140.00

FIGURE 6-36. Personal Capital for iOS: Integrated Legends in title (left) and data table (right)

Thresholds

Many charts use this pattern to communicate if data is in or out of range, or on or off target. Thresholds can be communicated by use of color, bands, or lines on charts.

In Battery Graph Notification for Android and the MySugr Diabetes Companion app for iOS, the common red/yellow/green color palette is used to indicate if the data is in or out of the acceptable or target range.

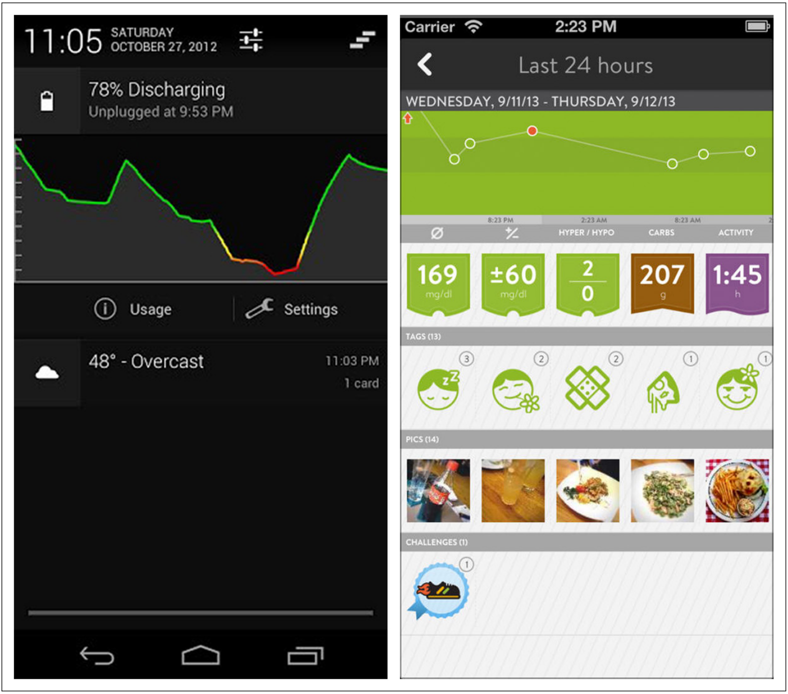
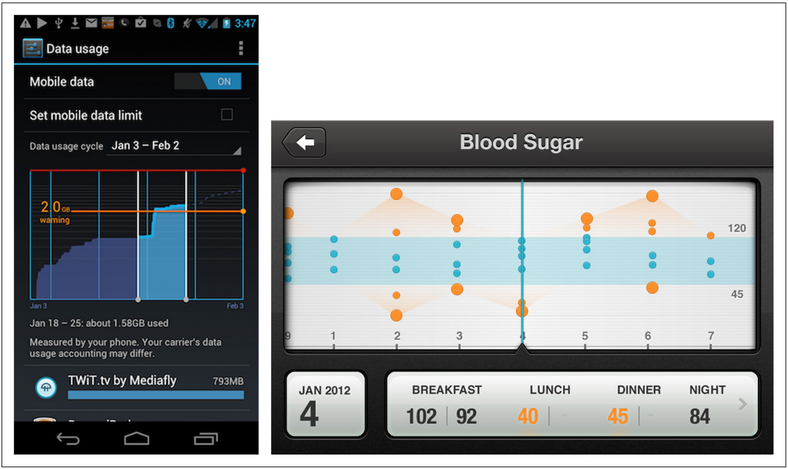


FIGURE 6-37. Battery Graph Notification for Android and MySugr for iOS: colors indicate data in or out of target range

As examples of bands or lines to indicate Thresholds, in Data Usage, the orange line indicates a warning, and the red line at the top would obviously be critical; Anthony Lagoon's app for monitoring diabetes shows a band for the normal range, and any data points falling above or below that are considered problematic.



3:47
Data usage
Mobile data
ON
Set mobile data limit
Data usage cycle Jan 3 – Feb 2
2.0 GB warning
Jan 3
Feb 3
Jan 18 – 25: about 1.58GB used
Measured by your phone. Your carrier's data usage accounting may differ.
TWiT.tv by Mediafly 793MB
Blood Sugar
120
45
1
2
3
4
5
6
7
JAN 2012
4
BREAKFAST
LUNCH
DINNER
NIGHT
102 | 92
40
45
84

FIGURE 6-38. Data Usage for Android and Diabetes concept app by Anthony Lagoon: Threshold line and band, respectively

[NOTE]

Thresholds are particularly useful for marking personal user goals. Consider making the Threshold marker interactive (i.e., adjustable within the chart).

Bullet chart examples from Toshl and Lose It! use dotted and colored lines, respectively, to indicate Thresholds.

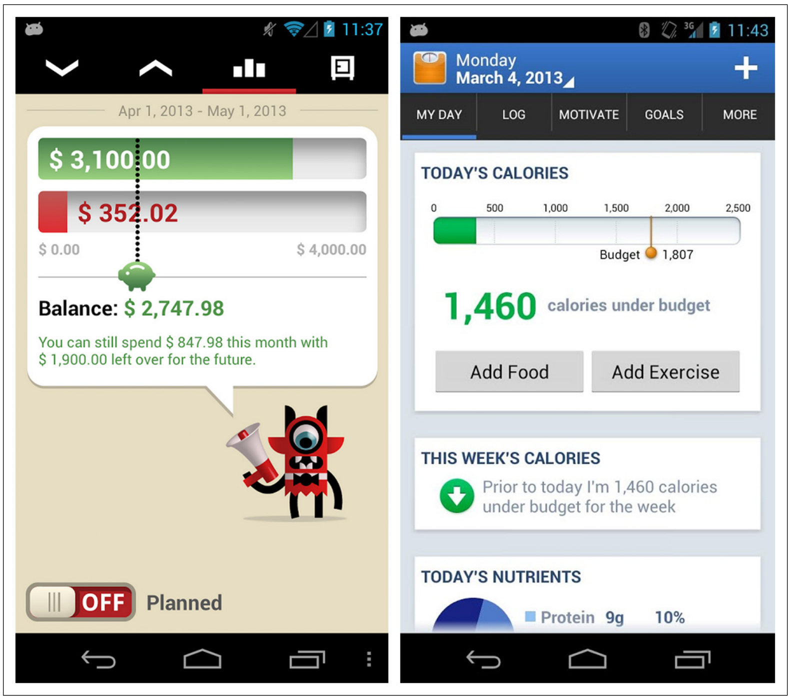


FIGURE 6-39. Toshl for Windows Phone and Lose It! for Android: more Threshold designs

Pivot Table

Pivot Tables are small summary tables within larger tables. In popular desktop and web spreadsheet applications, for example, the user can build a Pivot Table by dragging and dropping the values to be included in the summary. By moving these values around, the user can “pivot” the table to display the data in multiple ways.

Roambi has developed a simple filtering interface for exploring data in a style similar to the Pivot Table. The y-axis remains fixed; however, any dimension can be selected for the x-axis (the selection is highlighted in an orange frame). For each dimension, a specific category can also be selected. The example here shows how easy it is to explore the quarterly profit for all cities, and then quickly refine the chart to just see this info for a specific product line: books. With one more selection, we can narrow this down to just the online channel.

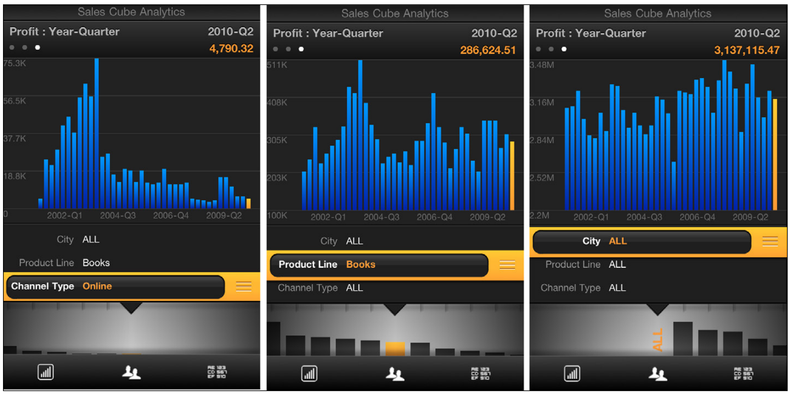


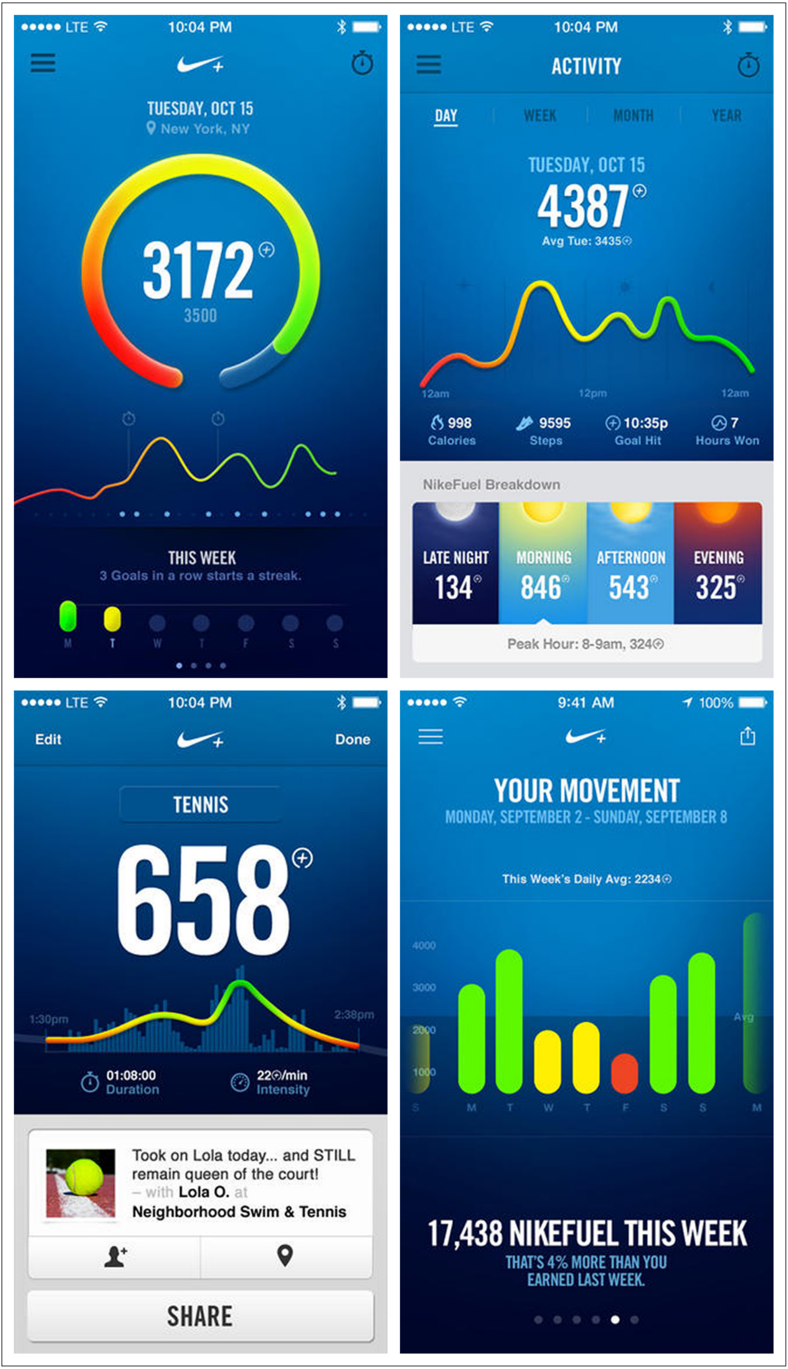
FIGURE 6-40.
Roambi for iOS 6: Pivot Table–style filtering

Pulling It All Together

Now let's look at some examples from apps that really use charts well.

The Nike+ FuelBand app does a fantastic job of presenting clean and clear data visualizations to motivate users. Its designers selected the best chart types for communicating progress on different goals, and avoided the temptation to overload the screens with chart junk. Each chart is clearly titled and the axes are clearly labeled. The app establishes a Threshold color palette and uses it consistently throughout. Regardless of the chart type, the low end of the progress and performance spectrum is always shown in red, and the top end is always green.

FIGURE 6-41.
Nike+ FuelBand for iOS: clean and clear data visualizations throughout



Took on Lola today... and STILL remain queen of the court! – with Lola O. at Neighborhood Swim & Tennis

Weathertron is another fine example of well-designed data visualization. While the first-time tutorial experience could benefit from a redesign featuring embedded invitations (as outlined in Chapter 8), the app UX itself is simple and intuitive. The compact bar chart in the drawer accessed at lower right, for example, is the perfect way to show the highs and lows for the seven-day forecast.

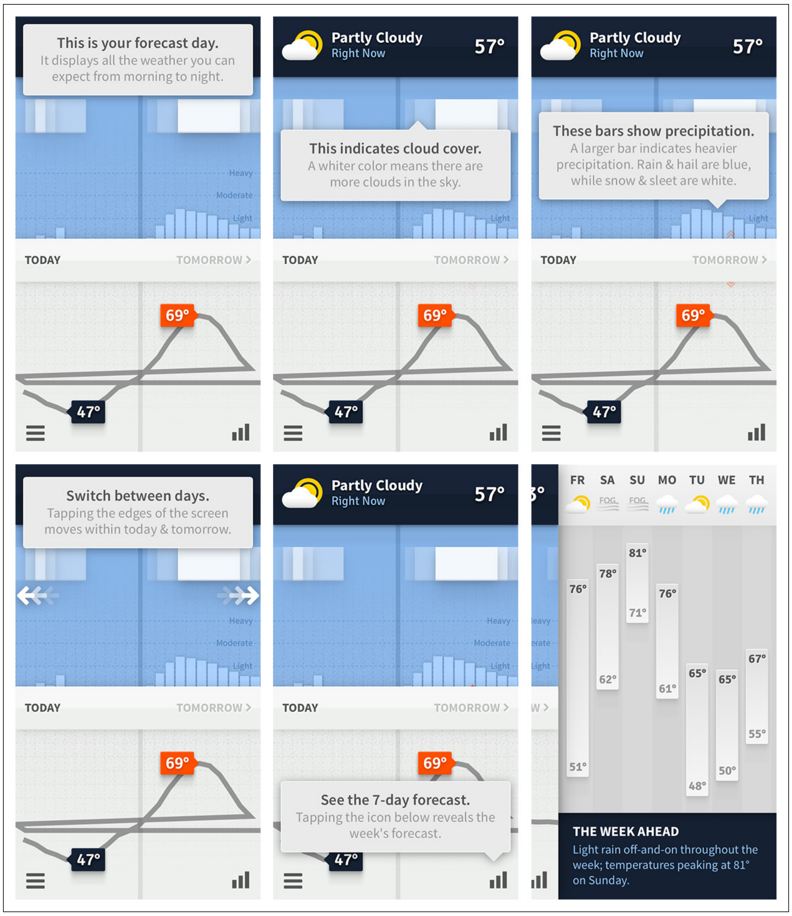

This is your forecast day.
It displays all the weather you can expect from morning to night.
Partly Cloudy
Right Now
57°
This indicates cloud cover.
A whiter color means there are more clouds in the sky.
These bars show precipitation.
A larger bar indicates heavier precipitation. Rain & hail are blue, while snow & sleet are white.
Heavy
Moderate
Light
TODAY
TOMORROW >
69°
47°
Switch between days.
Tapping the edges of the screen moves within today & tomorrow.
See the 7-day forecast.
Tapping the icon below reveals the week's forecast.
FR SA SU MO TU WE TH
FOG
76° 78° 81° 76° 65° 65° 67°
51° 62° 71° 61° 48° 50° 55°
THE WEEK AHEAD
Light rain off-and-on throughout the week; temperatures peaking at 81° on Sunday.

FIGURE 6-42. Weathertron for iOS: well-designed, simple, and intuitive data visualizations

[7]

Tutorials and Invitations

Tutorial Rules

Use Less Text, No Frontloading, Make It Rewarding, Reinforce Learning, Listen to Your Users

Invitation Patterns

Tips, 1st Time Through, Persistent Invitations, Discoverable Invitations

In the first edition of *Mobile Design Pattern Gallery*, I covered eight common invitation patterns. But we now know that even though these patterns are commonplace, few of them are very useful. When I had the opportunity to meet some of the leading designers at Intuit in 2012, they shared findings revealing that over half of these patterns tested poorly with their users. This corresponded with the poor results my team and I had recently gotten testing these patterns in a variety of applications, including the RetailMeNot iOS and Android apps.

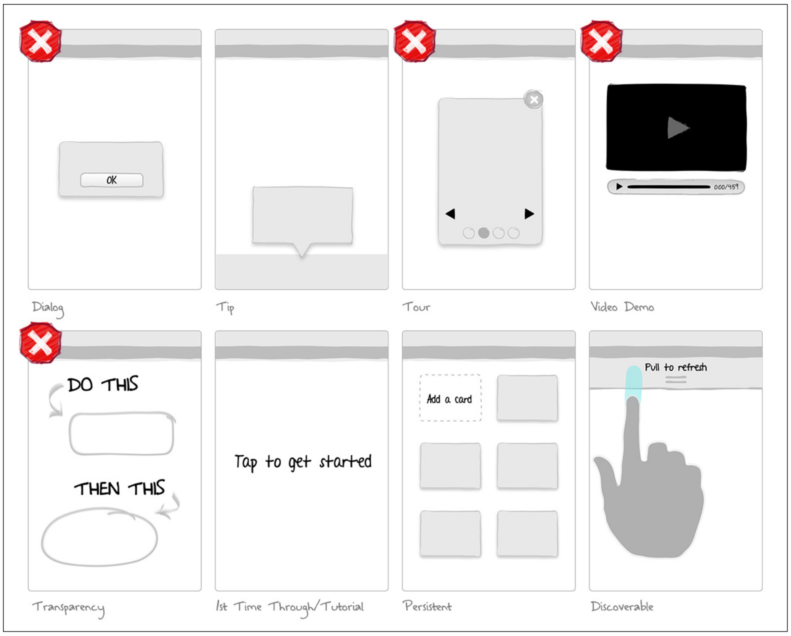


FIGURE 7-1. First edition patterns for invitations

In a nutshell, testing showed that users tend to skip or otherwise ignore Dialogs, Tours, Video Demos, and Transparencies. At best, users find them a minor inconvenience. At worst, they can cause significant aggravation to new users who are trying to get into the app. As one RetailMeNot test participant put it, "I just want to get in the app and start exploring."

So with this new knowledge, we begin a new chapter. The first half of the chapter is devoted to explaining how to create an effective "first-time through" experience, also known as a tutorial or onboarding. The second part of the chapter looks at the invitation patterns that have been proven to work: Tips, 1st Time Through, Persistent Invitations, and Discoverable Invitations.

Tutorial Rules

So why don't Dialogs, Tours, Transparencies, and Video Demos work well for onboarding new users? I turned to the field of game design for answers. Game designers have always known that you can't drop new players into the middle of a firefight and expect them to enjoy the experience. Most players would be dead before they figured out how to fire their weapons and fight back.

FIGURE 7-2.
Portal offers a safe environment for players to figure out the controls while advancing in the game

In game design, some methods of driving deeper engagement are much more effective than others. The same holds true for mobile apps. While the stakes may not be (virtual) life or death, the frustration users experience when they don't know how or what to do is the same. And when that happens to too many of your users, it's game over for your app.

The Extra Credits online video series thoughtfully looks at various aspects of the gaming world from an insider's perspective. Its design team created a fantastic video called Tutorials 101 (*http://www.youtube.com/watch?v=BCPcn-Q5nKE*) that I believe every app designer would do well to watch. (Get past the annoying chipmunk voice narration—it's worth it.)

Tutorials 101 lays out some basic rules for crafting an effective game tutorial:

1. Use less text.
2. No frontloading.
3. Make it fun.
4. Reinforce learning through play.
5. Listen to your players.

Instead of design patterns, we're going to use these rules as our outline for creating a great tutorial (after first making some minor modifications as to how they apply to apps). As we look at these rules in depth, it should become apparent why most of the invitation patterns from the previous edition of this book are less effective in helping users to have deeper, richer experiences with our apps.

Rule #1: Use Less Text

When we want to explain something, words often seem like the easiest tool to use. But when we want to *learn* something, the written word is often a turnoff.

According to Tutorials 101, we should avoid relying only on text because "it kills pacing, it destroys immersion, and it will often be skipped by the players who need the tutorial the most."

Too much text makes for a "tell, don't show" approach that works against the strengths of mobile apps. Instead, tutorials should "show, not tell"—they should be interactive, so users learn by doing. If we actually practice an action beforehand, we're more likely to remember how to do it when we need to than if we'd merely been told how to do it.

The "Use less text" rule doesn't mean that text is always wrong, or even that fewer words are always better. In general, it means that when you seek to invite deeper engagement, you should seek first to use less text and more interactivity.

Following are a number of comparisons between apps that break this rule and apps that embody the right approach. The first comparison, for instance, looks at two apps for foodies. Ness combines customization screens with a tutorial that tells rather than shows, creating a lengthy flow before the user even gets into the app. With Foodspotting, on the other hand, the user gets right down to business. With only a few calls to action on the screen, it is easy to start engaging—no tutorial needed.

The other examples similarly illustrate apps that have gotten this right and apps that have been less successful.

Ness Compared to Foodspotting

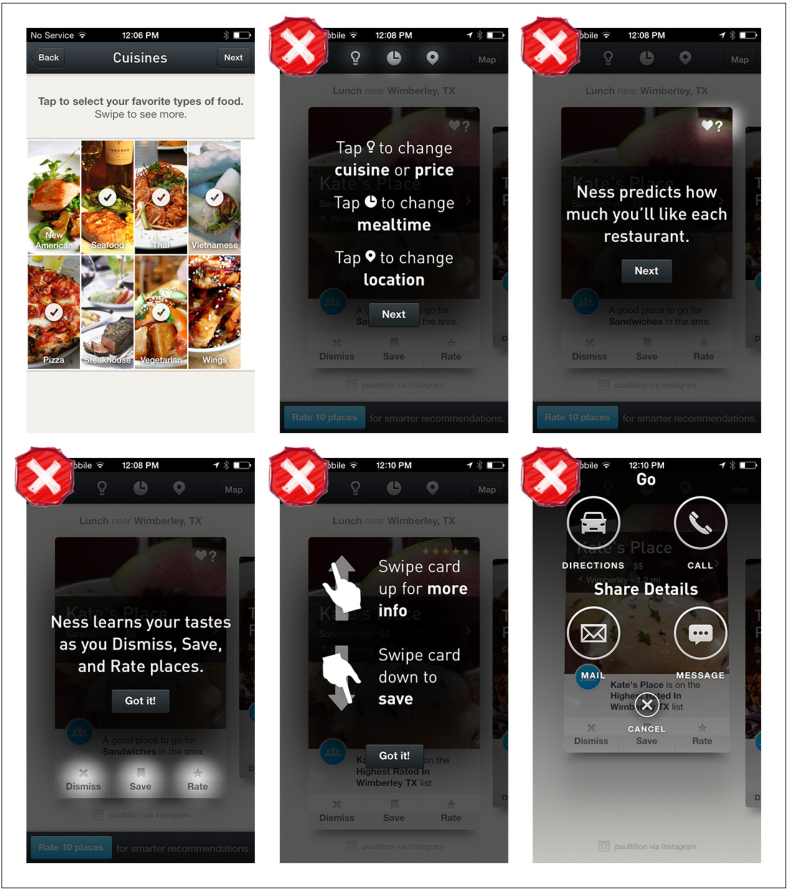
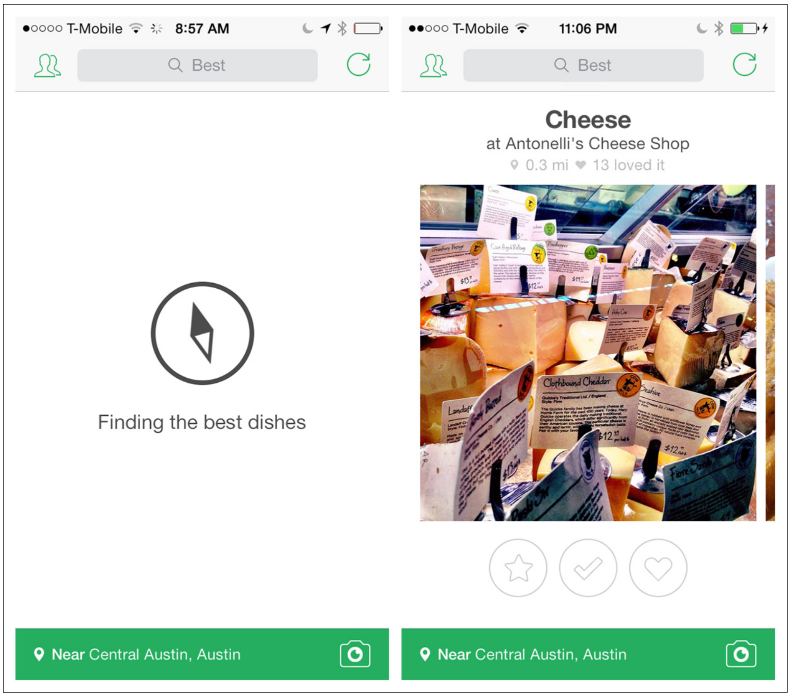
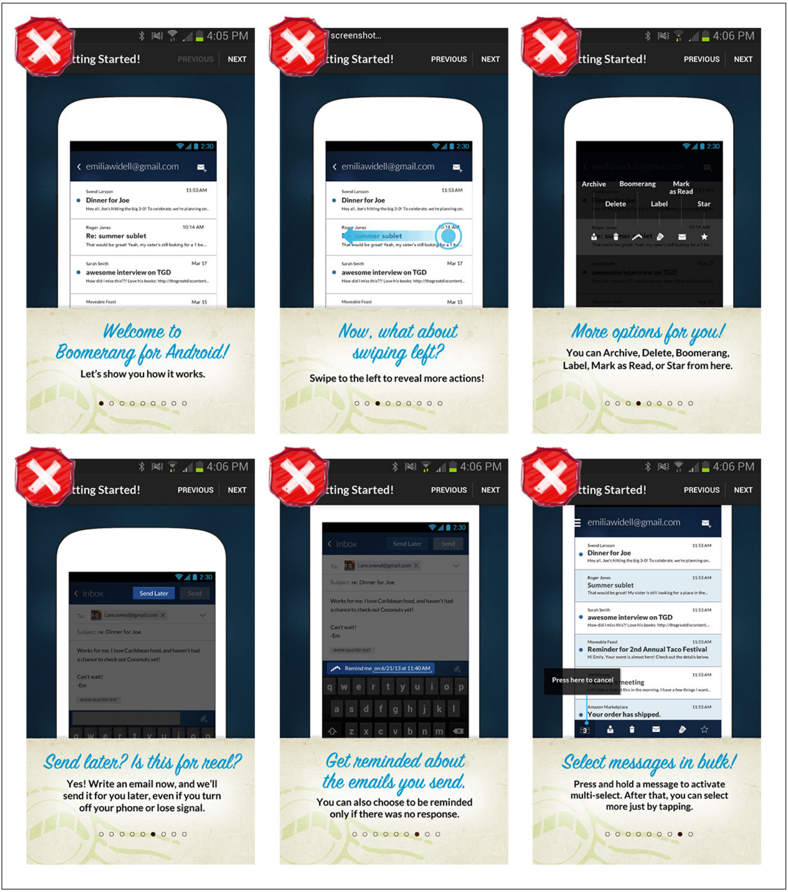


FIGURE 7-3.
Ness for iOS: note that some prompts explain cause and effect rather than inviting the cause and letting users observe the effect

FIGURE 7-4.
Foodspotting for iOS: an app so simple, it invites deeper engagement without users needing a tutorial



Boomerang Compared to Mailbox



Welcome to Boomerang for Android!
Let's show you how it works.

Now, what about swiping left?
Swipe to the left to reveal more actions!

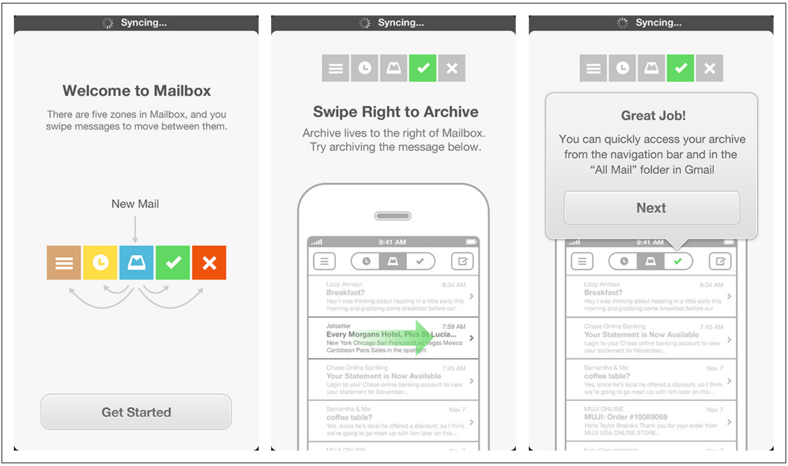
More options for you!
You can Archive, Delete, Boomerang, Label, Mark as Read, or Star from here.

Send later? Is this for real?
Yes! Write an email now, and we'll send it for you later, even if you turn off your phone or lose signal.

Get reminded about the emails you send.
You can also choose to be reminded only if there was no response.

Select messages in bulk!
Press and hold a message to activate multi-select. After that, you can select more just by tapping.

FIGURE 7-5.
Boomerang for Android: too much text (also see "Rule #2, No Frontloading")



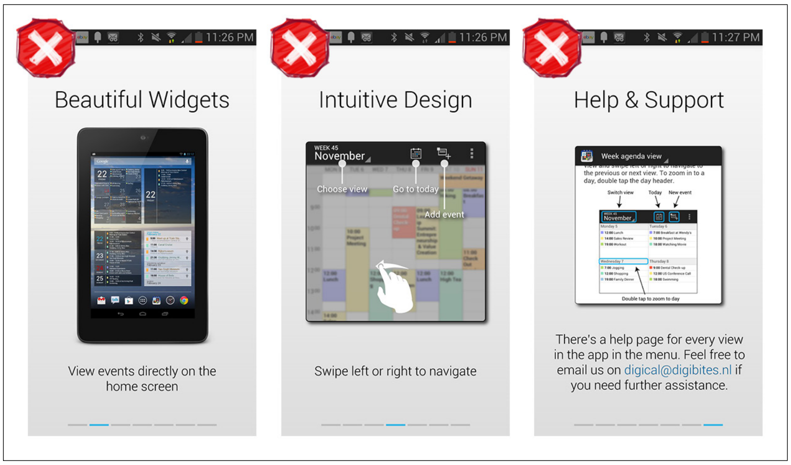
Welcome to Mailbox
There are five zones in Mailbox, and you swipe messages to move between them.

Swipe Right to Archive
Archive lives to the right of Mailbox. Try archiving the message below.

Great Job!
You can quickly access your archive from the navigation bar and in the "All Mail" folder in Gmail

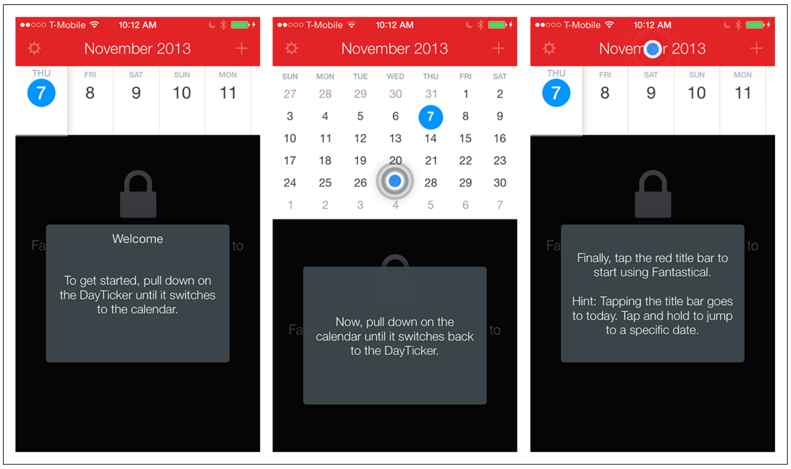
FIGURE 7-6.
Mailbox for iOS: the tutorial text encourages the user to learn by doing (*http://www.youtube.com/watch?v=URd0j5vEsHE*)

DigiCal Compared to Fantastical



11:26 PM
Beautiful Widgets
View events directly on the home screen
11:26 PM
Intuitive Design
Choose view
Go to today
Add event
Swipe left or right to navigate
11:27 PM
Help & Support
There's a help page for every view in the app in the menu. Feel free to email us on digical@digibites.nl if you need further assistance.

FIGURE 7-7. DigiCal for Android: the text is abstracted from the activities it describes



November 2013
Welcome
To get started, pull down on the DayTicker until it switches to the calendar.
Now, pull down on the calendar until it switches back to the DayTicker.
Finally, tap the red title bar to start using Fantastical.
Hint: Tapping the title bar goes to today. Tap and hold to jump to a specific date.

FIGURE 7-8. Fantastical for iOS: the tutorial invites the user to work through the gestures he needs to learn (*http://www.youtube.com/watch?v=e6Q8FbuNwiQ*)

Catch Compared to Clear

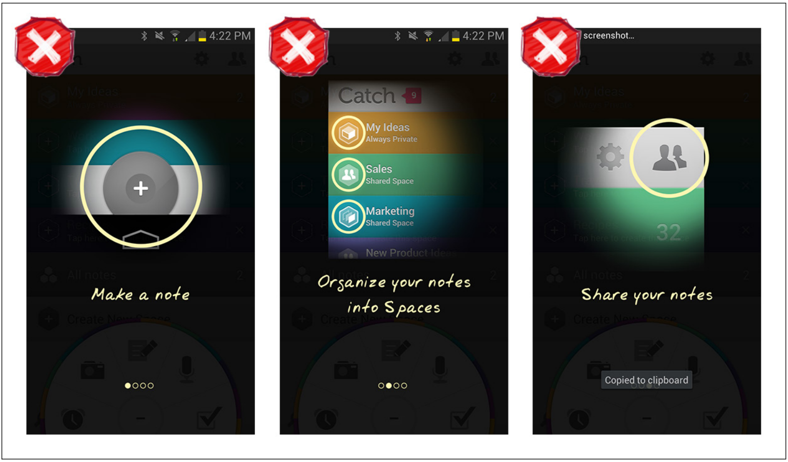
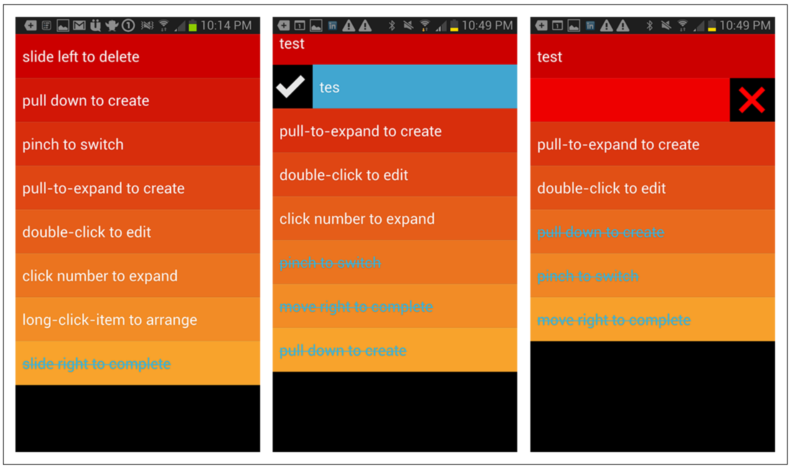


FIGURE 7-9.
Catch for Android: the tour describes features and actions, but doesn't let the user try them



10:14 PM

slide left to delete
pull down to create
pinch to switch
pull-to-expand to create
double-click to edit
click number to expand
long-click-item to arrange
~~slide right to complete~~

10:49 PM

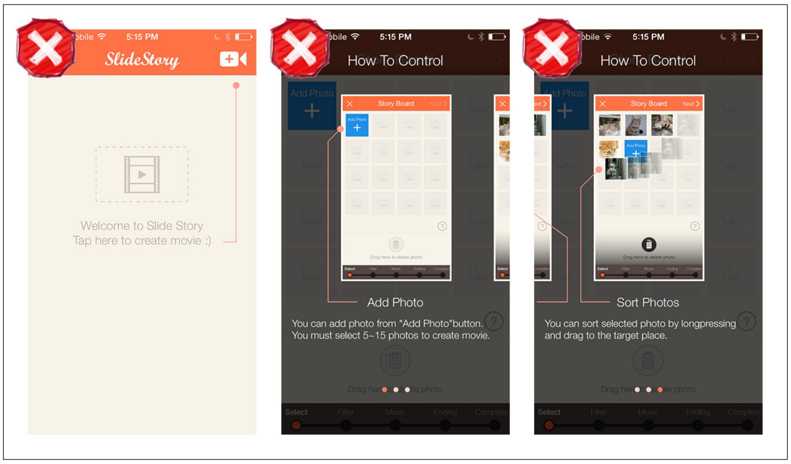
test
tes
pull-to-expand to create
double-click to edit
click number to expand
~~pinch to switch~~
~~move right to complete~~
~~pull down to create~~

10:49 PM

test
pull-to-expand to create
double-click to edit
~~pull down to create~~
~~pinch to switch~~
~~move right to complete~~

FIGURE 7-10.
Clear for Android: the default view is preloaded with tasks that the user learns by doing (*http://www.youtube.com/watch?v=v3gGTG003_A*)

SlideStory Compared to Vine


SlideStory

Welcome to Slide Story
Tap here to create movie :)

How To Control

Add Photo

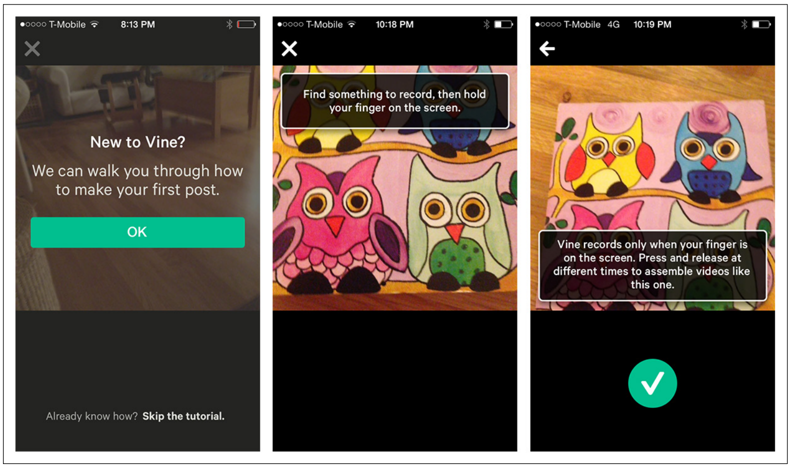
You can add photo from "Add Photo"button.
You must select 5~15 photos to create movie.

How To Control

Sort Photos

You can sort selected photo by longpressing and drag to the target place.

FIGURE 7-11. SlideStory for iOS: this tutorial shows and tells, but doesn't let the user do


New to Vine?

We can walk you through how to make your first post.

OK

Already know how? **Skip the tutorial.**

Find something to record, then hold your finger on the screen.

Vine records only when your finger is on the screen. Press and release at different times to assemble videos like this one.

FIGURE 7-12. Vine for iOS shows, tells, and encourages users to try for themselves (*http://www.youtube.com/watch?v=vBOC9DpC5ns*)

[NOTE]

Resist the urge to use text if there are ways of showing rather than telling. Use text to prompt the "cause" and let the user observe the "effect" by doing.

Rule #2: No Frontloading

"If you frontload your tutorial and teach the player everything at the beginning," Extra Credits says in Tutorials 101, "they'll be overwhelmed with information and undersupplied with engagement." All you have to do is replace the word *player* with *user* in that sentence, and its relevance is obvious to app designers.

This is a tough lesson for many of us to learn. After all, we work so hard to add useful features to our designs that we naturally want to let the user know everything the app can do, right away.

Resist that urge. As the Tutorials 101 video rightly points out, front-loading will turn off users and cause them to skip your tutorial. And a user who skips your tutorial isn't likely to get much out of your app or recommend it to others.

Rather than overwhelming users with information that they will probably forget by the time they need it, provide the information in short, easily digestible chunks precisely *when* they need it. Remember, you're making a first impression here. Wouldn't you rather make a first impression that leaves users wanting more, rather than less?

By limiting up-front tutorials to just the "getting started" essentials, you allow your users to dive right in and start using your app. Invitations they encounter later on can highlight more advanced features and functions.

Let's compare some apps that get this right with some that miss the boat.

To start, I've paired the app Phoster for iOS with Creative Studio for Windows Phone. Phoster invites initial engagement with a tutorial that tries to cram everything the user will ever need to know onto one chaotic page. Any time the user needs to refer back to remember how to do one thing, she has to wade through instructions for how to do everything.

By contrast, when a user is manipulating a photo in Creative Studio, instructions for completing an action are displayed only once he selects a tool. In the example shown, I opened a photo and chose the Focus effect, and was then guided through a two-step process. Once I previewed my work, I decided to edit it some more, and when I tapped Edit, I was shown another contextually relevant tip.

Phoster Compared to Creative Studio

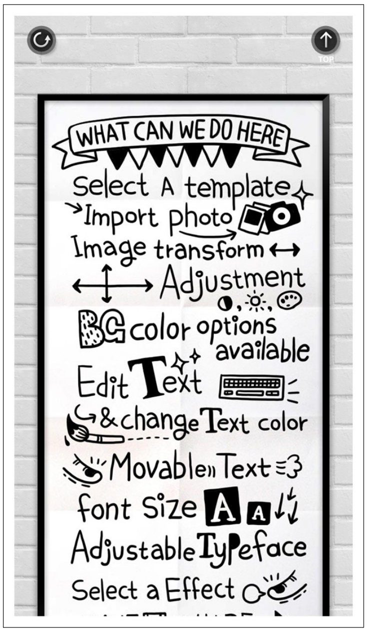


FIGURE 7-13. Phoster for iOS: though only one page, this chaotic layout presents too much information up front

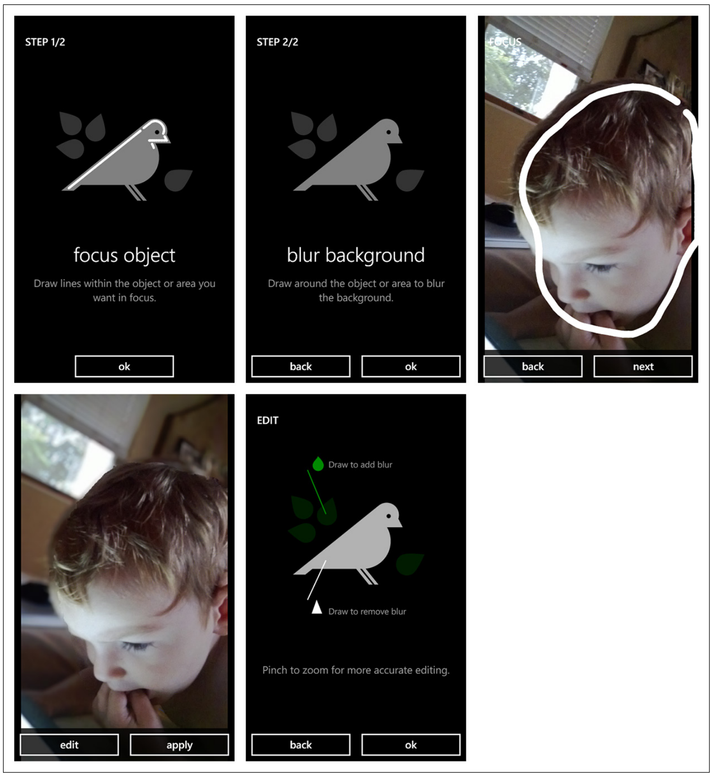
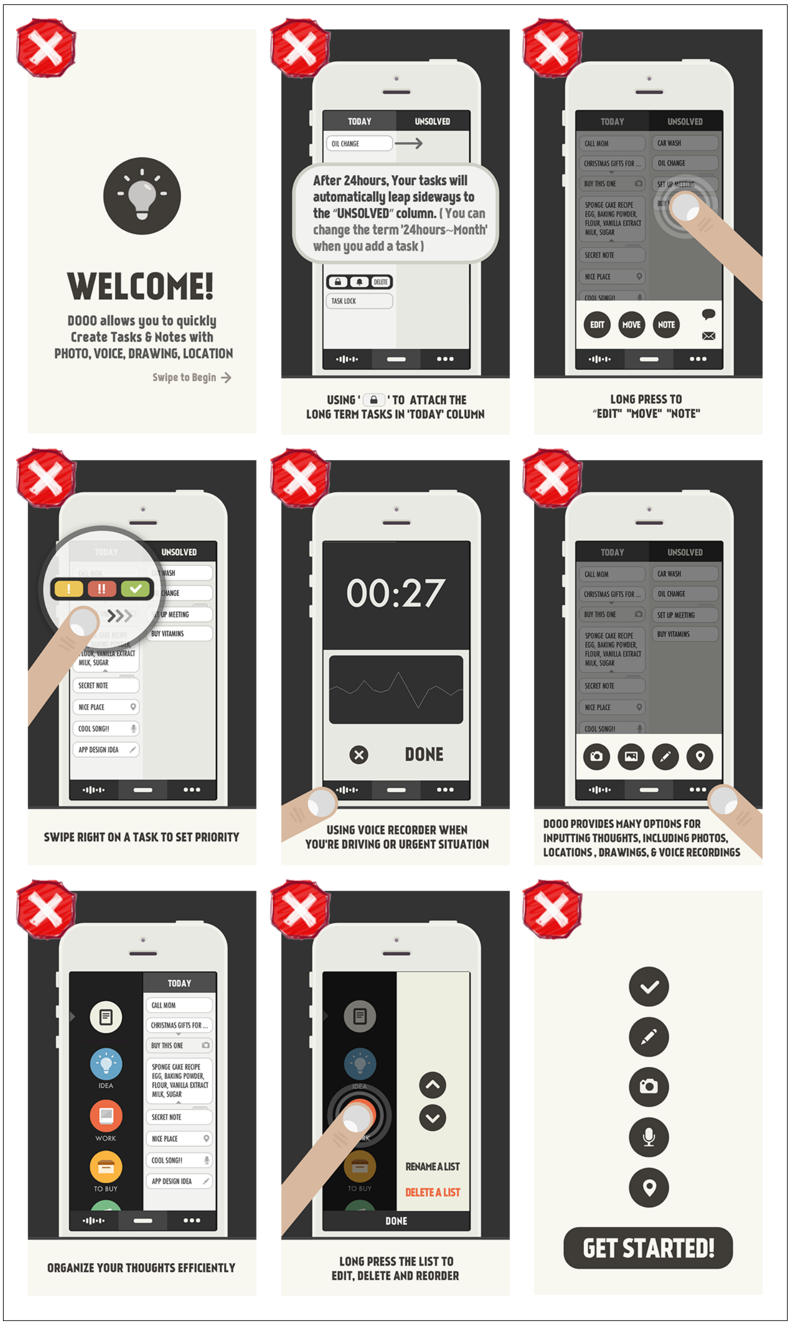

STEP 1/2
focus object
Draw lines within the object or area you want in focus.
ok
STEP 2/2
blur background
Draw around the object or area to blur the background.
back
ok
FOCUS
back
next
edit
apply
EDIT
Draw to add blur
Draw to remove blur
Pinch to zoom for more accurate editing.
back
ok

FIGURE 7-14. Creative Studio for Windows Phone offers contextual help when and where the user needs it

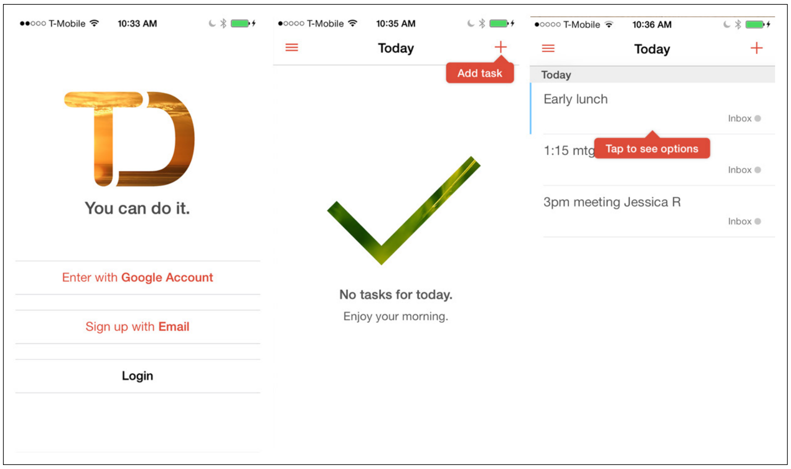
Dooo Compared to Todoist



WELCOME!
DOOO allows you to quickly Create Tasks & Notes with PHOTO, VOICE, DRAWING, LOCATION
Swipe to Begin
After 24hours, Your tasks will automatically leap sideways to the "UNSOLVED" column. (You can change the term '24hours~Month' when you add a task)
USING ' ' TO ATTACH THE LONG TERM TASKS IN 'TODAY' COLUMN
LONG PRESS TO "EDIT" "MOVE" "NOTE"
SWIPE RIGHT ON A TASK TO SET PRIORITY
00:27
DONE
USING VOICE RECORDER WHEN YOU'RE DRIVING OR URGENT SITUATION
DOOO PROVIDES MANY OPTIONS FOR INPUTTING THOUGHTS, INCLUDING PHOTOS, LOCATIONS, DRAWINGS, & VOICE RECORDINGS
ORGANIZE YOUR THOUGHTS EFFICIENTLY
RENAME A LIST
DELETE A LIST
LONG PRESS THE LIST TO EDIT, DELETE AND REORDER
GET STARTED!

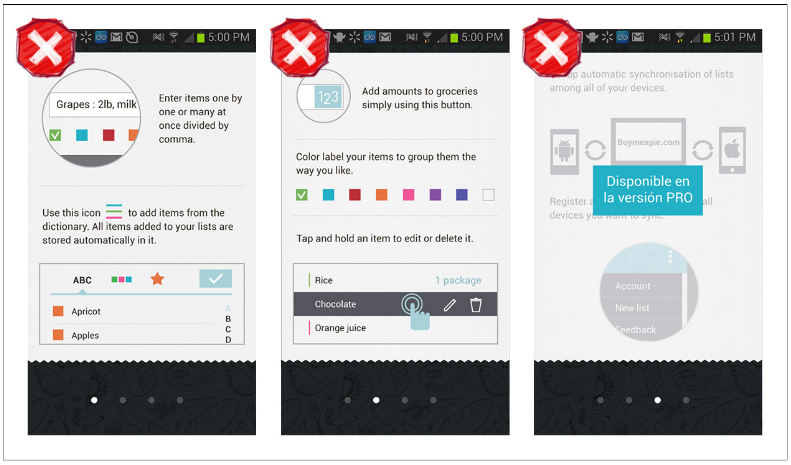
FIGURE 7-15. Dooo for iOS: overwhelming frontloaded information goes on and on (11 pages total)

FIGURE 7-16. Todoist for iOS: a tip invites the user to add a first task, and then another prompt introduces the options menu

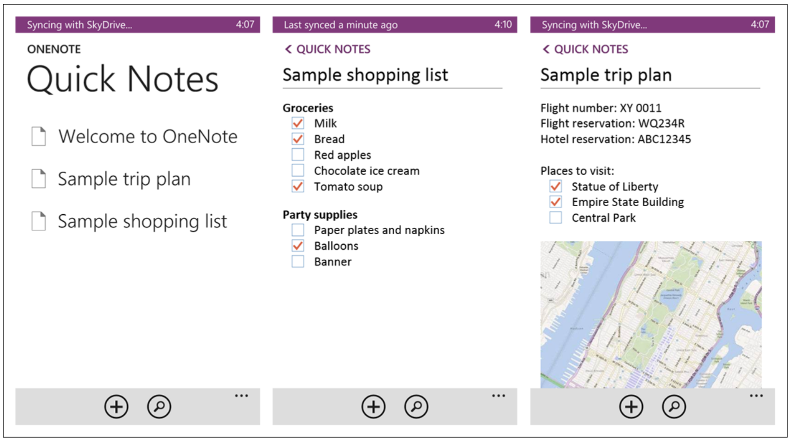


Buy Me a Pie! Compared to OneNote

FIGURE 7-17. Buy Me a Pie! for Android: frontloaded, confusing, and out-of-context tour



Grapes : 2lb, milk
Enter items one by one or many at once divided by comma.
Use this icon to add items from the dictionary. All items added to your lists are stored automatically in it.
ABC
Apricot
Apples
Add amounts to groceries simply using this button.
Color label your items to group them the way you like.
Tap and hold an item to edit or delete it.
Rice
1 package
Chocolate
Orange juice
Buymeapie.com
Disponible en la versión PRO
Account
New list
Feedback



Syncing with SkyDrive... 4:07

ONENOTE

Quick Notes

Welcome to OneNote

Sample trip plan

Sample shopping list

Last synced a minute ago 4:10

< QUICK NOTES

Sample shopping list

Groceries
- ✓ Milk
- ✓ Bread
- ☐ Red apples
- ☐ Chocolate ice cream
- ✓ Tomato soup

Party supplies
- ☐ Paper plates and napkins
- ✓ Balloons
- ☐ Banner

Syncing with SkyDrive... 4:07

< QUICK NOTES

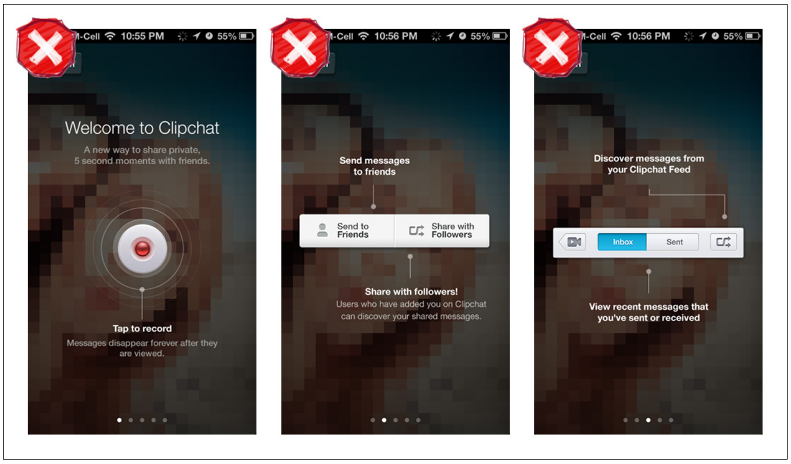
Sample trip plan

Flight number: XY 0011
Flight reservation: WQ234R
Hotel reservation: ABC12345

Places to visit:
- ✓ Statue of Liberty
- ✓ Empire State Building
- ☐ Central Park

FIGURE 7-18.
OneNote for Windows Phone: two sample lists allow users to learn the ropes by doing

Clipchat Compared to Kik



Welcome to Clipchat
A new way to share private, 5 second moments with friends.

