



# PRINCIPLES OF MOBILE SITE DESIGN: DELIGHT USERS AND DRIVE CONVERSIONS

Google™



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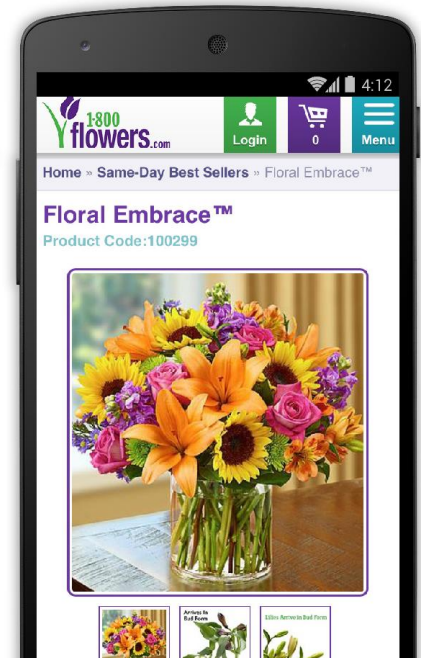
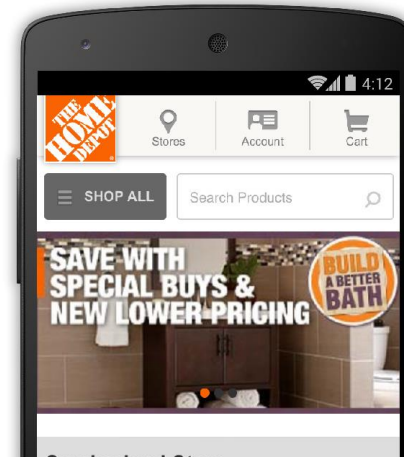
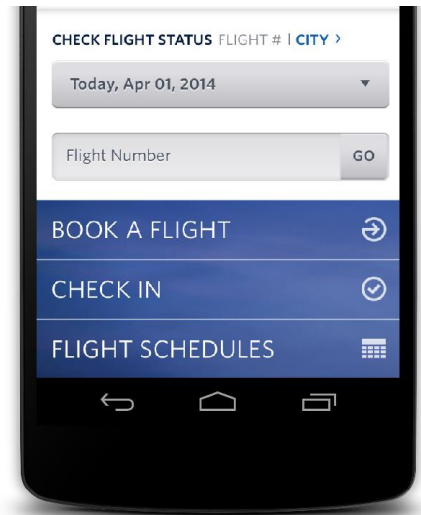
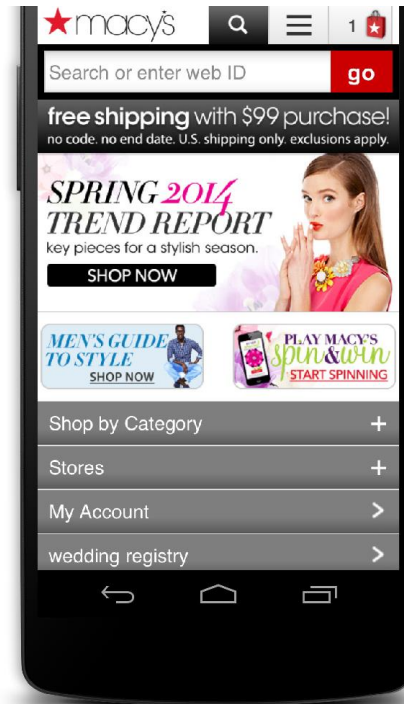
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# INTRODUCTION

Consumers increasingly rely on the mobile web for research and discovery, which makes it more important than ever for companies to have an effective mobile presence. But what makes a good mobile site?

To answer this question, Google and AnswerLab undertook a research study examining how a range of users interacted with a diverse group of mobile sites.

**Our goal:** To establish mobile site design best practices.





# METHODOLOGY

- Q The study was held through 119 hour-long in-person usability sessions with participants in Chicago and San Francisco.
- Q Participants were asked to perform key tasks on their own phones. Both Android and iOS users were included.
- Q For each site, we asked the participants to complete a conversion-focused task like making a purchase, booking a reservation or researching plans/prices. The participants voiced their thoughts aloud as they conducted their tasks and then rated their experience with each site.
- Q Researchers also provided ratings based on site experience and task success, and logged errors/site issues by severity.