Tap to record
Messages disappear forever after they are viewed.

Send messages to friends

Send to Friends | Share with Followers

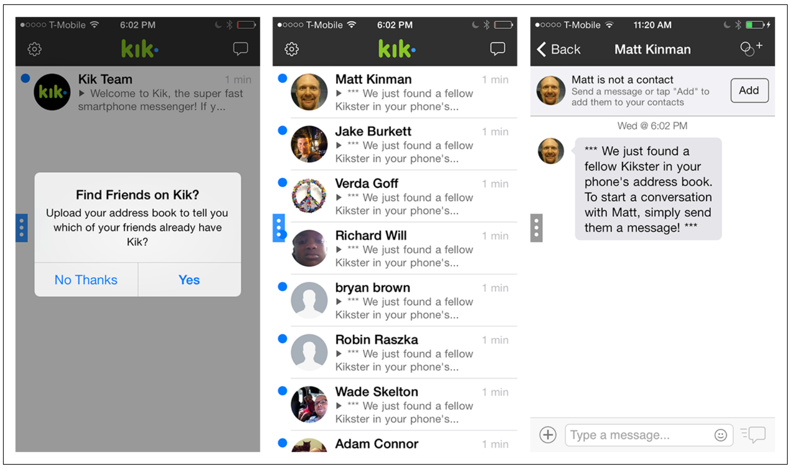
Share with followers!
Users who have added you on Clipchat can discover your shared messages.

Discover messages from your Clipchat Feed

Inbox | Sent

View recent messages that you've sent or received

FIGURE 7-19.
Clipchat for iOS: too much up-front information, abstracted from usage context



Kik Team 1 min
▶ Welcome to Kik, the super fast smartphone messenger! If y...

Find Friends on Kik?
Upload your address book to tell you which of your friends already have Kik?

No Thanks | Yes

Matt Kinman 1 min
▶ *** We just found a fellow Kikster in your phone's...

Jake Burkett 1 min
▶ *** We just found a fellow Kikster in your phone's...

Verda Goff 1 min
▶ *** We just found a fellow Kikster in your phone's...

Richard Will 1 min
▶ *** We just found a fellow Kikster in your phone's...

bryan brown 1 min
▶ *** We just found a fellow Kikster in your phone's...

Robin Raszka 1 min
▶ *** We just found a fellow Kikster in your phone's...

Wade Skelton 1 min
▶ *** We just found a fellow Kikster in your phone's...

Adam Connor 1 min

< Back Matt Kinman

Matt is not a contact
Send a message or tap "Add" to add them to your contacts
Add

Wed @ 6:02 PM

*** We just found a fellow Kikster in your phone's address book. To start a conversation with Matt, simply send them a message! ***

Type a message...

FIGURE 7-20.
Kik Messenger for iOS: import contacts and see a tip for how to start chatting with them

[NOTE]

Don't overload your users with all the information they will ever need up front; give it to them in bite-sized chunks, just where and when they need it.

Rule #3: Make It Rewarding

Actually, you may recall that the rule from Tutorials 101 is "Make It Fun." But let's face it, "fun" is not appropriate for all apps. Still, when the narrator of the video says, "Your tutorial should be as engaging as any other part of your game," we can see that in every other sense, this rule applies to our world.

Even if we can't make learning our apps fun, there are certainly ways to make it rewarding and make it flow seamlessly into the overall app experience. One good way to do that is with interactivity that actually lets the user accomplish things. This provides a sense of "agency" that reinforces what we learn.

And even when "fun" is not the right tone to strike, sometimes instilling a sense of playfulness can still be appropriate. Our first comparison here is between NBC News and Flipboard: these apps take different approaches to this, with the latter exemplifying the right approach.

NBC News Compared to Flipboard

Despite its "playful" font on the five transparency screens, the NBC tutorial still feels like a lecture. The first time you open Flipboard, on the other hand, it feels dramatically different.

There is no instructional text, but the bottom half of the screen playfully flips up a bit, teasing you with a peek at some content before flipping down again. After it does this once more, you'll probably get the hint that you need to swipe up to reveal the underlying content. But if by then you still don't swipe, you'll get an embedded invitation that says "Swipe up to continue."

Every subsequent flip transition reinforces the swipe gestures a new user needs while exploring the content in her Flipboard. Playful *and* rewarding.

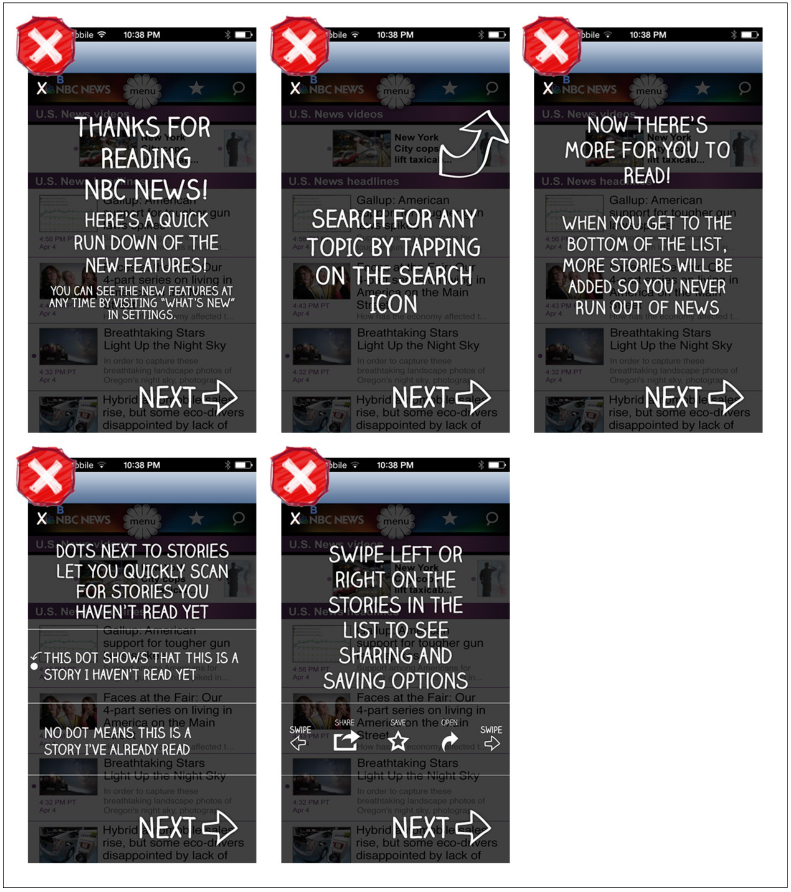

THANKS FOR READING NBC NEWS! HERE'S A QUICK RUN DOWN OF THE NEW FEATURES!
YOU CAN SEE THE NEW FEATURES AT ANY TIME BY VISITING "WHAT'S NEW" IN SETTINGS.
SEARCH FOR ANY TOPIC BY TAPPING ON THE SEARCH ICON
NOW THERE'S MORE FOR YOU TO READ!
WHEN YOU GET TO THE BOTTOM OF THE LIST, MORE STORIES WILL BE ADDED SO YOU NEVER RUN OUT OF NEWS
DOTS NEXT TO STORIES LET YOU QUICKLY SCAN FOR STORIES YOU HAVEN'T READ YET
THIS DOT SHOWS THAT THIS IS A STORY I HAVEN'T READ YET
NO DOT MEANS THIS IS A STORY I'VE ALREADY READ
SWIPE LEFT OR RIGHT ON THE STORIES IN THE LIST TO SEE SHARING AND SAVING OPTIONS
SWIPE
SHARE
SAVE
OPEN
SWIPE
NEXT

FIGURE 7-21.
NBC News for iOS: a playful font, but a long lecture isn't rewarding

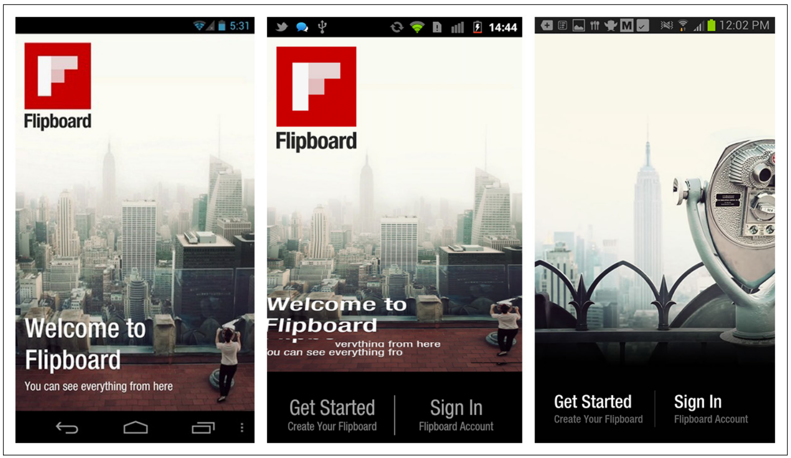


FIGURE 7-22.
Flipboard for Android uses playful embedded prompts to engage the user and reinforce the key gestures needed to navigate the app (*http://www.youtube.com/watch?v=rQASZtuvBCs*)

Noom Compared to DailyBurn Tracker

Noom for Android is an incredible app and does a great job of using rewards to invite deeper engagement. The experience is designed from start to finish to engage the user and keep him coming back. Noom uses a Gamification technique (see Chapter 8) called "leveling up" to encourage the user to successfully complete a series of tasks and reach the next level of proficiency.

It also includes an element of surprise to keep things interesting. Just as I completed the setup process, I was rewarded with an "overachiever bonus" that inspired just a little more engagement.

In contrast, setting up DailyBurn Tracker was a chore. It started with a half-dozen configuration screens, then dropped me straight onto the home page with a list of 10 options. No guidance, no motivation, and no surprises. (Motivational apps are one instance where surprises are a good thing.)

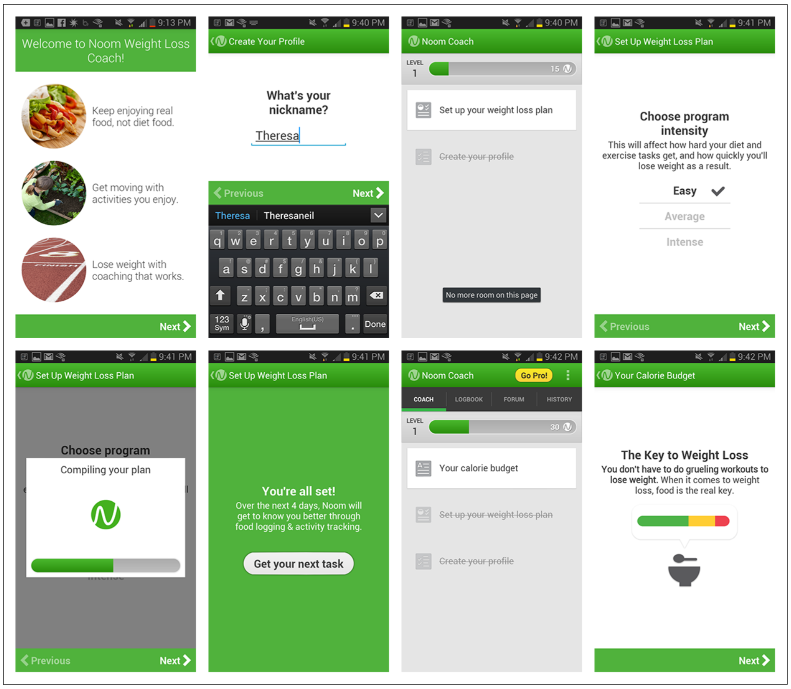
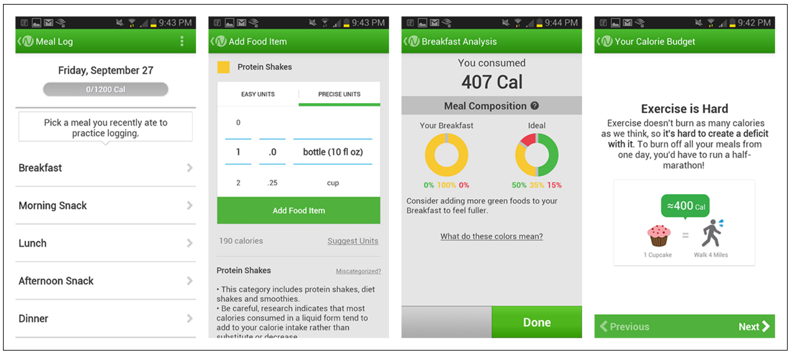

Welcome to Noom Weight Loss Coach!
Keep enjoying real food, not diet food.
Get moving with activities you enjoy.
Lose weight with coaching that works.
Next
Create Your Profile
What's your nickname?
Theresa
Previous
Next
Theresa
Theresaneil
Done
Noom Coach
LEVEL 1
15
Set up your weight loss plan
~~Create your profile~~
No more room on this page
Set Up Weight Loss Plan
Choose program intensity
This will affect how hard your diet and exercise tasks get, and how quickly you'll lose weight as a result.
Easy ✓
Average
Intense
Previous
Next
Set Up Weight Loss Plan
Choose program
Compiling your plan
Previous
Next
Set Up Weight Loss Plan
You're all set!
Over the next 4 days, Noom will get to know you better through food logging & activity tracking.
Get your next task
Noom Coach
Go Pro!
COACH
LOGBOOK
FORUM
HISTORY
LEVEL 1
30
Your calorie budget
~~Set up your weight loss plan~~
~~Create your profile~~
Your Calorie Budget
The Key to Weight Loss
You don't have to do grueling workouts to lose weight. When it comes to weight loss, food is the real key.
Next

FIGURE 7-23. Noom for Android: guided setup is easy and friendly, with positive feedback along the way



Pick a meal you recently ate to practice logging.

Protein Shakes

• This category includes protein shakes, diet shakes and smoothies.
• Be careful, research indicates that most calories consumed in a liquid form tend to add to your calorie intake rather than substitute or decrease

You consumed
407 Cal

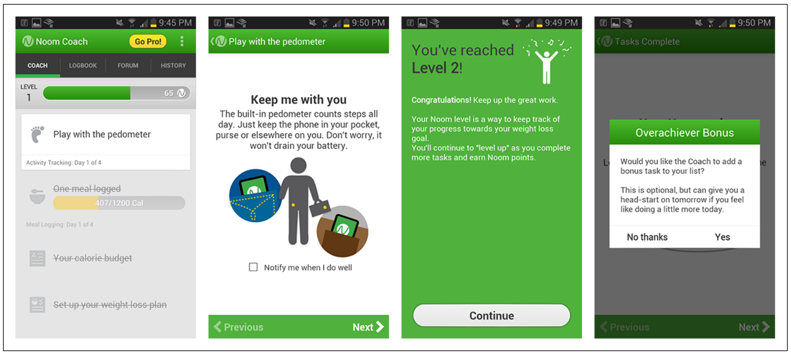
Consider adding more green foods to your Breakfast to feel fuller.

What do these colors mean?

Exercise is Hard

Exercise doesn't burn as many calories as we think, so it's hard to create a deficit with it. To burn off all your meals from one day, you'd have to run a half-marathon!

FIGURE 7-24.
Noom for Android: the tasks are designed for participation to ensure comprehension (like practice logging a meal)



Keep me with you

The built-in pedometer counts steps all day. Just keep the phone in your pocket, purse or elsewhere on you. Don't worry, it won't drain your battery.

You've reached Level 2!

Congratulations! Keep up the great work.

Your Noom level is a way to keep track of your progress towards your weight loss goal.
You'll continue to "level up" as you complete more tasks and earn Noom points.

Would you like the Coach to add a bonus task to your list?

This is optional, but can give you a head-start on tomorrow if you feel like doing a little more today.

FIGURE 7-25.
Noom for Android: tasks start off easy to complete, but get harder as you progress; leveling up "gamifies" the experience and makes it feel more rewarding

[NOTE]

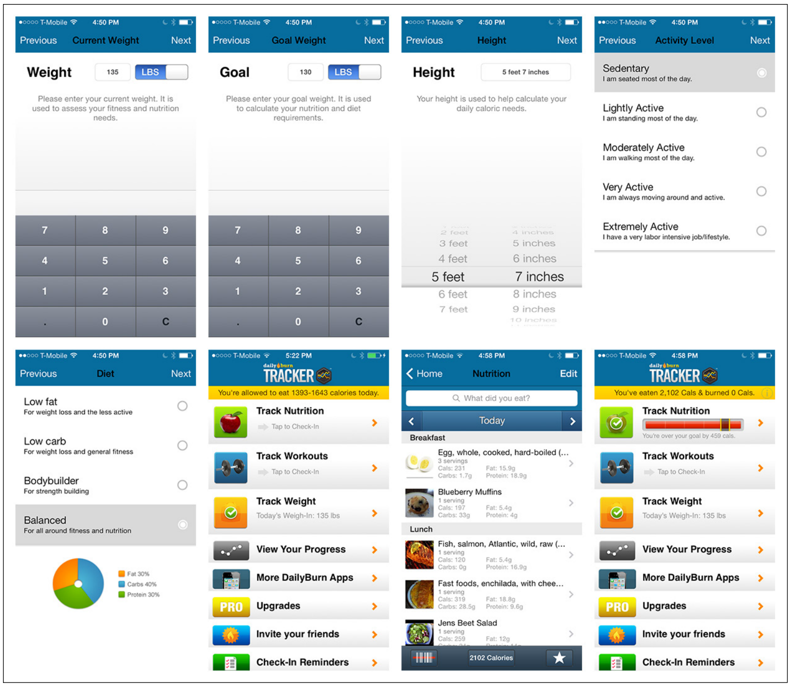
If you download Noom for Android today, you may notice some differences between the screenshots shown here (taken in October 2013) and the newest release. I was curious about the catalyst for these changes, so I reached out to Eli Holder, Noom's VP of Engagement.

According to Eli, user testing showed that the 2013 design left participants feeling "exhausted." The redesign is intended to shorten the onboarding process into bite-size chunks and make it more about the user's weight loss story and less like a task list.

Keep an eye on Noom this year as Eli and his team evolve the onboarding flow to more quickly give users a joyful experience and an emotional connection with Noom.

[NOTE]

Make deeper engagement with your app rewarding. Consider adding elements of playfulness where appropriate, and let users learn by doing to create a sense of agency.



Previous
Current Weight
Next
Weight
135
LBS
Please enter your current weight. It is used to assess your fitness and nutrition needs.
Goal Weight
Goal
130
Please enter your goal weight. It is used to calculate your nutrition and diet requirements.
Height
5 feet 7 inches
Your height is used to help calculate your daily caloric needs.
Activity Level
Sedentary
I am seated most of the day.
Lightly Active
I am standing most of the day.
Moderately Active
I am walking most of the day.
Very Active
I am always moving around and active.
Extremely Active
I have a very labor intensive job/lifestyle.
Diet
Low fat
For weight loss and the less active
Low carb
For weight loss and general fitness
Bodybuilder
For strength building
Balanced
For all around fitness and nutrition
Fat 30%
Carbs 40%
Protein 30%
TRACKER
You're allowed to eat 1393-1643 calories today.
Track Nutrition
Tap to Check-In
Track Workouts
Track Weight
Today's Weigh-In: 135 lbs
View Your Progress
More DailyBurn Apps
Upgrades
Invite your friends
Check-In Reminders
Home
Nutrition
Edit
What did you eat?
Today
Breakfast
Egg, whole, cooked, hard-boiled
Blueberry Muffins
Lunch
Fish, salmon, Atlantic, wild, raw
Fast foods, enchilada, with chee...
Jens Beet Salad
2102 Calories
You've eaten 2,102 Cals & burned 0 Cals.
You're over your goal by 459 cals.

FIGURE 7-26. DailyBurn Tracker for iOS: setup feels like an impersonal, sterile chore

Rule #4: Reinforce Learning Through Use

Remember those "a-ha!" moments you'd get in science class when you came to understand a concept by demonstrating it in a simple experiment? That's what we're talking about here. Of course, the teacher had *told* you the concept, but it was through doing the experiment that you actually *learned* it.

The same idea applies with tutorials. And if you follow the first three rules, this reinforcement will largely take care of itself. It can be as simple as accompanying an action that is demonstrated in a tutorial with a very subtle bit of visual or aural feedback. Then, when the user subsequently performs the action, the same feedback reinforces what she has learned. (If you do use audio feedback, offer a way to turn it off so that it doesn't become annoying once the user is familiar with the app.)

This rule complements the "No frontloading" rule. Rather than trying to show off everything in your app at once, consider crafting an experience that invites the users progressively deeper into the app. By revealing more advanced features over time, or by giving the users unexpected "rewards" as they progress, you'll help reinforce what they learn as they use the app.

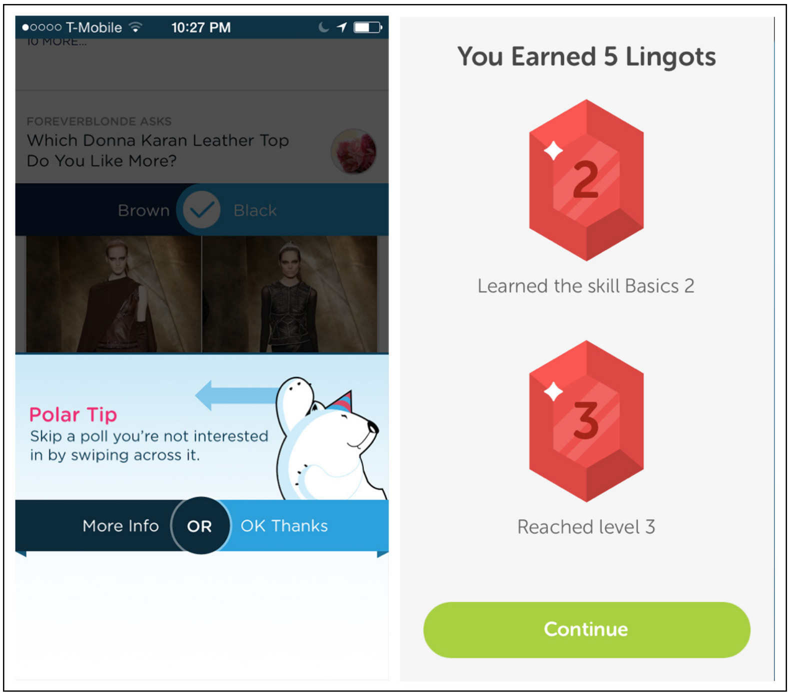


FIGURE 7-27.
Polar for iOS: after answering a few polls, I get a tip; DuoLingo for iOS: rewards participation with Lingots

[NOTE]

Learning isn't a one-time thing; using an app should reinforce what the tutorials have helped users learn.

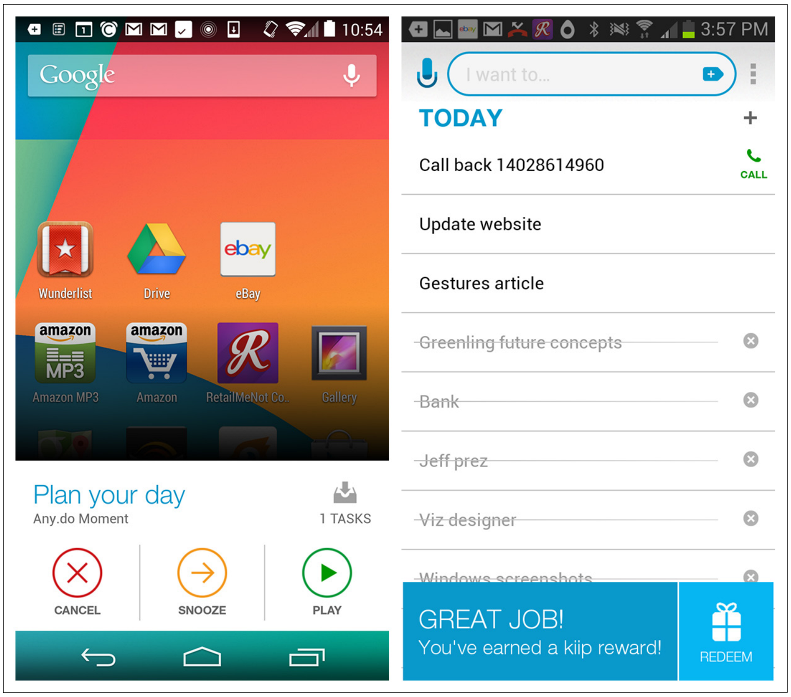


FIGURE 7-28. Any.do for Android uses a widget to encourage engagement and spontaneous rewards for completion

Rule #5: Listen to Your Users

Considering that you've been deep inside your app building and refining it for months, who's the best person to explain to users how it works?

Probably not you, according to the narrator of Tutorials 101, who says: "When you're a designer who's been working on a project for a year or two, it's very easy to think things are intuitive or obvious that are actually totally incomprehensible."

Long-term exposure to an app blinds us to what users will need to be taught in order to use it. We'll touch on this later, in Chapter 10. But for now, the key to keep in mind is that your users (or players in the game world) are the only resource that counts when it comes to measuring the effectiveness of your tutorials.

Simple, properly conducted user testing will reveal any stumbling blocks. Observe your users to see where they get stuck and where they have problems. Listen to their comments as they interact with the app. Don't question them until later; if you question them as they are using the app, you are likely to unconsciously lead them to the answers you want to hear.

[NOTE]

Familiarity blinds you to what users need to learn. Let users show you themselves through unbiased user testing.

That brings us to a few last tips from the experts at Extra Credits:

6. Don't wait until the end to design your tutorial.

   You must integrate your tutorial into the overall design process from the very beginning. Too many teams relegate the tutorial to an afterthought, and that couldn't be more wrong or potentially damaging to the fate of your app. Many of the tutorial screens I marked as anti-patterns in this chapter probably got to be that way because they were afterthoughts in otherwise well-designed apps. Tutorials should be treated as one of the most important elements of your app. If they fail, your app fails.

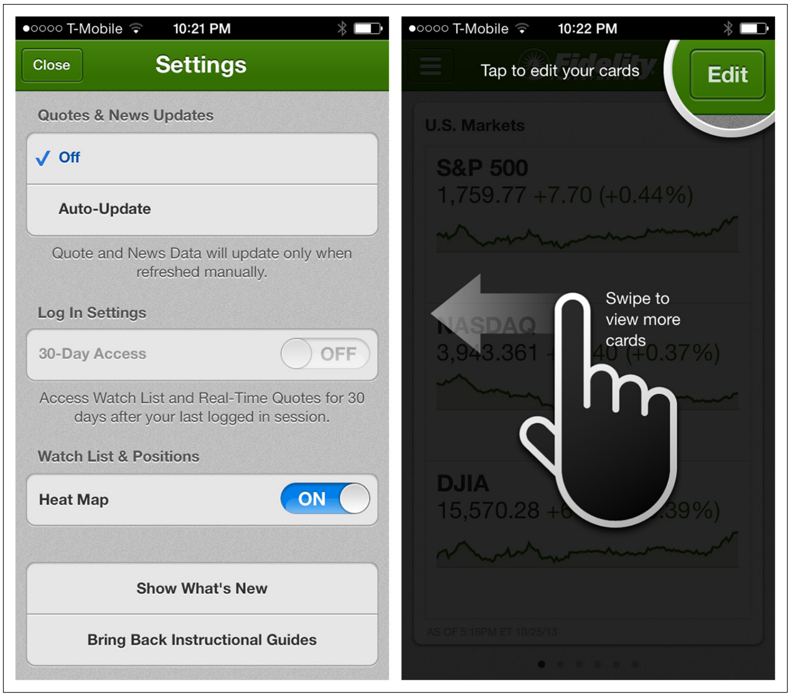
7. Tutorials should be skippable.

   Have you ever used an app that forced you to go through a tutorial every time you opened it? If so, you probably didn't use that app for very long.

8. Anything conveyed in the tutorial should be accessible at all times.

   By the same token, any help provided in your tutorials should always be available for reference. For instance, Fidelity lets you relaunch the tutorials from Settings. See Chapter 10 for more examples.

FIGURE 7-29.
Fidelity for iOS: Bring Back Instructional Guides lets you relaunch tutorials


●○○○○ T-Mobile 10:21 PM

Close **Settings**

Quotes & News Updates

✓ Off

Auto-Update

Quote and News Data will update only when refreshed manually.

Log In Settings

30-Day Access OFF

Access Watch List and Real-Time Quotes for 30 days after your last logged in session.

Watch List & Positions

Heat Map ON

Show What's New

Bring Back Instructional Guides

●○○○○ T-Mobile 10:22 PM

Tap to edit your cards Edit

U.S. Markets

S&P 500
1,759.77 +7.70 (+0.44%)

NASDAQ
3,943.361 40 (+0.37%)

DJIA
15,570.28 .39%)

Swipe to view more cards

AS OF 5:16PM ET 10/25/13

Invitation Patterns

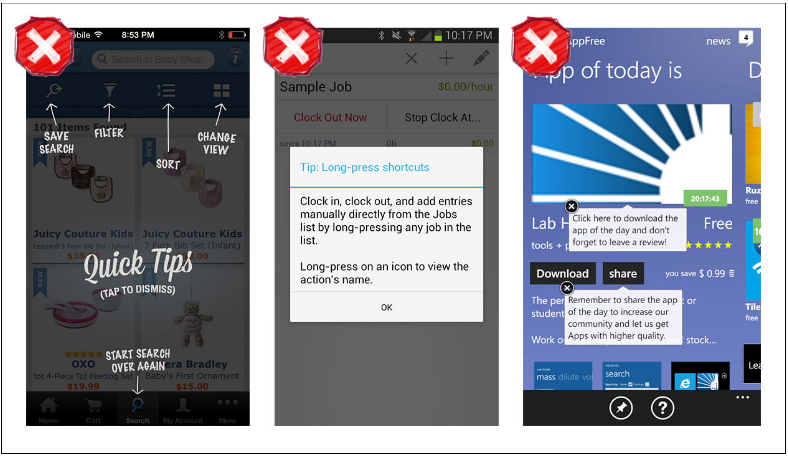
Whether or not your application requires a tutorial for onboarding, there are likely opportunities throughout the app to invite users to engage with a specific feature. Invitations are also helpful to introduce new features within a specific flow, as opposed to just showing a dialog on launch with a list of new features.

[NOTE]

Place Tips in proximity to the action or menu item they apply to, keep the content short, and remove the Tip once interaction begins (i.e., when the screen is touched).

Tips

Tips should be specific to a particular tool or action on the screen. Tips in the form of Transparencies (Zappos) or Dialogs (HoursTracker) should be avoided, as should multiple tips per screen, as in myAppFree. For smart Tip design, see the examples from Evernote Food and Mint.



Tip: Long-press shortcuts

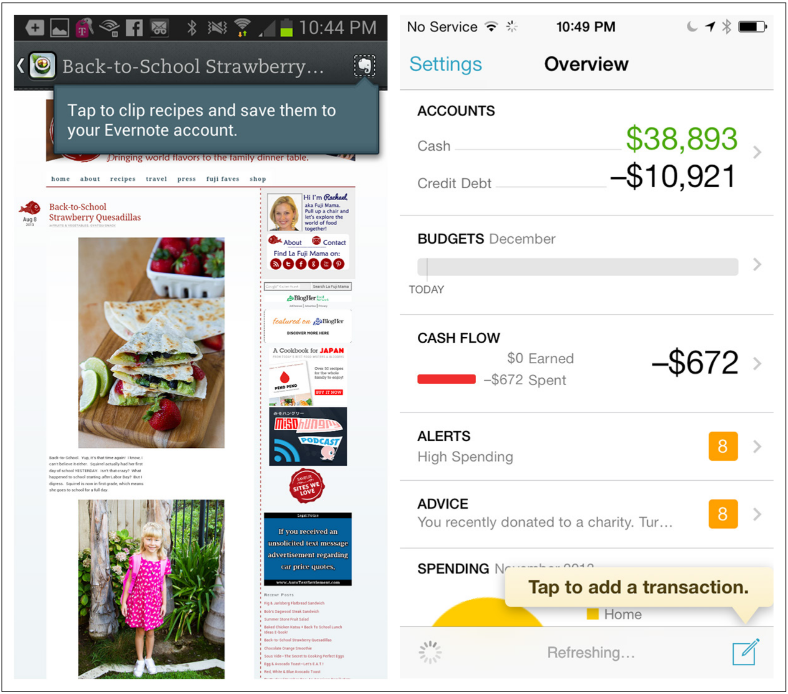
Clock in, clock out, and add entries manually directly from the Jobs list by long-pressing any job in the list.

Long-press on an icon to view the action's name.

Click here to download the app of the day and don't forget to leave a review!

Remember to share the app of the day to increase our community and let us get Apps with higher quality.

FIGURE 7-30. Zappos for iOS, HoursTracker for Android, and myAppFree for Windows Phone: poorly designed Tips



Tap to clip recipes and save them to your Evernote account.

Tap to add a transaction.

FIGURE 7-31. Evernote Food for Android and Mint for iOS: well-designed Tips

For a detailed look at designing effective Tips, take a look at the Intuit case study in “Chapter Extra: Invitations—Rolling Out the Welcome Mat” at the end of this chapter.

Persistent Invitations

Persistent Invitations might look like Tips in some instances, but they differ in their, well, persistence. These invitations are either always visible, or remain visible until the user takes the specified action.

In the examples from RetailMeNot, Expense Manager, and Pandora, the invitations will persist until the user takes the requested action (save coupon, record expense, and add favorite artists, respectively). Then they disappear for good.

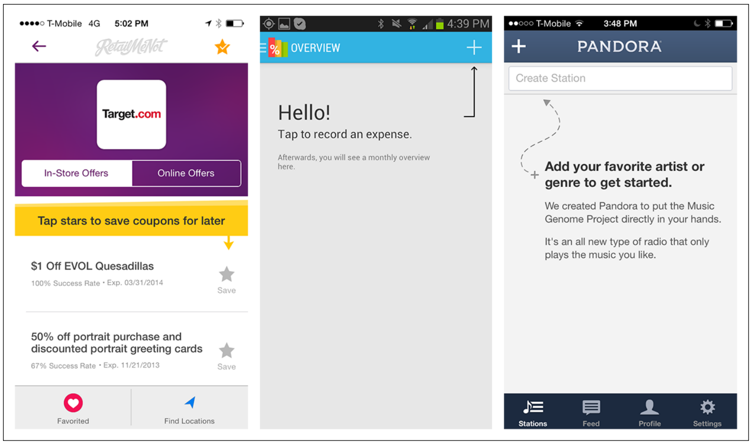

Target.com
In-Store Offers
Online Offers
Tap stars to save coupons for later
$1 Off EVOL Quesadillas
50% off portrait purchase and discounted portrait greeting cards
Save
Favorited
Find Locations
OVERVIEW
Hello!
Tap to record an expense.
Afterwards, you will see a monthly overview here.
PANDORA
Create Station
Add your favorite artist or genre to get started.
We created Pandora to put the Music Genome Project directly in your hands.
It's an all new type of radio that only plays the music you like.
Stations
Feed
Profile
Settings

FIGURE 7-32. RetailMeNot for iOS, Expense Manager for Android, and Pandora for iOS: Persistent Invitations

With Pinterest, however, the invitation is always extended. No matter how many boards you add, there will always be an invitation to add another. The verdict is out on where to place the invitation: in Do It (Tomorrow), it's at the top of the list; in Flipboard, it's at the end.

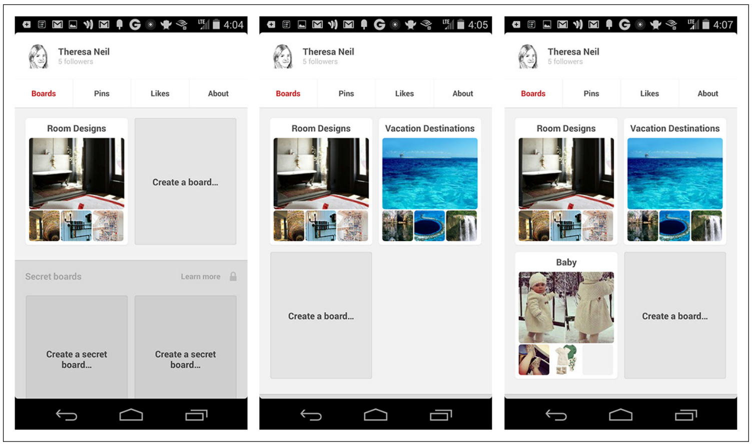


FIGURE 7-33. Pinterest for Android: Persistent Invitation

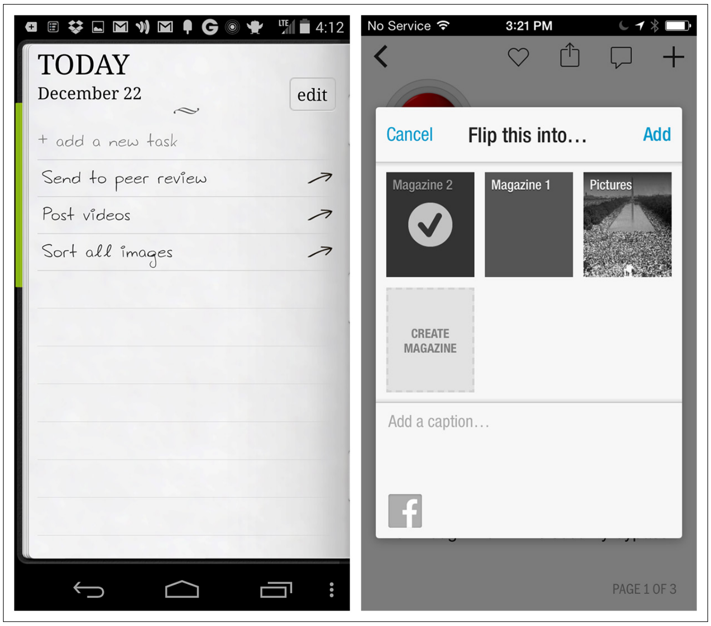


FIGURE 7-34. Do It (Tomorrow) for Android and Flipboard for iOS: invitations can go at the beginning or end of a list

Argus has built-in logic to show Persistent Invitations in context with the user's preset exercise and nutrition goals. For example, the "Tap to set weight" hexagonal invitation will persist until I log my weight for the day, and then it will be replaced with a hexagon showing my weight. And I'll get that same invitation again every week.

[NOTE]

Put some thought into the right level of persistence for the invitation; should it be always visible, visible until acted upon, or visible in a specific context? Test this with users to make sure the invitation is helping them, and not annoying them.

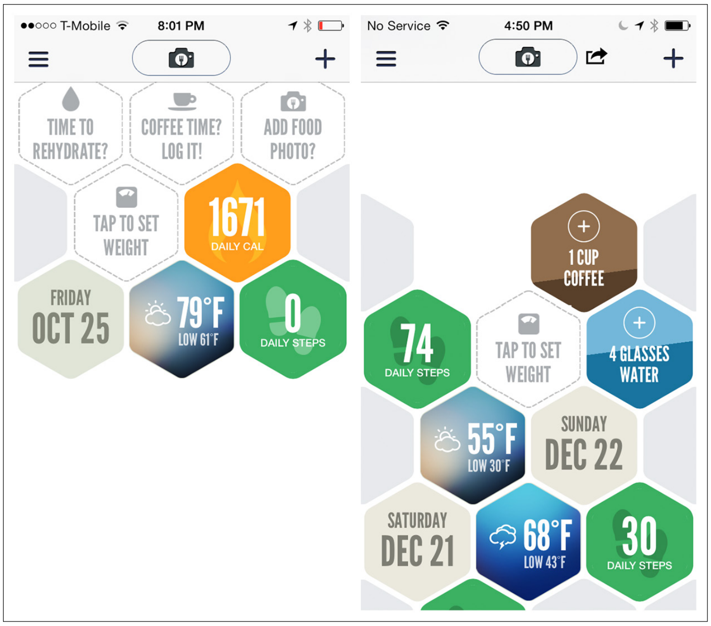


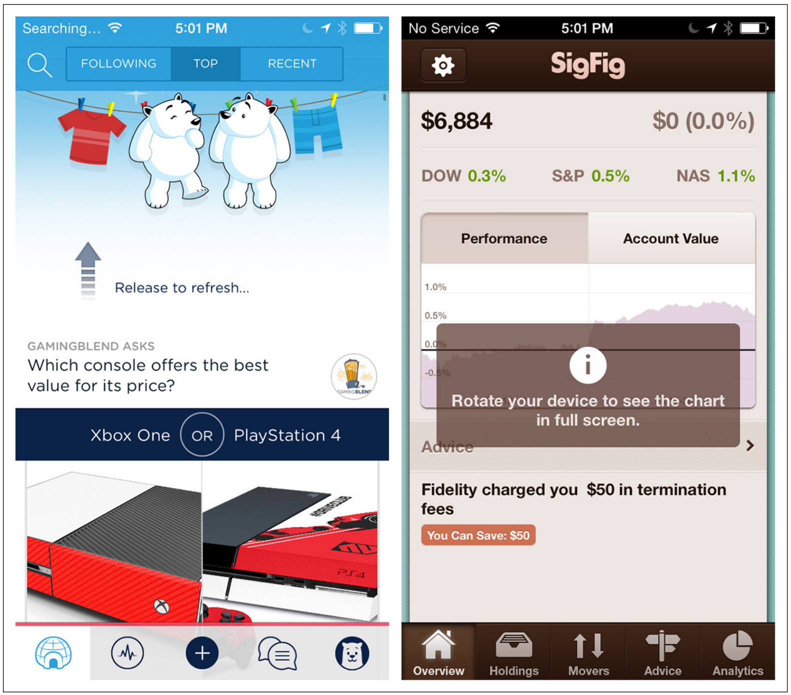
FIGURE 7-35. Argus for iOS: invitation to set weight reappears based on user's goal settings

Discoverable Invitations

A Discoverable Invitation might seem like an oxymoron, but it is an effective way to encourage specific interactions without cluttering the screen. These invitations are meant to be discovered when the user performs a common gesture, like tapping, pulling, or swiping.

In Polar, like many data feed apps, pulling the content list down reveals a "Release to refresh" invitation. Tapping on the chart in SigFig (a natural gesture for wanting to see a larger version of the chart) shows an invitation to rotate the device to landscape view.

FIGURE 7-36.
Polar and SigFig for iOS: Discoverable Invitations



Chapter Extra: Invitations—Rolling Out the Welcome Mat

ALISSA BRIGGS, UX MANAGER AND PRINCIPAL DESIGNER AT INTUIT

Imagine that a new acquaintance has invited you to a dinner party. You show up at the door, bottle of wine in hand. But you hesitate before going in. Will you know anyone there? What if you make a mistake or embarrass yourself?

Just then, your host opens the door, gives you a big hug, and welcomes you in. He takes your coat and introduces you to the other guests. Your hesitation washes away and you smile, feeling confident and ready to enjoy the evening ahead.

Designing a satisfying first-use experience is not so different from being a great host. The goal is the same: to help your guests quickly overcome their anxiety, and to make them feel welcome and confident.

When we began designing Intuit Snap Payroll, a smartphone-based paycheck calculator, one of our top priorities was to create a welcoming first-use experience. Our customers are small-business owners new to the world of payroll. They have a lot of fear and worry when it comes to calculating paychecks accurately. To convey that Intuit Snap Payroll would let them master this intimidating task, we had to make the user's first experience welcoming and confidence-inspiring.

Here's a look at how we found a solution and what we learned along the way.

Iterating on the Welcome Experience

To understand which design approach would be most effective for inspiring confidence, we got customer feedback on a variety of design concepts. The images that follow are actual wireframes that we tested.

CONCEPT #1: DIRECT IMMERSION

Our first concept was to ditch the "welcome mat" altogether and drop users directly into the app menu that they would rely on during ongoing use.

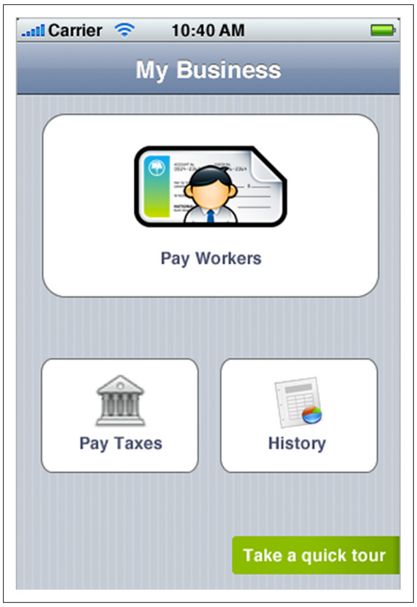


FIGURE 7-37.
No welcome mat: just drop users right in

Customers found this confusing and felt lost. They weren't sure which option they should choose first, and that added to their anxiety about doing payroll on their own. To continue the dinner-party metaphor, it was as if our guests magically appeared in the center of a party where they didn't know anyone and the host was not in sight. To welcome them in, we needed to provide additional context.

CONCEPT #2: TOUR

We called upon a common invitation pattern—the Tour—to provide additional context. Curious to see which format was most effective, we tested the four versions shown.

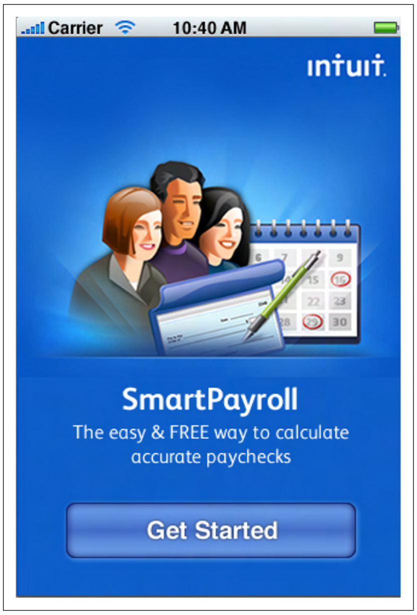
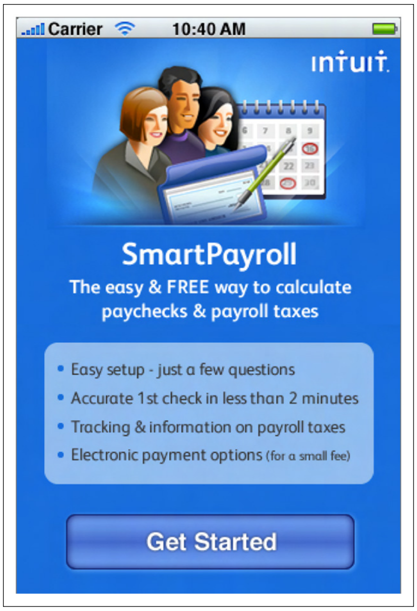
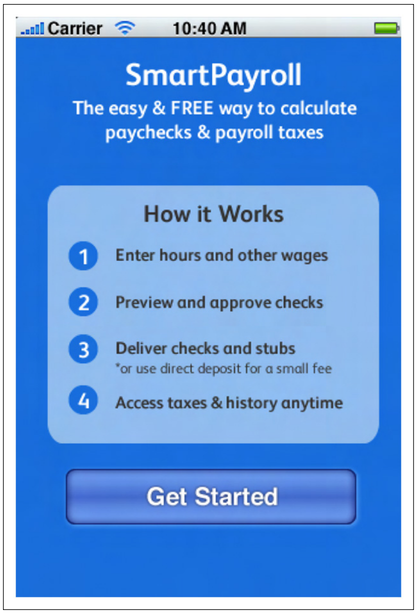


FIGURE 7-38. Benefit statement: an image, short benefit statement, and clear call to action



- Easy setup - just a few questions
- Accurate 1st check in less than 2 minutes
- Tracking & information on payroll taxes
- Electronic payment options (for a small fee)

FIGURE 7-39. Feature list: a benefit statement and short description of core functionality



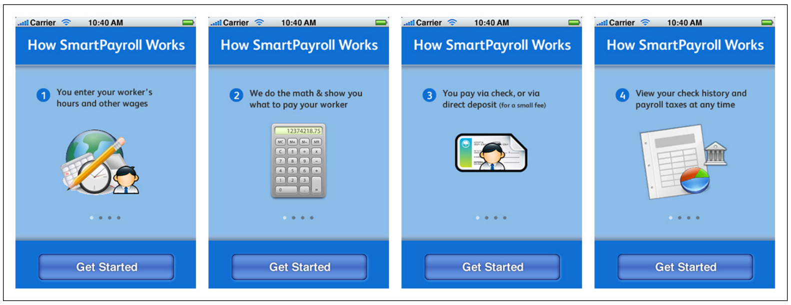
SmartPayroll

The easy & FREE way to calculate paychecks & payroll taxes

How it Works

1. Enter hours and other wages
2. Preview and approve checks
3. Deliver checks and stubs
   *or use direct deposit for a small fee
4. Access taxes & history anytime

FIGURE 7-40. Step list: a step-by-step list explaining how to use the app



How SmartPayroll Works

1 You enter your worker's hours and other wages

2 We do the math & show you what to pay your worker

3 You pay via check, or via direct deposit (for a small fee)

4 View your check history and payroll taxes at any time

FIGURE 7-41. Multi-step tour: a series of introductory screens that users could swipe through to learn more about the app

Users responded consistently to all of these: no one read the screens or swiped through the feature lists. Instead, they immediately skipped over them and tapped Get Started. Users explained that the screens got in their way and that they'd rather just jump into the experience immediately.

Providing context via an up-front informational message did not aid user confidence. It was like the dinner guests reached our door and found a note explaining how a dinner party works, and inviting them to let themselves in. We needed to set the proper context—without getting in the way.

CONCEPT #3: MULTI-STEP TRANSPARENCY

To provide context without interrupting user flow, we tried another common pattern: Transparency. With this pattern, the user can see the actual app interface, but with additional context overlaid on top.

We tried several approaches to overlays, two of which are shown here.

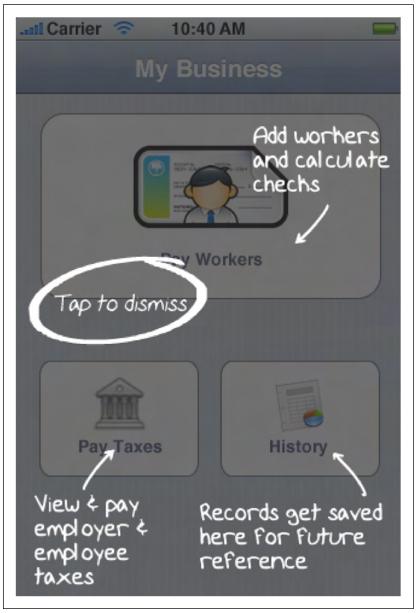

Carrier
10:40 AM
My Business
Add workers and calculate checks
Pay Workers
Tap to dismiss
Pay Taxes
History
View & pay employer & employee taxes
Records get saved here for future reference

FIGURE 7-42. Multi-step transparency: multiple features are called out on the main navigation screen

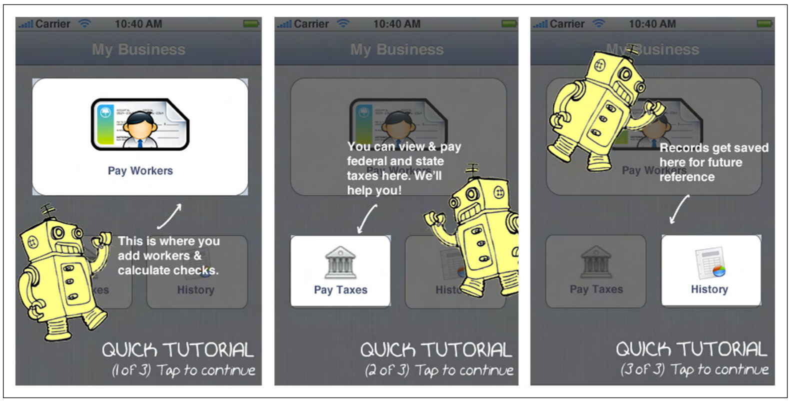


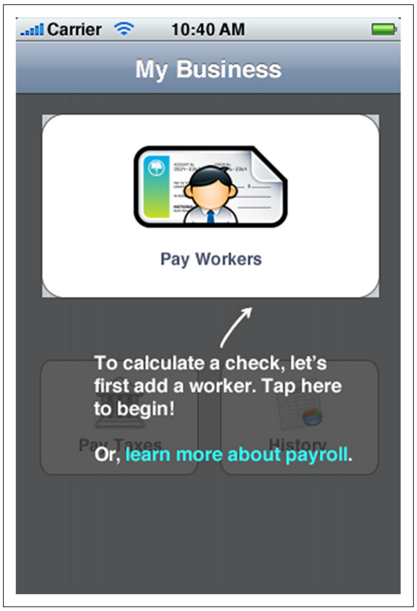
FIGURE 7-43. Multi-step transparency tour: a series of steps that the user needs to tap through, each describing a navigational element

Although users liked being able to see the app in the background, they were irritated by how many instructions were on the screen. Comments included: “I don’t have time to try to understand this,” “I just want to make this get out of my way,” and, of course, “Do I have to read all this?”

We were getting closer, but showing too many instructions at one time made customers feel like there was too much to learn. It was like our dinner host had welcomed them in, suggested 10 different guests they ought to meet, and then left them standing in the hall with their heads spinning. How could we make the experience even easier?

CONCEPT #4: SINGLE-STEP TRANSPARENCY

We adapted our transparency concept to focus on just the *one* thing a user should do upon first entering the app.



To calculate a check, let’s first add a worker. Tap here to begin!

FIGURE 7-44. Single-step transparency: a focus on the most important thing

Customers responded more favorably to this. They liked being able to get a sense of all of the options that would be featured in the app, but also liked having a clear recommendation about where to start.

But the concept also made users a little nervous. Customers asked, "If you have a tutorial, does this mean the app is too complicated for me to figure out for myself?" We also observed users trying to tap on the gray background to close the overlay and get a better view of what was behind it. We saw an opportunity to simplify even more and further get out of the user's way.

CONCEPT #5: TIP

In this concept, we kept what was working well about the single-step transparency (one clear call to action and a visible menu), while fixing some of the problems (tutorial link and gray overlay). In this concept, the user saw one call to action in the form of a tip, and could tap elsewhere on the screen in order to hide it.

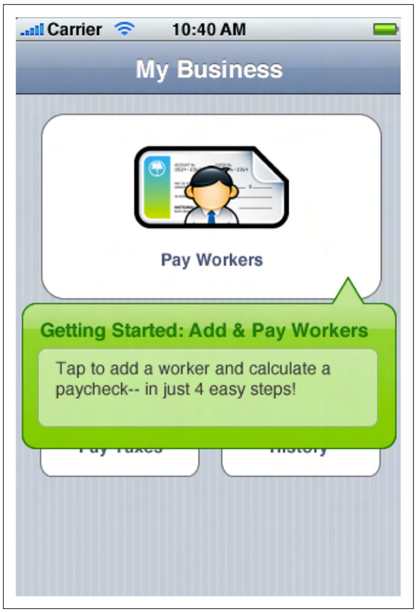

Carrier
10:40 AM
My Business
Pay Workers
Getting Started: Add & Pay Workers
Tap to add a worker and calculate a paycheck-- in just 4 easy steps!

FIGURE 7-45.
Tip: one call to action, with the rest of the screen tappable

This tested very well. Customers had a good sense of where they were and what was available to them, as well as a clear first step. At last, we could make our dinner-party guests feel welcome and confident, while introducing them to "a menu item you simply must get to know!"

To craft a great first experience for our users, we've learned to keep the following principles in mind:

Get out of the way
: Don't obscure elements of the UI or force users to sit through an unwanted tour; it feels like you're hiding something.

Provide guidance
: Remove friction and uncertainty by suggesting the first step in the workflow.

These findings led to our final design for the Intuit Snap Payroll first-use experience. As in Concept 5, we provided a Tip that points to the first action a customer should take.

When a customer first opens the app, he sees the menu screen overlaid with a friendly sticky note that points to the recommended menu item. But he can view other parts of the menu, too, and hide the note, if he chooses.

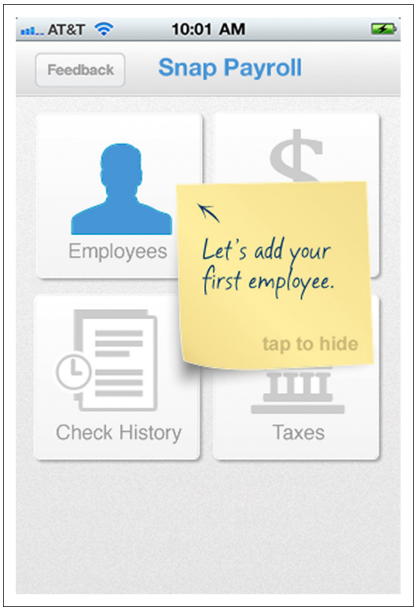


FIGURE 7-46. Pre–iOS 7 implementation: hideable sticky note

This has been very successful in transforming our customers' fears into confidence. Users quickly understand the functionality the app offers, while also feeling that they know how to proceed in order to have a positive experience.

With the introduction of iOS 7, we used subtle translucency and animation effects to strike the right balance of openness and guidance. In this example, the menu loads first and then the sticky note fades, conveying helpfulness while staying out of the way.

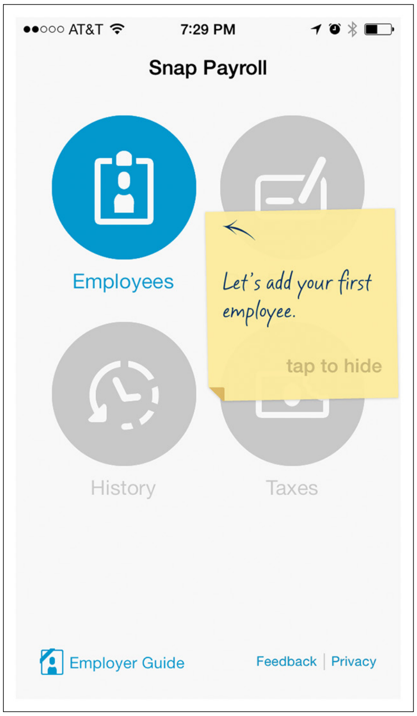


FIGURE 7-47.
iOS 7 implementation: helpfulness that doesn't get in the way

Summary

When it comes to inviting your customers into your app, don't just point to the door and expect them to let themselves in. Take the time to craft a thoughtful experience that makes them feel welcome and confident. You'll leave them looking forward to their next visit.

[8]

Social Patterns

Patterns

Social Registration, Connecting, Following, Profiles, Groups, Gamification

Services that provide social connections have continued to proliferate and specialize. Now we can connect with other people through our shared affinities for food, shopping, fitness, and much more. In this new chapter, we'll examine patterns that can help your users make these connections through their mobile devices.

Social Registration

In Chapter 2 we looked at Registration form patterns. Here, we'll take a look at Registration user flows specifically for social apps.

MapMyFitness Compared to We Heart It

MapMyFitness offers Sign Up with Facebook, and uses the Facebook API to show a single authorization screen. If authorized, it pulls pertinent registration information from your Facebook profile to create your MapMyFitness profile for you.

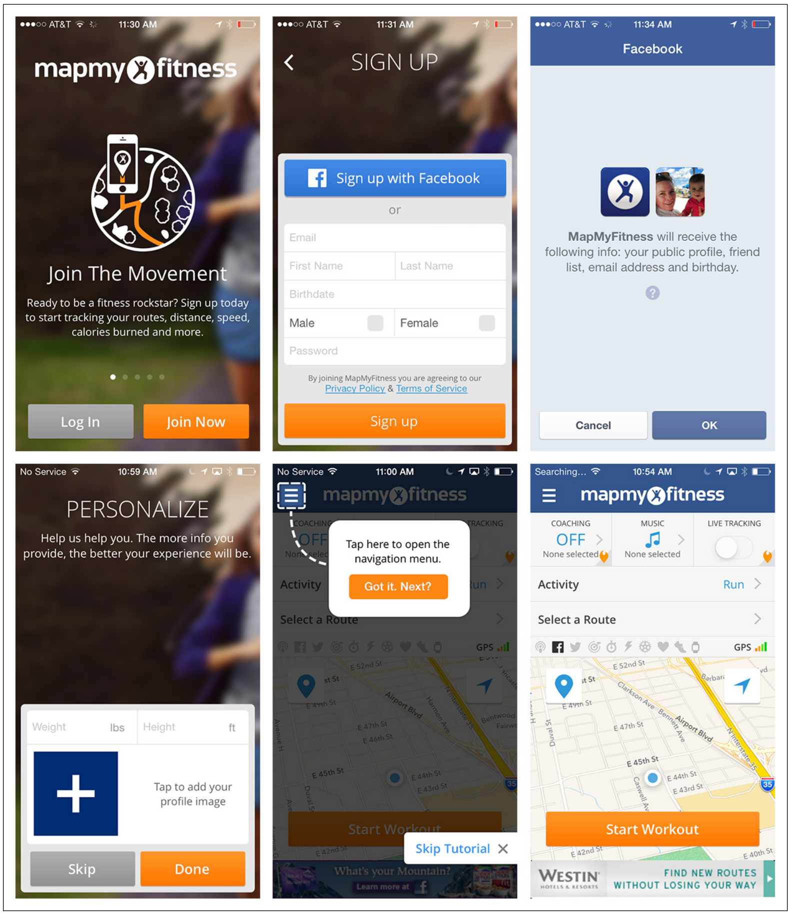
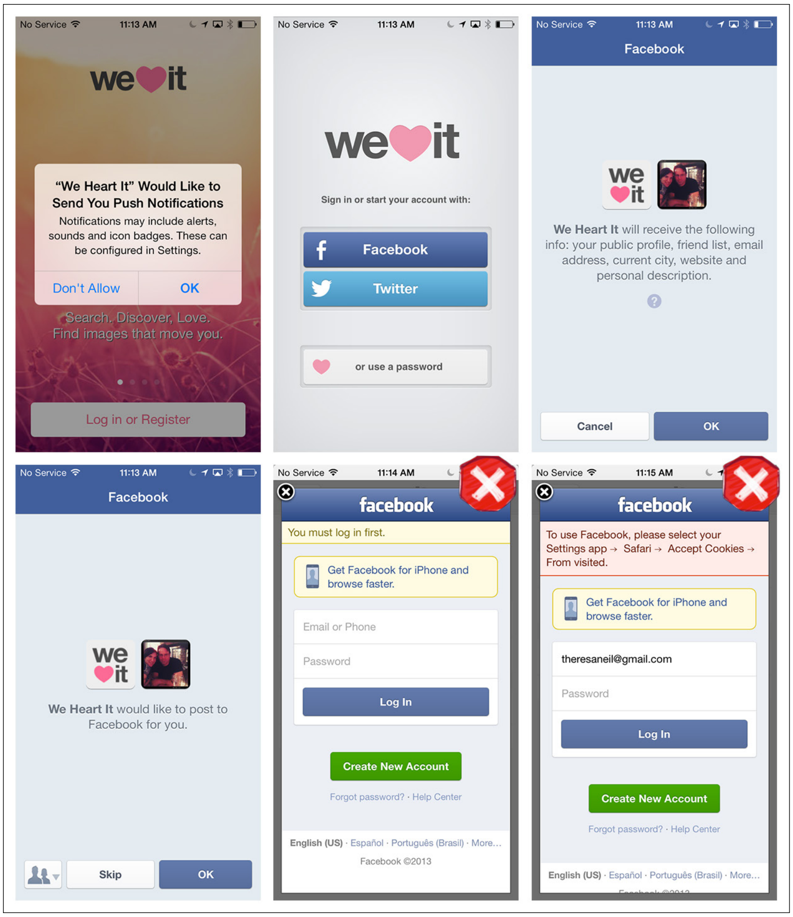

mapmy fitness
Join The Movement
Ready to be a fitness rockstar? Sign up today to start tracking your routes, distance, speed, calories burned and more.
Log In
Join Now
SIGN UP
Sign up with Facebook
or
Email
First Name
Last Name
Birthdate
Male
Female
Password
By joining MapMyFitness you are agreeing to our Privacy Policy & Terms of Service
Sign up
Facebook
MapMyFitness will receive the following info: your public profile, friend list, email address and birthday.
Cancel
OK
PERSONALIZE
Help us help you. The more info you provide, the better your experience will be.
Weight lbs
Height ft
Tap to add your profile image
Skip
Done
Tap here to open the navigation menu.
Got it. Next?
Skip Tutorial
COACHING
OFF
None selected
MUSIC
None selected
LIVE TRACKING
Activity
Run
Select a Route
GPS
Start Workout
WESTIN
FIND NEW ROUTES WITHOUT LOSING YOUR WAY

FIGURE 8-1. MapMyFitness for iOS streamlines Registration with Facebook and an optional personalization screen

Unfortunately, We Heart It, like many apps, has implemented the Facebook API incorrectly. After I authorized the use of my Facebook identity to register, it asked me to sign in to Facebook (I already had), and only then told me that if I wanted to use Facebook to register, I needed to adjust my Safari settings. What the heck? And to top it off, there was a bug: I was presented the option to "skip posting to Facebook" multiple times in a row. It's these kinds of confusing extra steps and glitches that cause user frustration and abandonment.


"We Heart It" Would Like to Send You Push Notifications

Notifications may include alerts, sounds and icon badges. These can be configured in Settings.

Search. Discover. Love.
Find images that move you.

Sign in or start your account with:

We Heart It will receive the following info: your public profile, friend list, email address, current city, website and personal description.

We Heart It would like to post to Facebook for you.

You must log in first.

To use Facebook, please select your Settings app → Safari → Accept Cookies → From visited.

theresaneil@gmail.com

FIGURE 8-2.
We Heart It for iOS: I don't "heart" all of these authorization screens and errors

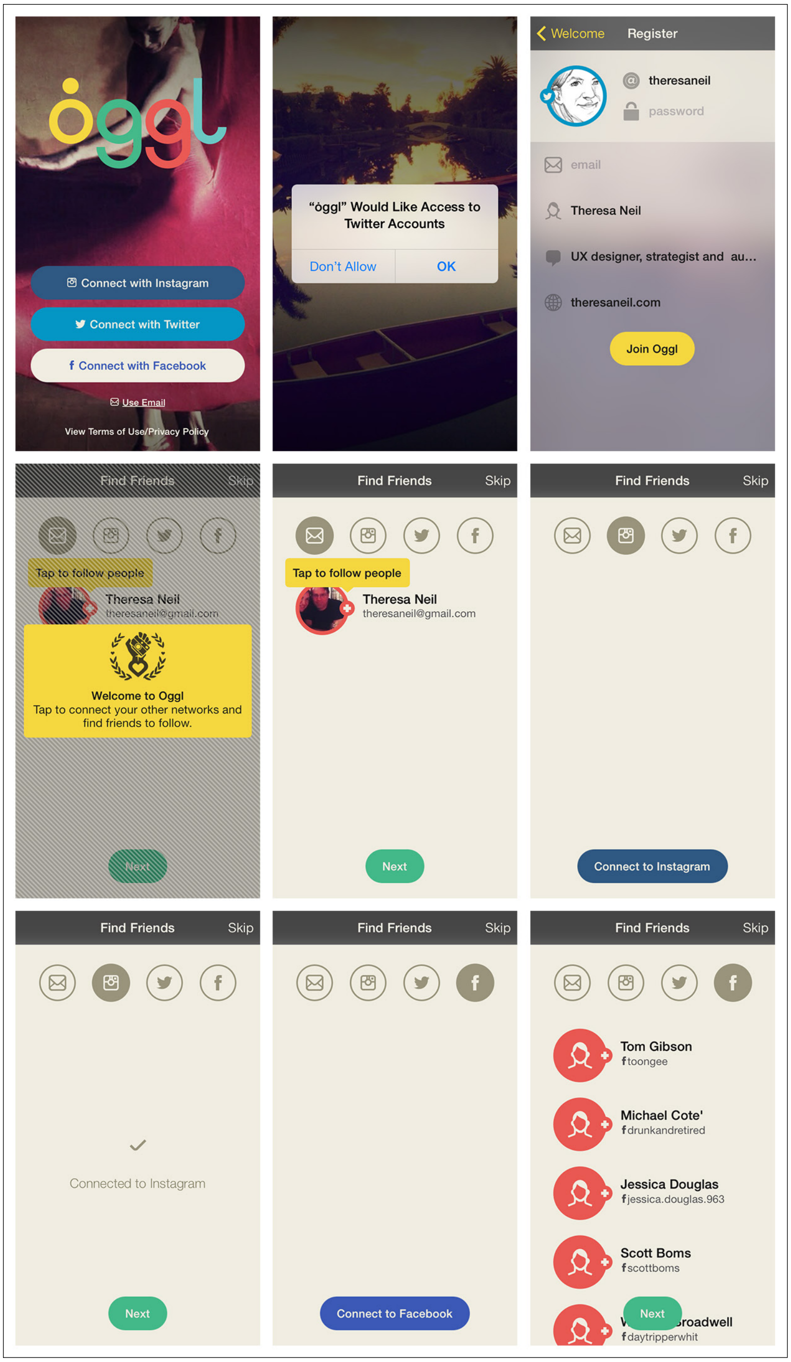
[NOTE]

Use social network APIs properly to streamline the Registration experience. Make sure to perform quality assurance testing on all paths of the Registration flow.

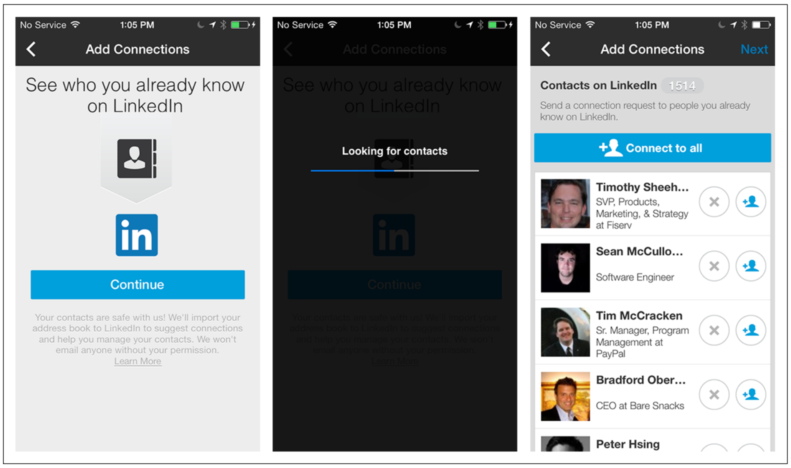
Connecting

Part of the beauty of using APIs for other social platforms is that it lets users access their existing social connections. Oggl offers a simple connection flow as an optional part of the Registration process. In this example, I registered using my Twitter account, and then Oggl created a prefilled profile for me; I only needed to add a password and email address. A couple of taps later, I was able to connect with everyone I follow on Instagram, Twitter, and Facebook.

FIGURE 8-3.
Oggl for iOS: adding connections from other social networks as an optional flow in Registration



LinkedIn has introduced a new flow in its web and mobile apps that has had a significant impact on driving additional connections. Any time you accept an invite, there is a full-screen prompt to “See who you already know on LinkedIn.”


No Service 1:05 PM
Add Connections
See who you already know on LinkedIn
Continue
Learn More
Looking for contacts
Next
Contacts on LinkedIn 1514
Connect to all
Timothy Sheeh... SVP, Products, Marketing, & Strategy at Fiserv
Sean McCullo... Software Engineer
Tim McCracken Sr. Manager, Program Management at PayPal
Bradford Ober... CEO at Bare Snacks
Peter Hsing

Your contacts are safe with us! We'll import your address book to LinkedIn to suggest connections and help you manage your contacts. We won't email anyone without your permission.

Send a connection request to people you already know on LinkedIn.

FIGURE 8-4. LinkedIn for iOS: accepting a connection serves up suggestions for others to connect with

Looking again at MapMyFitness, I gave its Social Registration high marks for being short and sweet, but connections aren’t part of that flow. That’s not really an issue, though, because the app organically prompts for connection within normal user flows: from the main menu, through invitations before or after a workout, and through invitations in the Activity Feed.

[NOTE]

Offer connection points throughout the application. It might make sense to offer connection opportunities during Registration, and/or as part of one or more other user flows.

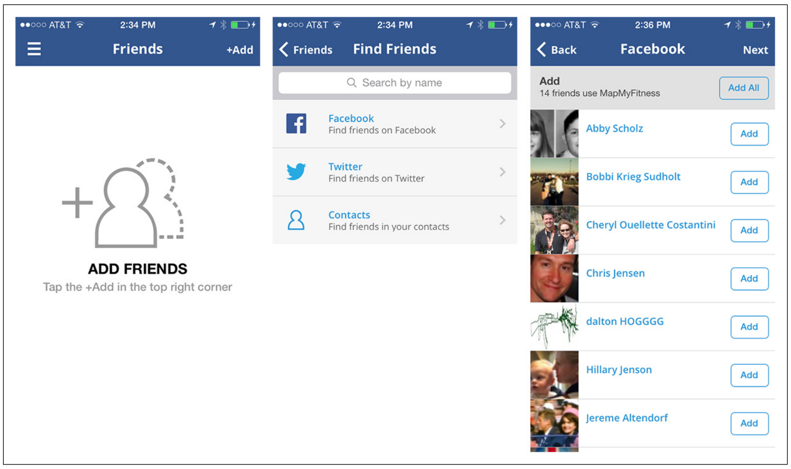
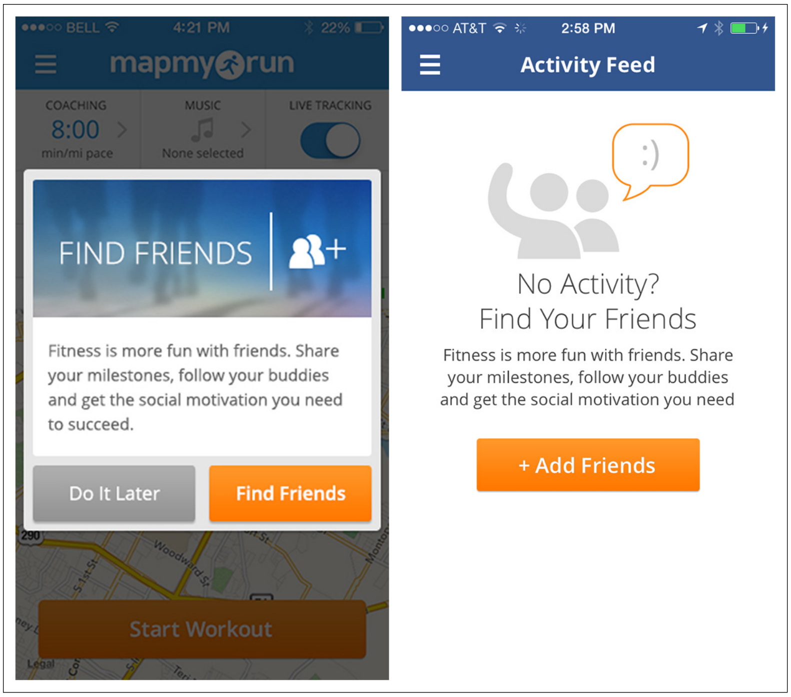


FIGURE 8-5. MapMyFitness for iOS: find friends from main menu

FIGURE 8-6.
MapMyFitness for iOS: invitations to connect pre- or post-workout, and in the Activity Feed



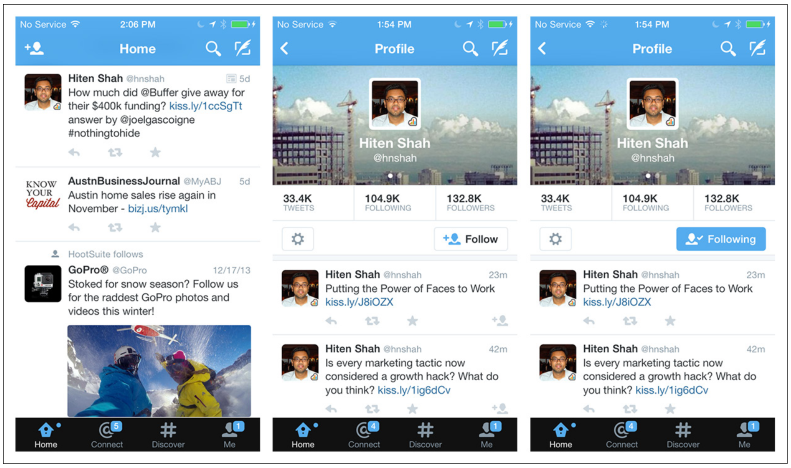
Fitness is more fun with friends. Share your milestones, follow your buddies and get the social motivation you need to succeed.

No Activity?
Find Your Friends

Fitness is more fun with friends. Share your milestones, follow your buddies and get the social motivation you need

Following

All of the previous examples show how to enable bulk connections. But you'll probably also want to offer a one-to-one connection option. Thanks to Twitter, *Following* has become the generic term for this. In the Twitter and Zoomingo apps, the Following flow works like this: I'm browsing, I see something interesting (a tweet or a coupon), I look at who shared it, I check out what else that person has shared, and if what I see appeals to me I follow that person.



Hiten Shah @hnshah 5d
How much did @Buffer give away for their $400k funding? kiss.ly/1ccSgTt answer by @joelgascoigne #nothingtohide

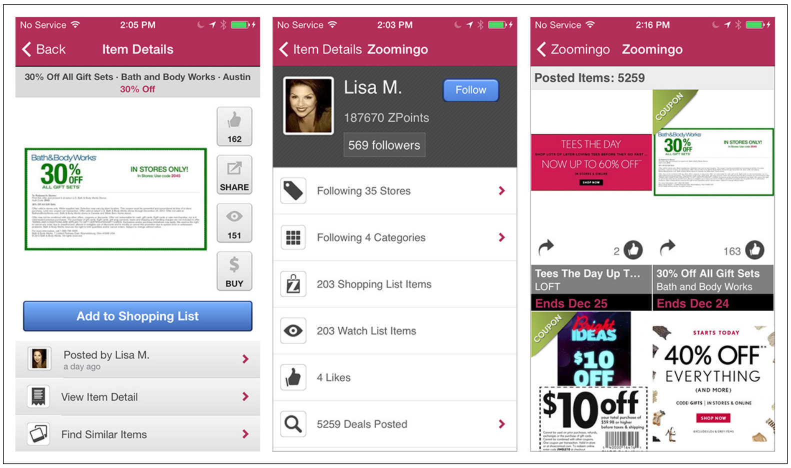
AustnBusinessJournal @MyABJ 5d
Austin home sales rise again in November - bizj.us/tymkl

HootSuite follows
GoPro® @GoPro 12/17/13
Stoked for snow season? Follow us for the raddest GoPro photos and videos this winter!

Hiten Shah @hnshah 23m
Putting the Power of Faces to Work kiss.ly/J8iOZX

Hiten Shah @hnshah 42m
Is every marketing tactic now considered a growth hack? What do you think? kiss.ly/1ig6dCv

FIGURE 8-7.
Twitter for iOS: the Following flow lets you see what else a user has shared



30% Off All Gift Sets - Bath and Body Works - Austin
30% Off

Posted by Lisa M.
a day ago
View Item Detail
Find Similar Items

Following 35 Stores
Following 4 Categories
203 Shopping List Items
203 Watch List Items
4 Likes
5259 Deals Posted

Tees The Day Up T...
LOFT
Ends Dec 25

30% Off All Gift Sets
Bath and Body Works
Ends Dec 24

FIGURE 8-8.
Zoomingo for iOS: the Following flow highlights the user's reach within the network

Pose makes Following a feature that drives signups. In its flow, the home page has a Featured Poser and a Follow call to action. If I want to see the Featured Poser's collection and profile, I'll need to register, if I haven't already.

[NOTE]

Offer Following at key points in the browsing flow to increase user engagement. Make the Follow button a prominent call to action on the Profile screen.

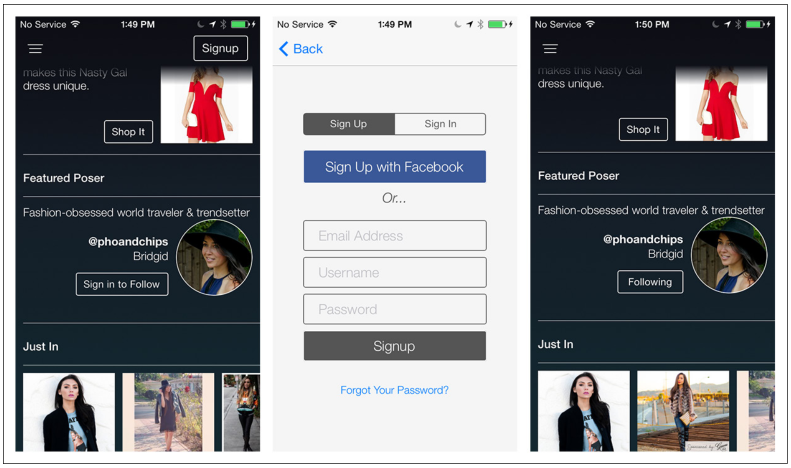


FIGURE 8-9.
Pose for iOS: Featured Poser makes Following a conversion tactic

Profiles

Although Profiles aren't unique to social platforms, they are one of the key elements of all social networks. The best profile pages "introduce" the person with a photo, short bio, and lists of interests. They include an activity feed or another indicator of the profilee's level of engagement, show that person's reach (how popular, influential, or active she is in the network), and offer a way to follow, add, or otherwise connect with her.

Apps like Foodspotting and Foursquare use statistics to show how engaged the person is in the community. This makes sense, since the relationships in these two apps are based on credibility and trust.

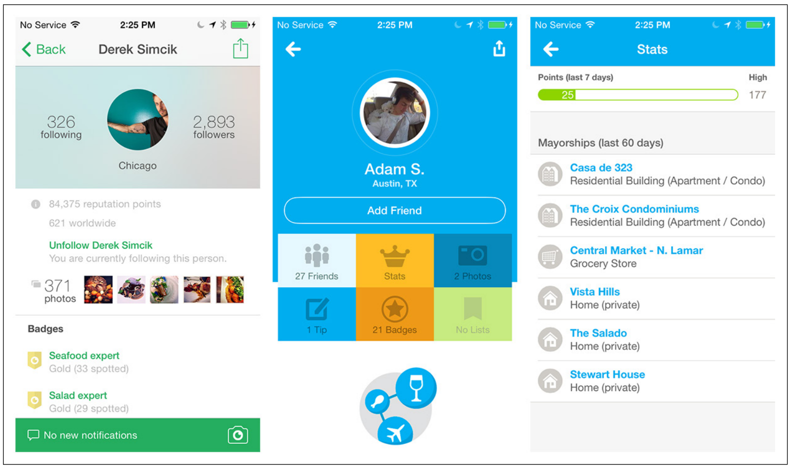


FIGURE 8-10.
Foodspotting and Foursquare for iOS: statistics communicate engagement and reach

Pose and Pinterest are more visual networks, based on members' shared tastes. No surprise, then, that photos of shared content are the primary focus in their Profile screen designs.

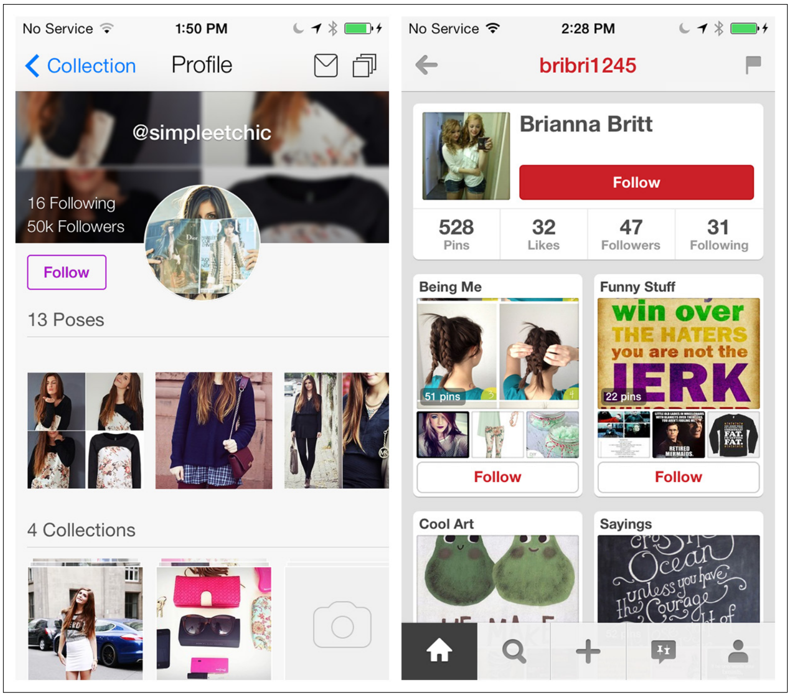


FIGURE 8-11. Pose and Pinterest for iOS: shared content is prominent in Profiles

Sometimes a network touches so many aspects of a person's life that a Profile can't be limited to a single screen. Instagram and Google+ use tabs for the different facets of a Profile, whereas LinkedIn uses a list to drill into more details.

[NOTE]

Profiles are the heart of social networks. Ultimately, the design should surface just enough information to make people want to connect with one another and build relationships within the network.

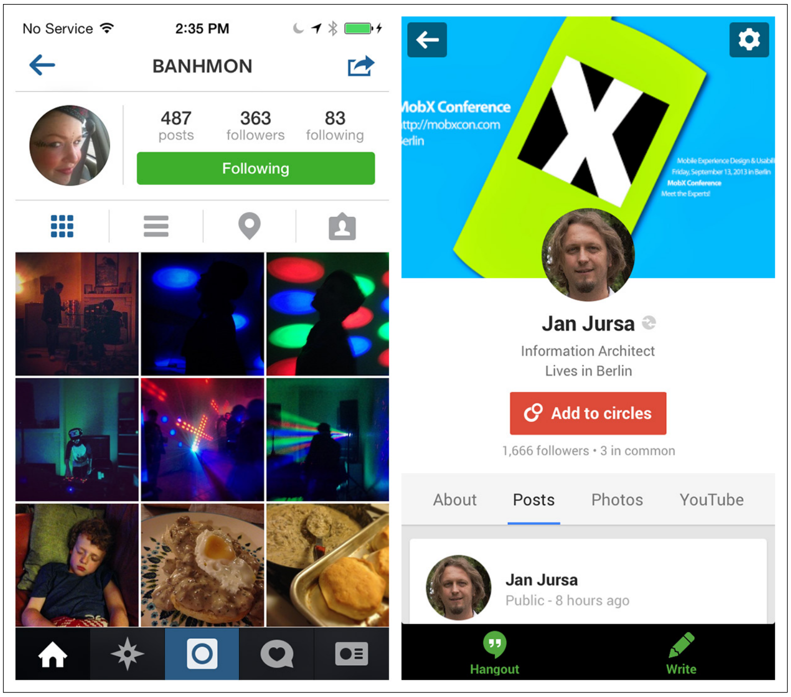
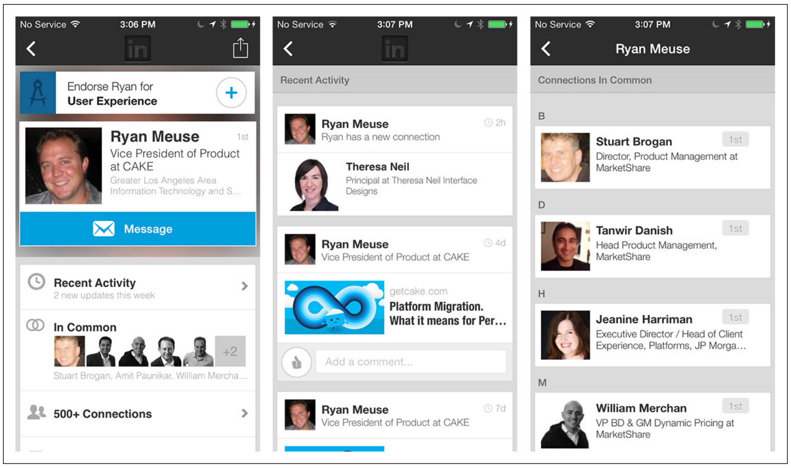


FIGURE 8-12. Instagram and Google+: tabbed Profiles



Endorse Ryan for User Experience

Ryan Meuse 1st
Vice President of Product at CAKE
Greater Los Angeles Area
Information Technology and S...

Recent Activity
2 new updates this week

In Common
Stuart Brogan, Amit Paunikar, William Mercha...

500+ Connections

Recent Activity

Ryan Meuse 2h
Ryan has a new connection

Theresa Neil
Principal at Theresa Neil Interface Designs

Ryan Meuse 4d
Vice President of Product at CAKE

getcake.com
Platform Migration. What it means for Per...

Ryan Meuse 7d
Vice President of Product at CAKE

Connections In Common

B
Stuart Brogan 1st
Director, Product Management at MarketShare

D
Tanwir Danish 1st
Head Product Management, MarketShare

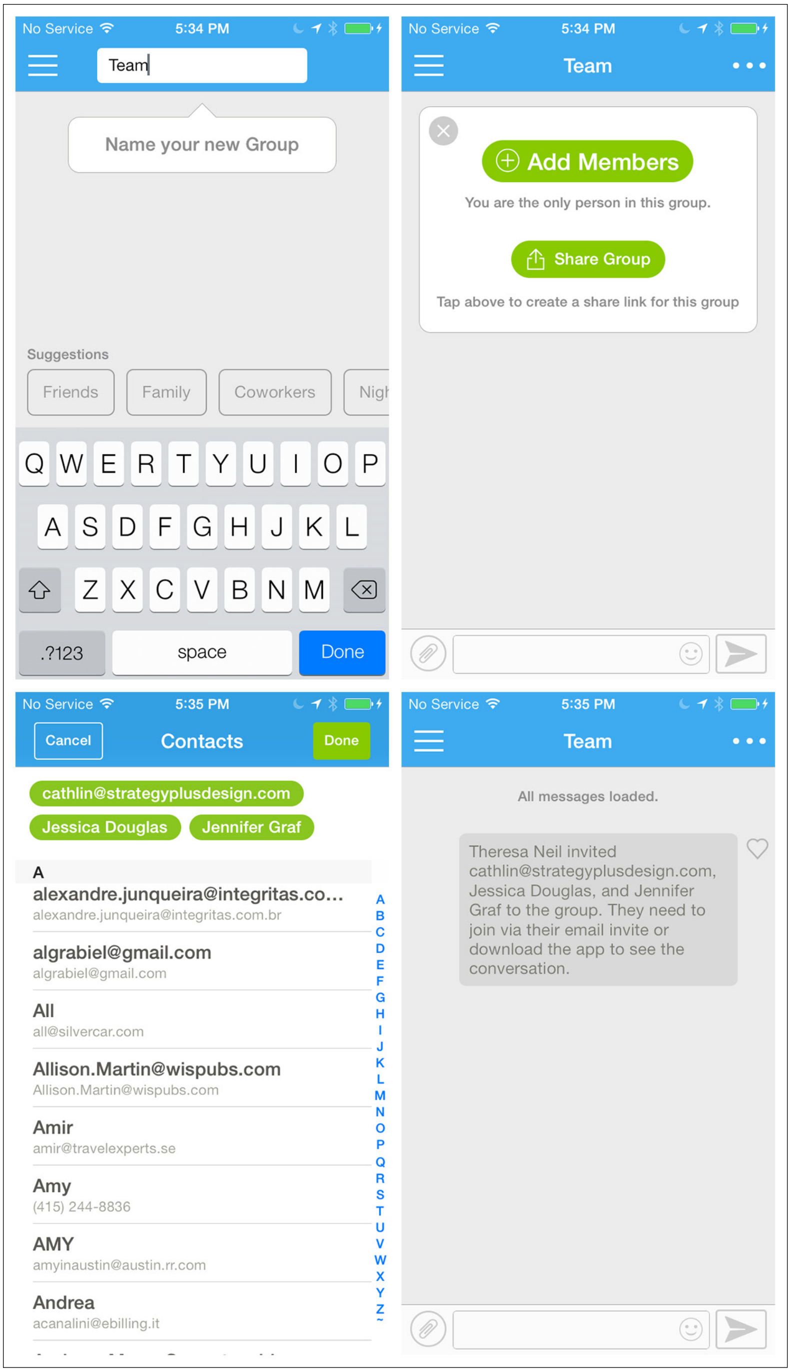
H
Jeanine Harriman 1st
Executive Director / Head of Client Experience, Platforms, JP Morga...

M
William Merchan 1st
VP BD & GM Dynamic Pricing at MarketShare

FIGURE 8-13. LinkedIn for iOS: list design for more Profile details

Groups

Some Groups are implicit within social networks, while others need to be created by users. Group.me has a super simple interface for creating a Group. Start with a Group name, and then use dynamic search to start adding contacts.

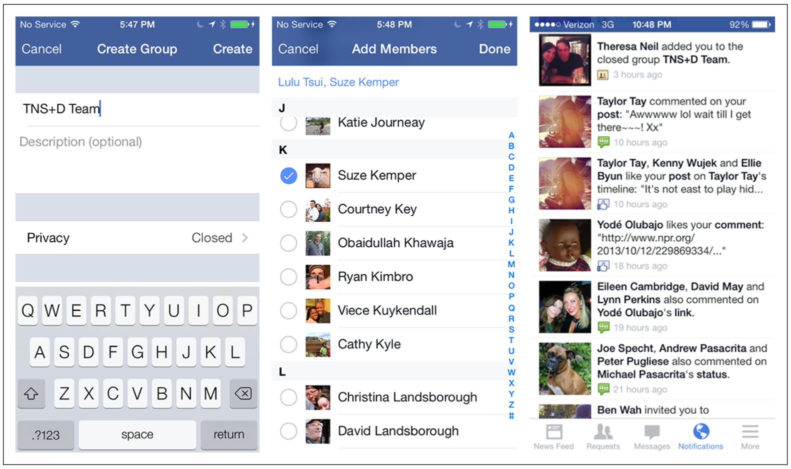


A
alexandre.junqueira@integritas.co...
alexandre.junqueira@integritas.com.br
algrabiel@gmail.com
algrabiel@gmail.com
All
all@silvercar.com
Allison.Martin@wispubs.com
Allison.Martin@wispubs.com
Amir
amir@travelexperts.se
Amy
(415) 244-8836
AMY
amyinaustin@austin.rr.com
Andrea
acanalini@ebilling.it

Theresa Neil invited cathlin@strategyplusdesign.com, Jessica Douglas, and Jennifer Graf to the group. They need to join via their email invite or download the app to see the conversation.

FIGURE 8-14.
Group.me for iOS: dynamic search aids Group creation

Once added to the Group, an invitation will be sent to the members you selected. In this example from Facebook, my invitation appeared as an in-app notification.



TNS+D Team

Description (optional)

Privacy Closed

Lulu Tsui, Suze Kemper

Katie Journeay
[✓ Suze Kemper]
Courtney Key
Obaidullah Khawaja
Ryan Kimbro
Viece Kuykendall
Cathy Kyle
Christina Landsborough
David Landsborough

Theresa Neil added you to the closed group **TNS+D Team**. 3 hours ago

Taylor Tay commented on your **post**: "Awwwww lol wait till I get there~~~! Xx" 10 hours ago

Taylor Tay, **Kenny Wujek** and **Ellie Byun** like your **post** on **Taylor Tay**'s timeline: "It's not east to play hid..." 10 hours ago

Yodé Olubajo likes your **comment**: "http://www.npr.org/2013/10/12/229869334/..." 18 hours ago

Eileen Cambridge, **David May** and **Lynn Perkins** also commented on **Yodé Olubajo**'s **link**. 19 hours ago

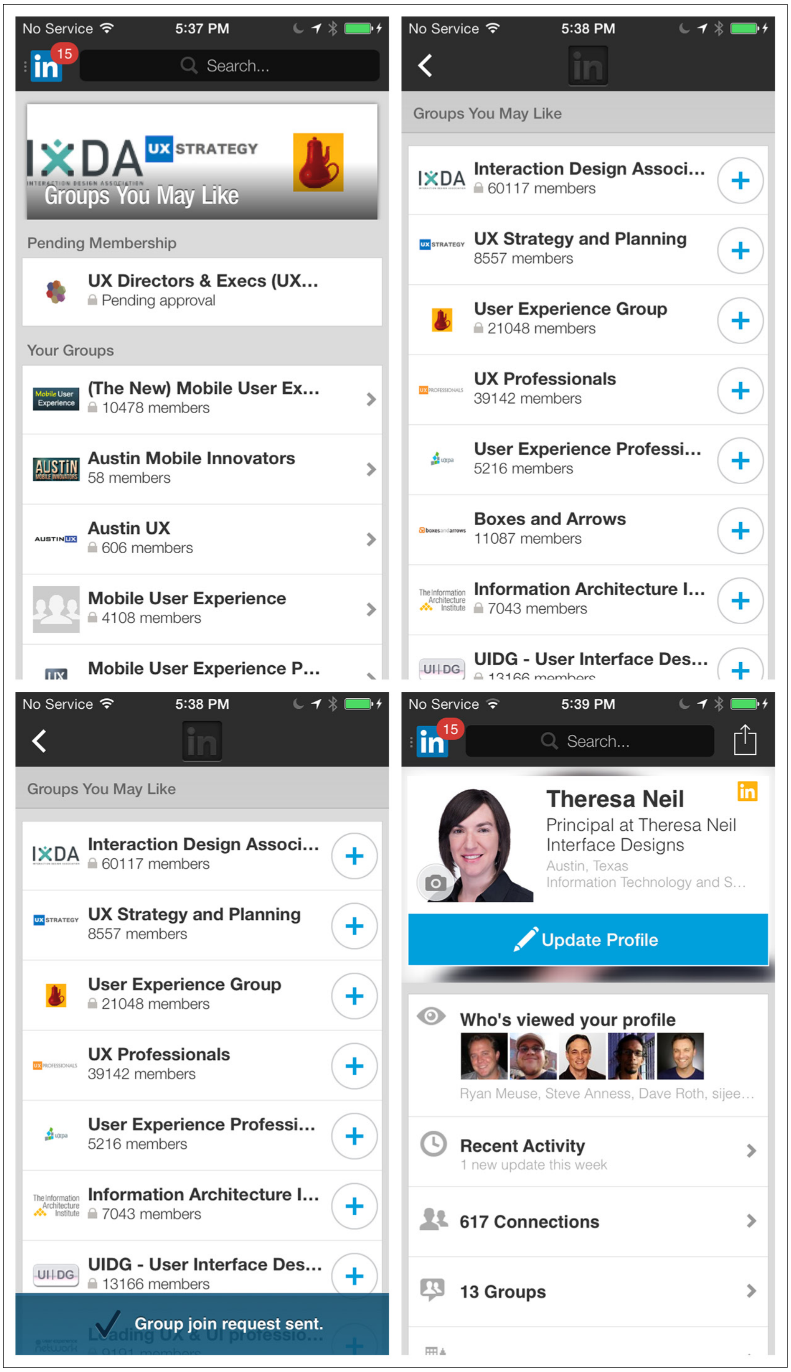
Joe Specht, **Andrew Pasacrita** and **Peter Pugliese** also commented on **Michael Pasacrita**'s **status**. 21 hours ago

Ben Wah invited you to

FIGURE 8-15.
Facebook for iOS: create Group and add members, who then receive in-app notifications

LinkedIn provides recommendations for “Groups You May Like” and allows you to join a Group by tapping the + button. Many Groups require a Group administrator’s approval to join. In the example shown here, I added the Boxes and Arrows Group and received feedback that my request was being processed. On my Profile page, I can easily access the 13 Groups I already belong to.

If your network relies on explicit Group creation, make the flow super easy and integrate the invitation into the application.



No Service 5:37 PM

Search...

Groups You May Like

Pending Membership

UX Directors & Execs (UX...
Pending approval

Your Groups

(The New) Mobile User Ex...
10478 members

Austin Mobile Innovators
58 members

Austin UX
606 members

Mobile User Experience
4108 members

Mobile User Experience P...

No Service 5:38 PM

Groups You May Like

Interaction Design Associ...
60117 members

UX Strategy and Planning
8557 members

User Experience Group
21048 members

UX Professionals
39142 members

User Experience Professi...
5216 members

Boxes and Arrows
11087 members

Information Architecture I...
7043 members

UIDG - User Interface Des...
13166 members

No Service 5:38 PM

Groups You May Like

Interaction Design Associ...
60117 members

UX Strategy and Planning
8557 members

User Experience Group
21048 members

UX Professionals
39142 members

User Experience Professi...
5216 members

Information Architecture I...
7043 members

UIDG - User Interface Des...
13166 members

Group join request sent.

No Service 5:39 PM

Search...

Theresa Neil
Principal at Theresa Neil Interface Designs
Austin, Texas
Information Technology and S...

Update Profile

Who's viewed your profile
Ryan Meuse, Steve Anness, Dave Roth, sijee...

Recent Activity
1 new update this week

617 Connections

13 Groups

FIGURE 8-16.
LinkedIn for iOS: a more formal process for joining Groups

Gamification

It seems like everyone wants Gamification (game-like elements in a nongame) in their applications these days. What they really want is a *sticky* app—one that people return to time and again. But true Gamification takes more than offering a couple of badges. To understand the science and psychology behind Gamification, I highly recommend you read three books: *Designing for Behavior Change*, by Stephen Wendel (O'Reilly, 2013); *How to Get People to Do Stuff*, by Susan Weinshenk (New Riders, 2013); and *Seductive Interaction Design*, by Stephen Anderson (New Riders, 2011).

Beware: Gamification can backfire when implemented poorly. Let's take a look at Audible and what I call the Forget-Me-Not anti-pattern. I'm a long time Audible subscriber, having purchased hundreds of audio books. I listen to Audible in my car, on my computer, at the gym, on a variety of devices. But despite my loyalty and longevity, look at my progress: I've got no badges and the app ranks me at the "newbie" level!

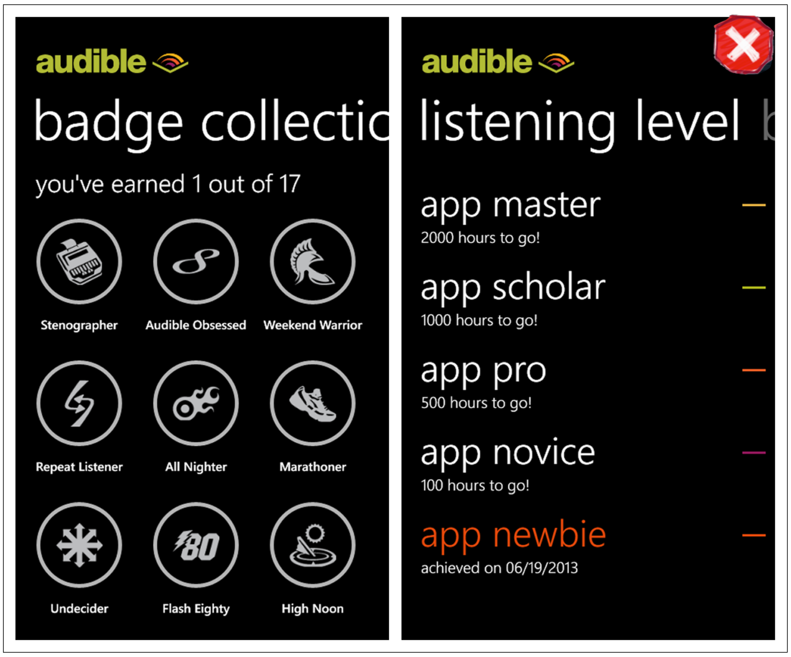
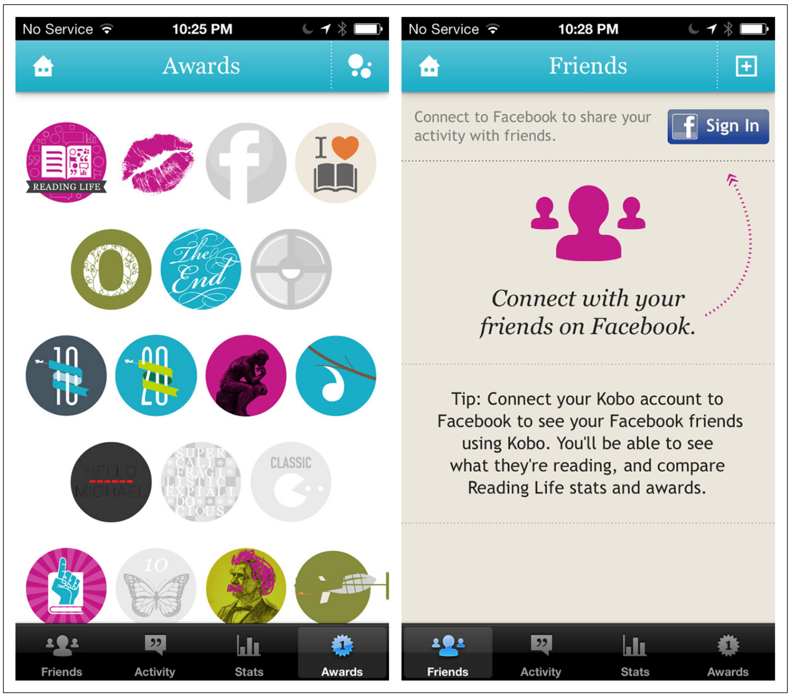


FIGURE 8-17. Audible for Windows Phone: a newbie despite long-term loyalty

Why? Because this takes into account only what I have done with the mobile app on one particular device. With Gamification, it is critical to meet users' expectations of interconnectivity and synchronization across devices. Kobo does a nice job of this with its Reading Life program, and also integrates the Connecting design pattern.



Connect with your friends on Facebook.

Tip: Connect your Kobo account to Facebook to see your Facebook friends using Kobo. You'll be able to see what they're reading, and compare Reading Life stats and awards.

FIGURE 8-18.
Kobo for iOS: Reading Life rewards work across platforms

Nike Training Club has dialed back the badges but continues to offer rewards, which are tied directly to self-specified training goals.