The results uncovered **25 mobile site design principles**, which we've grouped into five sections:

- **Homepage & Site Navigation**
- **Site Search**
- **Commerce & Conversions**
- **Form Entry**
- **Usability & Form Factor**

For each principle, we cover insights from our study, the key takeaway for your site design and an illustrated example from a best-in-class site.

## Key Takeaway



The common thread in all sections is that mobile users tend to be very goal-oriented - they expect to be able to get what they need from a mobile site easily, immediately, and on their own terms. Ensure success by designing with their context and needs in mind without sacrificing richness of content.





# **HOMEPAGE & SITE NAVIGATION**

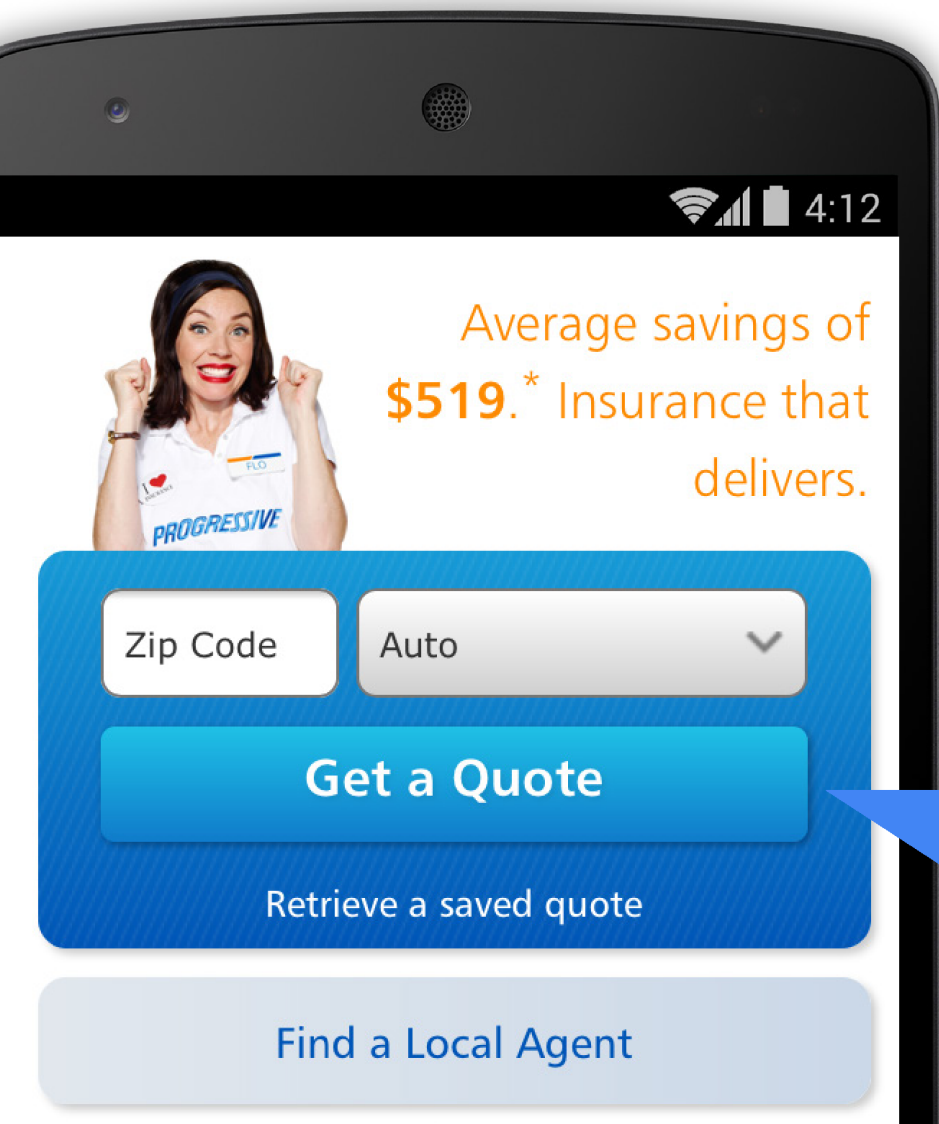
## HOMEPAGE & SITE NAVIGATION



A desktop homepage often serves as a welcome page, messaging center and promotional space all in one, but the mobile homepage should focus on connecting users to the content they're looking for. In this section, we explore the principles for building a mobile homepage that gets users what they need, fast.