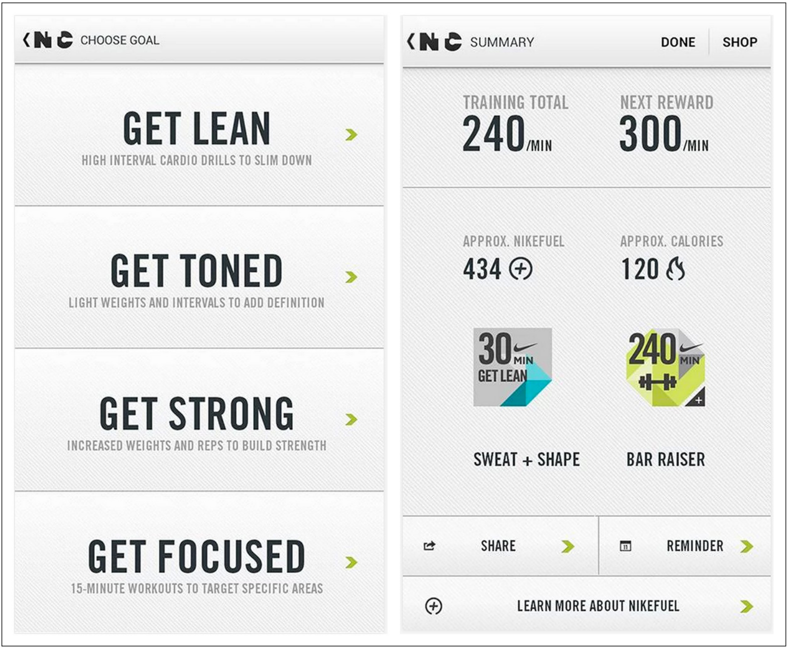
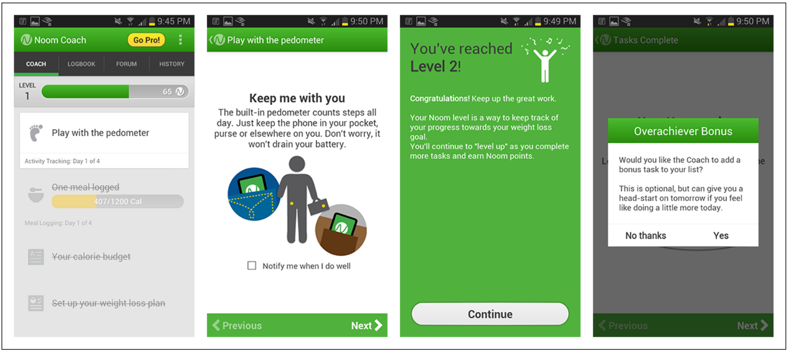


FIGURE 8-19. Nike Training Club for Android: meet self-specified goals, and get rewards

Noom uses the game concept of *leveling up* to encourage continued engagement and forward progress. It also uses a simple, well-known behavior modification technique: the element of surprise. Just as I completed the setup process, I was rewarded with an "overachiever bonus," which inspired me to engage just a little more.



Keep me with you

The built-in pedometer counts steps all day. Just keep the phone in your pocket, purse or elsewhere on you. Don't worry, it won't drain your battery.

You've reached Level 2!

Congratulations! Keep up the great work.

Your Noom level is a way to keep track of your progress towards your weight loss goal.
You'll continue to "level up" as you complete more tasks and earn Noom points.

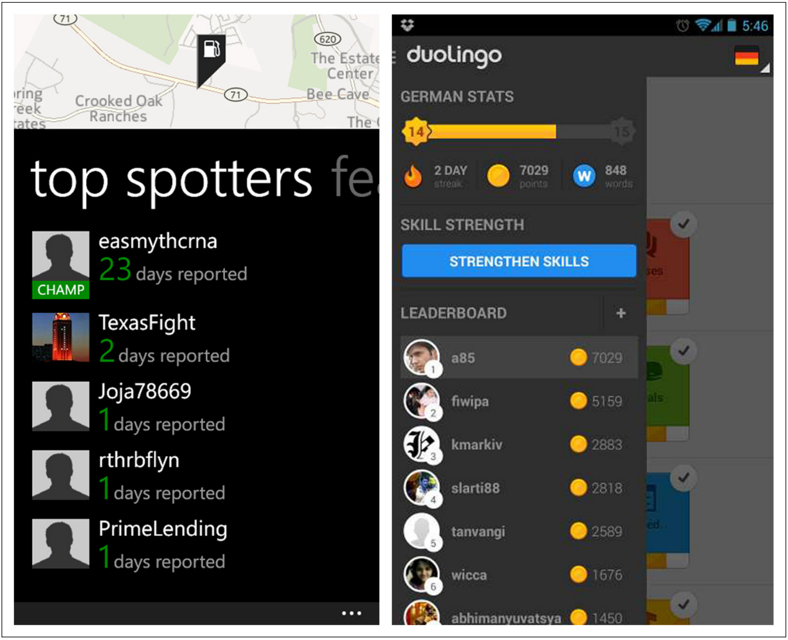
Overachiever Bonus

Would you like the Coach to add a bonus task to your list?

This is optional, but can give you a head-start on tomorrow if you feel like doing a little more today.

FIGURE 8-20. Noom for Android: leveling up and surprises "gamify" the experience

Other motivators in gamified apps include Leaderboards and Points. GasBuddy prominently features Top Spotters, and Duolingo shows stats for top performers.



easmythcrna 23 days reported
TexasFight 2 days reported
Joja78669 1 days reported
rthrbflyn 1 days reported
PrimeLending 1 days reported

1	a85	7029
2	fiwipa	5159
3	kmarkiv	2883
4	slarti88	2818
5	tanvangi	2589
6	wicca	1676
	abhimanyuvatsya	1450

FIGURE 8-21.
GasBuddy and Duolingo for iOS: Leaderboards and reputation Points

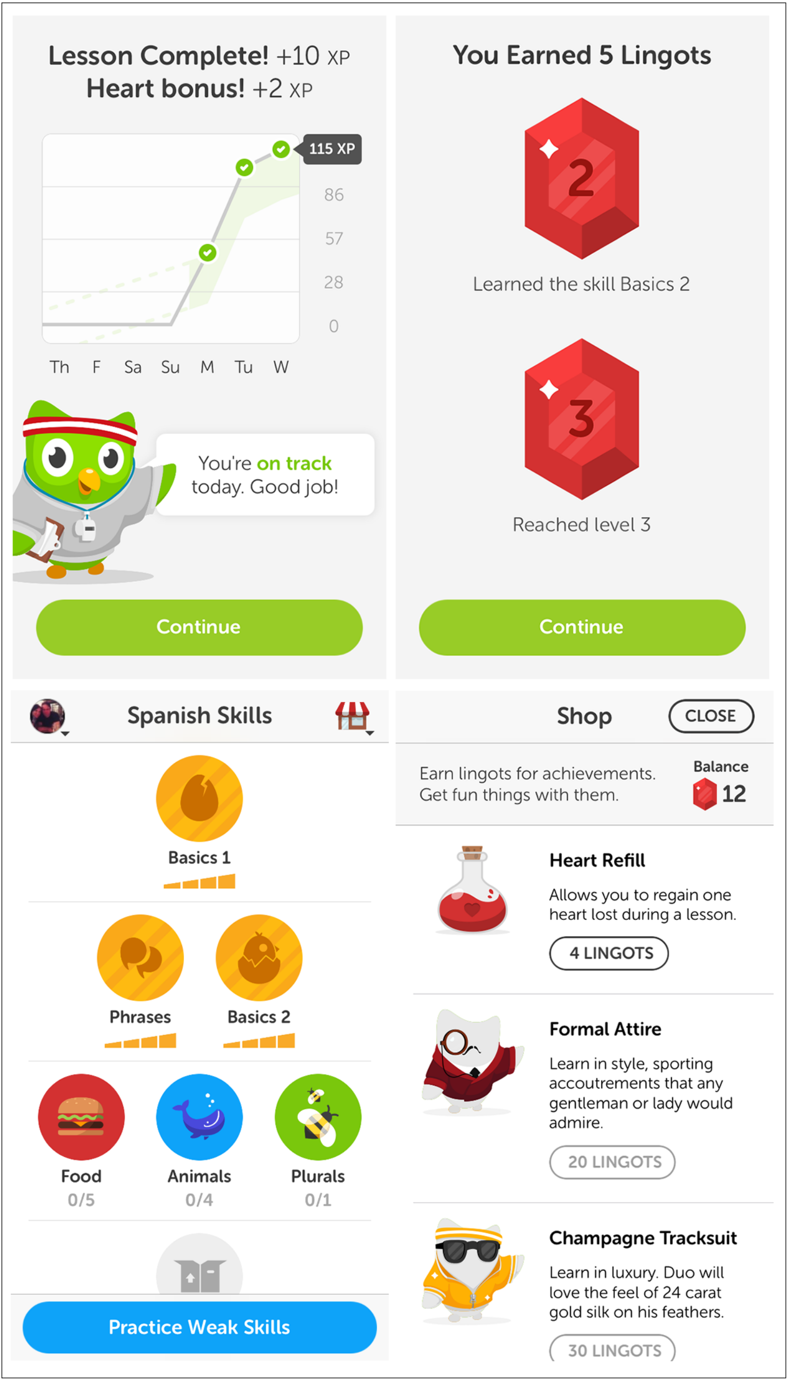
With Duolingo, users earn "Lingots" for successfully completing a skill set. They can then use the Lingots for shopping—say, to purchase a new outfit for the cute little owl instructor.

Compare the simplicity of Duolingo to Foodspotting's lengthy and confusing reputation system (*http://www.foodspotting.com/about/faq*), where users have to earn points in order to award restaurants with blue ribbons (called "noms"). If you can't explain the system in a sentence or two, it may be too complex to motivate users as much as you'd like.

[NOTE]

Understand the principles of Gamification and behavior change before trying these patterns. Keep it simple and fun, and don't force Gamification where it isn't appropriate.

FIGURE 8-22.
Duolingo shows progress against goals and rewards success with Lingots


Lesson Complete! +10 XP
Heart bonus! +2 XP
115 XP
86
57
28
0
Th F Sa Su M Tu W
You're on track today. Good job!
Continue
You Earned 5 Lingots
2
Learned the skill Basics 2
3
Reached level 3
Continue
Spanish Skills
Basics 1
Phrases
Basics 2
Food 0/5
Animals 0/4
Plurals 0/1
Practice Weak Skills
Shop
CLOSE
Earn lingots for achievements. Get fun things with them.
Balance 12
Heart Refill
Allows you to regain one heart lost during a lesson.
4 LINGOTS
Formal Attire
Learn in style, sporting accoutrements that any gentleman or lady would admire.
20 LINGOTS
Champagne Tracksuit
Learn in luxury. Duo will love the feel of 24 carat gold silk on his feathers.
30 LINGOTS

[9]

Feedback and Affordance

Feedback Patterns

Error Messages, Confirmation, System Status

Affordance Patterns

Tap, Swipe/Flick, Drag

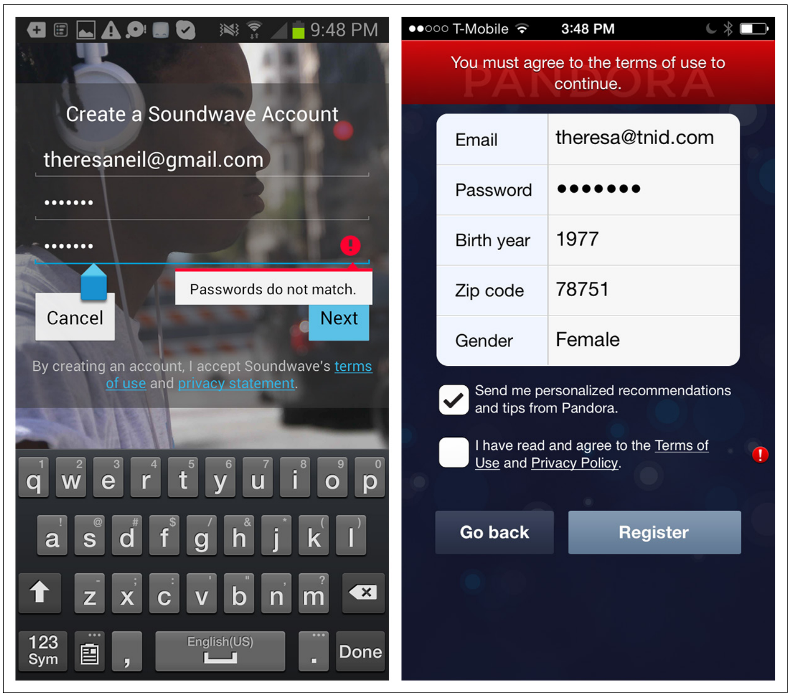
Feedback Patterns

In its “Principles for Usable Design” (*http://www.usabilitybok.org/principles-for-usable-design*), the User Experience Professionals Association says that well-designed user interfaces should “provide appropriate, clear, and timely feedback to the user so that he sees the results of his actions and knows what is going on with the system.” Paraphrasing an old movie tagline, I’d shorten this to: “Feedback means users never have to say, ‘What’s happening?!’”

Feedback can vary from simple progress indicators and confirmation messages to more sophisticated animations and effects. Mobile feedback patterns include Error Messages, Confirmation, and System Status.

Error Messages

Error Messages should be expressed in plain language (no codes), precisely indicate the problem, and suggest a constructive solution. Best practice is to make Error Messages highly visible onscreen, like in Soundwave and Pandora. These approaches are preferable to modal dialogs, since they may literally cover up the issue, as in Square Register and Pinterest.


Create a Soundwave Account

theresaneil@gmail.com

Passwords do not match.

By creating an account, I accept Soundwave's terms of use and privacy statement.

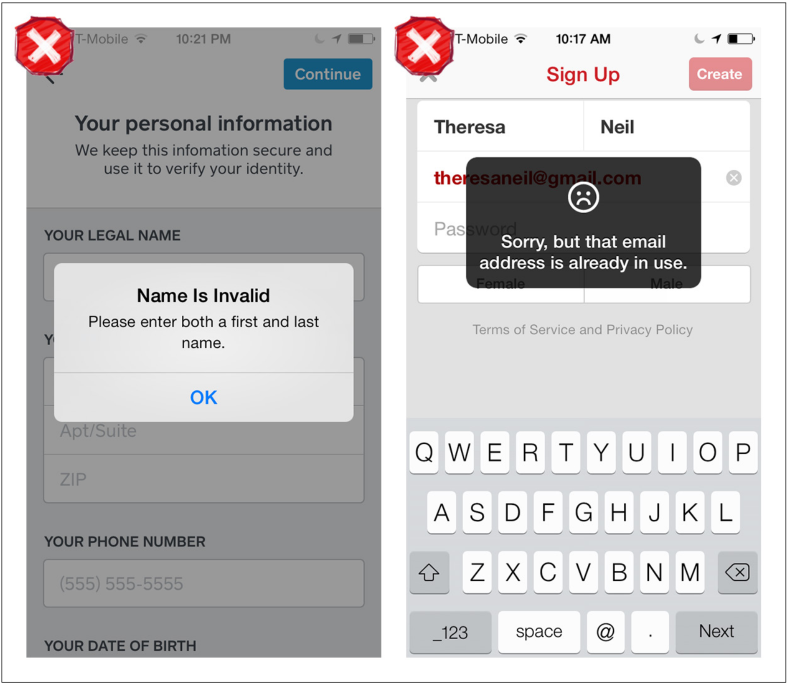
You must agree to the terms of use to continue.

Email	theresa@tnid.com
Password	•••••••
Birth year	1977
Zip code	78751
Gender	Female

☑ Send me personalized recommendations and tips from Pandora.

☐ I have read and agree to the Terms of Use and Privacy Policy.

FIGURE 9-1. Soundwave for Android and Pandora for iOS: highly visible Error Messages



T-Mobile 10:21 PM
Continue
Your personal information
We keep this infomation secure and use it to verify your identity.
YOUR LEGAL NAME
Name Is Invalid
Please enter both a first and last name.
OK
Apt/Suite
ZIP
YOUR PHONE NUMBER
(555) 555-5555
YOUR DATE OF BIRTH
T-Mobile 10:17 AM
Sign Up
Create
Theresa
Neil
theresaneil@gmail.com
Password
Sorry, but that email address is already in use.
Female
Male
Terms of Service and Privacy Policy

FIGURE 9-2.
Square Register and Pinterest for iOS: error dialogs hiding the errors

If you can prevent the error, that's even better. See the Confirmation pattern for suggestions on providing inline feedback that prevents errors—and Error Messages.

[NOTE]
Explain the error in plain language and offer a solution for resolving it. Integrate error messaging into the screen design so messages leave errors visible, instead of covering them up.

Confirmation

Do provide Confirmation when an action is taken. But don't use the Idiot Box anti-pattern, like Amazon for Android and HauteLook. Instead, look for ways to provide Confirmation feedback that don't disrupt the user flow. (See Chapter 11 for more on the Idiot Box anti-pattern.) For example, Amazon for iOS and Zappos both use animation to show an item being added to the cart, with the number of items in the cart updating.

FIGURE 9-3.
Amazon for Android and HauteLook for iOS: Idiot Box Confirmation interrupts shopping flow

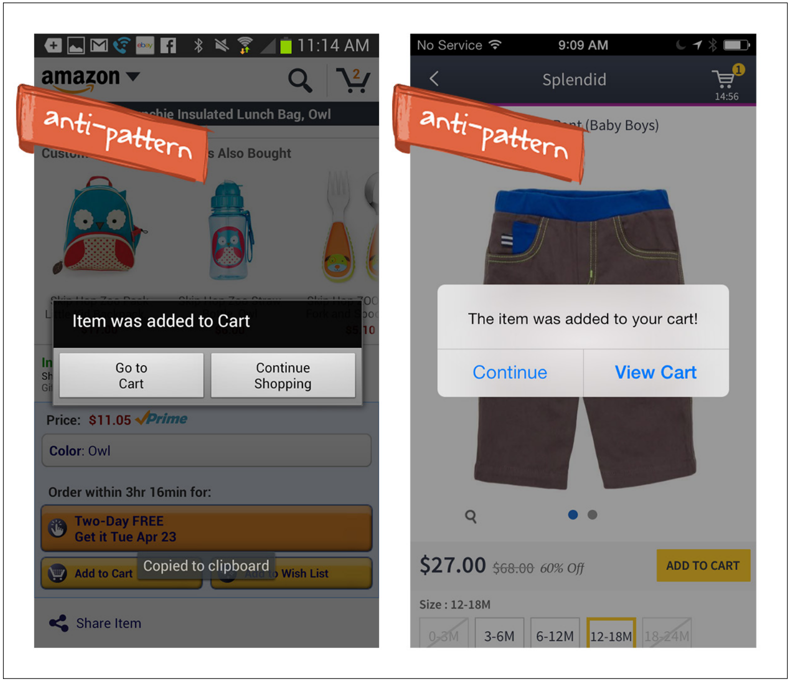
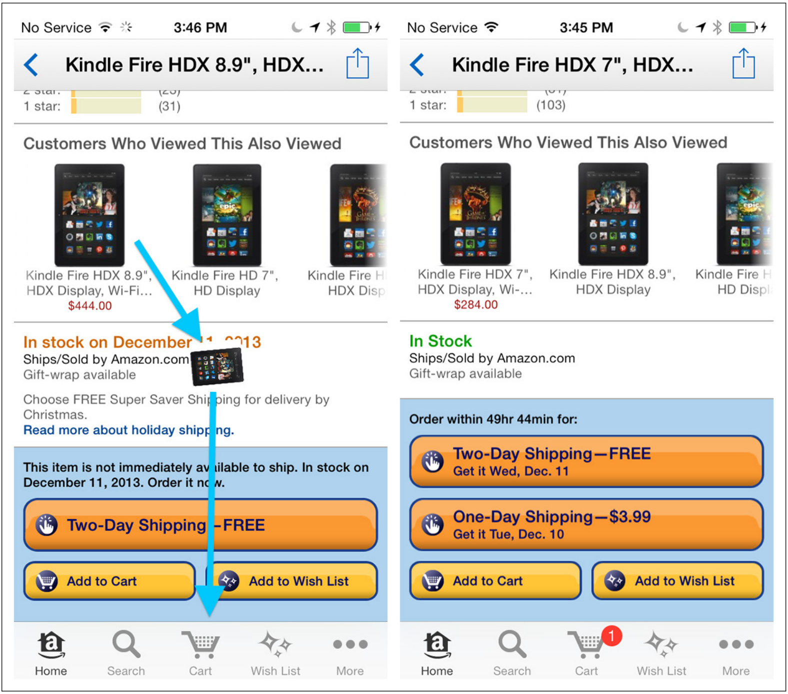


FIGURE 9-4.
Amazon for iOS: Kindle "falls" into the cart and the cart item number updates (*http://www.youtube.com/watch?v=--JzNARO_eM*)


No Service 3:46 PM
Kindle Fire HDX 8.9", HDX...
Customers Who Viewed This Also Viewed
Kindle Fire HDX 8.9", HDX Display, Wi-Fi...
$444.00
Kindle Fire HD 7", HD Display
In stock on December 11, 2013
Ships/Sold by Amazon.com
Gift-wrap available
Choose FREE Super Saver Shipping for delivery by Christmas.
Read more about holiday shipping.
This item is not immediately available to ship. In stock on December 11, 2013. Order it now.
Two-Day Shipping—FREE
Add to Cart
Add to Wish List
Home
Search
Cart
Wish List
More
No Service 3:45 PM
Kindle Fire HDX 7", HDX...
Customers Who Viewed This Also Viewed
Kindle Fire HDX 7", HDX Display, Wi-...
$284.00
Kindle Fire HDX 8.9", HDX Display
In Stock
Ships/Sold by Amazon.com
Gift-wrap available
Order within 49hr 44min for:
Two-Day Shipping—FREE
Get it Wed, Dec. 11
One-Day Shipping—$3.99
Get it Tue, Dec. 10
Add to Cart
Add to Wish List
Home
Search
Cart
Wish List
More

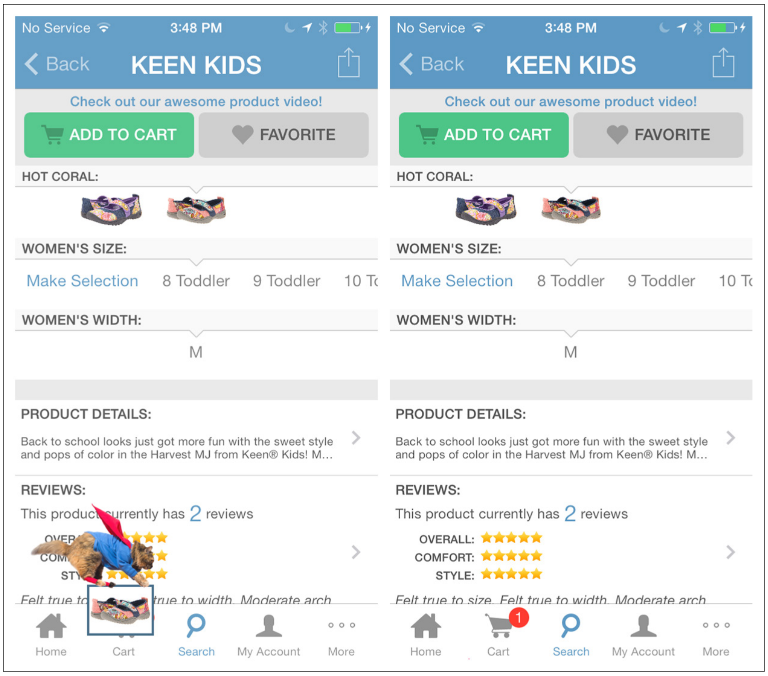

No Service 3:48 PM
Back
KEEN KIDS
Check out our awesome product video!
ADD TO CART
FAVORITE
HOT CORAL:
WOMEN'S SIZE:
Make Selection 8 Toddler 9 Toddler 10 To
WOMEN'S WIDTH:
M
PRODUCT DETAILS:
Back to school looks just got more fun with the sweet style and pops of color in the Harvest MJ from Keen® Kids! M...
REVIEWS:
This product currently has 2 reviews
OVERALL:
COMFORT:
STYLE:
Felt true to size. Felt true to width. Moderate arch
Home
Cart
Search
My Account
More

FIGURE 9-5. Zappos for iOS: Super Cat "flies" an item into the cart, and the item number updates (*http://www.youtube.com/watch?v=JxADy-3HOjc*)

Another option, used by Gilt and BestBuy, is to show a message near the cart, in addition to updating the number of cart items.

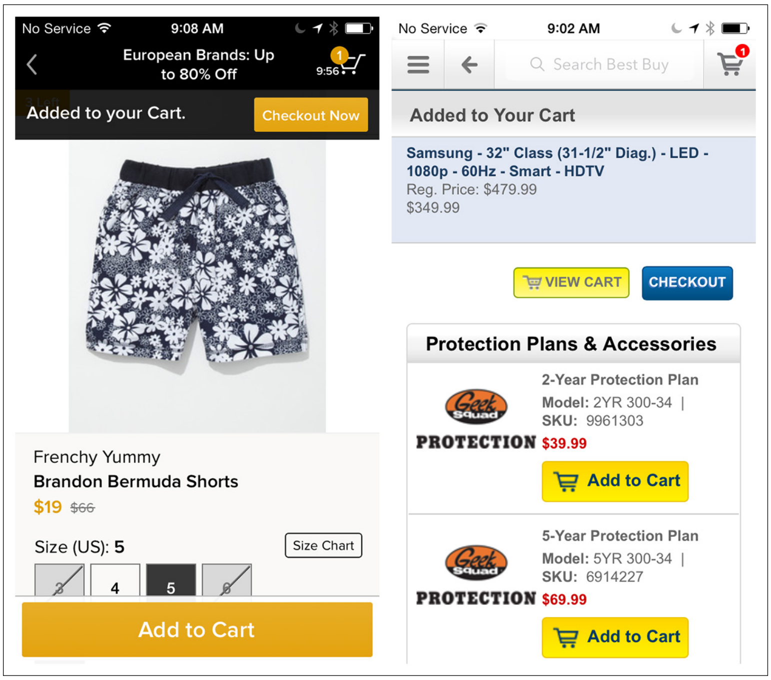


FIGURE 9-6. Gilt and BestBuy for iOS: an in-screen message near the cart confirms items added

These are shopping cart examples, but adding items to any type of list requires Confirmation. For example, RetailMeNot uses animation to show where the object is saved and, just as importantly, where it can be found later.

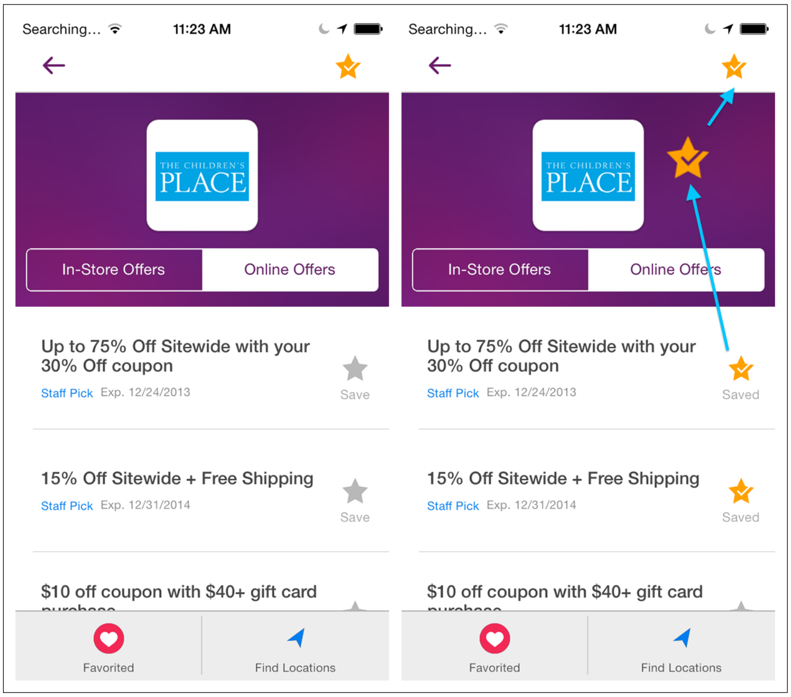
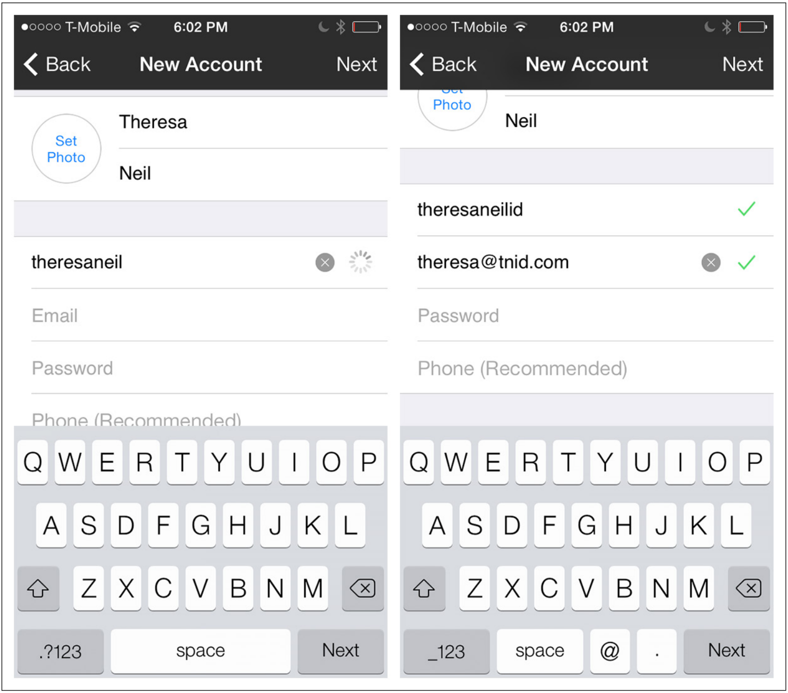

Searching...
11:23 AM
THE CHILDREN'S PLACE
In-Store Offers
Online Offers
Up to 75% Off Sitewide with your 30% Off coupon
Staff Pick Exp. 12/24/2013
Save
Saved
15% Off Sitewide + Free Shipping
Staff Pick Exp. 12/31/2014
$10 off coupon with $40+ gift card purchase
Favorited
Find Locations

FIGURE 9-7. RetailMeNot for iOS: animations show save plus where saved items can be accessed (*http://www.youtube.com/watch?v=wFqxj1o4ueE*)

Inline feedback, as seen in Kik for iOS, is a great way to provide Confirmation. It's especially useful for forms, where submitting invalid data can trigger multiple Error Messages.

Inline feedback should also be used for transactional gestures, like *swipe to delete*. If you are unfamiliar with the Android design conventions for swipe to delete, they are fundamentally different from those in iOS.

In Android, let's take Gmail as an example: swiping a message immediately archives it. This is an example of a *swipe-to-perform* gesture. Inline feedback shows that the message has been archived and offers the undo option.



Theresa

Neil

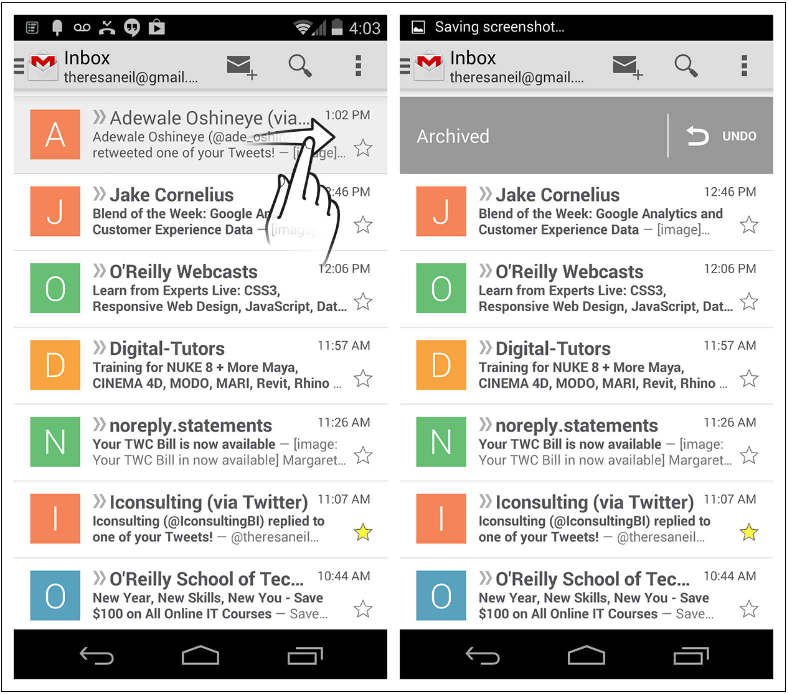
theresaneil

Neil

theresaneilid ✓

theresa@tnid.com ✓

FIGURE 9-8.
Kik for iOS: inline feedback confirms valid data as form fields are filled



Adewale Oshineye (via... 1:02 PM
Adewale Oshineye (@ade_oshin... retweeted one of your Tweets! — [image]...

Jake Cornelius 12:46 PM
Blend of the Week: Google Analytics and Customer Experience Data — [image]...

O'Reilly Webcasts 12:06 PM
Learn from Experts Live: CSS3, Responsive Web Design, JavaScript, Dat...

Digital-Tutors 11:57 AM
Training for NUKE 8 + More Maya, CINEMA 4D, MODO, MARI, Revit, Rhino ...

noreply.statements 11:26 AM
Your TWC Bill is now available — [image: Your TWC Bill in now available] Margaret...

Iconsulting (via Twitter) 11:07 AM
Iconsulting (@IconsultingBI) replied to one of your Tweets! — @theresaneil...

O'Reilly School of Tec... 10:44 AM
New Year, New Skills, New You - Save $100 on All Online IT Courses — Save...

FIGURE 9-9.
Gmail for Android: inline Confirmation with undo on swipe-to-delete gesture

By contrast, in Mail for iOS, swiping a message is an example of a *swipe-to-reveal* gesture. Swiping a message only reveals the possible actions; no action is performed yet. A second gesture—in this case, tap—is required to archive the message. Inline Confirmation feedback following the tap is not necessary here because the message disappears from the list with a self-healing transition.

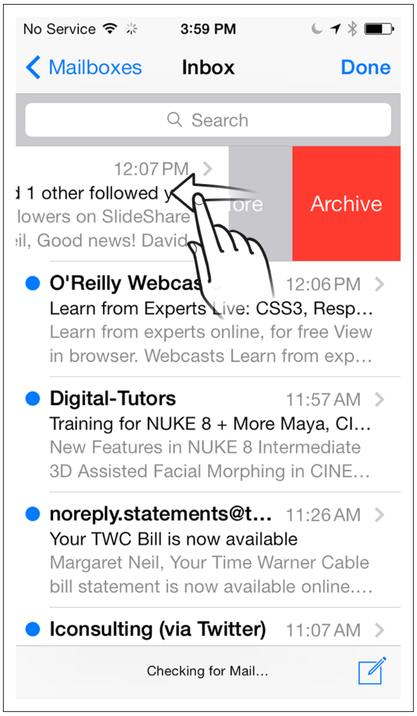
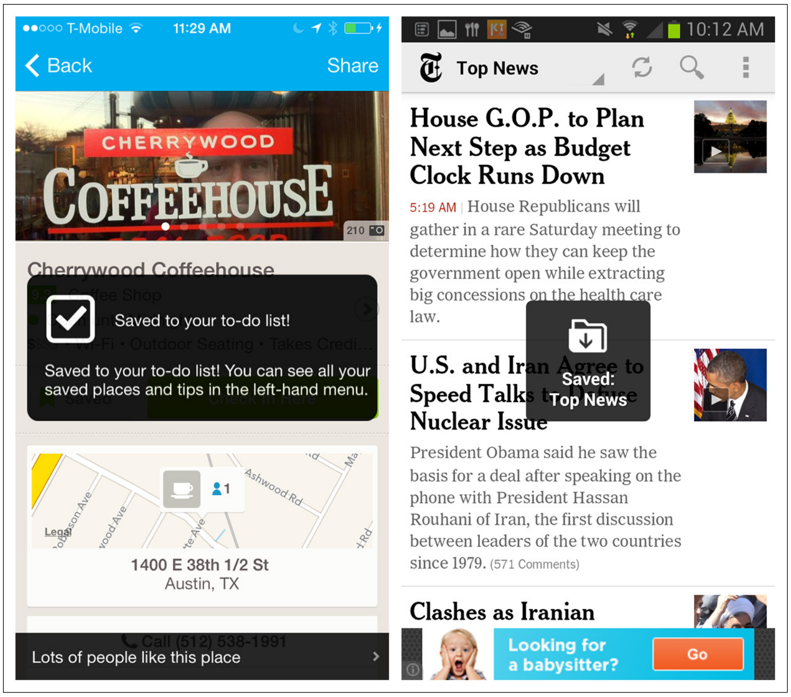

No Service
3:59 PM
Mailboxes
Inbox
Done
Search
12:07 PM
1 other followed y
lowers on SlideShare
il, Good news! David
ore
Archive
O'Reilly Webcas
12:06 PM
Learn from Experts Live: CSS3, Resp…
Learn from experts online, for free View
in browser. Webcasts Learn from exp…
Digital-Tutors
11:57 AM
Training for NUKE 8 + More Maya, Cl…
New Features in NUKE 8 Intermediate
3D Assisted Facial Morphing in CINE…
noreply.statements@t…
11:26 AM
Your TWC Bill is now available
Margaret Neil, Your Time Warner Cable
bill statement is now available online.…
Iconsulting (via Twitter)
11:07 AM
Checking for Mail…

FIGURE 9-10.
Mail for iOS: swipe to reveal, tap to archive; inline Confirmation not required

Another option for providing Confirmation is a transient message called a *toast*. This message appears briefly (five seconds or less) on the screen, then disappears—no additional taps from the user required. A toast confirms the action just performed and can provide an undo option, as shown in Gmail and Boxer.



Saved to your to-do list!

Saved to your to-do list! You can see all your saved places and tips in the left-hand menu.

1400 E 38th 1/2 St
Austin, TX

House G.O.P. to Plan Next Step as Budget Clock Runs Down

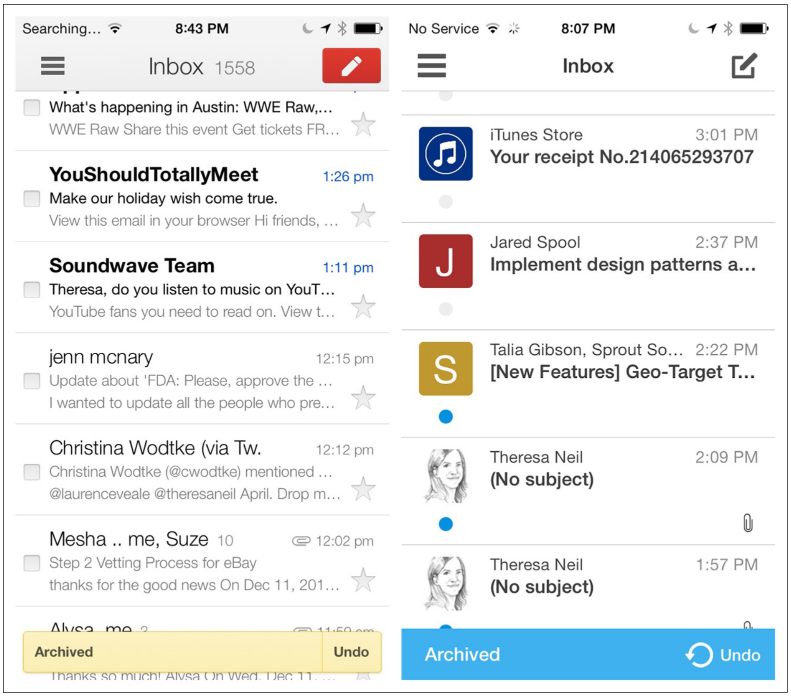
5:19 AM | House Republicans will gather in a rare Saturday meeting to determine how they can keep the government open while extracting big concessions on the health care law.

U.S. and Iran Agree to Speed Talks to Defuse Nuclear Issue

President Obama said he saw the basis for a deal after speaking on the phone with President Hassan Rouhani of Iran, the first discussion between leaders of the two countries since 1979. (571 Comments)

Clashes as Iranian

FIGURE 9-11.
Foursquare for iOS and NYTimes for Android: simple toasts



What's happening in Austin: WWE Raw,…
WWE Raw Share this event Get tickets FR…

YouShouldTotallyMeet 1:26 pm
Make our holiday wish come true.
View this email in your browser Hi friends, …

Soundwave Team 1:11 pm
Theresa, do you listen to music on YouT…
YouTube fans you need to read on. View t…

jenn mcnary 12:15 pm
Update about 'FDA: Please, approve the …
I wanted to update all the people who pre…

Christina Wodtke (via Tw. 12:12 pm
Christina Wodtke (@cwodtke) mentioned …
@laurenceveale @theresaneil April. Drop m…

Mesha .. me, Suze 10 12:02 pm
Step 2 Vetting Process for eBay
thanks for the good news On Dec 11, 201…

Alysa, me 2 11:50 am
Thanks so much! Alysa On Wed, Dec 11, …

iTunes Store 3:01 PM
Your receipt No.214065293707

Jared Spool 2:37 PM
Implement design patterns a…

Talia Gibson, Sprout So… 2:22 PM
[New Features] Geo-Target T…

Theresa Neil 2:09 PM
(No subject)

Theresa Neil 1:57 PM
(No subject)

FIGURE 9-12.
Gmail and Boxer for iOS: transient toast message provides Confirmation and an undo option

Multi-State Buttons, like the cloud download icon in the App Store, and progress meters, like the download progress indicator in Audible, are other unobtrusive ways to provide Confirmation without interrupting the flow. Notice that Audible shows the message "Tap to play" as soon as part of the story is downloaded, just to let you know you don't have to wait for everything to download before you start listening.

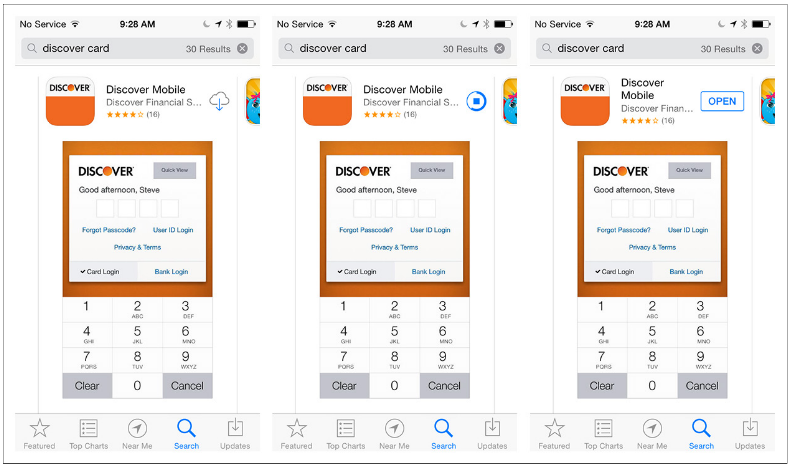


FIGURE 9-13. App Store for iOS: Multi-State Button changes from Download to Progress to Open

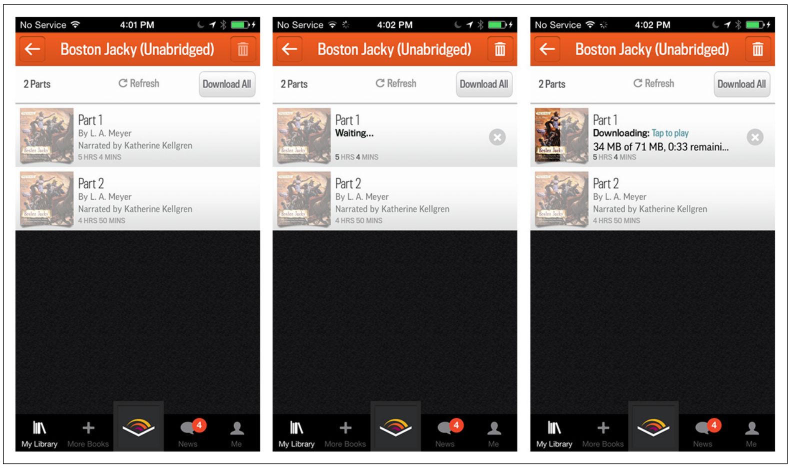
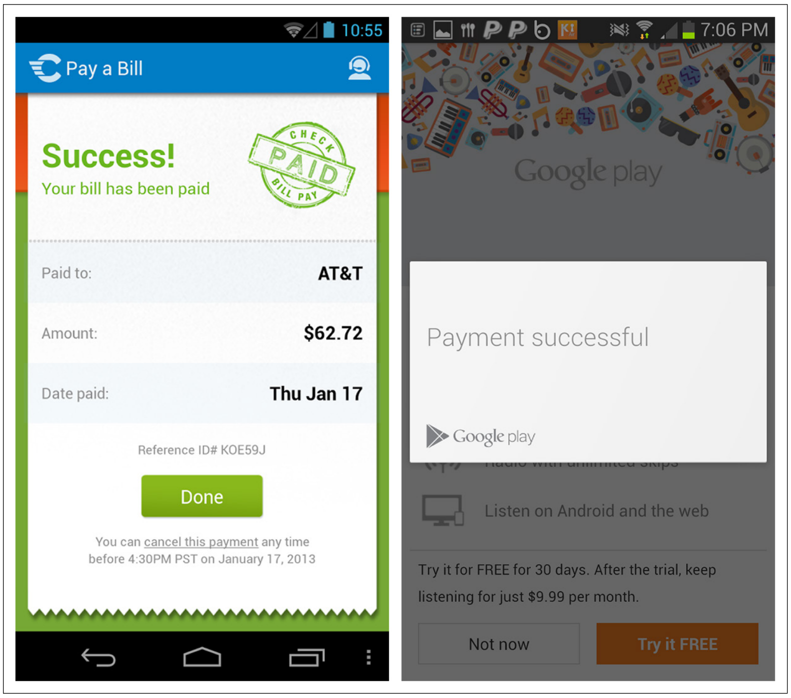


FIGURE 9-14. Audible for iOS: progress meter provides feedback and a call to action

When a transaction is completed, like an order being placed or a form being submitted, more prominent feedback is usually expected. Since these events typically occur at the end of a flow, a full screen or dialog can be used for Confirmation, as with Check and Google Play.

[NOTE]

Provide Confirmation when actions are taken, but don't be disruptive. Design for Confirmation elements that are part of the overall flow.



Success!
Your bill has been paid

Paid to:	AT&T
Amount:	$62.72
Date paid:	Thu Jan 17

Reference ID# KOE59J

You can cancel this payment any time before 4:30PM PST on January 17, 2013

Payment successful

Listen on Android and the web

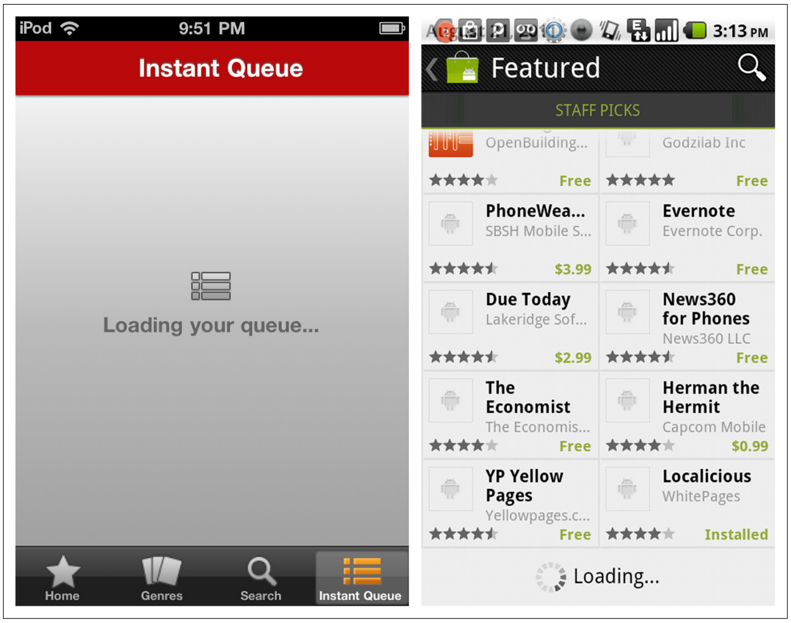
Try it for FREE for 30 days. After the trial, keep listening for just $9.99 per month.

FIGURE 9-15.
Check and Google Play for Android: completed transactions warrant conspicuous feedback

System Status

In the first edition of this book, I encouraged mobile designers and developers to use the same techniques for showing System Status that were used on the Web and in desktop software. Typically, these were loading indicators.

FIGURE 9-16.
Loading indicator examples from the first edition


iPod 9:51 PM
Instant Queue
Loading your queue...
Home
Genres
Search
Instant Queue
3:13 PM
Featured
STAFF PICKS
OpenBuilding... Free
Godzilab Inc Free
PhoneWea... SBSH Mobile S... $3.99
Evernote Evernote Corp. Free
Due Today Lakeridge Sof... $2.99
News360 for Phones News360 LLC Free
The Economist The Economis... Free
Herman the Hermit Capcom Mobile $0.99
YP Yellow Pages Yellowpages.c... Free
Localicious WhitePages Installed
Loading...

But then Luke Wroblewski, who we met in Chapter 2, posted an interesting article entitled "Avoid the Spinner" (*http://www.lukew.com/ff/entry.asp?1797=*). When he introduced the loading spinner pattern in his app Polar, he reports he started getting more user feedback like this:

> There seems to be an excessive amount of waiting around for pages to refresh and load—it doesn't seem as quick as the previous version.

If Luke received gripes like that because of a simple spinner, I can only assume Level's design showing a snail very slowly inching across the screen elicits similar complaints.

Luke concluded that:

> With the introduction of these progress indicators, we had made people watch the clock. As a result, time went slower and so did our app. We focused on the indicator and not the progress; that is, making it clear you are advancing toward your goal, not just waiting around.

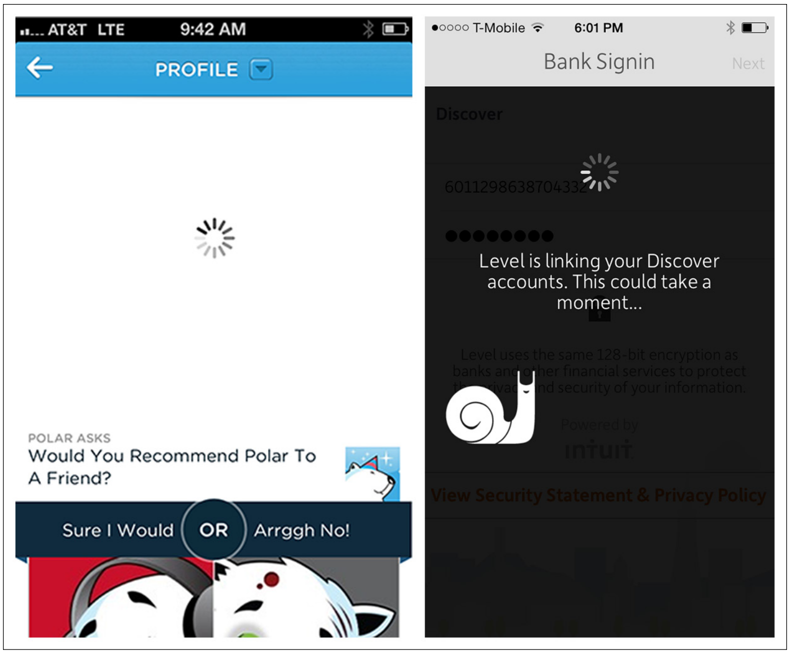

AT&T LTE 9:42 AM
PROFILE
POLAR ASKS
Would You Recommend Polar To A Friend?
Sure I Would
OR
Arrggh No!
T-Mobile 6:01 PM
Bank Signin
Next
Discover
Level is linking your Discover accounts. This could take a moment...

FIGURE 9-17.
Polar and Level for iOS: asking users to watch the clock

There are good alternatives that focus users on the progress, not the clock. Google loads pages from the side, making it feel like content is loading immediately even when it isn't. The transition is, in effect, the loading indicator.

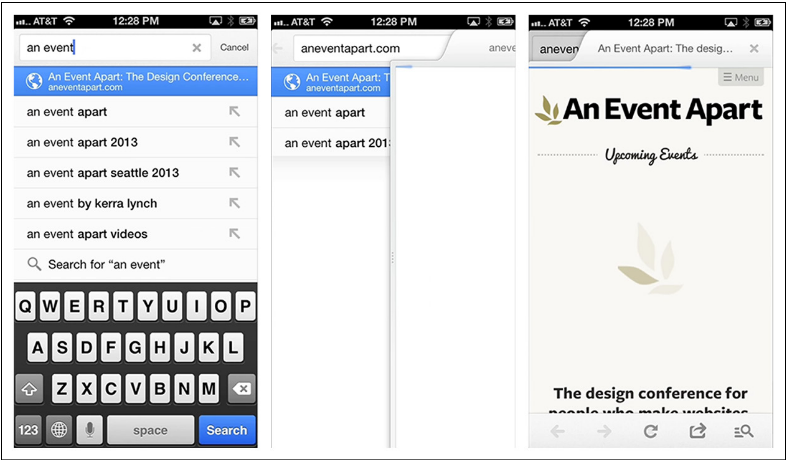
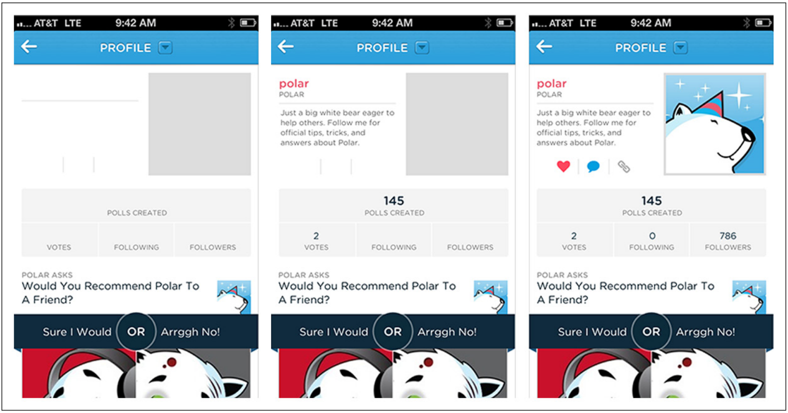


FIGURE 9-18.
Google for iOS: side-loading page transitions serve as loading indicators

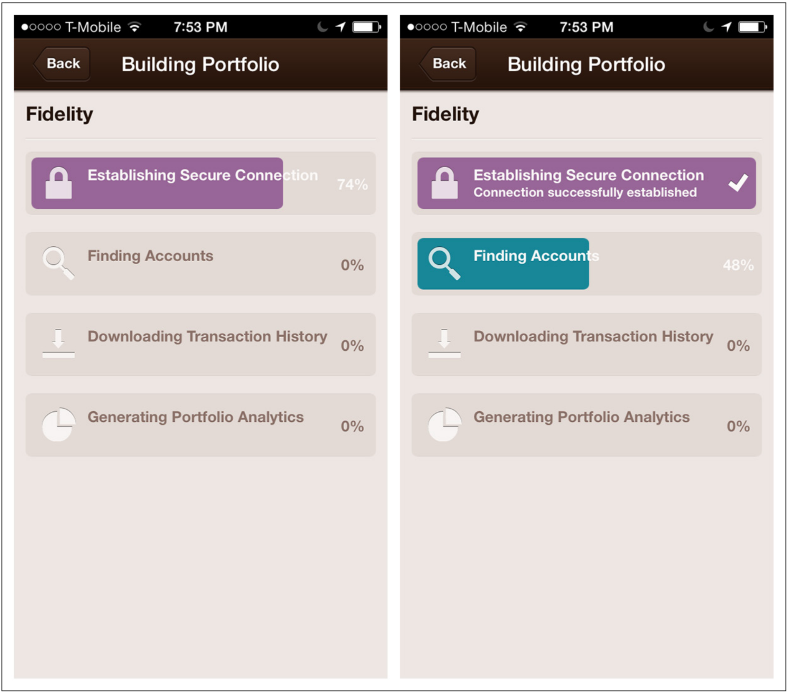
Polar now uses *skeleton screens*—essentially, blank versions of pages into which information is gradually loaded.

FIGURE 9-19.
Polar for iOS: gradually loading skeleton screen as progress feedback


AT&T LTE 9:42 AM
PROFILE
polar
POLAR
Just a big white bear eager to help others. Follow me for official tips, tricks, and answers about Polar.
145
POLLS CREATED
2
VOTES
0
FOLLOWING
786
FOLLOWERS
POLAR ASKS
Would You Recommend Polar To A Friend?
Sure I Would
OR
Arrggh No!

Some apps have a significant wait time for initial configuration or signup. Examples from SigFig and Smartr show two different approaches to keeping users informed of the app's progress.

FIGURE 9-20.
SigFig for iOS: live feedback shows completion percentage of each task as portfolio builds


T-Mobile 7:53 PM
Back
Building Portfolio
Fidelity
Establishing Secure Connection 74%
Finding Accounts 0%
Downloading Transaction History 0%
Generating Portfolio Analytics 0%
Establishing Secure Connection
Connection successfully established
Finding Accounts 48%
Downloading Transaction History 0%
Generating Portfolio Analytics 0%

[NOTE]

Do provide feedback for System Status, but focus the user on the progress, rather than the wait. Offer a cancel option for potentially lengthy operations.

For lengthy processes, offer a cancel option, like Story Board does for generating a movie.

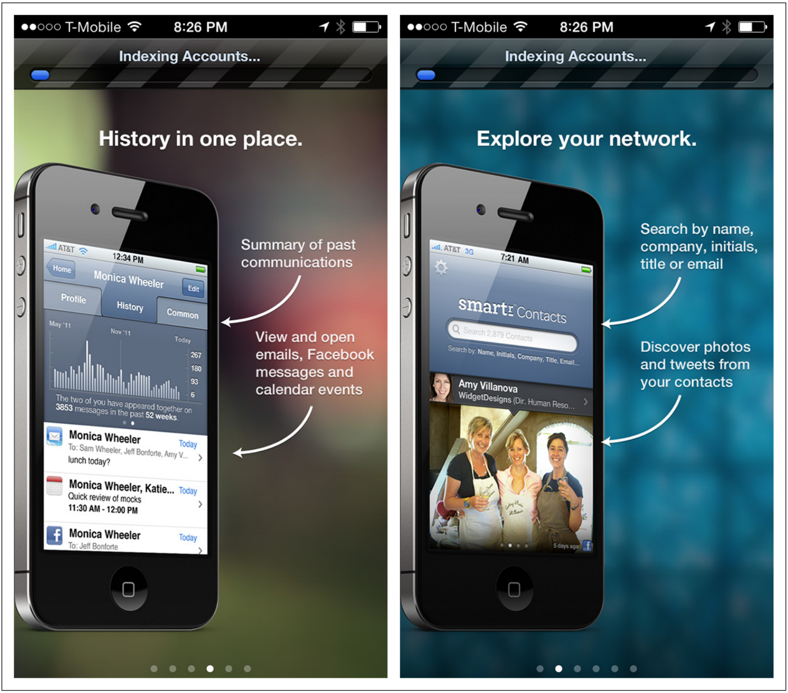

●●○○○ T-Mobile 8:26 PM
Indexing Accounts...
History in one place.
Summary of past communications
View and open emails, Facebook messages and calendar events
Explore your network.
Search by name, company, initials, title or email
Discover photos and tweets from your contacts

FIGURE 9-21.
Smartr for iOS: time spent indexing contacts (see progress bar at top) is used to introduce product features

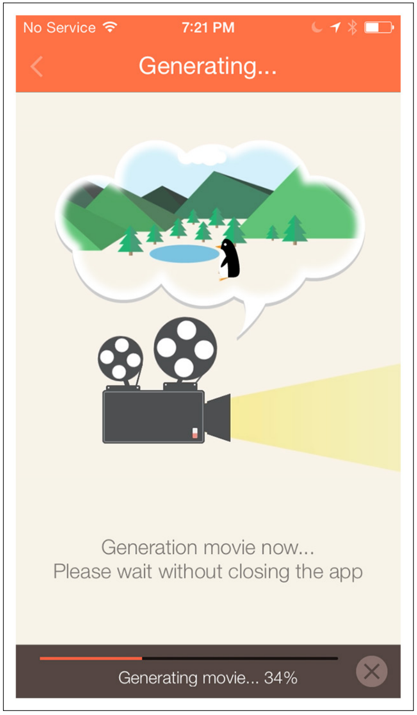


FIGURE 9-22.
Story Board for iOS: long process can be canceled

Affordance

Affordance is the quality of an object that lets a user know that the object can be used to perform an action. Drawer handles and doorknobs are good real-life examples. Common examples of affordance in software include drag handles, page peels, and 3D controls like buttons and sliders.

Since mobile devices make use of single- and multitouch gestures, the list of possible affordances is long and the range of techniques for implementing them is broad. We'll look at some common affordances for Tap, Swipe/Flick, and Drag.

Tap

Visual design techniques like beveling and shadows can make elements appear tappable. The rising popularity of flat design, however, has made these techniques less accessible to designers. In fact, some people think flat design has decreased the usability of many applications.

Jakob Nielsen, a well-known UX consultant and author, ran a usability test on Windows 8 (*http://bit.ly/Otx5TA*). He found that the operating system's flat design makes it hard for users to know whether things are clickable. In the example shown, many of Nielsen's test subjects mistook "Change PC settings" as a static label for the icons above it, but it's really a clickable command.

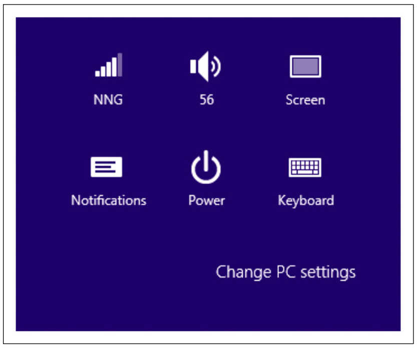


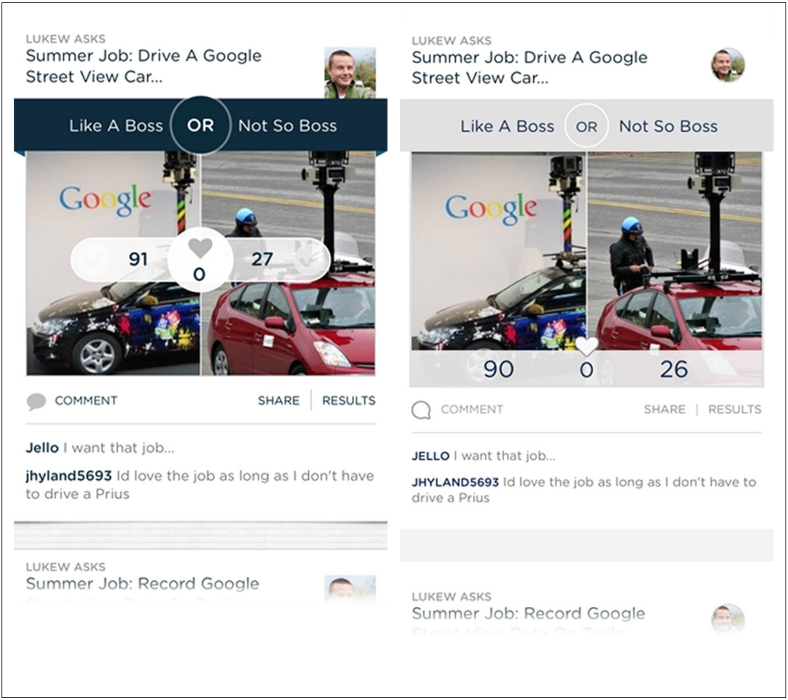
FIGURE 9-23. Microsoft Windows 8: flat design may decrease usability

This is not to say that flat designs can't provide affordance, just that it requires more design skill to get it right. Luke Wroblewski wrote another great article about his experience updating the visual design of Polar for iOS 7 (*http://www.lukew.com/ff/entry.asp?1800*), where one of the major takeaways was this:

> Removing texture and depth forced the rest of the visual design to work harder to create meaningful distinctions between the various elements on screen. I think this is a key reason why [flat design] is harder. It forces you to simplify in order to provide the same clear visual communication using less visual relationships.

[NOTE]

Poor implementation of flat design can harm an application's overall usability. Be prepared for more iterations during the design phase to ensure that actionable elements are not lost in a sea of flatness.



LUKEW ASKS
Summer Job: Drive A Google Street View Car...

Like A Boss OR Not So Boss

91 0 27

COMMENT SHARE RESULTS

Jello I want that job...

jhyland5693 Id love the job as long as I don't have to drive a Prius

LUKEW ASKS
Summer Job: Record Google

LUKEW ASKS
Summer Job: Drive A Google Street View Car...

Like A Boss OR Not So Boss

90 0 26

COMMENT SHARE | RESULTS

JELLO I want that job...

JHYLAND5693 Id love the job as long as I don't have to drive a Prius

LUKEW ASKS
Summer Job: Record Google

FIGURE 9-24.
Early design iterations for Polar iOS7

Swipe/Flick

There are many ways to provide affordance that a swipe action is available. The iOS page indicator control—aka "those little dots at the bottom of the screen"—has been widely adopted by web and mobile apps alike.

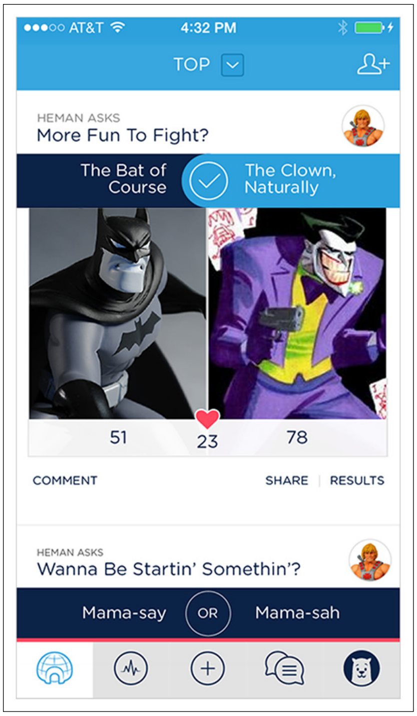


FIGURE 9-25. Polar for iOS 7: a later iteration makes different screen elements more distinct

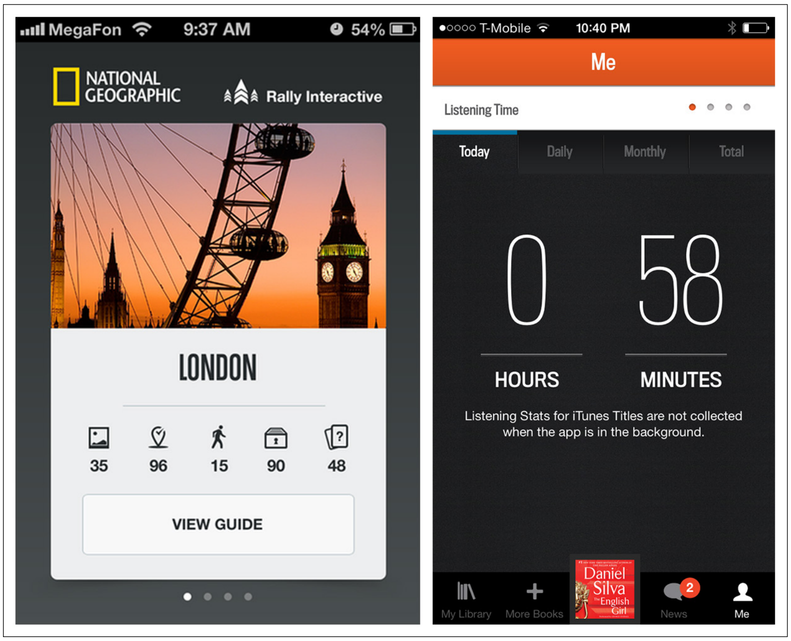


FIGURE 9-26. City Guides by National Geographic and Audible for iOS: page indicators at the bottom and top, respectively

Another option is to show content beyond the borders of the screen to imply that there is more to see off to the sides or below.

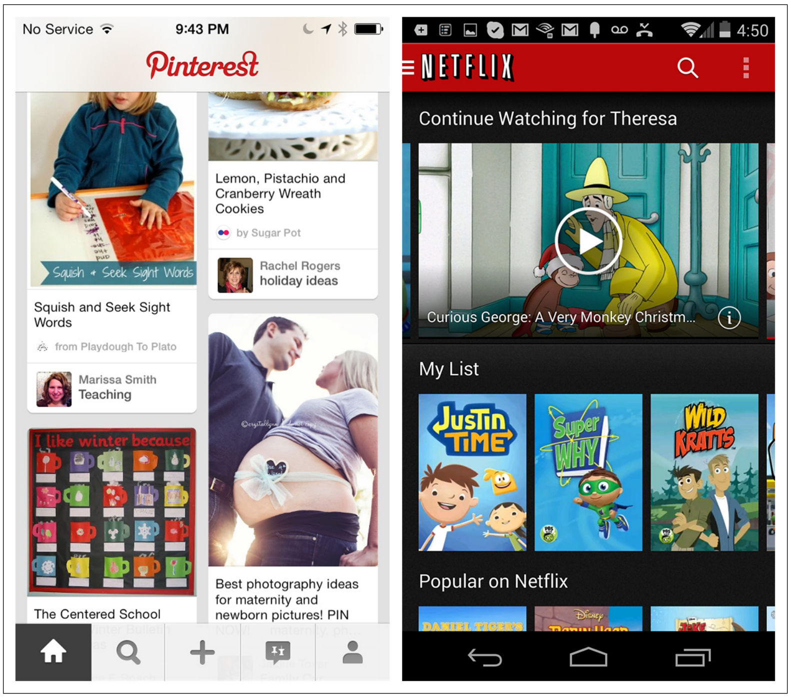

No Service
9:43 PM
Pinterest
Squish + Seek Sight Words
Squish and Seek Sight Words
from Playdough To Plato
Marissa Smith Teaching
Lemon, Pistachio and Cranberry Wreath Cookies
by Sugar Pot
Rachel Rogers holiday ideas
I like winter because
The Centered School
Best photography ideas for maternity and newborn pictures! PIN
4:50
NETFLIX
Continue Watching for Theresa
Curious George: A Very Monkey Christm...
My List
Justin Time
Super Why
Wild Kratts
Popular on Netflix

FIGURE 9-27. Pinterest for iOS and Netflix for Android: screen overflow hints at how to get at offscreen content

Scrollbars are also an option, although they are less common in mobile apps. The scrollbar may also act as a touch target for quickly jumping to a certain spot. Skype for iOS uses an alphabet scrollbar that lets you jump to a specific section; Skype for Android uses a retracting scrollbar with a drag handle.

Other design metaphors that provide visual affordance for swiping include the Coverflow/Carousel, Rolodex, and Photo Stack.

Potluck uses stacked Cards to encourage swiping. Swipe left to skip the story; swipe right to keep it. I didn't notice this upon first use, though, and wondered how I could get a story back if I swiped it off the screen. Then I happened to try dragging the story instead of swiping. Dragging revealed a tip that clued me in as to how swiping worked, but I wonder if most people would try dragging first or swiping first.

FIGURE 9-28.
Skype for iOS and Android: different scrollbar designs

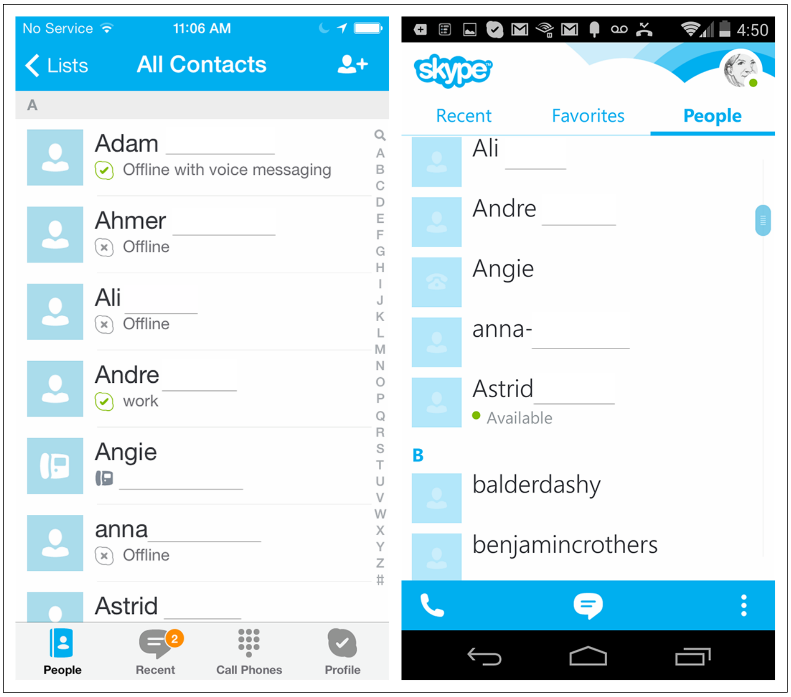
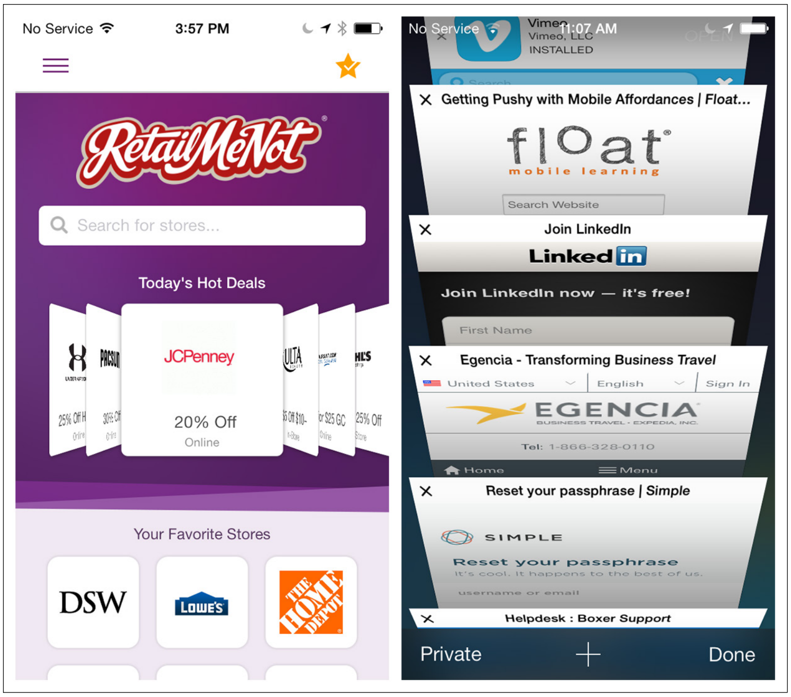


FIGURE 9-29.
RetailMeNot and Safari for iOS: Coverflow is affordance for horizontal swipe and Rolodex for vertical swipe, respectively



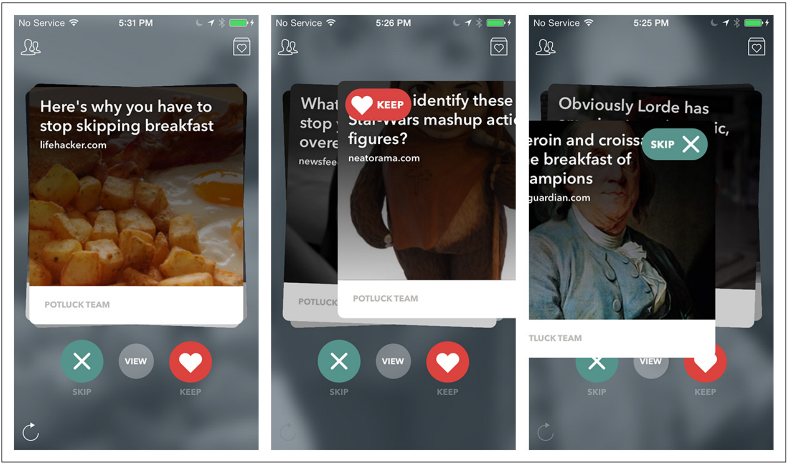

Here's why you have to stop skipping breakfast
lifehacker.com
POTLUCK TEAM
SKIP
VIEW
KEEP
identify these Star-Wars mashup action figures?
neatorama.com
Obviously Lorde has
guardian.com

FIGURE 9-30. Potluck for iOS: affordance to swipe is good, but an indication of where the story is going could be better (*http://www.youtube.com/watch?v=pcfNFuvvdrA*)

Animation can also entice users to try a swipe gesture. Allthecooks for Android "bumps" the side menu open to prompt that a horizontal swipe gesture reveals the full menu. Flipboard flips the bottom edge of the screen up and down to invite the vertical page-swipe gesture the application is known for.

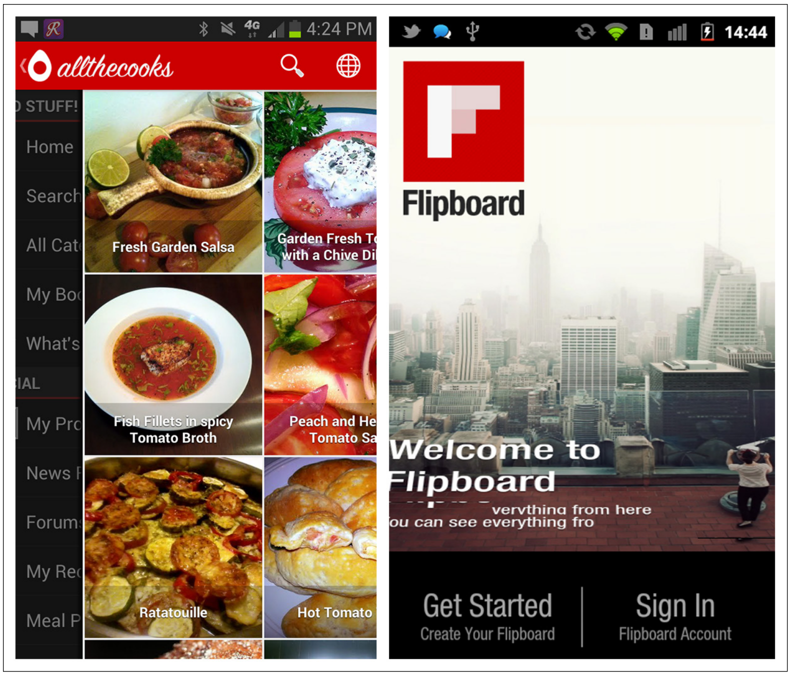


FIGURE 9-31. Allthecooks for Android (*http://youtu.be/iLICs-gyNaE*) and Flipboard for iOS (*http://www.youtube.com/watch?v=rQASZtuvBCs*): animations as affordance

There are additional examples in Chapter 7 from Mailbox and Fantastical that illustrate how to create an interactive tutorial that introduces gestures at the optimal time for users to learn them.

Text has proven to be very ineffective at enticing users to swipe, so skip that option and try other techniques. An early version of Silvercar had a text prompt to swipe to the side. A later version replaced it with a vertical swipe. Content that extended off the bottom of the screen provided the affordance that swipe was possible.

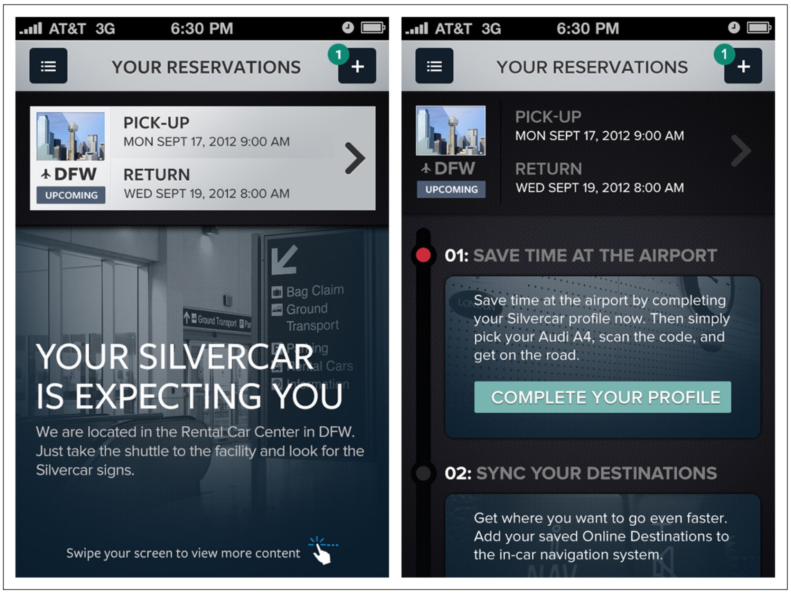

AT&T 3G 6:30 PM
YOUR RESERVATIONS
PICK-UP
MON SEPT 17, 2012 9:00 AM
DFW
UPCOMING
RETURN
WED SEPT 19, 2012 8:00 AM
YOUR SILVERCAR IS EXPECTING YOU
We are located in the Rental Car Center in DFW. Just take the shuttle to the facility and look for the Silvercar signs.
Swipe your screen to view more content
01: SAVE TIME AT THE AIRPORT
Save time at the airport by completing your Silvercar profile now. Then simply pick your Audi A4, scan the code, and get on the road.
COMPLETE YOUR PROFILE
02: SYNC YOUR DESTINATIONS
Get where you want to go even faster. Add your saved Online Destinations to the in-car navigation system.

FIGURE 9-32. Silvercar for iOS: early design with horizontal swipe and text prompt; redesigned with vertical swipe

Drag

The Drag action in mobile is usually accessed via a mode, like the edit mode, or on long press. In iOS, you can long-press any app icon to access the edit mode and drag apps to reorganize them. Apps can also be deleted in this mode.

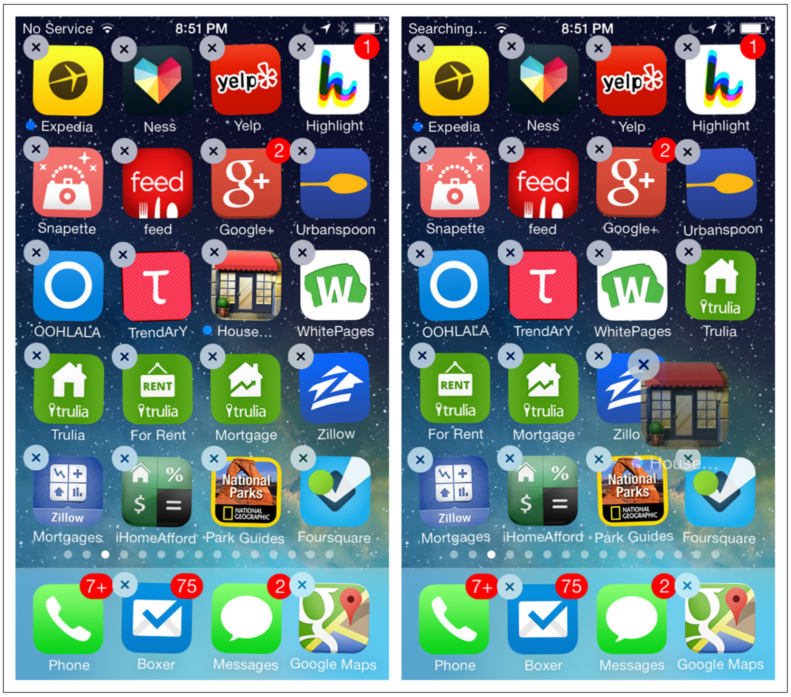


FIGURE 9-33.
iOS 7: long press allows app icons to be dragged or deleted

In Android, long-pressing an app icon reveals "drop zones." In this state, apps can be moved to a new screen or dragged to the Uninstall drop zone. Like the trash can icon on a desktop, this concept is outdated. But the real anti-pattern in this design is that to see information about the app, the user must drag the app icon to the App Info drop zone. Talk about inefficient and unintuitive.

A better solution would be a long-press menu with Move, Uninstall, and App Info as top-level options. Tapping Move would activate the edit mode and reveal the page drop zones, like a long press in the current design does.

Neither of these examples of Drag has any affordance. They have to be discovered. Users are willing to play with the OS and learn the tricks, but don't assume they'll give your app as much leeway.

Within applications, the most common affordance for dragging is the handle. Handles are usually exposed after explicitly entering an edit mode. They work well for reordering list items, as shown in Wunderlist and Lemon Wallet.

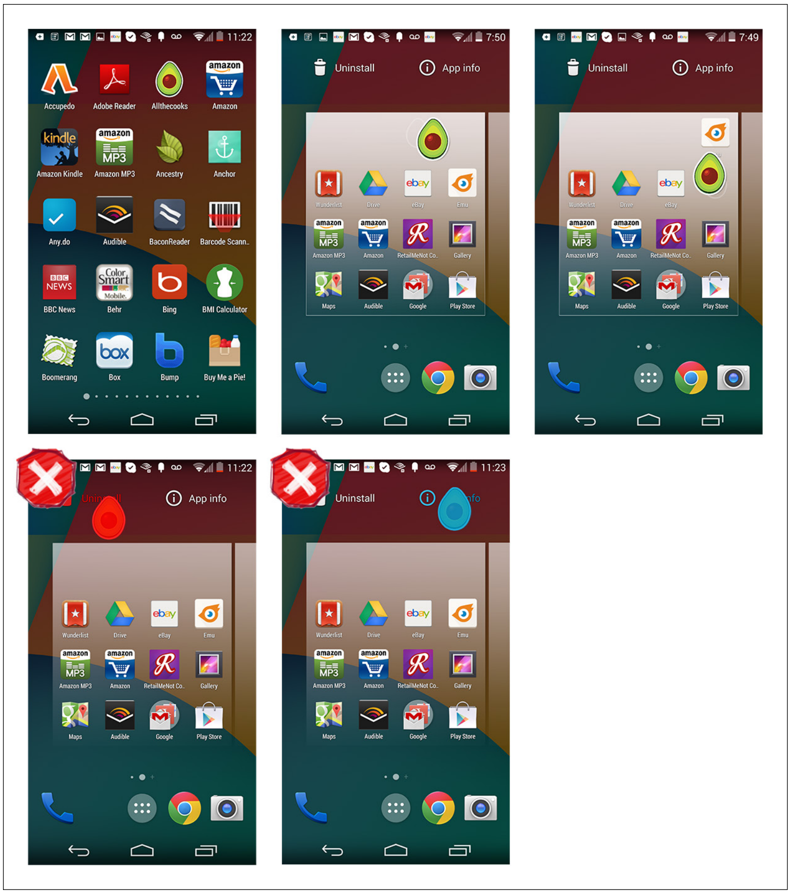
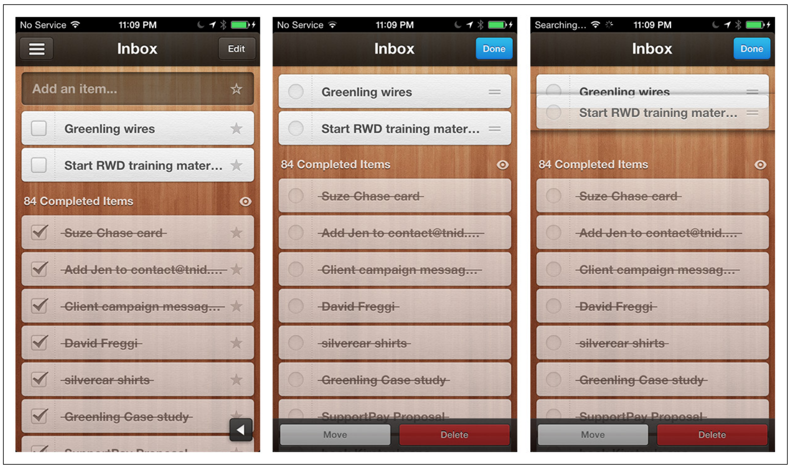


FIGURE 9-34. Android OS: Drag to move a selected app to a new screen, or to Uninstall or App Info "drop zones"



Greenling wires

Start RWD training mater...

~~Suze Chase card~~

~~Add Jen to contact@tnid....~~

~~Client campaign messag...~~

~~David Freggi~~

~~silvercar shirts~~

~~Greenling Case study~~

~~SupportPay Proposal~~

FIGURE 9-35. Wunderlist for iOS: task list edit mode reveals drag handles on right

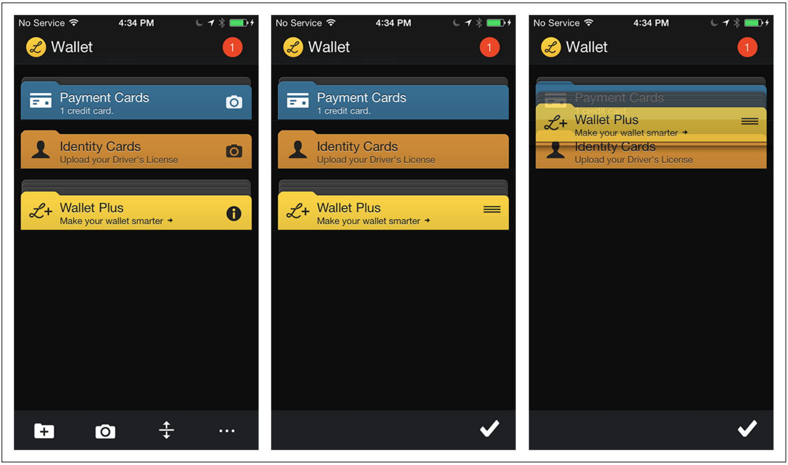


FIGURE 9-36.
Lemon Wallet for iOS: tapping Drag icon in the Action Bar enters edit mode and shows drag handles

Some drag handles are visible by default, like those on slider controls and drawers, as shown for Expedia and Lootsy.

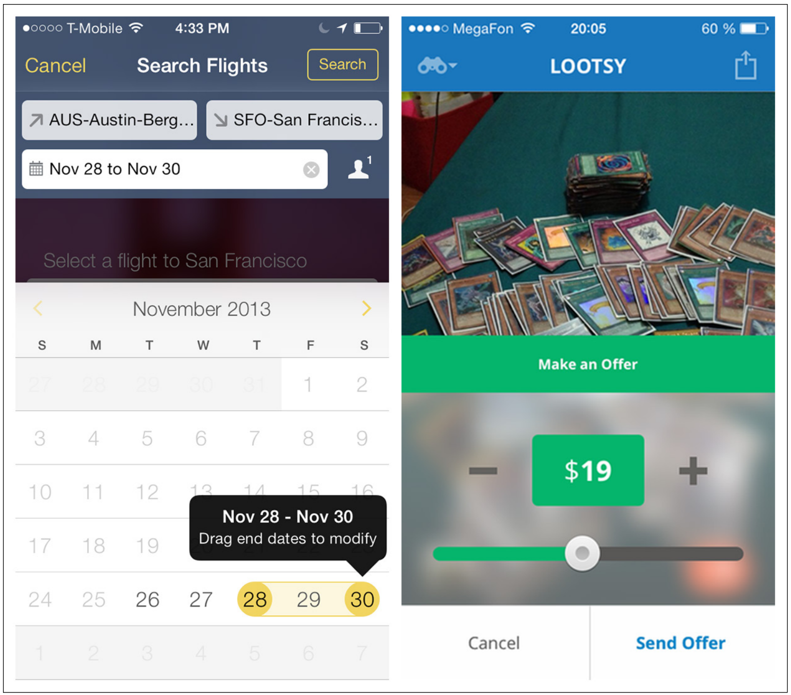


FIGURE 9-37.
Expedia and Lootsy for iOS: some drag handles, as on sliders, are always visible

Design and configuration apps have more complex Drag interactions, like dragging to rotate and resize as well as to move. Aviary and Homestyler are worth exploring for good ideas on implementing Drag affordance.

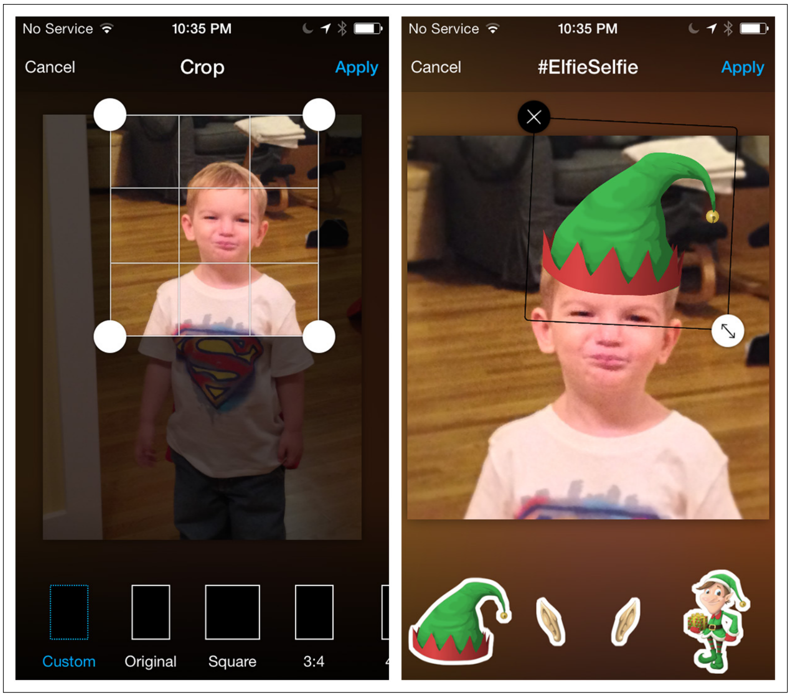


FIGURE 9-38. Aviary for iOS: multiple handles for crop; single handle for resizing, rotating, and placing the sticker

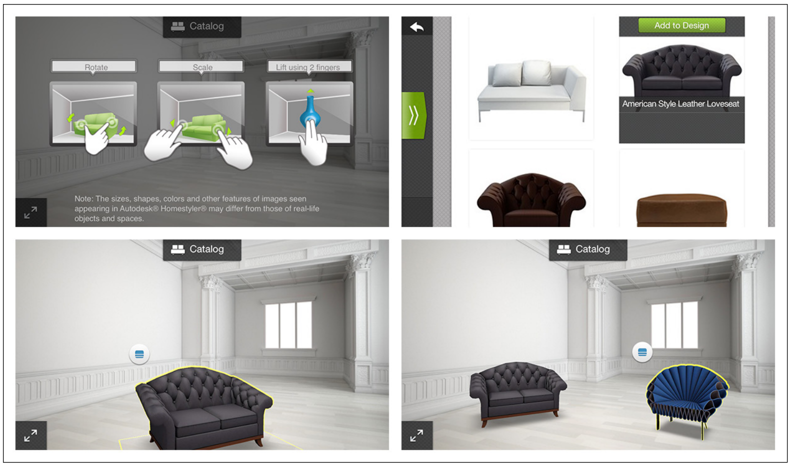

Catalog
Rotate
Scale
Lift using 2 fingers
Note: The sizes, shapes, colors and other features of images seen appearing in Autodesk® Homestyler® may differ from those of real-life objects and spaces.
Add to Design
American Style Leather Loveseat
Catalog
Catalog

FIGURE 9-39. Homestyler for iOS: clear affordance for items selected for repositioning

[NOTE]

Use a recognizable treatment for the drag handle, selected object, and drop zone. Test to determine if an invitation is also needed to introduce users to the feature.

[10]

Help

Patterns

How-Tos, User Guide/Help System, FAQs, Feature Tours, Tutorials, Contextual Help, Capture Feedback

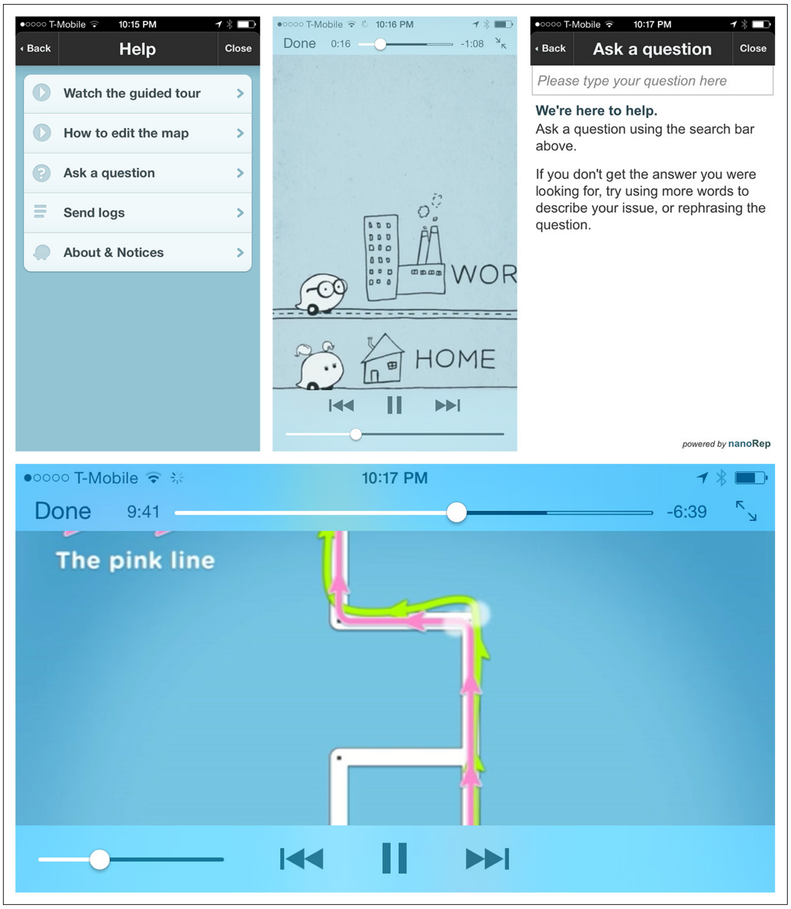
We expect that great mobile applications will be easy to learn and quick to master. But that doesn't mean app designers and developers should assume users will simply figure things out on their own.

In a post on VentureBeat.com (*http://bit.ly/1hsU2B6*), mobile strategist Michael Mace cautions against this laissez-faire approach to app onboarding. "Mobile app developers need to assume that users will get stuck, and give them a path to graceful recovery," he says. "Time and again, we see users struggle to figure out how to perform even straightforward functions with mobile apps."

Sure, you understand your app, but you've spent weeks designing and coding it. Don't assume it will be so intuitive for your users. The help patterns discussed here can keep your users on track, or at least let them recover gracefully:

- How-Tos
- User Guide/Help System
- FAQs
- Feature Tours
- Tutorials
- Contextual Help
- Capture Feedback

A single pattern for user help is probably not enough. Many successful apps use a combination of invitations and help patterns to aid users in uncovering features and getting the most from the tool. Waze, for instance, offers a Welcome Tour, a video How-To, and an interactive "Ask a Question" FAQ.



We're here to help.
Ask a question using the search bar above.

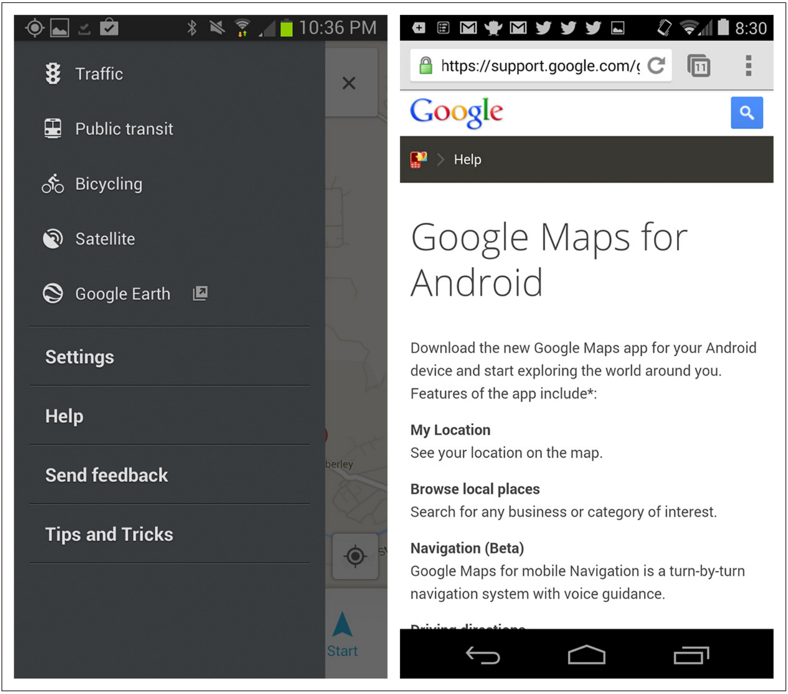
If you don't get the answer you were looking for, try using more words to describe your issue, or rephrasing the question.

FIGURE 10-1.
Waze for iOS combines multiple patterns to provide in-app help

Whenever possible, embed help content directly into the app rather than redirecting to an external website. If you must redirect to an external site, make sure its content is optimized for mobile, like Google Maps and SnipSnap. Kindle and Runtastic's Six Pack app get this wrong, causing even more frustration for users.

[NOTE]

Embed help content directly into the app. If redirecting to a website, make sure the content is optimized for mobile consumption.



Google Maps for Android

Download the new Google Maps app for your Android device and start exploring the world around you. Features of the app include*:

My Location
See your location on the map.

Browse local places
Search for any business or category of interest.

Navigation (Beta)
Google Maps for mobile Navigation is a turn-by-turn navigation system with voice guidance.

FIGURE 10-2.
Google Maps for Android opens Help in the browser

FIGURE 10-3.
SnipSnap for Android opens a tutorial video in the browser

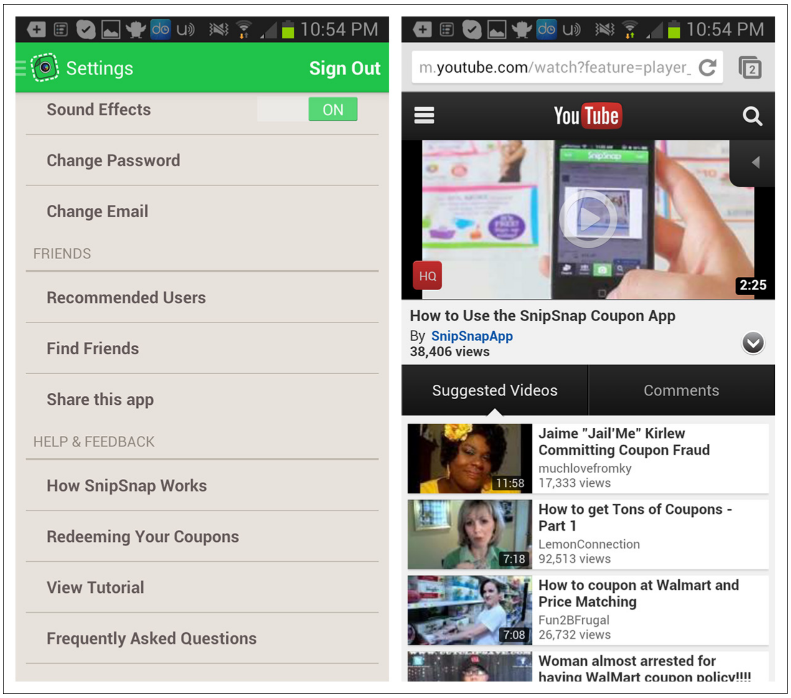
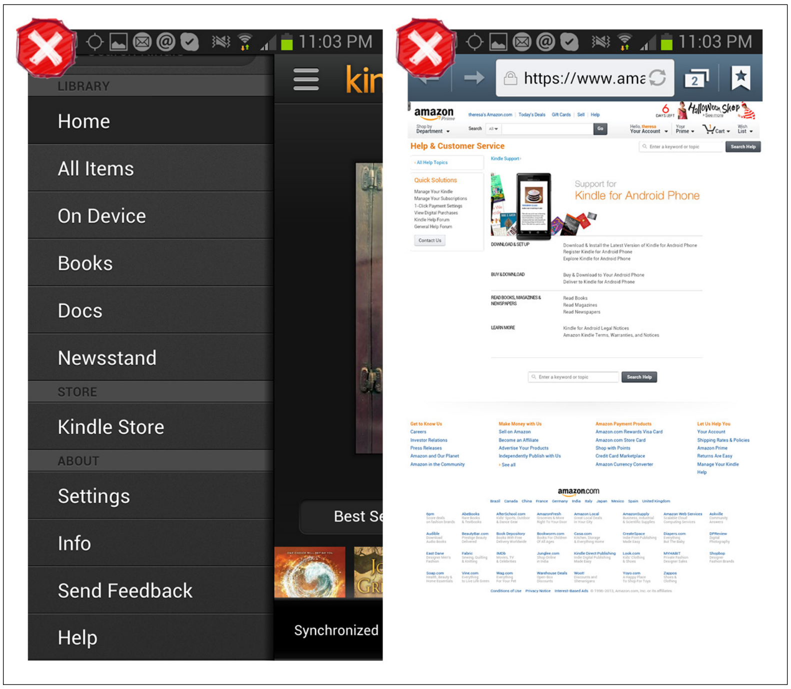


FIGURE 10-4.
Kindle for Android opens the classic website instead of a mobile-optimized version



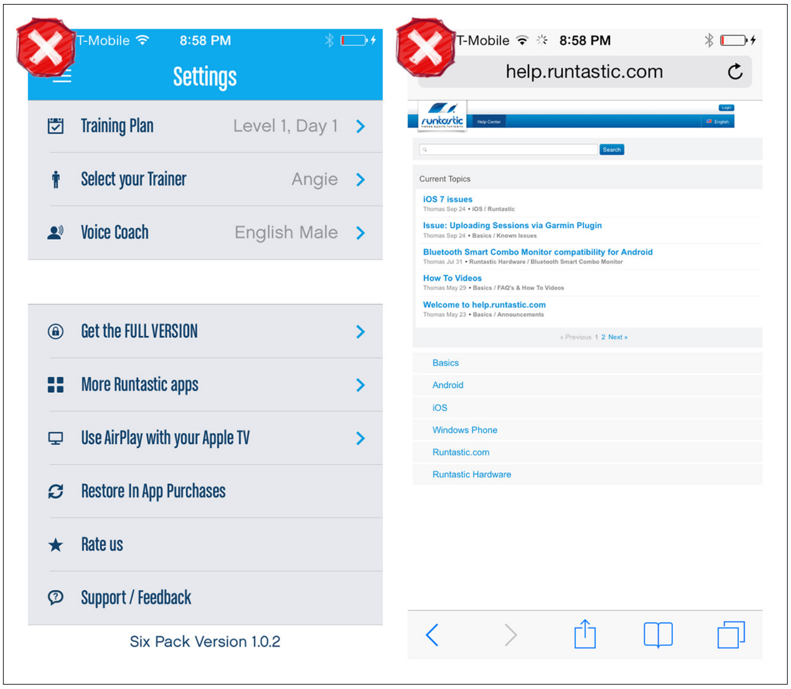


FIGURE 10-5.
Runtastic's Six Pack app for iOS opens a classic website instead of a mobile-optimized version

How-Tos

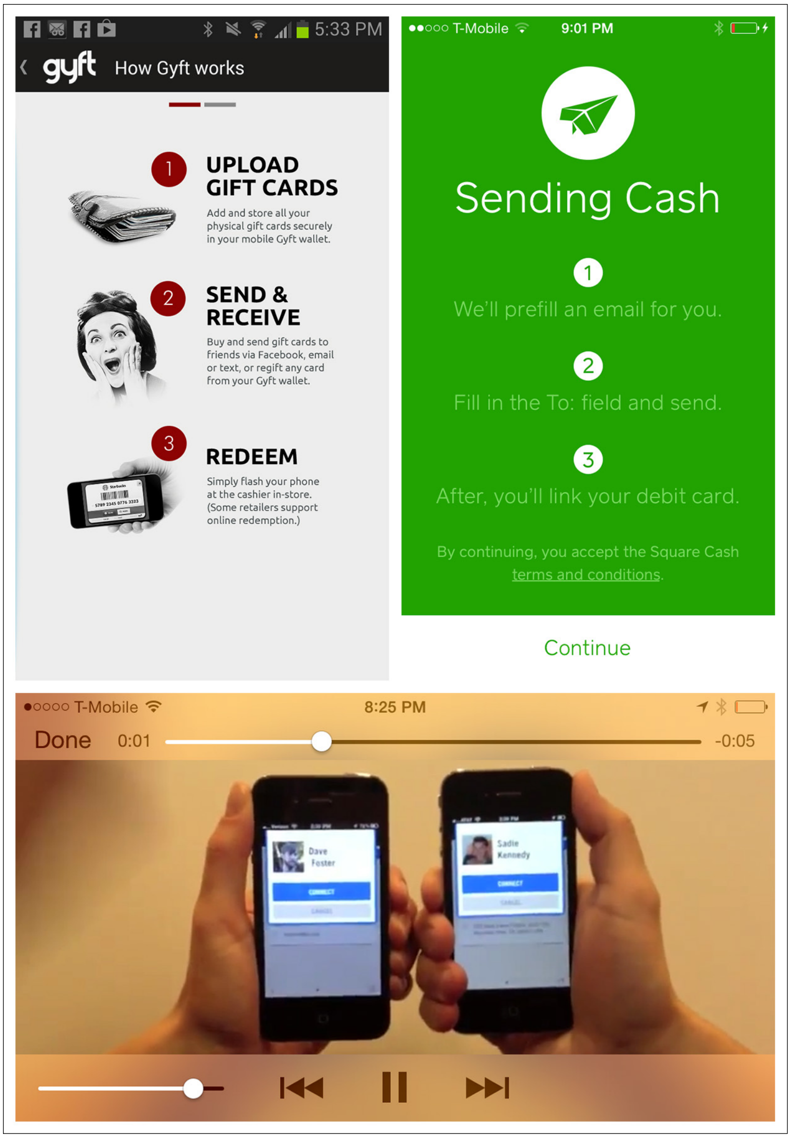
How-Tos are simple, succinct instructions that explain, well, how the application works. They can be a single page, as in the Gyft and Cash apps; a video demo, like in Bump; or part of a larger help system, like in Pocket.