### PRINCIPLES

- 1 KEEP CALLS-TO-ACTION FRONT AND CENTER**
- 2 KEEP MENUS SHORT AND SWEET**
- 3 MAKE IT EASY TO GET BACK TO THE HOMEPAGE**
- 4 DON'T LET PROMOTIONS STEAL THE SHOW**



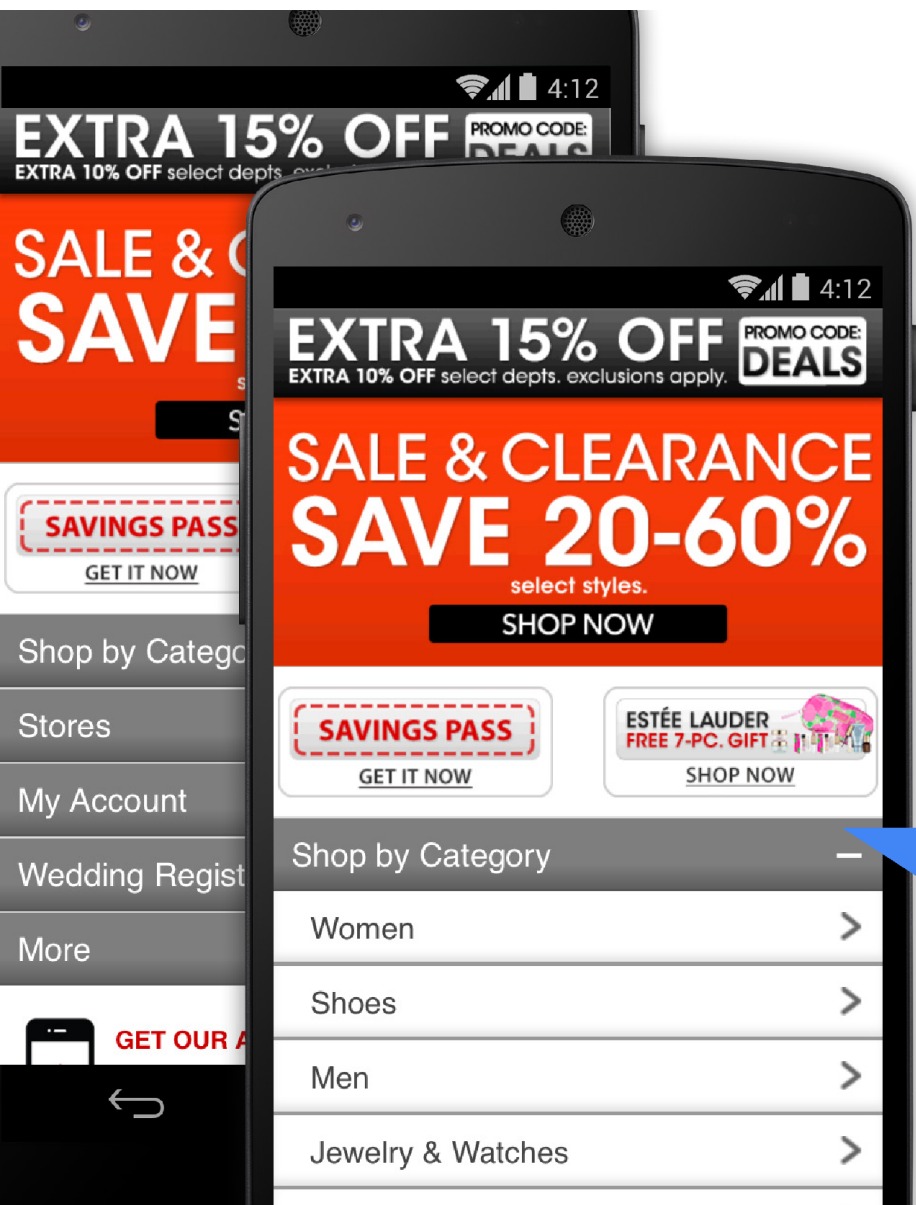
## 1. CALLS-TO-ACTION FRONT AND CENTER

It can be easy for mobile users to miss menu items, so always put your key calls-to-action where you know users will see them. Study participants had the easiest time completing tasks on sites that clearly displayed primary calls-to-action in the main body of the site, with secondary tasks available through menus or below the fold. Your mobile calls-to-action will probably be different than on desktop, so put yourself in your users' shoes when determining placement.