[NOTE]

The How-To pattern works great for communicating step-by-step workflows. Keep it brief.

FIGURE 10-6.

Gyft for Android and Cash for iOS: Single How-To page; Bump for iOS: How-To video


5:33 PM

gyft How Gyft works

1 UPLOAD GIFT CARDS

Add and store all your physical gift cards securely in your mobile Gyft wallet.

2 SEND & RECEIVE

Buy and send gift cards to friends via Facebook, email or text, or regift any card from your Gyft wallet.

3 REDEEM

Simply flash your phone at the cashier in-store. (Some retailers support online redemption.)

●●○○○ T-Mobile 9:01 PM

Sending Cash

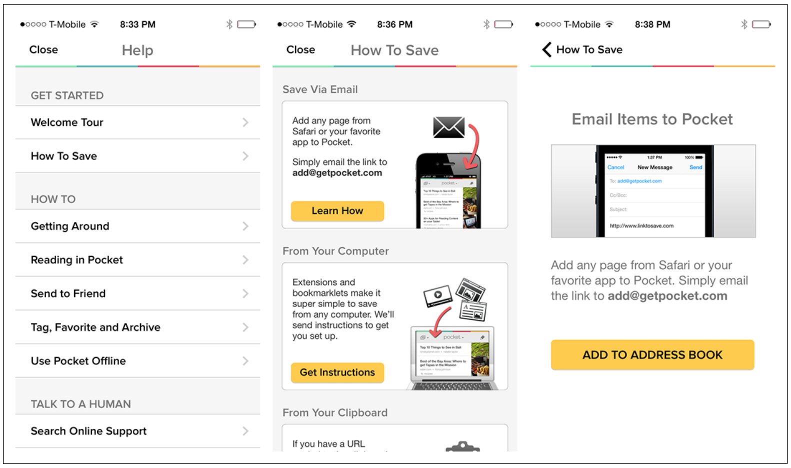
1 We'll prefill an email for you.

2 Fill in the To: field and send.

3 After, you'll link your debit card.

By continuing, you accept the Square Cash terms and conditions.

Continue


●○○○○ T-Mobile 8:33 PM

Close Help

GET STARTED

Welcome Tour

How To Save

HOW TO

Getting Around

Reading in Pocket

Send to Friend

Tag, Favorite and Archive

Use Pocket Offline

TALK TO A HUMAN

Search Online Support

●○○○○ T-Mobile 8:36 PM

Close How To Save

Save Via Email

Add any page from Safari or your favorite app to Pocket.

Simply email the link to **add@getpocket.com**

Learn How

From Your Computer

Extensions and bookmarklets make it super simple to save from any computer. We'll send instructions to get you set up.

Get Instructions

From Your Clipboard

If you have a URL

●○○○○ T-Mobile 8:38 PM

How To Save

Email Items to Pocket

Add any page from Safari or your favorite app to Pocket. Simply email the link to **add@getpocket.com**

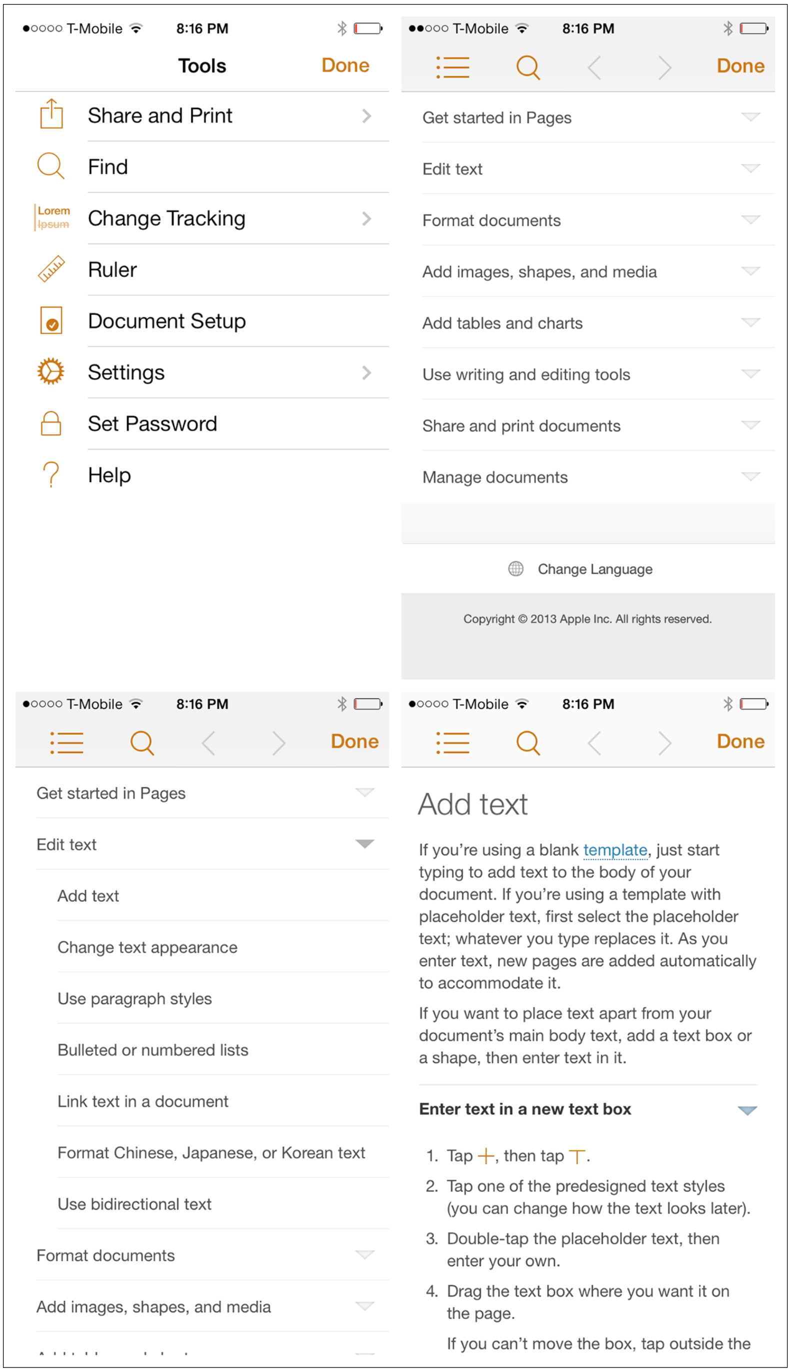
ADD TO ADDRESS BOOK

FIGURE 10-7.
Pocket for iOS: How-To combines screenshots, illustrations, text, and video

Take a look at Chapter 7 for tips on how to best engage users in your application.

User Guide/Help System

A User Guide will likely be more in-depth than a simple How-To. Pages and Facebook have extensive multilevel User Guides embedded in the apps.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Tools Done

Share and Print
Find
Change Tracking
Ruler
Document Setup
Settings
Set Password
Help

●●○○○ T-Mobile 8:16 PM

Done

Get started in Pages
Edit text
Format documents
Add images, shapes, and media
Add tables and charts
Use writing and editing tools
Share and print documents
Manage documents

Change Language

Copyright © 2013 Apple Inc. All rights reserved.

●○○○○ T-Mobile 8:16 PM

Done

Get started in Pages
Edit text
Add text
Change text appearance
Use paragraph styles
Bulleted or numbered lists
Link text in a document
Format Chinese, Japanese, or Korean text
Use bidirectional text
Format documents
Add images, shapes, and media

●○○○○ T-Mobile 8:16 PM

Done

Add text

If you're using a blank template, just start typing to add text to the body of your document. If you're using a template with placeholder text, first select the placeholder text; whatever you type replaces it. As you enter text, new pages are added automatically to accommodate it.

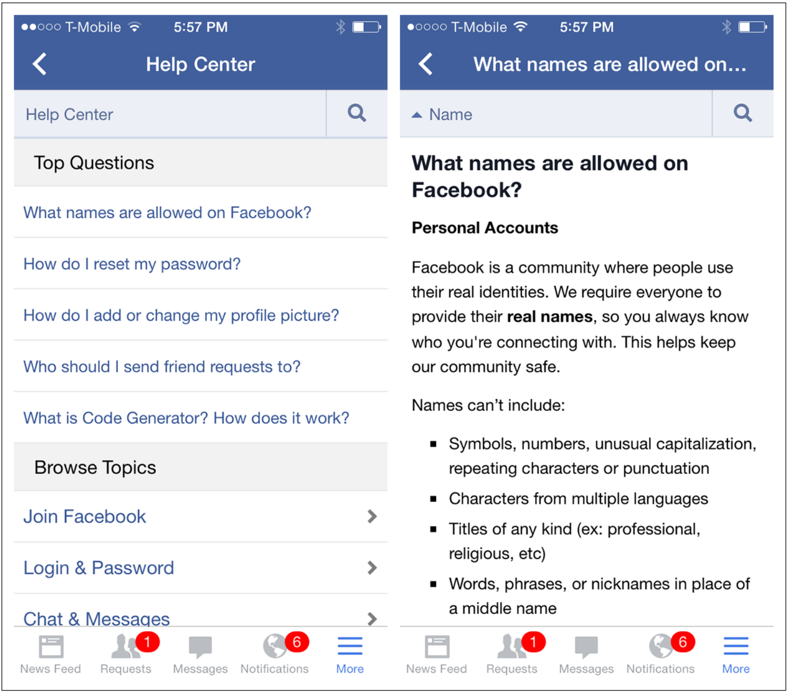
If you want to place text apart from your document's main body text, add a text box or a shape, then enter text in it.

Enter text in a new text box

1. Tap +, then tap T.
2. Tap one of the predesigned text styles (you can change how the text looks later).
3. Double-tap the placeholder text, then enter your own.
4. Drag the text box where you want it on the page.

If you can't move the box, tap outside the

FIGURE 10-8. Pages for iOS: multilevel User Guides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Help Center

Help Center

Top Questions

What names are allowed on Facebook?

How do I reset my password?

How do I add or change my profile picture?

Who should I send friend requests to?

What is Code Generator? How does it work?

Browse Topics

Join Facebook

Login & Password

Chat & Messages

News Feed | Requests 1 | Messages | Notifications 6 | More

●○○○○ T-Mobile 5:57 PM

What names are allowed on...

Name

What names are allowed on Facebook?

Personal Accounts

Facebook is a community where people use their real identities. We require everyone to provide their **real names**, so you always know who you're connecting with. This helps keep our community safe.

Names can't include:

- Symbols, numbers, unusual capitalization, repeating characters or punctuation
- Characters from multiple languages
- Titles of any kind (ex: professional, religious, etc)
- Words, phrases, or nicknames in place of a middle name

News Feed | Requests 1 | Messages | Notifications 6 | More

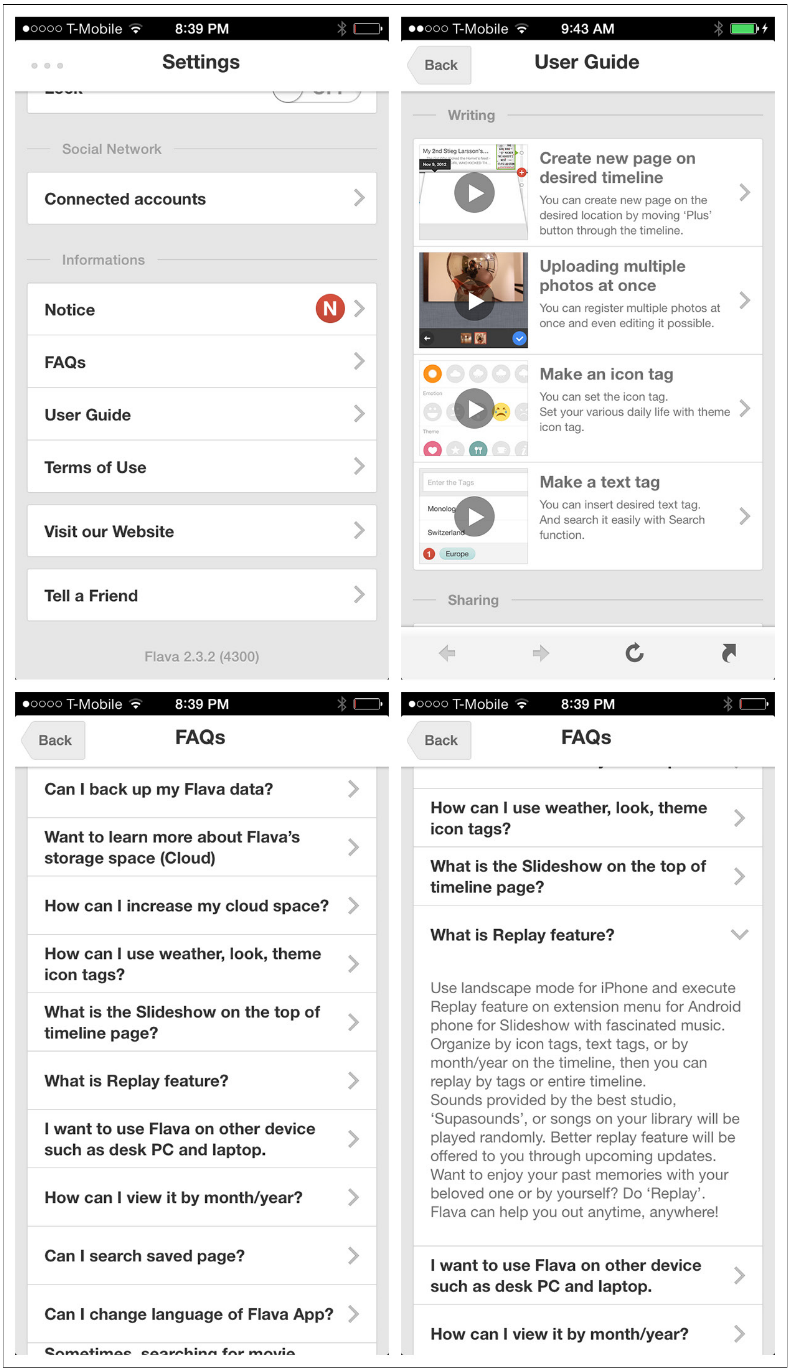
FIGURE 10-9.
Facebook for iOS: multilevel User Guides

Like Facebook, Flava offers a User Guide and FAQs, both of which are well organized and easy to navigate.

[NOTE]

Organize the User Guide in logical categories or topics, and offer the ability to search its content.

FIGURE 10-10.
Flava for iOS includes a User Guide and FAQs



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Settings

Social Network

Connected accounts

Informations

Notice N

FAQs

User Guide

Terms of Use

Visit our Website

Tell a Friend

Flava 2.3.2 (4300)

●●○○○ T-Mobile 9:43 AM

Back User Guide

Writing

Create new page on desired timeline
You can create new page on the desired location by moving 'Plus' button through the timeline.

Uploading multiple photos at once
You can register multiple photos at once and even editing it possible.

Make an icon tag
You can set the icon tag.
Set your various daily life with theme icon tag.

Make a text tag
You can insert desired text tag.
And search it easily with Search function.

Sharing

●○○○○ T-Mobile 8:39 PM

Back FAQs

Can I back up my Flava data?

Want to learn more about Flava's storage space (Cloud)

How can I increase my cloud space?

How can I use weather, look, theme icon tags?

What is the Slideshow on the top of timeline page?

What is Replay feature?

I want to use Flava on other device such as desk PC and laptop.

How can I view it by month/year?

Can I search saved page?

Can I change language of Flava App?

●○○○○ T-Mobile 8:39 PM

Back FAQs

How can I use weather, look, theme icon tags?

What is the Slideshow on the top of timeline page?

What is Replay feature?

Use landscape mode for iPhone and execute Replay feature on extension menu for Android phone for Slideshow with fascinated music.
Organize by icon tags, text tags, or by month/year on the timeline, then you can replay by tags or entire timeline.
Sounds provided by the best studio, 'Supasounds', or songs on your library will be played randomly. Better replay feature will be offered to you through upcoming updates.
Want to enjoy your past memories with your beloved one or by yourself? Do 'Replay'.
Flava can help you out anytime, anywhere!

I want to use Flava on other device such as desk PC and laptop.

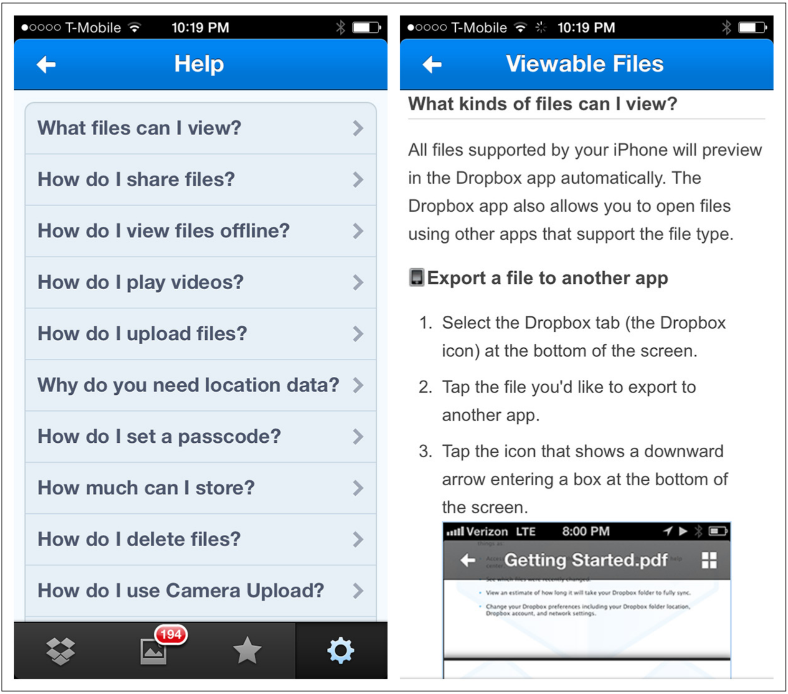
How can I view it by month/year?

FAQs

Got more information than a simple How-To can impart, but not enough for a full User Guide? A list of FAQs might be just the solution. FAQs are typically ordered by most common questions first. (These can be identified through pre-release user testing, by the way.) Dropbox uses the standard iOS pattern for drilling down into FAQ answers.

[NOTE]

Make the list of FAQs visually easy to scan and ensure that revealing answers is intuitive. Order the most common questions first.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Help

- What files can I view?
- How do I share files?
- How do I view files offline?
- How do I play videos?
- How do I upload files?
- Why do you need location data?
- How do I set a passcode?
- How much can I store?
- How do I delete files?
- How do I use Camera Upload?

●○○○○ T-Mobile 10:19 PM

Viewable Files

What kinds of files can I view?

All files supported by your iPhone will preview in the Dropbox app automatically. The Dropbox app also allows you to open files using other apps that support the file type.

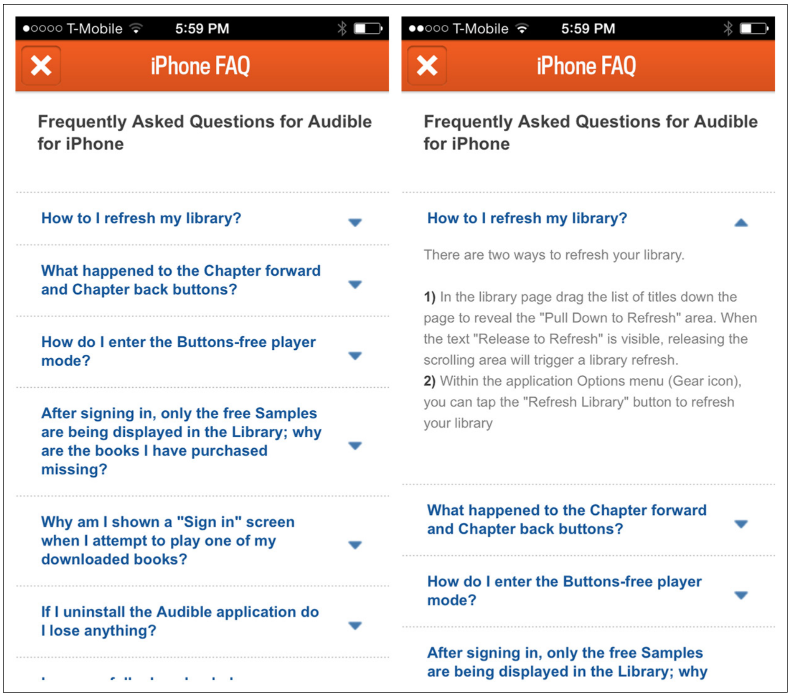
Export a file to another app

1. Select the Dropbox tab (the Dropbox icon) at the bottom of the screen.
2. Tap the file you'd like to export to another app.
3. Tap the icon that shows a downward arrow entering a box at the bottom of the screen.

FIGURE 10-11.
Dropbox for iOS: drill-down FAQs

Audible uses inline expansion instead of drill-down to reveal answers to Frequently Asked Questions.

FIGURE 10-12. Audible for iOS: FAQs expand onscreen



Frequently Asked Questions for Audible for iPhone

How to I refresh my library?

What happened to the Chapter forward and Chapter back buttons?

How do I enter the Buttons-free player mode?

After signing in, only the free Samples are being displayed in the Library; why are the books I have purchased missing?

Why am I shown a "Sign in" screen when I attempt to play one of my downloaded books?

If I uninstall the Audible application do I lose anything?

Frequently Asked Questions for Audible for iPhone

How to I refresh my library?

There are two ways to refresh your library.

1) In the library page drag the list of titles down the page to reveal the "Pull Down to Refresh" area. When the text "Release to Refresh" is visible, releasing the scrolling area will trigger a library refresh.
2) Within the application Options menu (Gear icon), you can tap the "Refresh Library" button to refresh your library

What happened to the Chapter forward and Chapter back buttons?

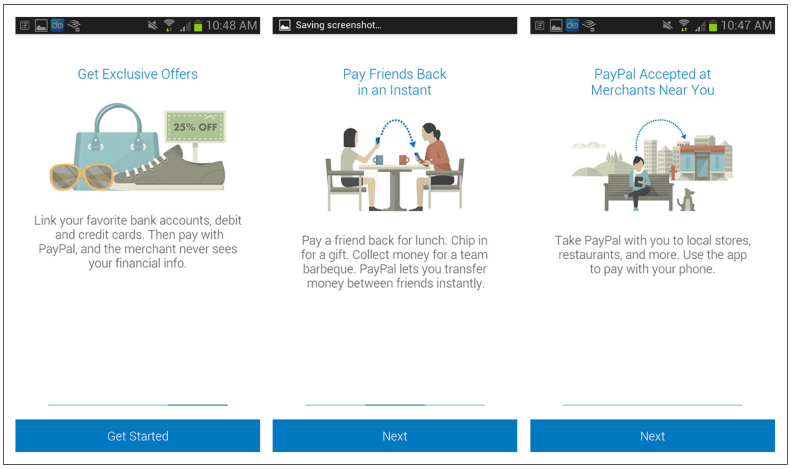
How do I enter the Buttons-free player mode?

After signing in, only the free Samples are being displayed in the Library; why

Feature Tours

A Feature Tour may be used to highlight specific features and functionality in an app. This is not to be confused with a Product Tour, which highlights the app's value proposition, as shown in the PayPal example.

FIGURE 10-13. PayPal for Android: a Product Tour to communicate the app's value proposition



Get Exclusive Offers

Link your favorite bank accounts, debit and credit cards. Then pay with PayPal, and the merchant never sees your financial info.

Get Started

Pay Friends Back in an Instant

Pay a friend back for lunch. Chip in for a gift. Collect money for a team barbeque. PayPal lets you transfer money between friends instantly.

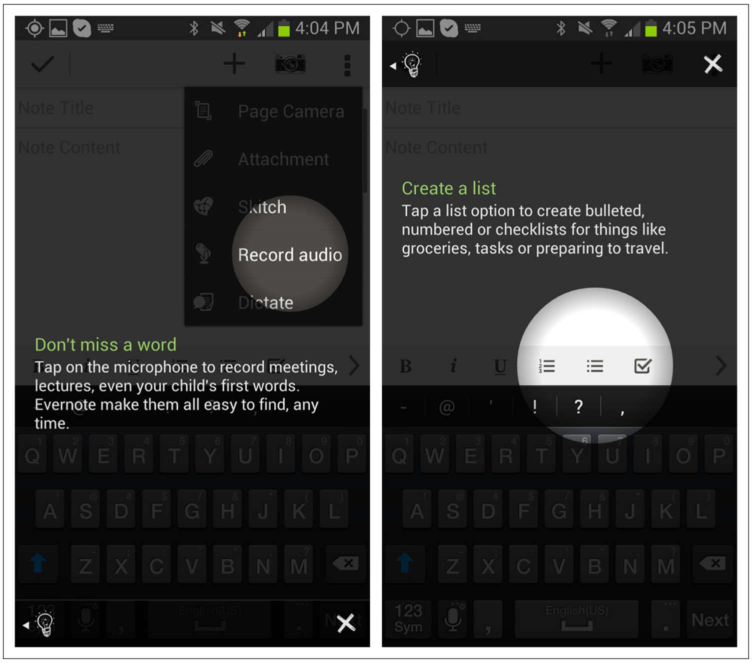
Next

PayPal Accepted at Merchants Near You

Take PayPal with you to local stores, restaurants, and more. Use the app to pay with your phone.

Next

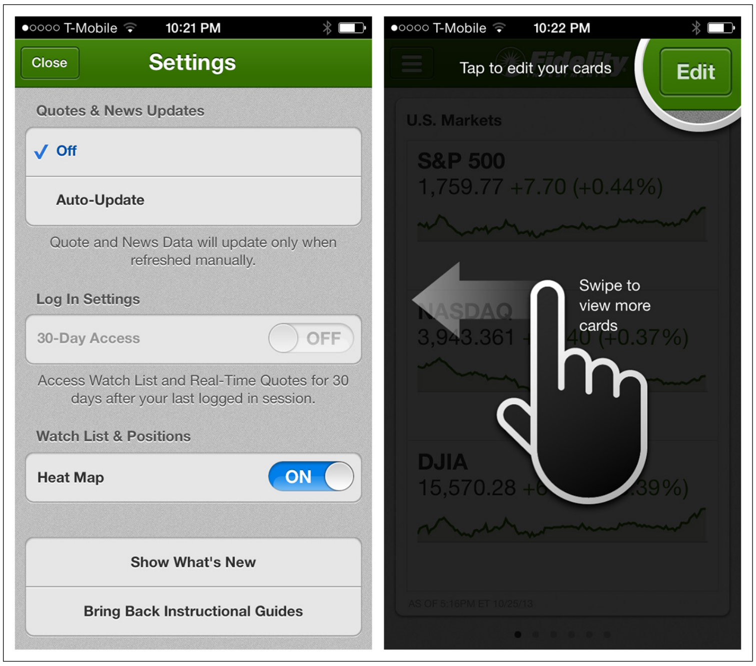
Feature Tours are typically presented on first use but can be accessible at a later time. Fidelity enables this with a Bring Back Instructional Guides setting.



Don't miss a word
Tap on the microphone to record meetings, lectures, even your child's first words. Evernote make them all easy to find, any time.

Create a list
Tap a list option to create bulleted, numbered or checklists for things like groceries, tasks or preparing to travel.

FIGURE 10-14.
Evernote for Android: Feature Tour highlights specific features and UI controls



Settings

Quotes & News Updates
✓ Off
Auto-Update
Quote and News Data will update only when refreshed manually.

Log In Settings
30-Day Access OFF
Access Watch List and Real-Time Quotes for 30 days after your last logged in session.

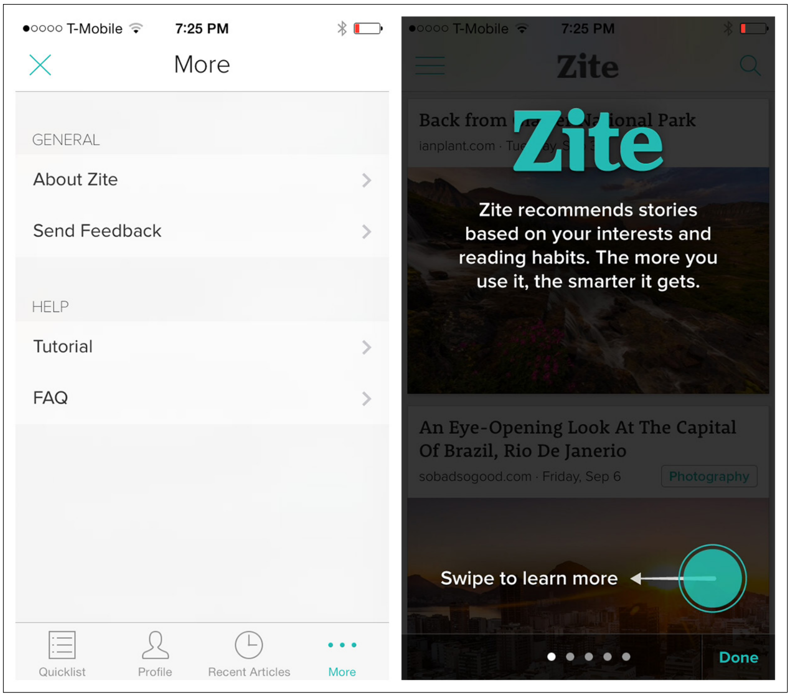
Watch List & Positions
Heat Map ON

Show What's New
Bring Back Instructional Guides

Tap to edit your cards

U.S. Markets
S&P 500
1,759.77 +7.70 (+0.44%)
NASDAQ
3,943.361 +...40 (+0.37%)
DJIA
15,570.28 +...39%)

FIGURE 10-15.
Fidelity for iOS: Tour relaunch option—Bring Back Instructional Guides



Zite recommends stories based on your interests and reading habits. The more you use it, the smarter it gets.

An Eye-Opening Look At The Capital Of Brazil, Rio De Janerio

sobadsogood.com · Friday, Sep 6

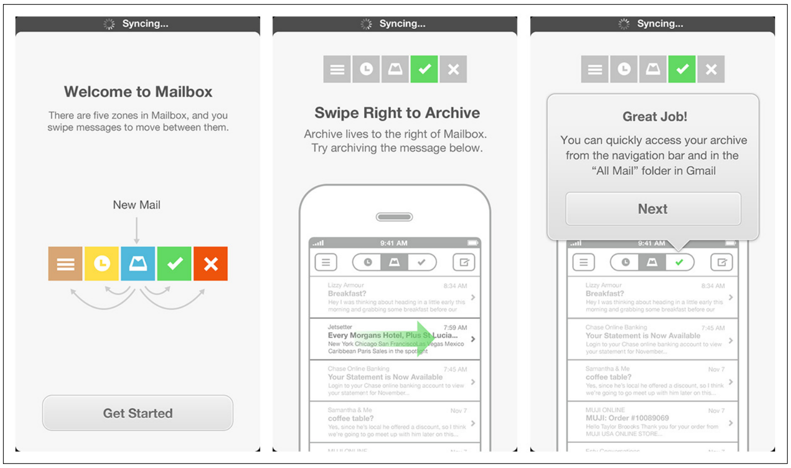
FIGURE 10-16. Zite for iOS: the Tour can be launched again from the More menu

[NOTE]

Introducing a Feature Tour can have a negative impact on conversion and adoption; review Chapter 7 for best practices in designing interactive Tutorials.

As nifty as they may seem, user testing has found that even well-designed Feature Tours are usually skipped. They are also a source of irritation when users want to jump straight into the app.

The best help option varies depending on the application and the audience, so make sure to test a variety of help patterns. Review the rules in Chapter 7 to avoid creating an ineffective Tutorial.



Welcome to Mailbox

There are five zones in Mailbox, and you swipe messages to move between them.

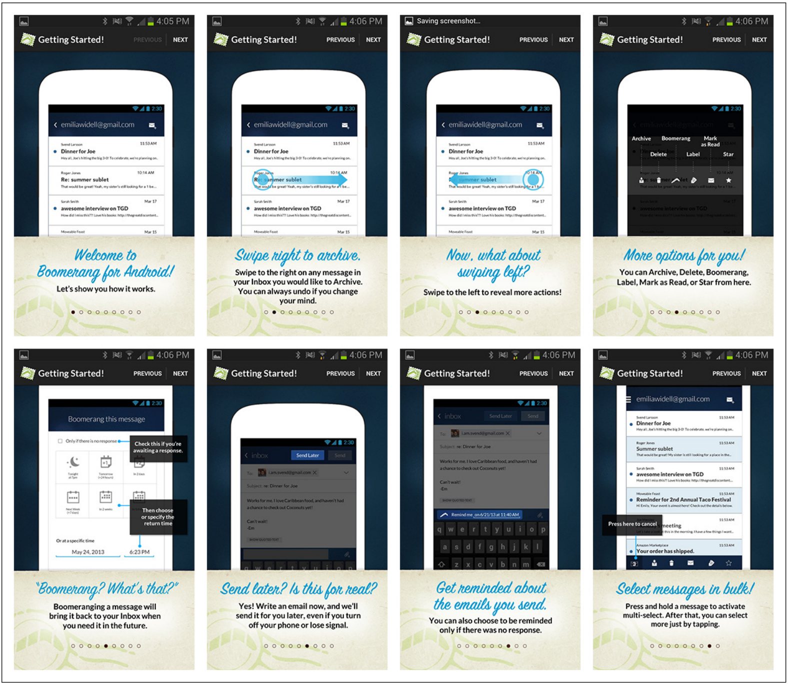
Swipe Right to Archive

Archive lives to the right of Mailbox. Try archiving the message below.

Great Job!

You can quickly access your archive from the navigation bar and in the "All Mail" folder in Gmail

FIGURE 10-17. Mailbox for iOS skips the Feature Tour and instead creates an interactive Tutorial (*http://www.youtube.com/watch?v=URd0j5vEsHE*)



Welcome to Boomerang for Android!
Let's show you how it works.

Swipe right to archive.
Swipe to the right on any message in your Inbox you would like to Archive. You can always undo if you change your mind.

Now, what about swiping left?
Swipe to the left to reveal more actions!

More options for you!
You can Archive, Delete, Boomerang, Label, Mark as Read, or Star from here.

"Boomerang? What's that?"
Boomeranging a message will bring it back to your Inbox when you need it in the future.

Send later? Is this for real?
Yes! Write an email now, and we'll send it for you later, even if you turn off your phone or lose signal.

Get reminded about the emails you send.
You can also choose to be reminded only if there was no response.

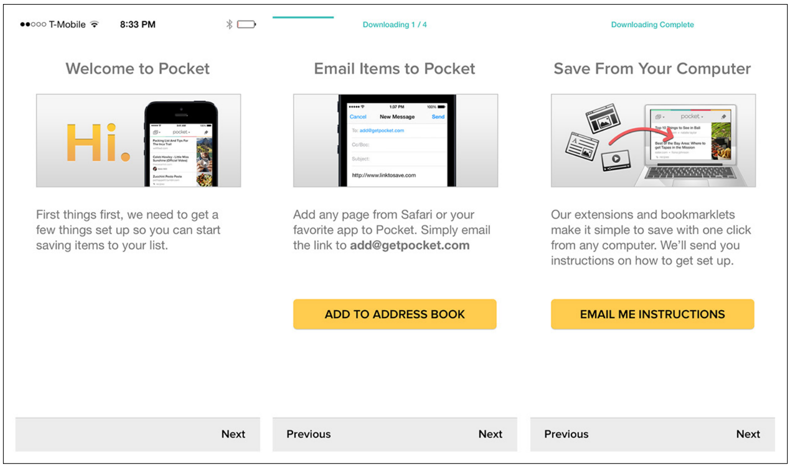
Select messages in bulk!
Press and hold a message to activate multi-select. After that, you can select more just by tapping.

FIGURE 10-18.
By comparison, the Feature Tour in Boomerang for Android is long and overwhelming

Tutorials

As we discussed in Chapter 7, a well-designed Tutorial will get users invested in and comfortable with a product. Though the two patterns are similar in some ways, a Tutorial differs from a Feature Tour in that users are actually accomplishing something within the app as they learn about it. This pattern works well in apps that require initial configuration or rely on a multi-step process for engagement, like Pocket and Vine.

FIGURE 10-19.
Pocket for iOS: Tutorial



Welcome to Pocket

First things first, we need to get a few things set up so you can start saving items to your list.

Email Items to Pocket

Add any page from Safari or your favorite app to Pocket. Simply email the link to **add@getpocket.com**

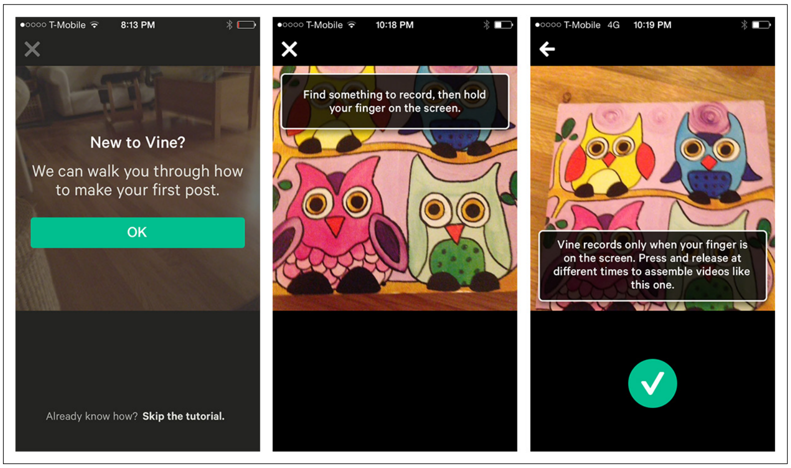
ADD TO ADDRESS BOOK

Save From Your Computer

Our extensions and bookmarklets make it simple to save with one click from any computer. We'll send you instructions on how to get set up.

EMAIL ME INSTRUCTIONS

FIGURE 10-20.
Vine for iOS: general usage Tutorial (*http://www.youtube.com/watch?v=vBOC9DpC5ns*)



New to Vine?

We can walk you through how to make your first post.

Already know how? **Skip the tutorial.**

Find something to record, then hold your finger on the screen.

Vine records only when your finger is on the screen. Press and release at different times to assemble videos like this one.

Goal-based or behavior modification apps like Noom and Everest rely on their Tutorials for both onboarding and retaining users.

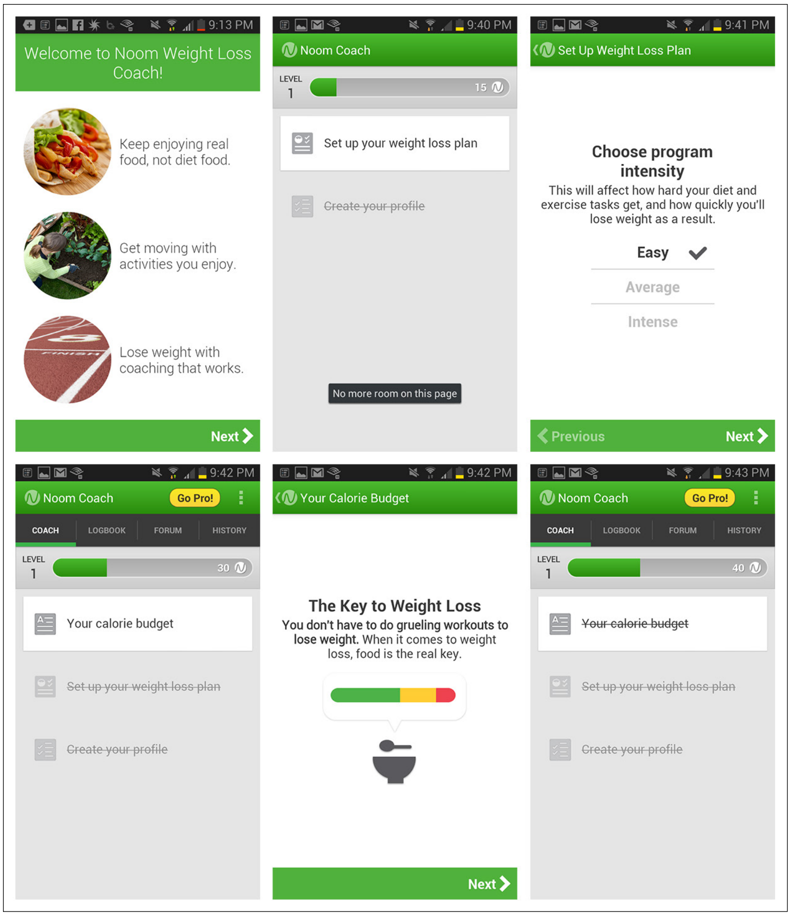

9:13 PM
Welcome to Noom Weight Loss Coach!
Keep enjoying real food, not diet food.
Get moving with activities you enjoy.
Lose weight with coaching that works.
Next
9:40 PM
Noom Coach
LEVEL
1
15
Set up your weight loss plan
~~Create your profile~~
No more room on this page
9:41 PM
Set Up Weight Loss Plan
Choose program intensity
This will affect how hard your diet and exercise tasks get, and how quickly you'll lose weight as a result.
Easy ✓
Average
Intense
Previous
Next
9:42 PM
Noom Coach
Go Pro!
COACH
LOGBOOK
FORUM
HISTORY
LEVEL
1
30
Your calorie budget
~~Set up your weight loss plan~~
~~Create your profile~~
9:42 PM
Your Calorie Budget
The Key to Weight Loss
You don't have to do grueling workouts to lose weight. When it comes to weight loss, food is the real key.
Next
9:43 PM
Noom Coach
Go Pro!
COACH
LOGBOOK
FORUM
HISTORY
LEVEL
1
40
~~Your calorie budget~~
~~Set up your weight loss plan~~
~~Create your profile~~

FIGURE 10-21. Noom for Android: a noteworthy example of a Tutorial

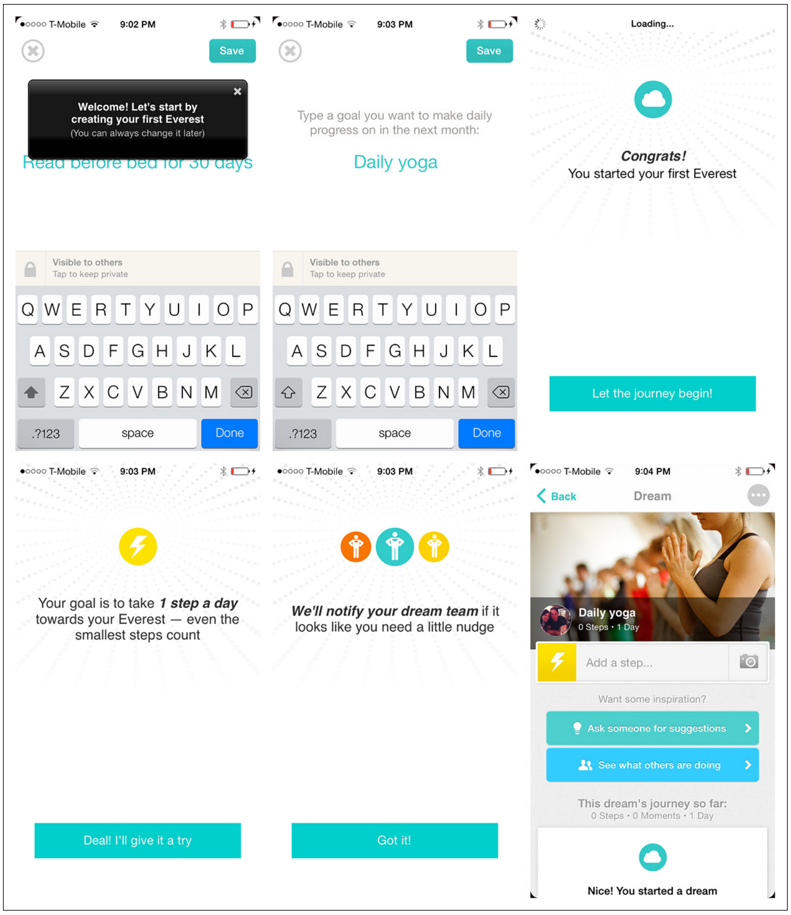
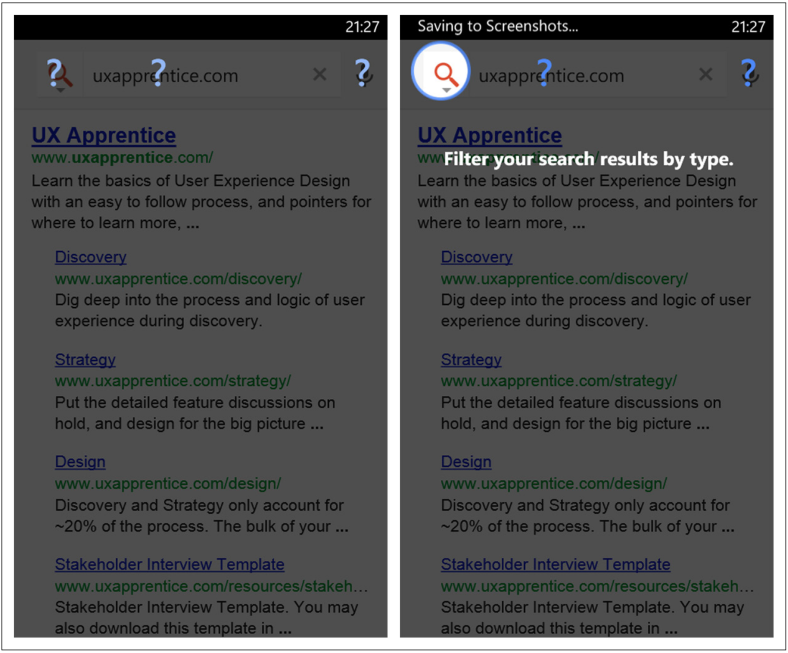

Save
Welcome! Let's start by creating your first Everest
(You can always change it later)
Read before bed for 30 days
Visible to others
Tap to keep private
Done
Type a goal you want to make daily progress on in the next month:
Daily yoga
Loading...
Congrats!
You started your first Everest
Let the journey begin!
Your goal is to take 1 step a day towards your Everest — even the smallest steps count
Deal! I'll give it a try
We'll notify your dream team if it looks like you need a little nudge
Got it!
Back
Dream
Daily yoga
0 Steps • 1 Day
Add a step...
Want some inspiration?
Ask someone for suggestions
See what others are doing
This dream's journey so far:
0 Steps • 0 Moments • 1 Day
Nice! You started a dream

FIGURE 10-22.
Everest for iOS: Tutorial promotes engagement

Contextual Help

Contextual Help is help obtained at a specific point in the application. Unlike with a Feature Tour, there is no frontloading of information; the help is accessible at the screen level and/or is revealed during a task.

In Argus, tapping on a water droplet reveals the trick to adding and removing glasses of water.


21:27

uxapprentice.com

UX Apprentice
www.uxapprentice.com/
Learn the basics of User Experience Design with an easy to follow process, and pointers for where to learn more, ...

Discovery
www.uxapprentice.com/discovery/
Dig deep into the process and logic of user experience during discovery.

Strategy
www.uxapprentice.com/strategy/
Put the detailed feature discussions on hold, and design for the big picture ...

Design
www.uxapprentice.com/design/
Discovery and Strategy only account for ~20% of the process. The bulk of your ...

Stakeholder Interview Template
www.uxapprentice.com/resources/stakeh...
Stakeholder Interview Template. You may also download this template in ...

Saving to Screenshots... 21:27

uxapprentice.com

UX Apprentice
Filter your search results by type.

Learn the basics of User Experience Design with an easy to follow process, and pointers for where to learn more, ...

Discovery
www.uxapprentice.com/discovery/
Dig deep into the process and logic of user experience during discovery.

Strategy
www.uxapprentice.com/strategy/
Put the detailed feature discussions on hold, and design for the big picture ...

Design
www.uxapprentice.com/design/
Discovery and Strategy only account for ~20% of the process. The bulk of your ...

Stakeholder Interview Template
www.uxapprentice.com/resources/stakeh...
Stakeholder Interview Template. You may also download this template in ...

FIGURE 10-23.
Google for Windows Phone: user can reveal Contextual Help for specific buttons

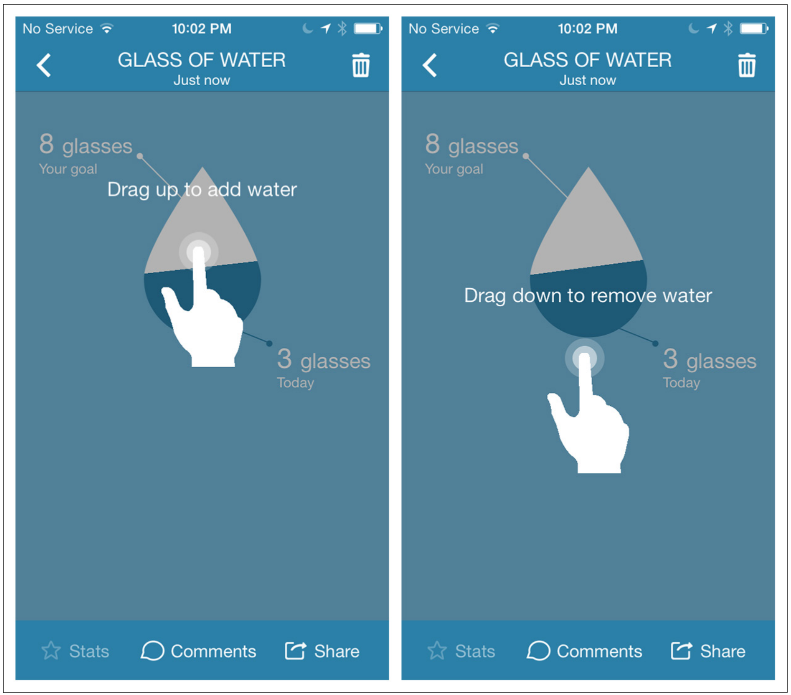


FIGURE 10-24.
Argus for iOS: tapping the water droplet reveals Contextual Help (*http://youtu.be/FxvqBhs-2Co*)

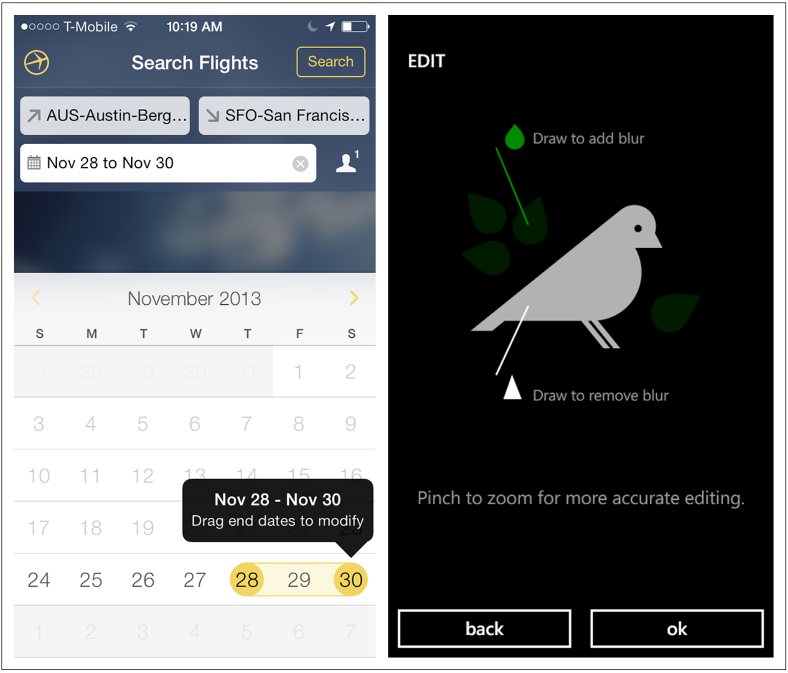


FIGURE 10-25.
Expedia for iOS and Creative Studio for Windows Phone offer help during the task flow

Capture Feedback

Bugs, errors, feedback, suggestions, feature requests—if you're lucky, your users will want to share all of these with you. Make sure you provide a simple mechanism for capturing their feedback.

Most apps have a Feedback option under Settings, which opens the mobile email client or a web-based mail form. Ideally a web form should be embedded in the app, rather than launching a mobile browser.

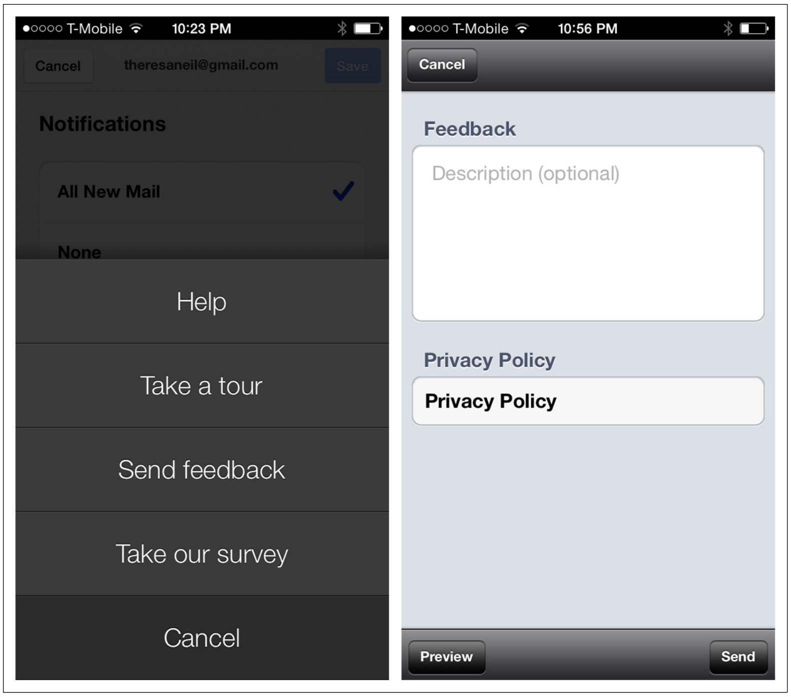
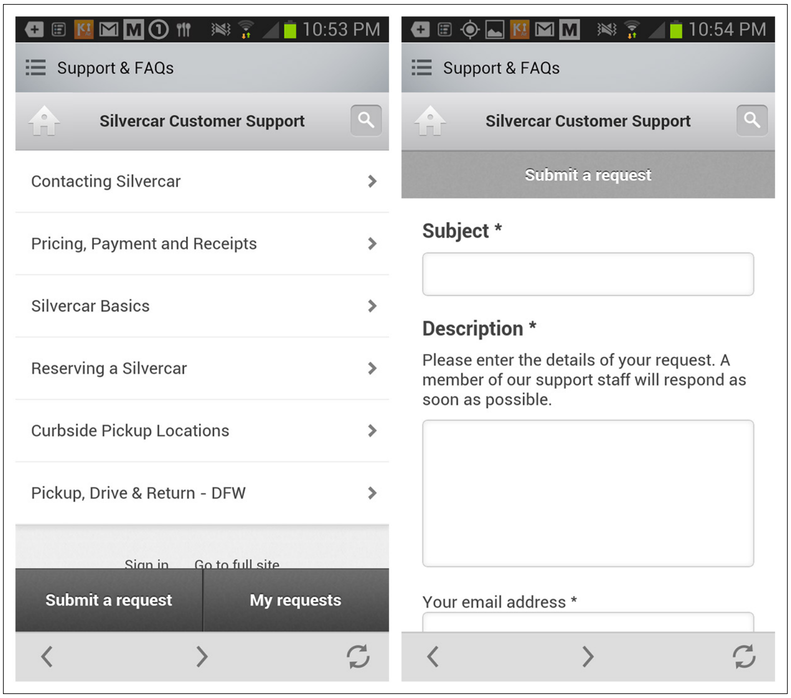


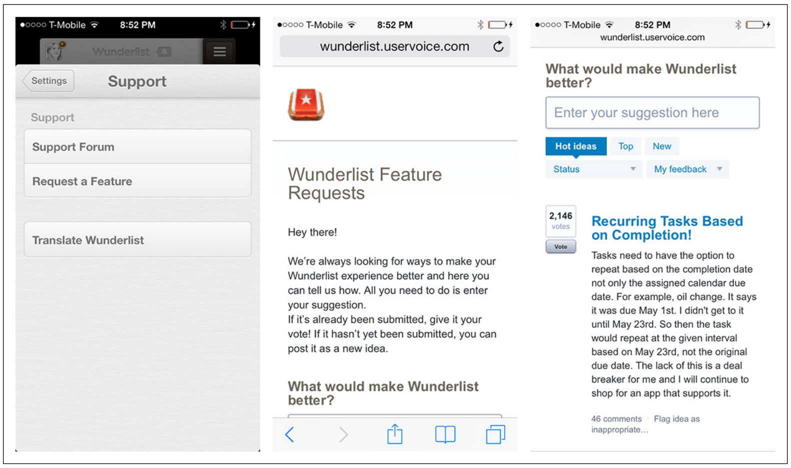
FIGURE 10-26.
Google Apps for iOS: embedded Feedback Capture form



Please enter the details of your request. A member of our support staff will respond as soon as possible.

FIGURE 10-27.
Silvercar for Android: embedded Feedback Capture form (Zendesk)

Wunderlist has incorporated UserVoice, a popular web-based tool, to build an active community of users who suggest and vote on feature requests. Get Satisfaction is another web-based user feedback tool that can be integrated into native applications.



●○○○○ T-Mobile 8:52 PM

Wunderlist

Settings Support

Support

Support Forum

Request a Feature

Translate Wunderlist

●○○○○ T-Mobile 8:52 PM

wunderlist.uservoice.com

Wunderlist Feature Requests

Hey there!

We're always looking for ways to make your Wunderlist experience better and here you can tell us how. All you need to do is enter your suggestion.
If it's already been submitted, give it your vote! If it hasn't yet been submitted, you can post it as a new idea.

What would make Wunderlist better?

●○○○○ T-Mobile 8:52 PM

wunderlist.uservoice.com

What would make Wunderlist better?

Enter your suggestion here

Hot ideas Top New

Status My feedback

2,146 votes Vote

Recurring Tasks Based on Completion!

Tasks need to have the option to repeat based on the completion date not only the assigned calendar due date. For example, oil change. It says it was due May 1st. I didn't get to it until May 23rd. So then the task would repeat at the given interval based on May 23rd, not the original due date. The lack of this is a deal breaker for me and I will continue to shop for an app that supports it.

46 comments · Flag idea as inappropriate...

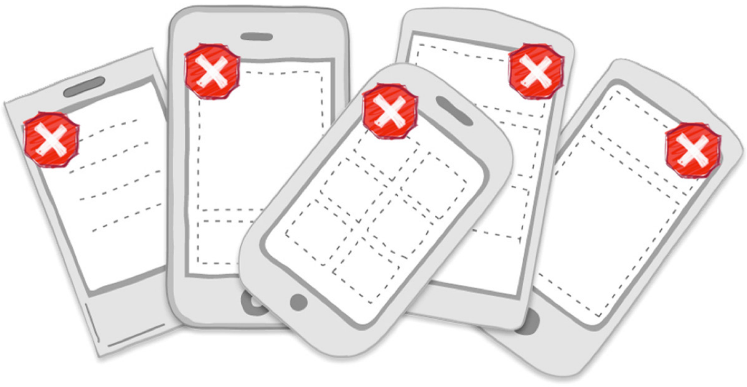
FIGURE 10-28. Wunderlist for iOS integrates UserVoice to use Feedback Capture as a way to build community

[NOTE]

If you ask users for feedback, be prepared to get it. Have a plan in place beforehand that will help you prioritize and act on user issues and feature requests.

[11]

Anti-Patterns



Anti-Patterns

Novel Notions, Needless Complexity, Metaphor Mismatch, Idiot Boxes, Chart Junk, Oceans of Buttons

What are anti-patterns? Wikipedia says:

> Anti-patterns, also called pitfalls, are classes of commonly reinvented bad solutions to problems. They are studied as a category so they can be avoided in the future, and so instances of them may be recognized when investigating non-working systems. The term originates in computer science, apparently inspired by the Gang of Four's book *Design Patterns*, which displayed examples of high-quality programming methods.

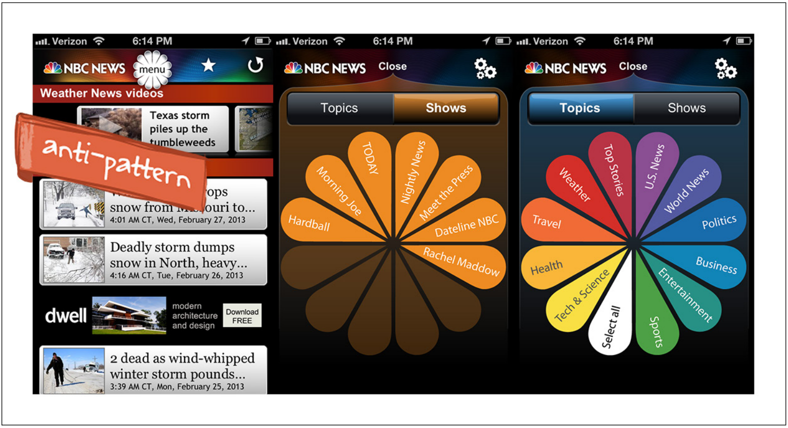
Like their computer science counterparts, the following design anti-patterns are common pitfalls to avoid. Since each reinvention adds its own wretched novelty, I can't provide generic anti-pattern diagrams, so let's just dive right in.

Novel Notions

New designers try out novel design ideas to be edgy, creative, and innovative. But most of the time the designs are just bad, hard to understand and harder to use. And sometimes anti-patterns result from laziness or habit. According to usability gadfly Richard Gunther, "You can usually tell when a mobile app development team comes from an old web development background. They often attempt to translate old user interaction models to the new platform and assert their 'creativity' by introducing nonstandard UI elements."

Novel Notions can be found anywhere in an application, from primary navigation down to an individual control, interaction, or gesture. NBC News is at the top of my list for Novel Notions with its peacock pie chart menu. Thank goodness most applications don't try to create menus that match the shape of their logos.

FIGURE 11-1. NBC News for iOS: navigation inspired by the company logo



So why exactly is this an anti-pattern? Let us count the ways:

- The menu location is nonstandard, for mobile in general and iOS specifically. The navicon for a Toggle Menu, for instance, should be placed in the corner of the navigation bar, not in the center.
- Rotated text is hard to read. A simple left-aligned list of categories would take less time to process.
- Too many colors! The overstuffed color palette is confusing and degrades the legibility of the menu options.

- The design fails at the basic function of navigation, which is to show users where they are and where they can go. Neither the selected topic titles nor the show titles persist on the screen once the menu is closed.

Now this isn't as exciting, but it's much easier to use: USA Today has designed a colorful yet functional navigation system using the Side Drawer pattern. Each category of news is represented by a different color, but they aren't shown all at once, thereby avoiding the exploding peacock effect.

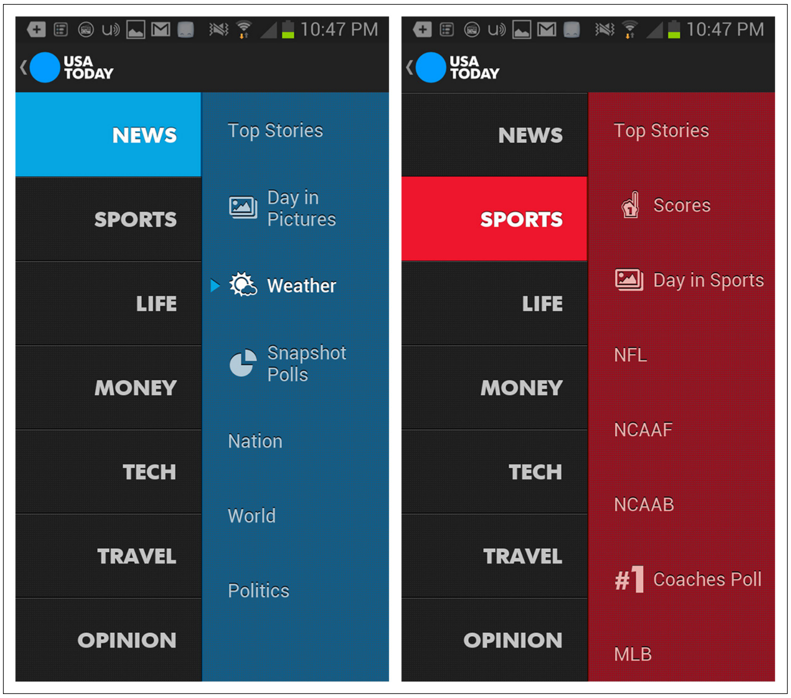
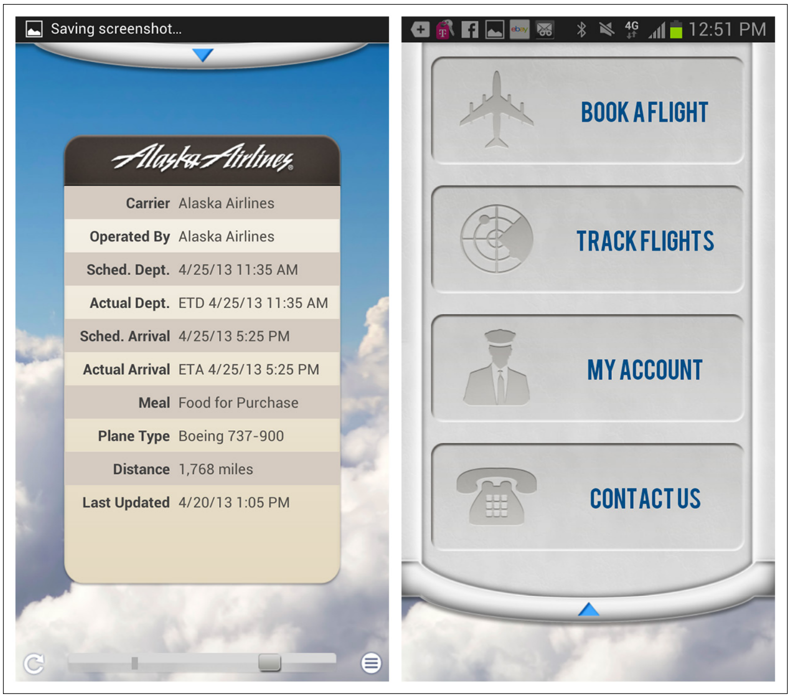


FIGURE 11-2. USA Today for Android: color used judiciously in the menu

Alaska Airlines has also gone off the grid with its menu design. It features a drawer that can be pulled down from the top of the screen. I eventually realized that this is supposed to mimic the shade on airplane windows! This is a perfect example of taking a skeuomorphic design (i.e., a real-life metaphor) too far. Does it help the user? No, it's cuteness for cuteness's sake.

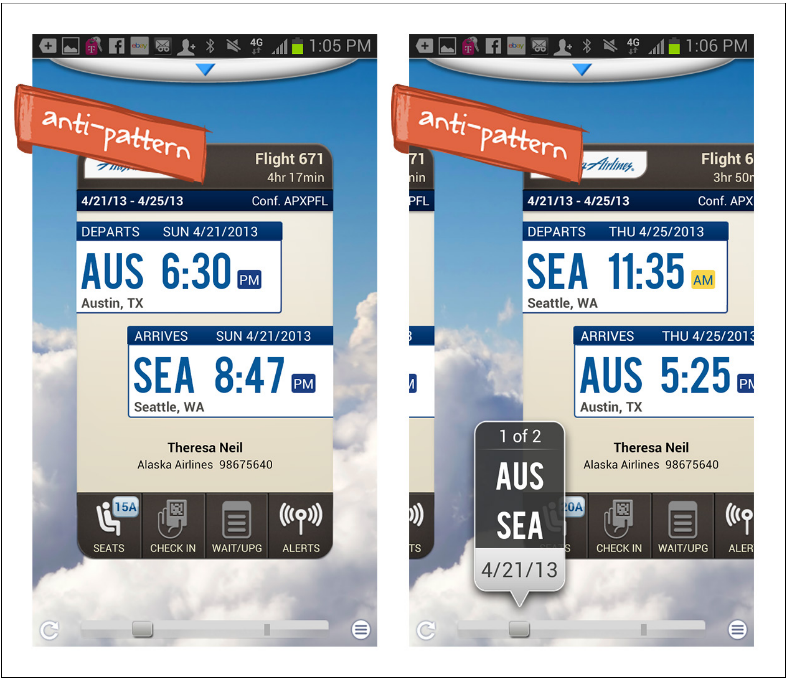


Carrier	Alaska Airlines
Operated By	Alaska Airlines
Sched. Dept.	4/25/13 11:35 AM
Actual Dept.	ETD 4/25/13 11:35 AM
Sched. Arrival	4/25/13 5:25 PM
Actual Arrival	ETA 4/25/13 5:25 PM
Meal	Food for Purchase
Plane Type	Boeing 737-900
Distance	1,768 miles
Last Updated	4/20/13 1:05 PM

FIGURE 11-3. Alaska Airlines for Android: window shade menu doesn't help the user

But the window shade menu isn't the only Novel Notion. Flight search results are displayed as floating cards. A scrollbar well below the cards lets you navigate through them—assuming you see it. Dragging its handle reveals additional information about each option, but its placement doesn't seem to correlate with the cards.

For a much simpler and faster booking experience, refer to Expedia. It has standard navigation, a succinct search form, and an innovative (and usable) design for reviewing and selecting flights.



1:05 PM

anti-pattern

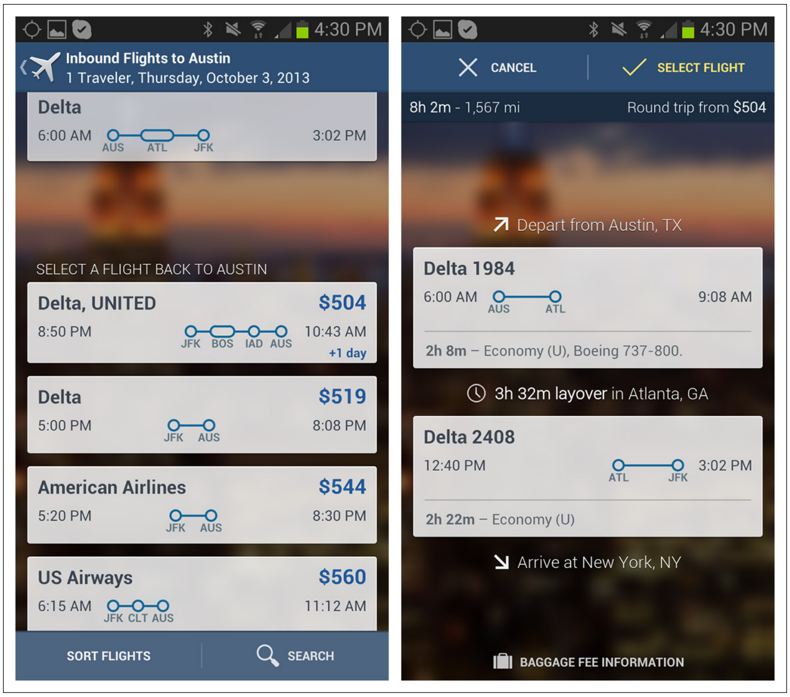
Flight 671
4hr 17min
4/21/13 - 4/25/13 Conf. APXPFL
DEPARTS SUN 4/21/2013
AUS 6:30 PM
Austin, TX
ARRIVES SUN 4/21/2013
SEA 8:47 PM
Seattle, WA
Theresa Neil
Alaska Airlines 98675640
SEATS CHECK IN WAIT/UPG ALERTS

1:06 PM

anti-pattern

Flight 6
3hr 50r
4/21/13 - 4/25/13 Conf. APX
DEPARTS THU 4/25/2013
SEA 11:35 AM
Seattle, WA
ARRIVES THU 4/25/2013
AUS 5:25 PM
Austin, TX
1 of 2
AUS
SEA
4/21/13
Theresa Neil
Alaska Airlines 98675640
CHECK IN WAIT/UPG ALER

FIGURE 11-4. Alaska Airlines for Android: unusual Search Results view; navigate through cards with bottom scrollbar



4:30 PM
Inbound Flights to Austin
1 Traveler, Thursday, October 3, 2013
Delta
6:00 AM AUS ATL JFK 3:02 PM
SELECT A FLIGHT BACK TO AUSTIN
Delta, UNITED $504
8:50 PM JFK BOS IAD AUS 10:43 AM +1 day
Delta $519
5:00 PM JFK AUS 8:08 PM
American Airlines $544
5:20 PM JFK AUS 8:30 PM
US Airways $560
6:15 AM JFK CLT AUS 11:12 AM
SORT FLIGHTS SEARCH

4:30 PM
CANCEL SELECT FLIGHT
8h 2m - 1,567 mi Round trip from $504
Depart from Austin, TX
Delta 1984
6:00 AM AUS ATL 9:08 AM
2h 8m – Economy (U), Boeing 737-800.
3h 32m layover in Atlanta, GA
Delta 2408
12:40 PM ATL JFK 3:02 PM
2h 22m – Economy (U)
Arrive at New York, NY
BAGGAGE FEE INFORMATION

FIGURE 11-5. Expedia for Android: nice visualization for the flight legs and connections

For another innovative approach to flight booking, take a look at Hipmunk. Notice that the innovation is at the UX level (providing "agony" as a search filter), not at the UI control level (a window shade menu doesn't improve my booking or travel experience in the slightest).

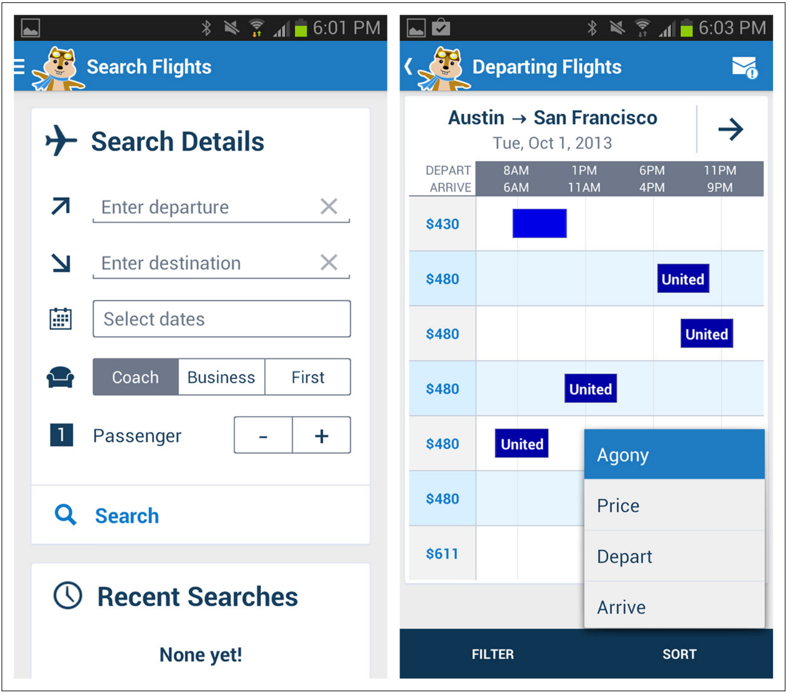


FIGURE 11-6. Hipmunk for Android: innovative experience (filter by agony level), but familiar controls

[NOTE]

If you are looking for a way to innovate with your application, look for opportunities to help the user by improving the overall UX conceptual model and flows. Understand the OS design guidelines and get familiar with existing design patterns before designing the UI.

Here's one more example from Twitter @music. The designers combined a couple of navigation devices to create an "innovative" interface. In this context, I am using the term *innovative* sarcastically to mean they spent extra time and money to create custom controls that decrease usability.

The navigation bar includes a custom spinner, and the footer has page indicators (the four dots). Surprisingly, the spinner and the paging indicators are tied to each other, so selecting an option in the spinner will advance one "page." But wait—there's more! Swiping left or right will update the spinner to show the newly selected module.

Do you think they knew this "spinner plus paging indictor" control was a bad idea? At least that would explain the ultra-low-contrast, black-on-black navigation bar design—maybe they were trying to hide it!

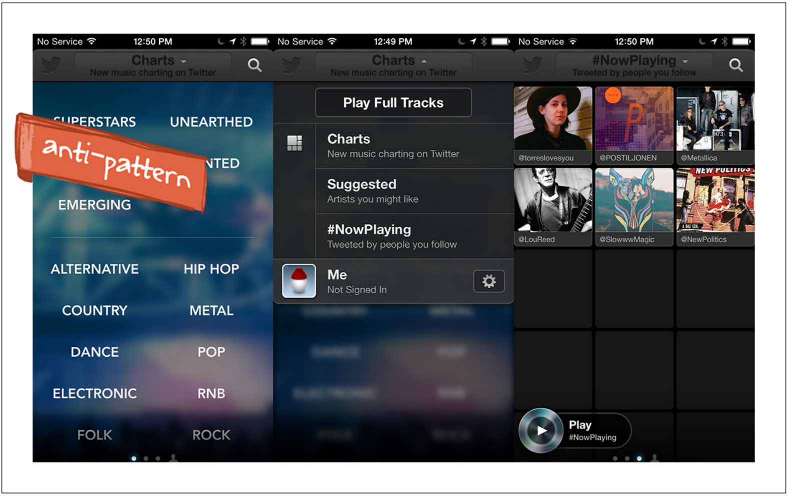


FIGURE 11-7. Twitter @music for iOS: Android-style spinner + paging indicator = overkill

For true innovation in music apps, take a look at Songza and Soundwave. Songza's concierge metaphor is brilliant, and Soundwave lets you explore a Music Map that combines social and location elements.

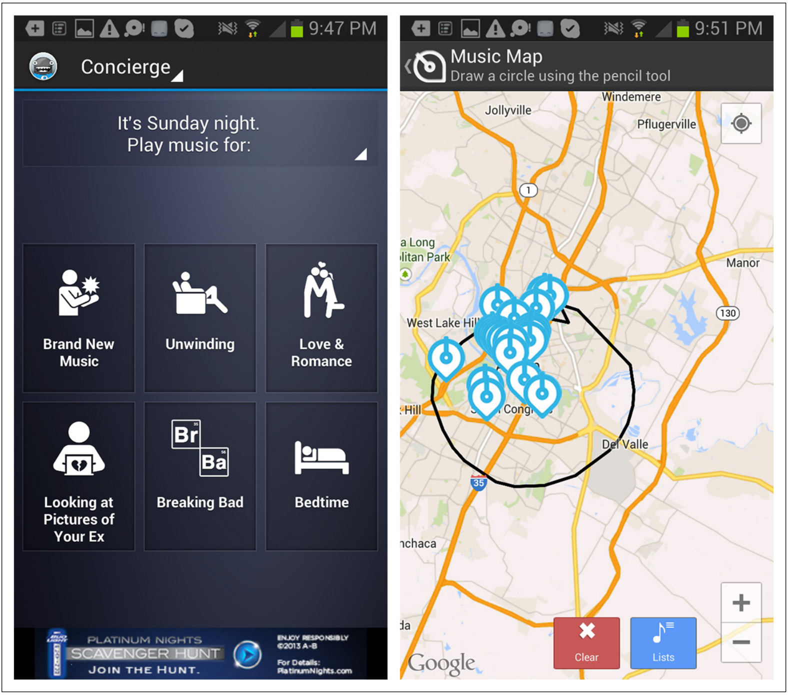


FIGURE 11-8. Songza and Soundwave for Android: innovations without anti-patterns

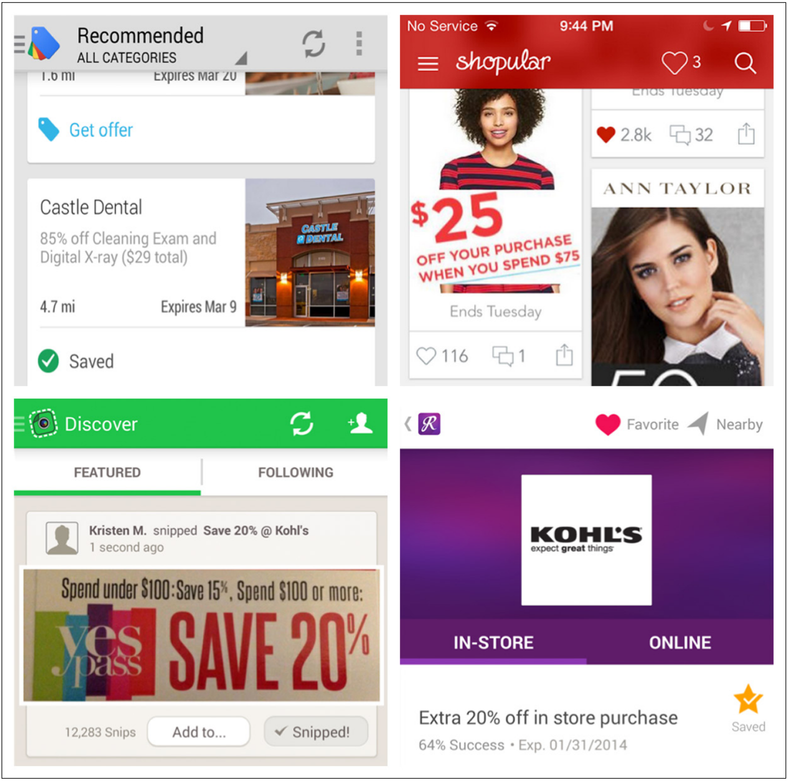
Needless Complexity

One of the differentiators between a great user experience and a poor one is efficiency. User experience coach Whitney Hess says, "Efficiency allows for productivity and reduced effort, and a streamlined design allows more to get done in the same amount of time. Creating efficiency demonstrates a great deal of respect for your customers, and they'll be sure to notice."

Let's look at some apps that have needlessly complex interfaces that hamper the user's efficiency.

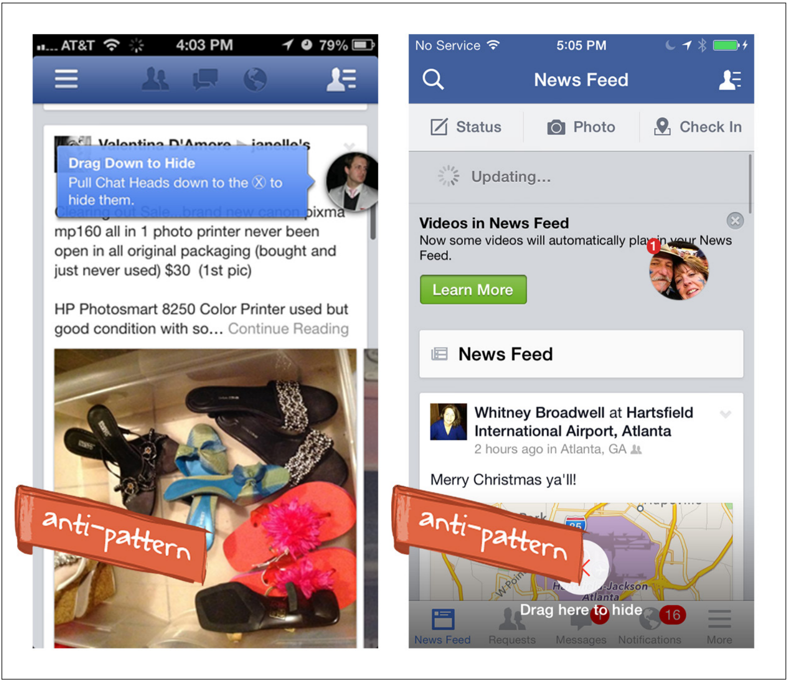
Eureka Offers is a pretty simple application for finding local and national deals. Users can save the deals they like. But unlike Google Offers, Shopular, SnipSnap, RetailMeNot, and most other apps of this type, which use a simple Inline Action for saving, snipping, and favoriting deals, Eureka requires a long-press, drag-and-drop interaction to save. Not only does this require more user effort, but it is also less discoverable than an Inline Action (see Chapter 5).

FIGURE 11-9. Google Offers, Shopular, SnipSnap, and RetailMeNot all offer Inline Actions for saving, snipping, and favoriting



Recommended
ALL CATEGORIES
1.6 mi
Expires Mar 20
Get offer
Castle Dental
85% off Cleaning Exam and Digital X-ray ($29 total)
4.7 mi
Expires Mar 9
Saved
No Service
9:44 PM
shopular
3
Ends Tuesday
2.8k
32
ANN TAYLOR
$25 OFF YOUR PURCHASE WHEN YOU SPEND $75
Ends Tuesday
116
1
Discover
FEATURED
FOLLOWING
Kristen M. snipped Save 20% @ Kohl's
1 second ago
Spend under $100: Save 15%, Spend $100 or more: SAVE 20%
12,283 Snips
Add to...
Snipped!
Favorite
Nearby
KOHL'S expect great things
IN-STORE
ONLINE
Extra 20% off in store purchase
64% Success • Exp. 01/31/2014
Saved

Another example of introducing drag and drop without considering the extra effort it requires of users is Facebook Chat Heads. How about a "long press to see/hide" option, or swipe off the screen to remove, or just maybe not have floating heads on the screen?



Valentina D'Amore ▸ janelle's
Cleaning out Sale...brand new canon pixma mp160 all in 1 photo printer never been open in all original packaging (bought and just never used) $30 (1st pic)

HP Photosmart 8250 Color Printer used but good condition with so... Continue Reading

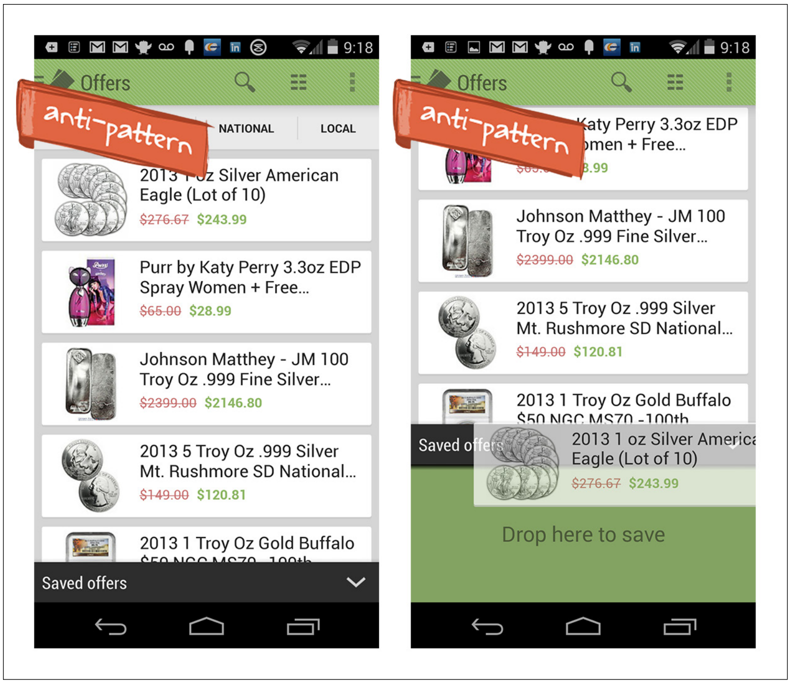
Videos in News Feed
Now some videos will automatically play in your News Feed.

Whitney Broadwell at Hartsfield International Airport, Atlanta
2 hours ago in Atlanta, GA

Merry Christmas ya'll!

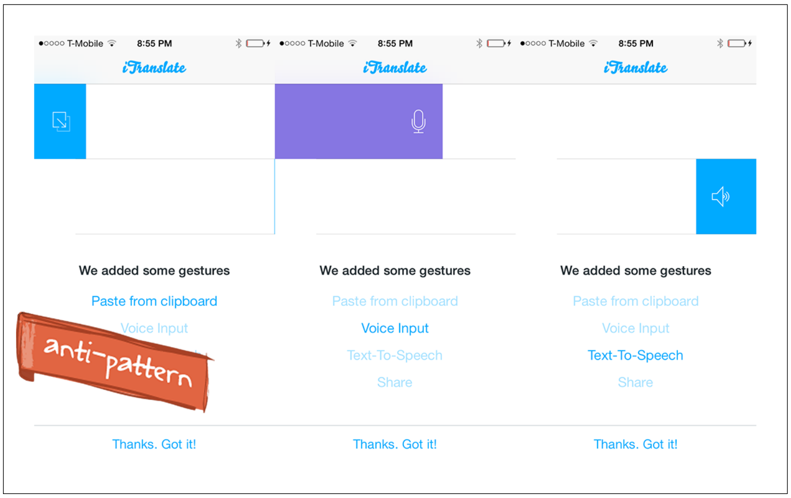
FIGURE 11-10.
Facebook for iOS: Chat Heads are nonintuitive and require extra effort to remove from the view

FIGURE 11-11. Eureka Offers for Android requires a long-press drag-and-drop to save

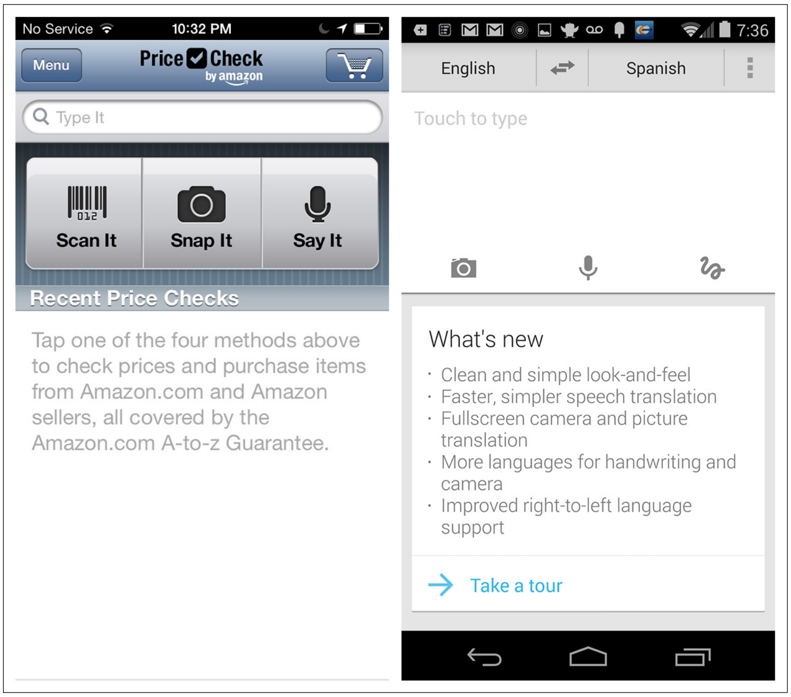

anti-pattern
Offers
NATIONAL
LOCAL
2013 1 oz Silver American Eagle (Lot of 10)
~~$276.67~~ $243.99
Purr by Katy Perry 3.3oz EDP Spray Women + Free...
~~$65.00~~ $28.99
Johnson Matthey - JM 100 Troy Oz .999 Fine Silver...
~~$2399.00~~ $2146.80
2013 5 Troy Oz .999 Silver Mt. Rushmore SD National...
~~$149.00~~ $120.81
2013 1 Troy Oz Gold Buffalo
Saved offers
Drop here to save

iTranslate's designers appear to have fallen in love with the novelty of gesture-based UIs. I say that because the app is overloaded with nonintuitive gestures. Short-swipe right to paste from clipboard, long-swipe right to use voice input—huh?

FIGURE 11-12. iTranslate for iOS: UI is overloaded with nonintuitive gestures



To let users choose the input mode, the designers could have offered something simple like the “Scan It, Snap It, Say It” picker in Amazon Price Check. In fact, an iTranslate competitor, Google Translate, serves a “Snap It, Say It, Write It” contextual toolbar under the text entry field.



Tap one of the four methods above to check prices and purchase items from Amazon.com and Amazon sellers, all covered by the Amazon.com A-to-z Guarantee.

What's new

- Clean and simple look-and-feel
- Faster, simpler speech translation
- Fullscreen camera and picture translation
- More languages for handwriting and camera
- Improved right-to-left language support

FIGURE 11-13.
Amazon Price Check for iOS and Google Translate for Android: intuitive input mode choosers

In the next example, from Over, the designers really tried to make a pie menu work. From the home screen, the menu can be swiped in from the right. This concept has possibilities, but not the way it is designed currently. The pie menu options are a combination of primary navigation and actions, and they are *always changing*. It is truly disconcerting and probably the least efficient photo-editing tool I’ve ever tried.

Always ask yourself, “Could I make this simpler?” If the answer is yes, do it—even (or maybe especially) if it means sacrificing novelty. Your users will appreciate it.

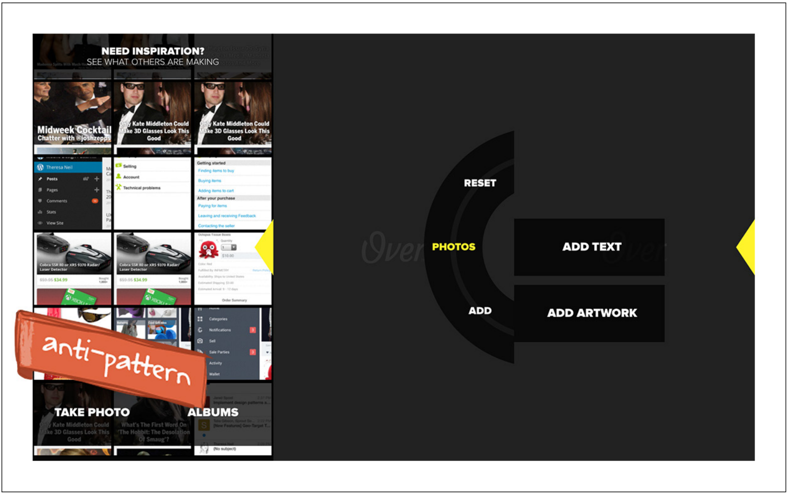


FIGURE 11-14. Over for iOS: an unpleasant adventure to navigate (*http://youtu.be/rMG0ftTdSy4*)

Metaphor Mismatch

This anti-pattern results from picking the wrong metaphor for the interface. Metaphor Mismatch can occur at a low level, when a control or icon is used inappropriately, or at a high level, where the conceptual model for the application doesn't match the user's mental model.

Control Mismatch

Conqu and DailyBurn provide examples of low-level Control Mismatches. For reasons unknown, the designers of both have chosen to create custom controls instead of using the default Android controls. Conqu uses an iPad popover control, and DailyBurn uses an iOS-style selector.

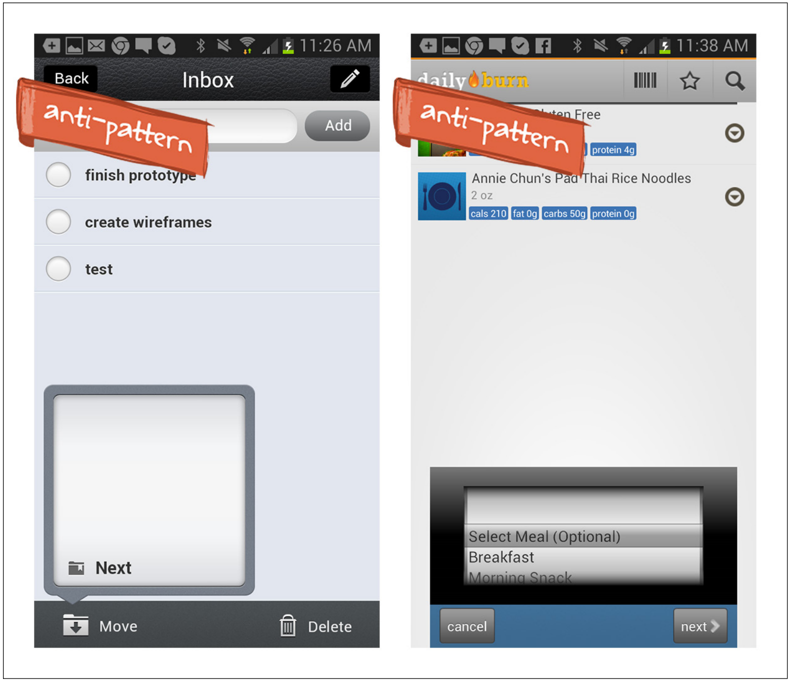


FIGURE 11-15.
Conqu and DailyBurn for Android: unexpected iOS-style controls in Android apps

The Edmunds app for iOS and Android has nonstandard controls for primary navigation. If users can't easily see the main modules in the application, it can hurt app adoption.

The home screen for the Edmunds app is almost completely empty by default. It took me a while to realize it was a search form. It is also easy to overlook the other modules in the application, because they are tucked under the spinner in the Android app, and under an arrow in the iOS app.

An easy fix would be to switch to tabs for navigation (see Chapter 1). And the Implicit Search pattern might work well for home screen vehicle searches—better than a blank home screen, anyway. (See the Implicit Search examples for Zillow and Trulia in Chapter 4.)

FIGURE 11-16.
Edmunds for Android: home screen, and spinner used incorrectly for primary navigation

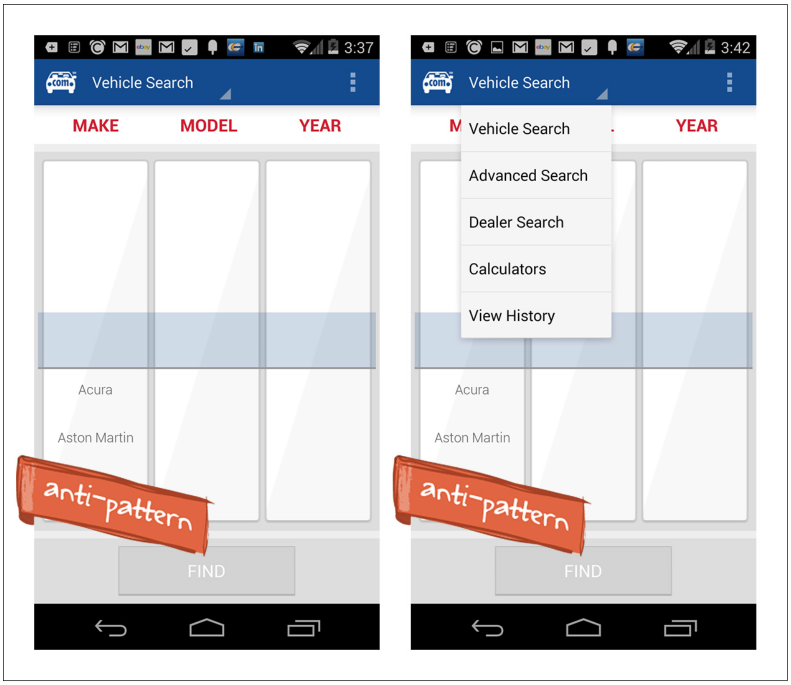
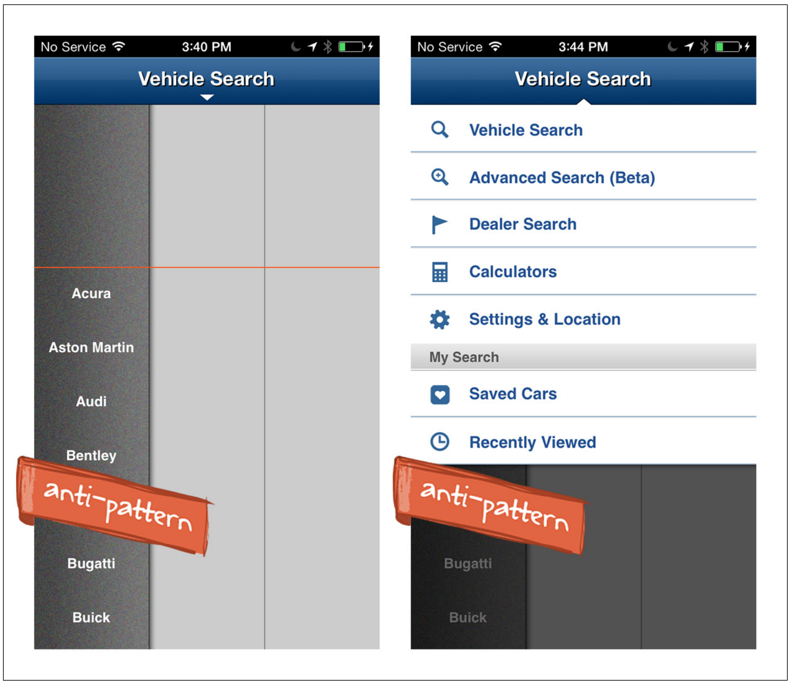
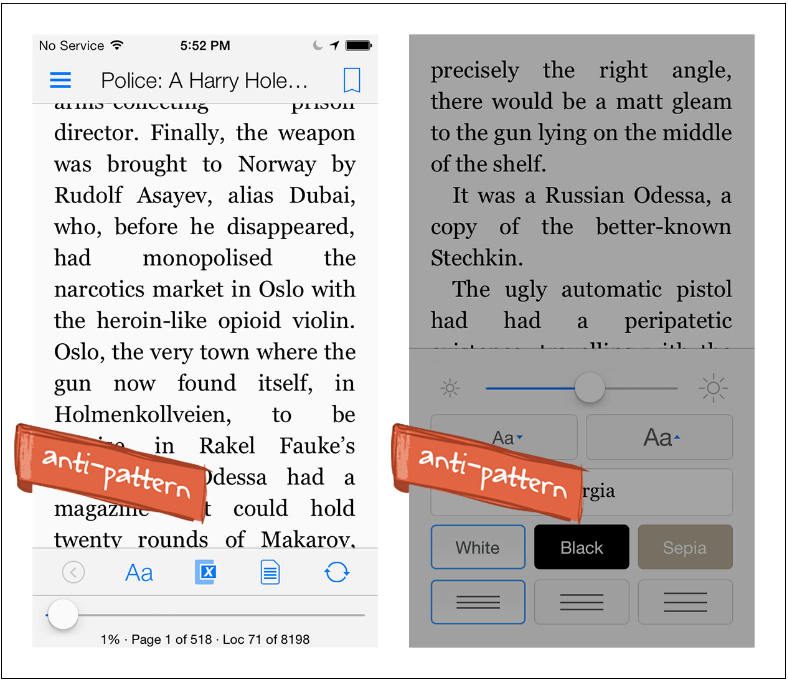


FIGURE 11-17.
Edmunds for iOS: blank home screen is really a search form with a nonstandard menu



Icon Mismatch

Users have specific expectations for common icons: a gear is for settings, a star is for saving or designating favorites, a magnifying glass is for search, and so on. Using a familiar icon for anything other than its familiar purpose will lead to confusion. For example, in Kindle for iOS, I was surprised to finally find the brightness adjustment control under the font properties icon.



director. Finally, the weapon was brought to Norway by Rudolf Asayev, alias Dubai, who, before he disappeared, had monopolised the narcotics market in Oslo with the heroin-like opioid violin. Oslo, the very town where the gun now found itself, in Holmenkollveien, to be in Rakel Fauke's dessa had a magazine t could hold twenty rounds of Makarov,

precisely the right angle, there would be a matt gleam to the gun lying on the middle of the shelf.

It was a Russian Odessa, a copy of the better-known Stechkin.

The ugly automatic pistol had had a peripatetic

rgia

FIGURE 11-18. Kindle for iOS hides the brightness control under the font properties icon

Gesture Mismatch

Pull to refresh is a pretty standard gesture at this point. We see it in productivity tools, social and entertainment apps, and in retail, to name a few categories. Tweetbot 3 and Audible show typical examples of its use.

Seed, an email app, tried to teach us a new trick: pull to add a reminder. Predictably, it didn't work. We all know what pull is for—or think we do—and it isn't for adding a reminder to an email. Guess someone figured that out, since the newest release now has a familiar reminder icon, the clock face, instead.

[NOTE]

Pull to refresh may be disappearing shortly, as most devices today are powerful enough to handle background updates (source: *http://bit.ly/1fFC1uc*).

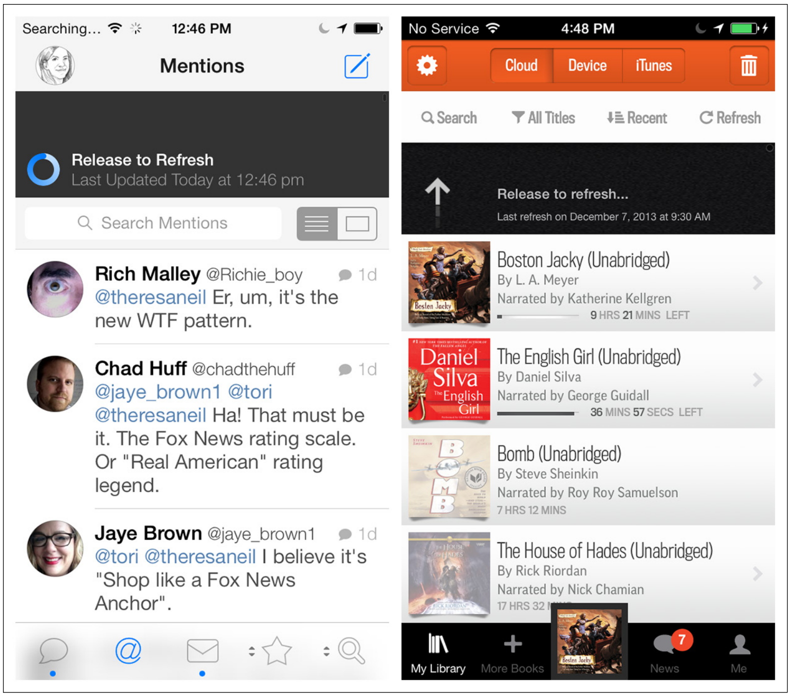


FIGURE 11-19. Tweetbot 3 and Audible for iOS: pull to refresh has become a standard gesture

Rich Malley @Richie_boy 1d
@theresaneil Er, um, it's the new WTF pattern.

Chad Huff @chadthehuff 1d
@jaye_brown1 @tori @theresaneil Ha! That must be it. The Fox News rating scale. Or "Real American" rating legend.

Jaye Brown @jaye_brown1 1d
@tori @theresaneil I believe it's "Shop like a Fox News Anchor".

Boston Jacky (Unabridged)
By L. A. Meyer
Narrated by Katherine Kellgren
9 HRS 21 MINS LEFT

The English Girl (Unabridged)
By Daniel Silva
Narrated by George Guidall
36 MINS 57 SECS LEFT

Bomb (Unabridged)
By Steve Sheinkin
Narrated by Roy Roy Samuelson
7 HRS 12 MINS

The House of Hades (Unabridged)
By Rick Riordan
Narrated by Nick Chamian
17 HRS 32

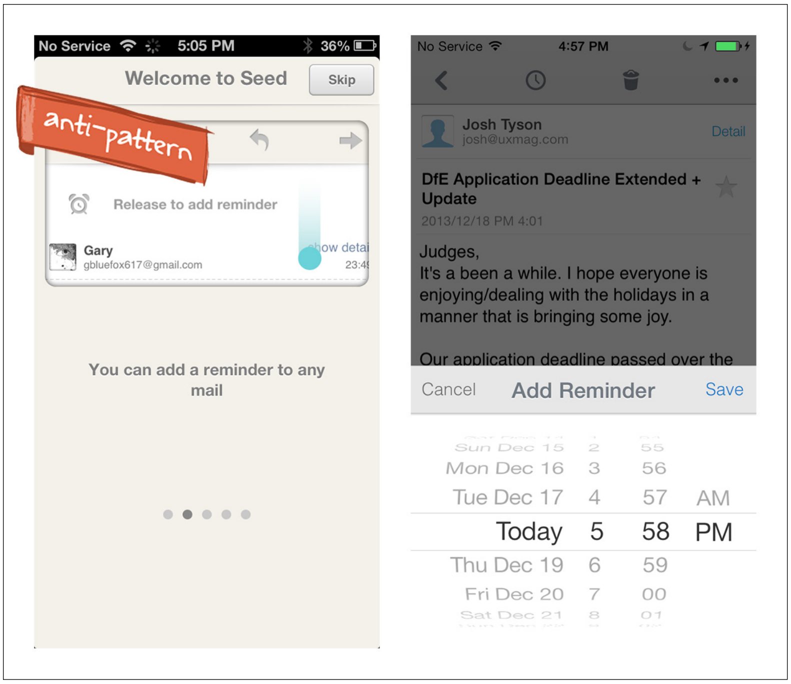


FIGURE 11-20. Two versions of Seed for iOS: pull to add reminder (left), dropped from redesign in favor of a reminder icon (right)

DfE Application Deadline Extended + Update
2013/12/18 PM 4:01
Judges,
It's a been a while. I hope everyone is enjoying/dealing with the holidays in a manner that is bringing some joy.
Our application deadline passed over the

Today 5 58 PM

Mental Model Mismatch

One of my favorite examples of this anti-pattern is a trouble ticket system my previous employer rolled out. When we had a technical issue, whether it was a forgotten password or a dead laptop, we had to sign in to the system, browse the list of issues, select an issue, add it to a shopping cart, and then check out. Great design for a retail shopping app—total mismatch for a technical support application!

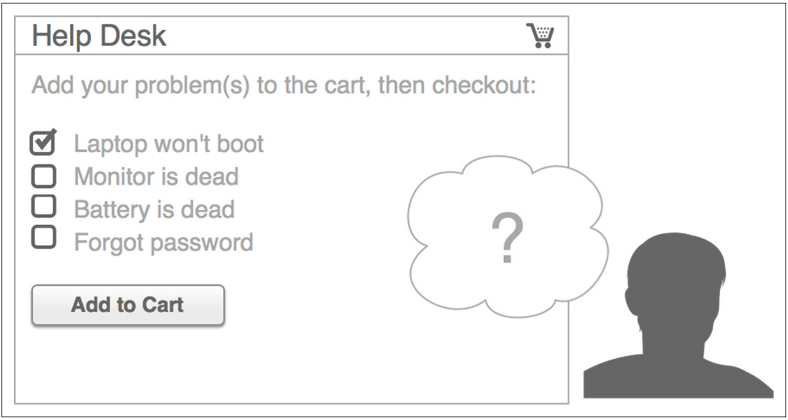


FIGURE 11-21.
Metaphor Mismatch: treating a request for tech support like a shopping spree

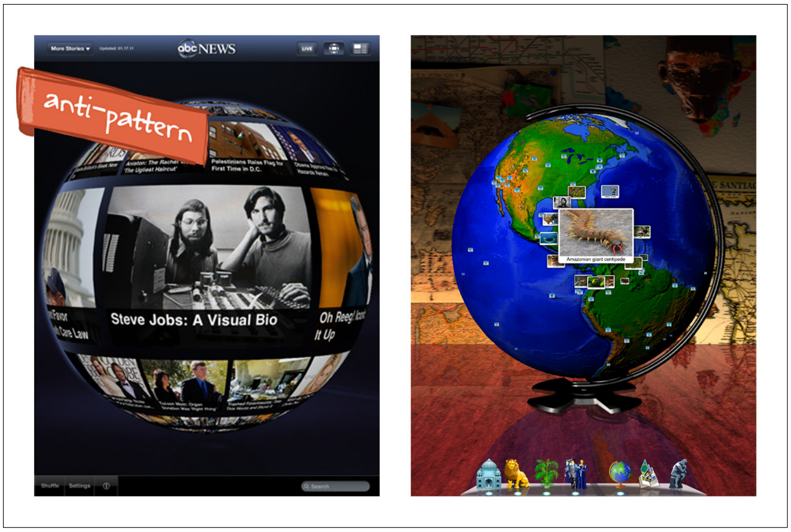
Another example is from the ABC News iPad app, circa 2011. A globe for navigating news content? I guess that would make sense if stories were surfaced from specific geographic locations—but they weren't. In fact, the ABC News globe had nothing to do with the globe we live on. It was just a spinning sphere of news stories that was hard to read and even harder to browse.

Compare it with the globe in Geo Walk, an educational application for exploring facts from around the globe. Geo Walk has fact cards placed at different locations on the globe, so you can explore facts for a specific region.

[NOTE]

Metaphors, from iconography and controls to conceptual models, are visual shortcuts that can simplify and enhance an experience. But using them improperly will make the application frustrating and difficult to learn.

FIGURE 11-22. ABC News for iPad (2011) used a globe for navigating news content; in Geo Walk for iOS, a globe more properly suggests geographic context



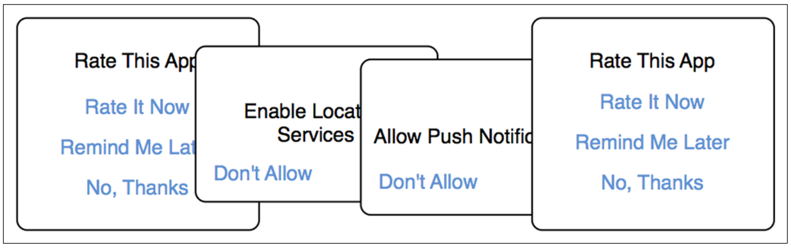
Idiot Boxes

In *About Face 3: The Essentials of Interaction Design* (Wiley, 2007) (*http://amzn.to/1fFC7SK*), author Alan Cooper says, "A person enters a highly productive mental state by working in harmony with her tools. Interrupting a user's flow for no good reason is stopping the proceedings with idiocy."

Bill Scott ran with the "stopping the proceedings with idiocy" concept and christened it the Idiot Box anti-pattern.

I think the very worst experiences I've had with Idiot Boxes are with the apps that on first use prompt you to rate the app, then enable location-based services, then allow push notifications, then ask one more time for a rating. Forcing four dialogs in a row on me makes me want to rate the app, all right—a big, fat ZERO!

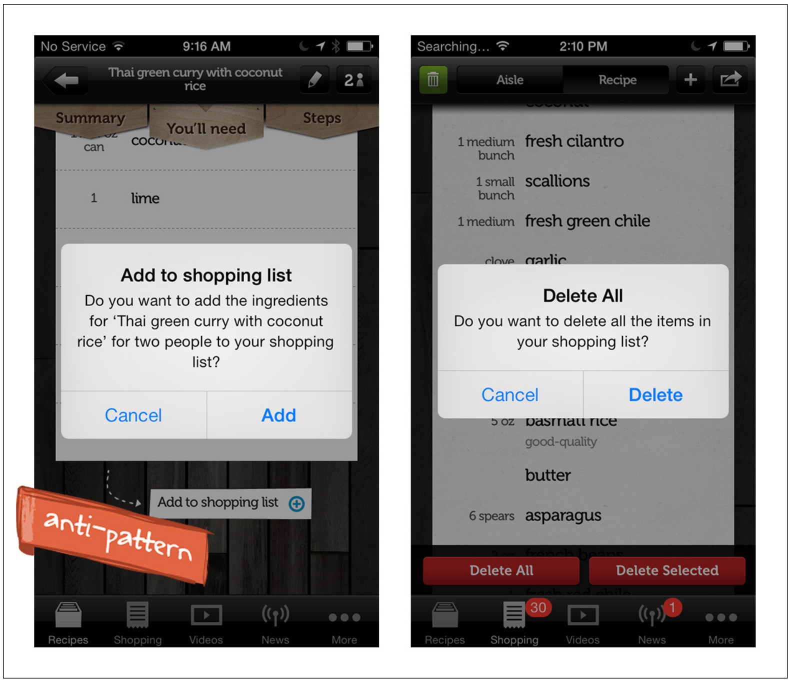
FIGURE 11-23. Idiot Boxes: multiple dialogs on first use disrupts the flow before it even gets started



Even worse are the apps that present you with an Idiot Box prompting you to register the first time you use them. See the upcoming "Chapter Extra" from Greg Nudelman for more on this annoying practice and why it is unnecessary.

Jamie Oliver's Recipes provides another Idiot Box example. When I tap "Add to shopping list," a dialog asks, "Do you want to add all of these ingredients to your shopping list?" Well, yeah, that's why I tapped the button.

The Delete Confirmation dialog in the second screenshot is okay. It is good practice to ask users for confirmation before they perform an irreparable action, like deleting everything in a list or permanently emptying the trash. But there is no need to require explicit confirmation for every action a user takes. For adding to a list, for instance, it's fine to provide transient feedback that the items were added. (See Chapter 9.)


Add to shopping list

Do you want to add the ingredients for 'Thai green curry with coconut rice' for two people to your shopping list?

Cancel | Add

Delete All

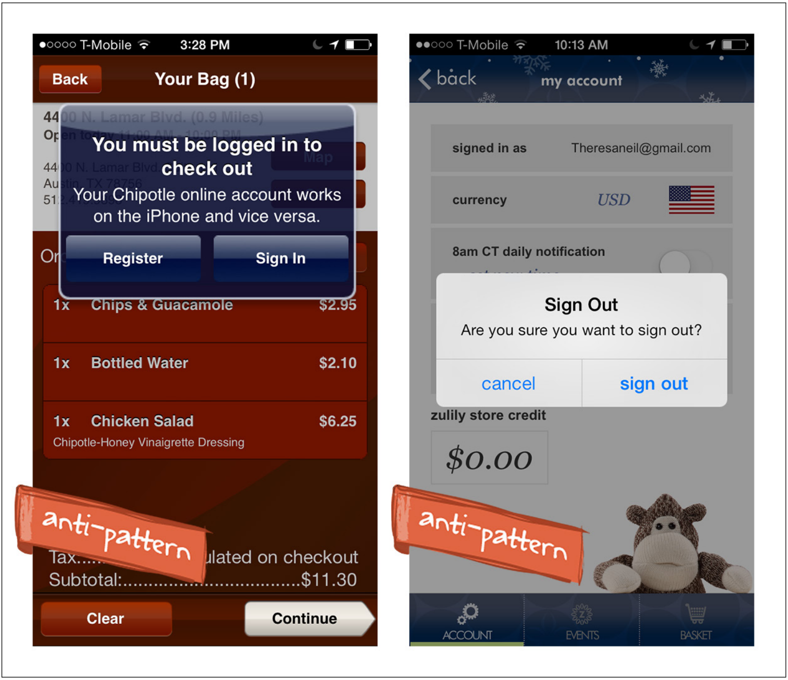
Do you want to delete all the items in your shopping list?

Cancel | Delete

FIGURE 11-24. Jamie Oliver's Recipes for iOS: confirming every action is unnecessary

Chipotle provides another Idiot Box example: I am ready to check out when a Register/Sign In dialog pops up. Why not just take me directly to the Sign In screen? And Zulily can't imagine that I really do want to sign out, so it won't let me without double-checking. Idiotic.

FIGURE 11-25.
Chipotle and Zulily for iOS: Idiot Boxes doing what they do best, disrupting user flow


Back
Your Bag (1)
You must be logged in to check out
Your Chipotle online account works on the iPhone and vice versa.
Register
Sign In
1x Chips & Guacamole $2.95
1x Bottled Water $2.10
1x Chicken Salad $6.25
Chipotle-Honey Vinaigrette Dressing
Subtotal:....$11.30
Clear
Continue
anti-pattern
back
my account
signed in as Theresaneil@gmail.com
currency USD
8am CT daily notification
Sign Out
Are you sure you want to sign out?
cancel
sign out
zulily store credit
$0.00
anti-pattern
ACCOUNT
EVENTS
BASKET

[NOTE]

Avoid disrupting the workflow. Only show a dialog that requires user confirmation when an irreparable action is being taken (like a permanent delete). And if you must prompt users to rate your app, at least wait until they've had a chance to use it.

Many retailers rely on Idiot Boxes to give feedback that an item has been added to the shopping cart, like Haute and Rent the Runway. A less disruptive, more effective technique is to simply increase the number indicating how many items are in the cart. You could also show an inline confirmation message or an animation of the item being added to the cart. See Chapter 9 for examples.

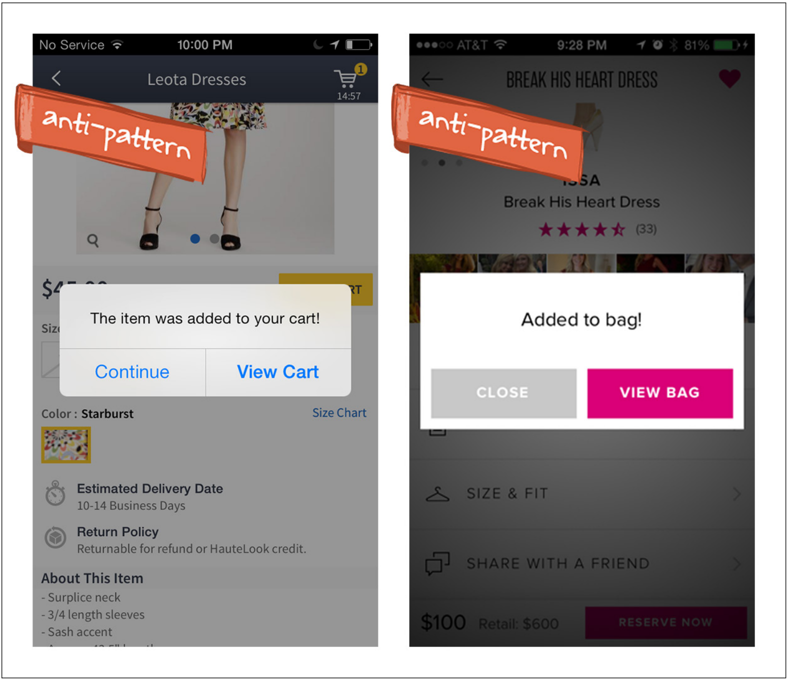


FIGURE 11-26. Haute and Rent the Runway for iOS: Idiot Box confirmation for adding items to cart

Chart Junk

Edward Tufte coined the term "chart junk" in his 1983 book *The Visual Display of Quantitative Information* (Graphics Press), in reference to charts like the following one.

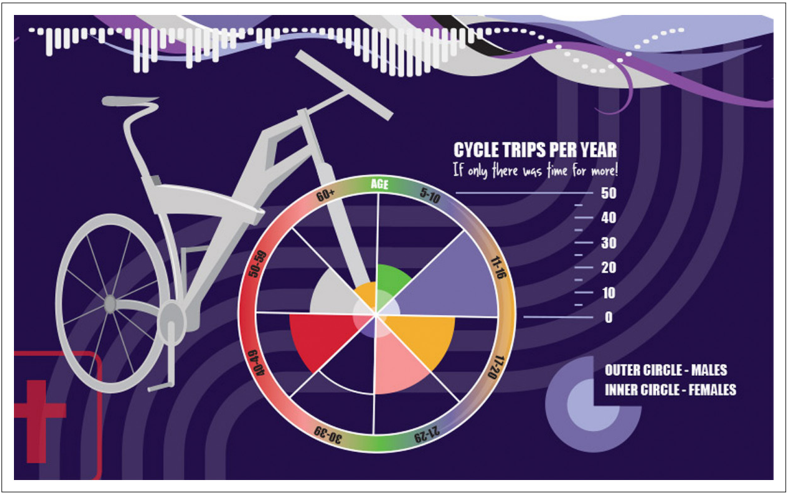
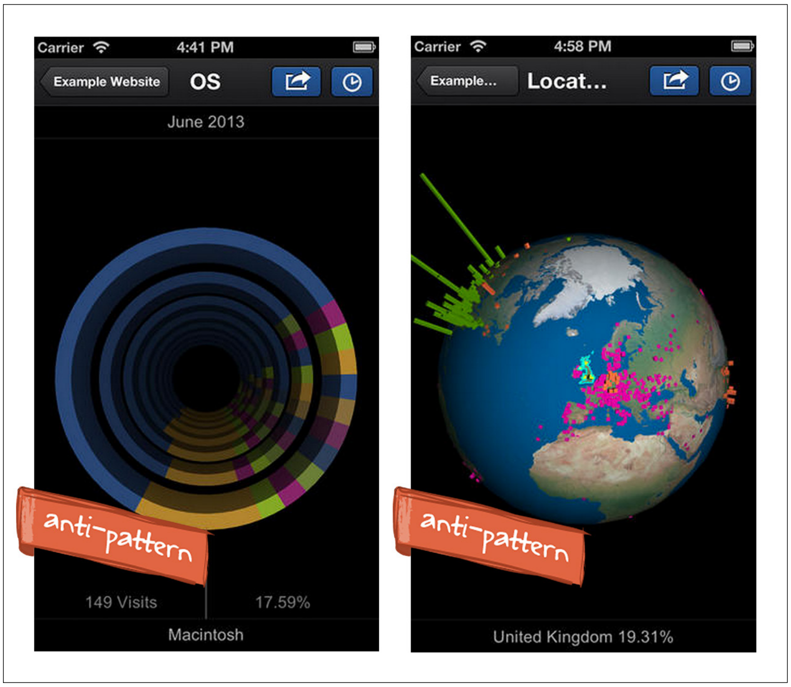


FIGURE 11-27. Chart Junk via WTFViz

According to Wikipedia, Chart Junk is "all the visual elements in charts and graphs that are not necessary to comprehend the information represented on the graph, or that distract the viewer from this information."

Analytics3D is the poster child for Chart Junk. The visual elements in these charts are so distracting that it is impossible to even begin to decipher the data. But, hey, it's in 3D!

FIGURE 11-28.
Analytics 3D for Android: this poster child for Chart Junk includes a pie chart/wormhole and a spiky globe



In the anti-pattern example from OOKLA Speedtest, the glowing, iridescent design of the gauge and the blue background of shifting sands distracts from the data. Cashish is even more of a challenge to read, with a full rainbow color palette overlaid on a dollar bill.

Even a design element as seemingly harmless as gridlines can be Chart Junk. In two health apps, Glucose Buddy and Heart Pal, bold horizontal and vertical gridlines actually make the data harder to read.

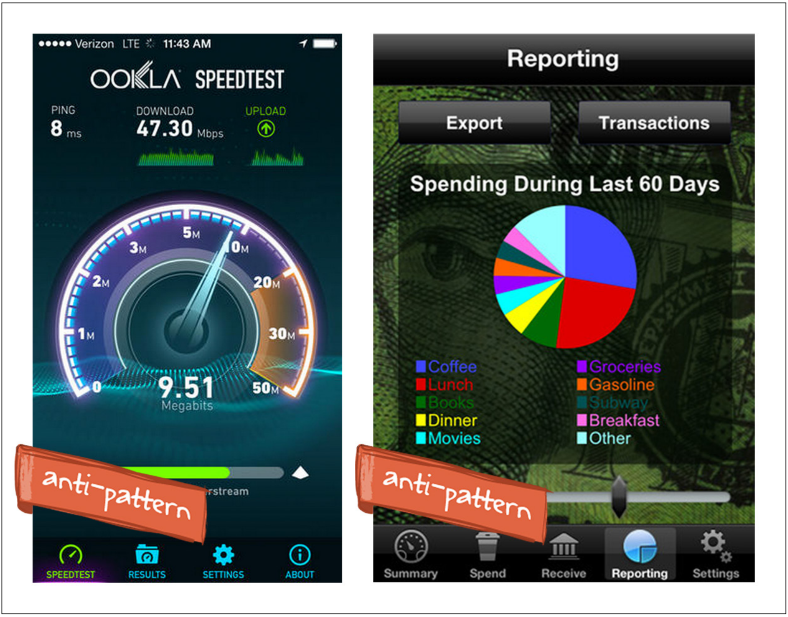


FIGURE 11-29. OOKLA Speedtest for Android and Cashish for iOS: Chart Junk-o-rama

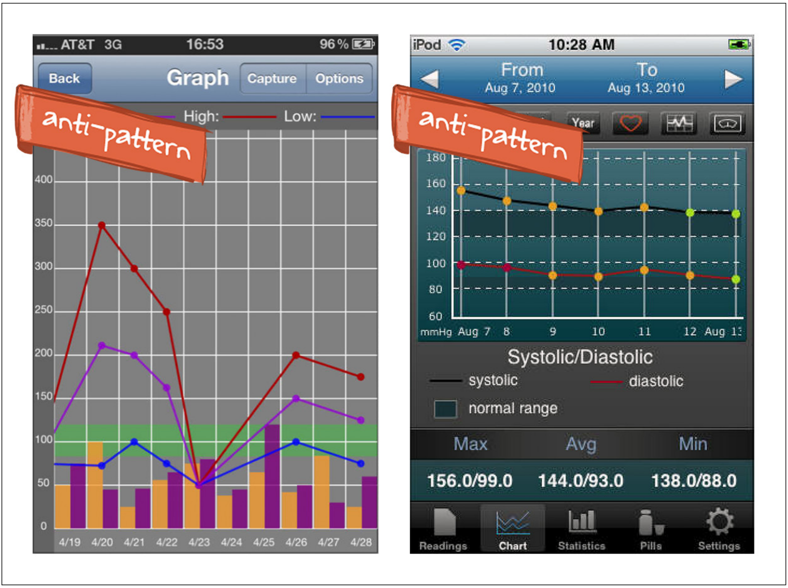
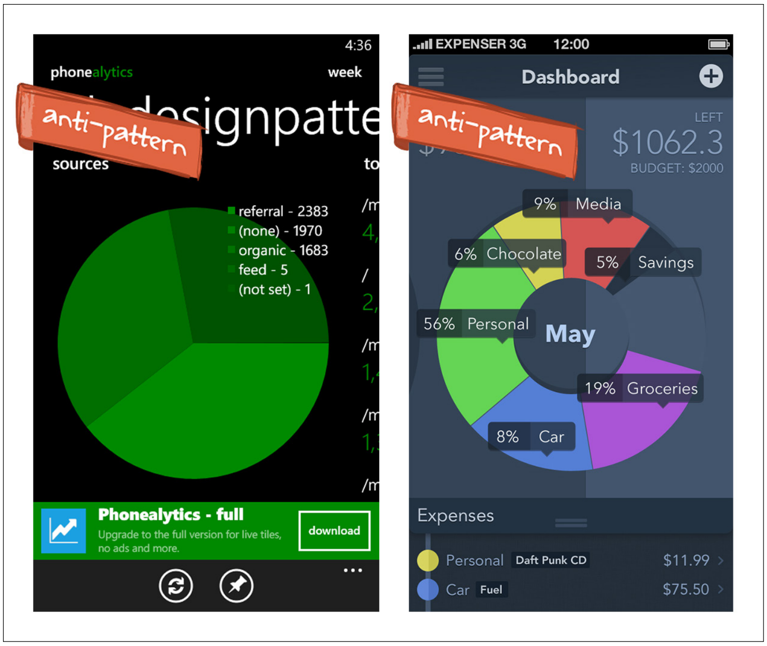


FIGURE 11-30. Glucose Buddy and Heart Pal for iOS: gridlines can detract from the data

The next two examples just have too much information on the page. Pie charts are tricky in mobile apps. Because of limited screen real estate, it is hard to show both the chart and its legend.

FIGURE 11-31. Phonealytics for Windows Phone, and chart design concept for iOS: pie charts are a challenge in mobile



[NOTE]

In charts and graphs, use only the visual elements that are absolutely necessary to communicate the information being represented. See Chapter 6 for chart design best practices.

But Roambi has come up with an innovative and usable design. You can spin the chart, and a fixed indicator shows the details for the wedge it points to.

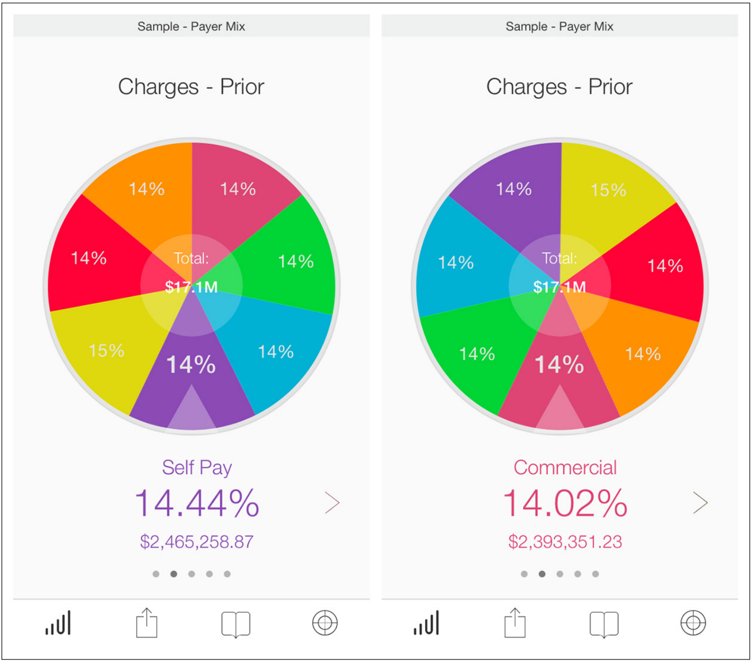


FIGURE 11-32. Roambi for iOS: pie chart design that works on a mobile screen (*http://youtu.be/WMmMkGF64XY*)

Oceans of Buttons

Bill Scott and I first named the Oceans of Buttons anti-pattern while conducting usability reviews at Sabre Airline Solutions in 2002. We tasked our team with evaluating dozens of web and desktop applications to find the ones most in need of a UI redesign. Many of the applications had Java Swing or Visual Basic UIs and included a button bar, either down on the right or across the bottom. Sometimes in the bottom bar there were more buttons than could fit horizontally, so two rows were displayed. All the buttons were the same size and color and basically the same visual weight, so it was difficult to determine which one to click without reading all of them.

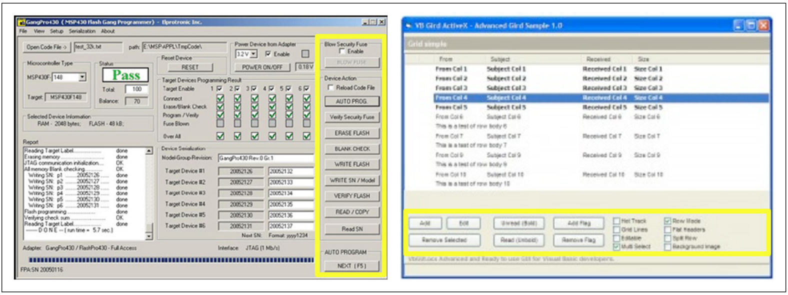


FIGURE 11-33.
Visual Basic and Java desktop applications: drowning in Oceans of Buttons

My favorite example for this anti-pattern is Visual KPI. Since the first edition of this book, this app has managed to add in even more controls and buttons! One hundred percent more buttons, in fact. I would normally sketch up a quick redesign here, but this app needs a complete information architecture overhaul.

Another good example is Redfin: there are so many buttons (and elements that look like buttons) on the screen that it is hard to focus on the content (the pictures and descriptions of houses). Zillow's property page is much cleaner; the Toolbar shows the primary actions and tucks the secondary actions under the More option.

FIGURE 11-34. Visual KPI for iOS: circa 2010–2011 on the left, and circa 2013 on the right—now with more buttons!

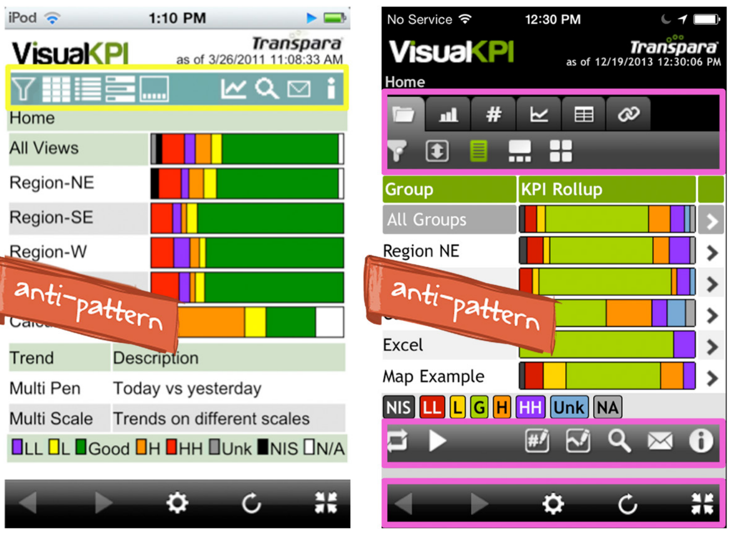
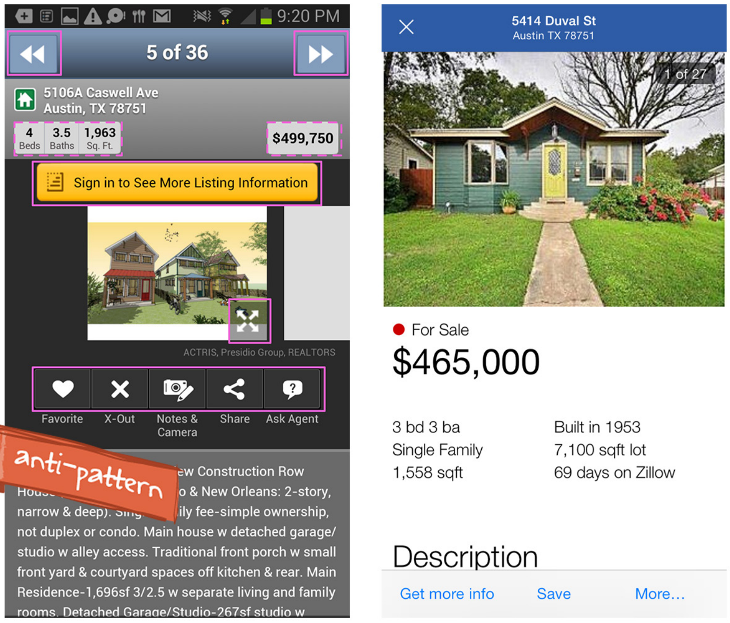


FIGURE 11-35. Redfin for Android and Zillow for iOS: Oceans of Buttons versus clean design with Toolbar



...ew Construction Row House ...o & New Orleans: 2-story, narrow & deep). Sing...ily fee-simple ownership, not duplex or condo. Main house w detached garage/ studio w alley access. Traditional front porch w small front yard & courtyard spaces off kitchen & rear. Main Residence-1,696sf 3/2.5 w separate living and family rooms. Detached Garage/Studio-267sf studio w

CarMax doesn't have an ocean of buttons, but its four-corners design is suboptimal for button placement. The Android Action Bar would provide an easy fix, as my redesign illustrates. Save and Share could be shown, while the Call and Email options could be accessed from the More menu.

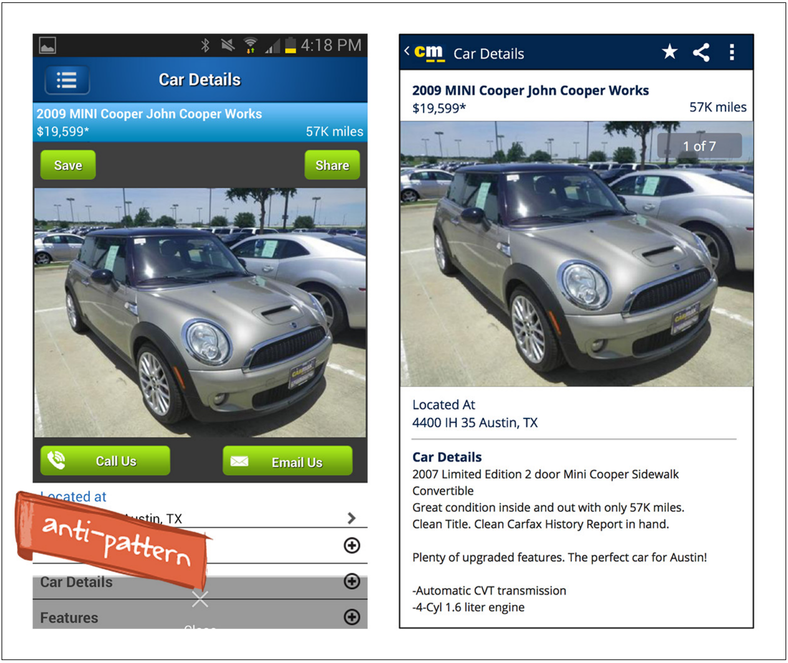

4:18 PM
Car Details
2009 MINI Cooper John Cooper Works
$19,599*
57K miles
Save
Share
Call Us
Email Us
Located at
Austin, TX
anti-pattern
Car Details
Features
cm Car Details
2009 MINI Cooper John Cooper Works
$19,599*
57K miles
1 of 7
Located At
4400 IH 35 Austin, TX
Car Details
2007 Limited Edition 2 door Mini Cooper Sidewalk Convertible
Great condition inside and out with only 57K miles.
Clean Title. Clean Carfax History Report in hand.
Plenty of upgraded features. The perfect car for Austin!
-Automatic CVT transmission
-4-Cyl 1.6 liter engine

FIGURE 11-36.
CarMax for Android: suboptimal four-corners button placement, and my low-fidelity redesign with the Android Action Bar

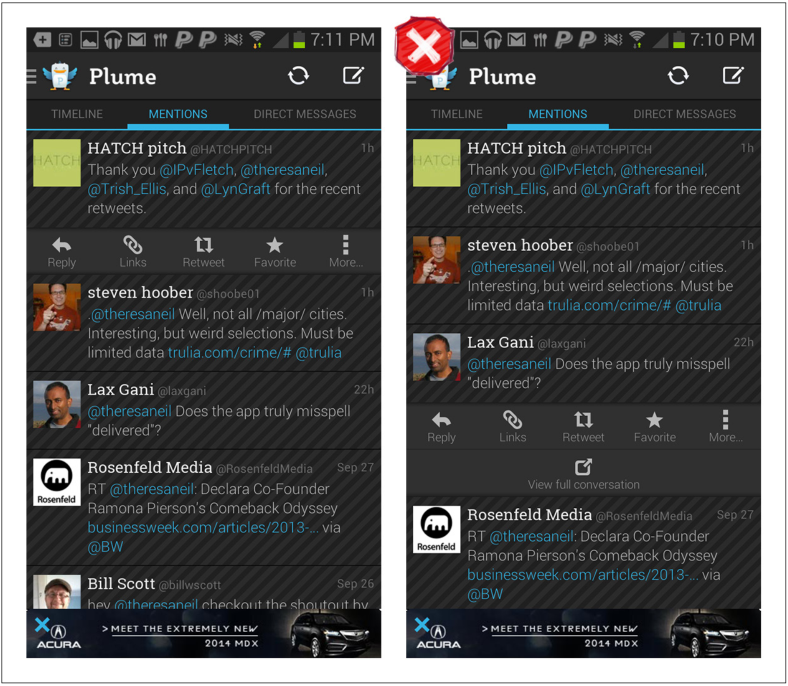
Plume uses the Contextual Tools pattern to reveal options when a tweet is tapped. But using tap for revealing tools instead of showing the full conversation thread created an interaction design problem. How does the user view the full thread? I would not have done what Plume did, which was to add another row for the "View full conversation" button. Instead, I would have rethought the interaction design.

Tweetbot solved this problem in its iOS design. It also uses the tap gesture to reveal the Contextual Tools, but you swipe to the left to open the message details.

[NOTE]

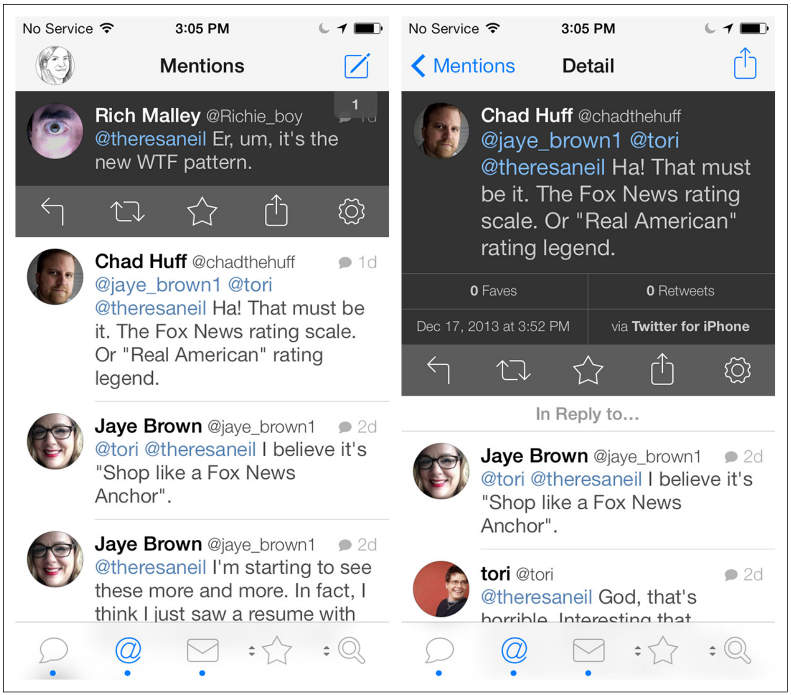
Use OS-specific controls to provide page-level actions. That way, buttons stay out of the way until there is a context to use them. See Chapter 5 for best practices.

FIGURE 11-37.
Plume for Android: one row of buttons is fine, but two rows is too many


7:11 PM
Plume
TIMELINE MENTIONS DIRECT MESSAGES
HATCH pitch @HATCHPITCH 1h
Thank you @IPvFletch, @theresaneil, @Trish_Ellis, and @LynGraft for the recent retweets.
Reply Links Retweet Favorite More...
steven hoober @shoobe01 1h
.@theresaneil Well, not all /major/ cities. Interesting, but weird selections. Must be limited data trulia.com/crime/# @trulia
Lax Gani @laxgani 22h
@theresaneil Does the app truly misspell "delivered"?
Rosenfeld Media @RosenfeldMedia Sep 27
RT @theresaneil: Declara Co-Founder Ramona Pierson's Comeback Odyssey businessweek.com/articles/2013-... via @BW
Bill Scott @billwscott Sep 26
hey @theresaneil checkout the shoutout by
> MEET THE EXTREMELY NEW 2014 MDX

7:10 PM
Plume
TIMELINE MENTIONS DIRECT MESSAGES
HATCH pitch @HATCHPITCH 1h
Thank you @IPvFletch, @theresaneil, @Trish_Ellis, and @LynGraft for the recent retweets.
steven hoober @shoobe01 1h
.@theresaneil Well, not all /major/ cities. Interesting, but weird selections. Must be limited data trulia.com/crime/# @trulia
Lax Gani @laxgani 22h
@theresaneil Does the app truly misspell "delivered"?
Reply Links Retweet Favorite More...
View full conversation
Rosenfeld Media @RosenfeldMedia Sep 27
RT @theresaneil: Declara Co-Founder Ramona Pierson's Comeback Odyssey businessweek.com/articles/2013-... via @BW
> MEET THE EXTREMELY NEW 2014 MDX

FIGURE 11-38.
Tweetbot: tap message for Contextual Tools; swipe left for message details

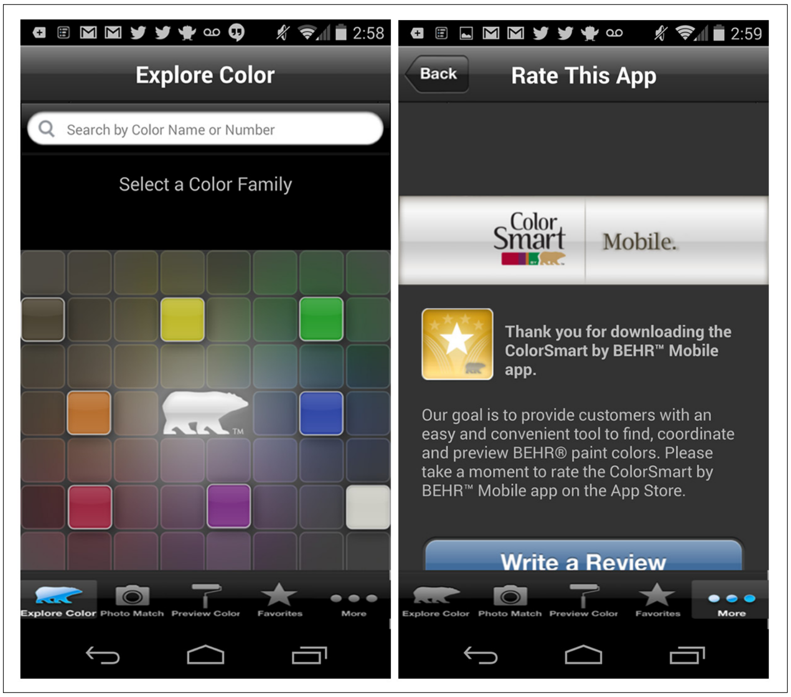

No Service 3:05 PM
Mentions
Rich Malley @Richie_boy 1
@theresaneil Er, um, it's the new WTF pattern.
Chad Huff @chadthehuff 1d
@jaye_brown1 @tori @theresaneil Ha! That must be it. The Fox News rating scale. Or "Real American" rating legend.
Jaye Brown @jaye_brown1 2d
@tori @theresaneil I believe it's "Shop like a Fox News Anchor".
Jaye Brown @jaye_brown1 2d
@theresaneil I'm starting to see these more and more. In fact, I think I just saw a resume with

No Service 3:05 PM
Mentions Detail
Chad Huff @chadthehuff
@jaye_brown1 @tori @theresaneil Ha! That must be it. The Fox News rating scale. Or "Real American" rating legend.
0 Faves 0 Retweets
Dec 17, 2013 at 3:52 PM via Twitter for iPhone
In Reply to...
Jaye Brown @jaye_brown1 2d
@tori @theresaneil I believe it's "Shop like a Fox News Anchor".
tori @tori 2d
@theresaneil God, that's horrible. Interesting that

Square Peg, Round Hole

The Square Peg, Round Hole anti-pattern is usually the result of an uninformed decision at the executive level or a rush to get to market quickly, or both. It involves taking a design made for one platform and forcing it into another platform.

Behr Paint is just one of many companies that ported their iOS design straight to Android with no modifications. Not only does this look funny (the graphics are the wrong resolution), but it also breaks Android design conventions (see Pure Android for the list at *http://developer.android.com/design/patterns/pure-android.html*).



Thank you for downloading the ColorSmart by BEHR™ Mobile app.

Our goal is to provide customers with an easy and convenient tool to find, coordinate and preview BEHR® paint colors. Please take a moment to rate the ColorSmart by BEHR™ Mobile app on the App Store.

FIGURE 11-39.
Behr Paint for Android: iOS design ported one-for-one to Android

Gap simply wrapped its mobile site and called it an app (*http://bit.ly/1fF-CCfx*). But users aren't fooled—see the reviews (*http://bit.ly/1fFCBs4*).

I think SmartyPig did the same thing. The first page you see is a Sign In screen that is clearly not optimized for my Nexus 5. I expect the adoption of this app is fairly low.

FIGURE 11-40.
Gap for Android and iOS: mobile website in a native app wrapper

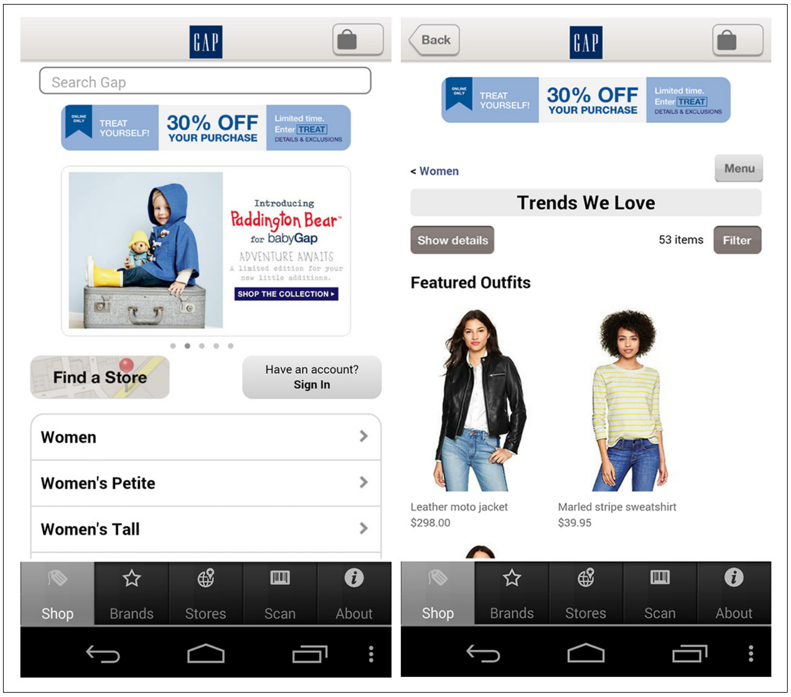
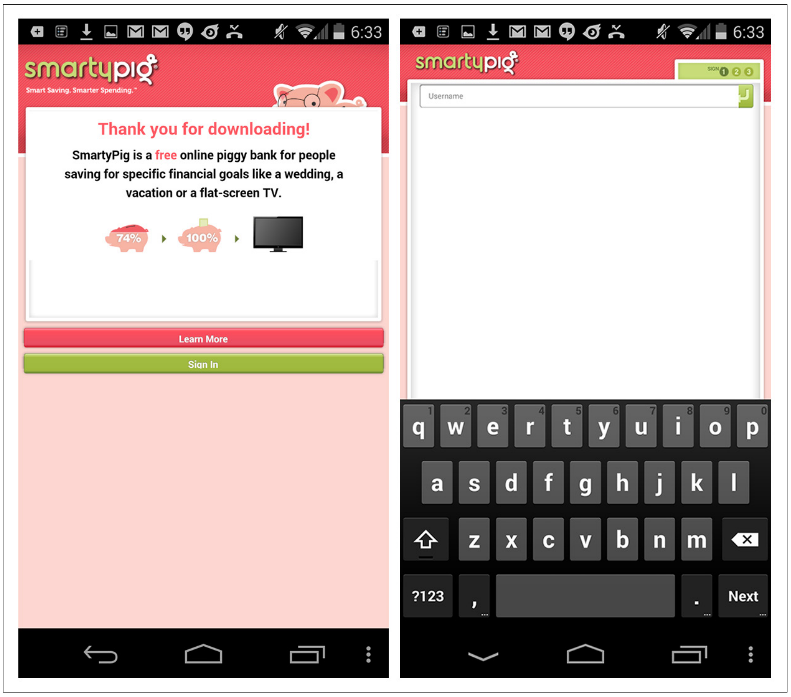


FIGURE 11-41.
SmartyPig for Android


6:33
smartypig
Smart Saving. Smarter Spending.
Thank you for downloading!
SmartyPig is a free online piggy bank for people saving for specific financial goals like a wedding, a vacation or a flat-screen TV.
74%
100%
Learn More
Sign In
Username
Next

Avoid the Square Peg, Round Hole anti-pattern by:

- Thoroughly reading and understanding the design guidelines for the target OS
- Using the device you're designing/developing for on a daily basis until you are familiar with the nuances of the platform
- Designing distinct UIs for each platform, using those platform's conventions

Also, beware of platforms out there that promise you can "code it once, deploy it everywhere." If you're going to use one of these platforms, choose one that lets you create a custom UI for each OS, like Xamarin (*https://xamarin.com/*) or PhoneGap (*http://phonegap.com/*).

[NOTE]

Each platform is distinctly different: a great iOS design will be suboptimal for Android, and vice versa. Design and test to create a great experience for each platform.

Chapter Extra: Let Them Pee—Avoiding the Sign-Up/Sign-In Mobile Anti-Pattern

GREG NUDELMAN, FOUNDER OF *DESIGN CAFFEINE*

ANTI-PATTERN TERM COURTESY OF TAMARA ADLIN

FROM *ANDROID DESIGN PATTERNS: INTERACTION DESIGN SOLUTIONS FOR DEVELOPERS* (WILEY, 2013) REPUBLISHED ON BOXESANDARROWS

Anything that slows down customers or gets in their way after they download your app is a bad thing. That includes sign-up/sign-in forms that show up even before potential customers can figure out if the app is actually worth using.

Long sign-up screens detract from the key mobile use case: quick, simple information access on the go. This anti-pattern seems to be going away more and more as companies are beginning to figure out the following simple UX equation:

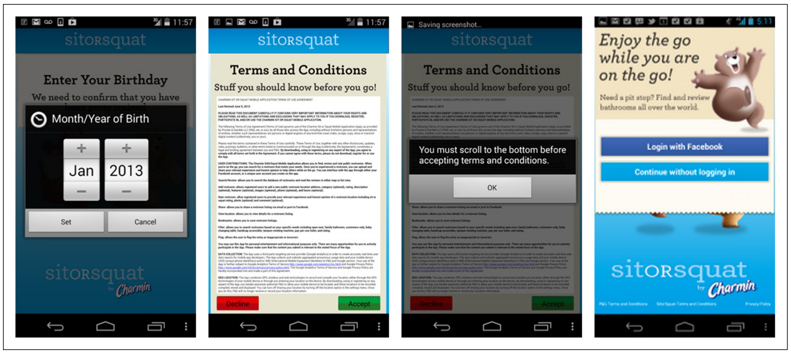
> Long sign-up form before you can use the app = Delete app

However, a fair number of apps still force customers to sign up, sign in, or perform some other useless action before they can use them.

For example, the application SitOrSquat is a brilliant little piece of social engineering software that enables people to find bathrooms on the go, when they gotta go.

But this urgency is all but unfelt by Procter & Gamble, the company that acquired the app. Not content with the business of simply "Squeezing the Charmin" (that is, simple advertising), P&G executives decided for some unfathomable reason to force people to sign up for the app—in multiple ways.

The entire app outside of registration consists of basically four screens (if you count the functionality to add bathrooms!). However, if you include all the sign-up anti-pattern screens, it takes seven screens of "preliminary" garbage before the content you are looking for finally shows up. If you count the number of taps necessary to enter my birthday, that is almost 50 taps!


sitorsquat
Enter Your Birthday
We need to confirm that you have
Month/Year of Birth
Jan
2013
Set
Cancel
sitorsquat by Charmin
sitorsquat
Terms and Conditions
Stuff you should know before you go!
Decline
Accept
Saving screenshot...
sitorsquat
Terms and Conditions
Stuff you should know before you go!
OK
Enjoy the go while you are on the go!
Need a pit stop? Find and review bathrooms all over the world.
Login with Facebook
Continue without logging in
sitorsquat by Charmin

You must scroll to the bottom before accepting terms and conditions.

FIGURE 11-42. Charmin SitOrSquat for Android (2013)

When deciding whether to force the customer to perform an action, consider this: if this were a web app, would you force the customer to do this? When Internet connectivity is available, you can save everything the customer does and connect it back to his device using a simple session token and a guest account. And even when he is off-network, today's smartphones have plenty of on-board storage you can use for syncing with your servers when the mobile network later becomes available.

This means there is simply no reason to force anyone to register for anything, other than if he wants to share the data from his phone with other devices. As a general rule, rather than forcing registration upon download or at the first opportunity, it is much better to allow the customer to save a piece of information locally on the phone without requiring that he log in. Wait until the customer asks for something that requires registration, such as sharing the information with another device or accessing information already saved in his account; at that point, completing the registration makes perfect sense. And even then, ask only for what you strictly need to proceed to the next step and omit extraneous information.

[*Appendix A*]

Additional Resources

Websites

http://www.mobiledesignpatterngallery.com

http://www.theresaneil.com

Flickr

http://www.flickr.com/photos/mobiledesignpatterngallery/sets/

Twitter

https://twitter.com/theresaneil

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