### Key Takeaway

Feature your primary calls-to-action in your most prominent site space.

Example from Progressive Mobile Site.



## 2. KEEP MENUS SHORT AND SWEET

An extensive menu might work well for your desktop site, but mobile users won't have the patience to scroll through a long list of options to try and find what they want. Consider how you can present the fewest menu items possible - for instance, a major department store refined the product categories on its mobile site, presenting study participants with a shorter, more clearly-defined list than on desktop.

### Key Takeaway

A shorter menu with distinct categories is easier for mobile visitors to navigate.

Example from Macy's Mobile Site.

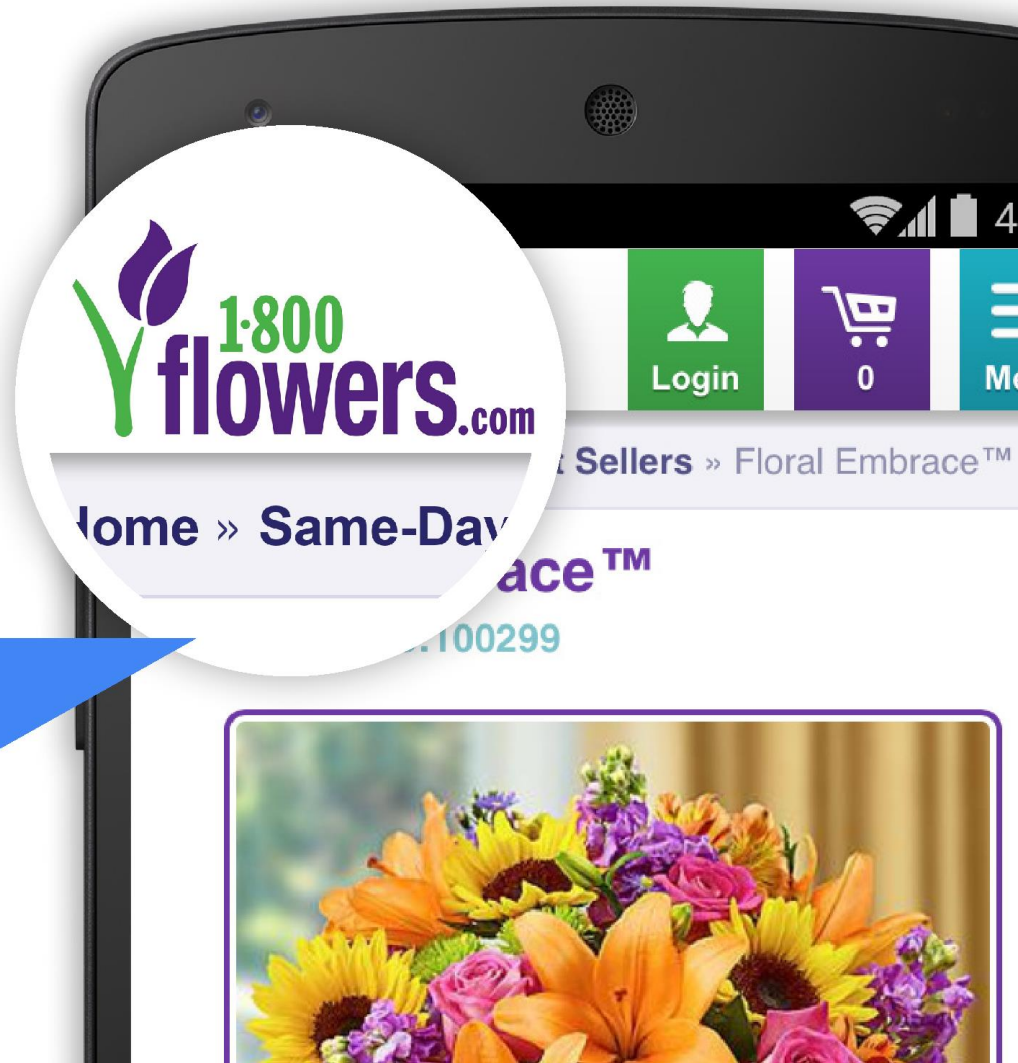
### 3. MAKE IT EASY TO GET BACK TO THE HOMEPAGE

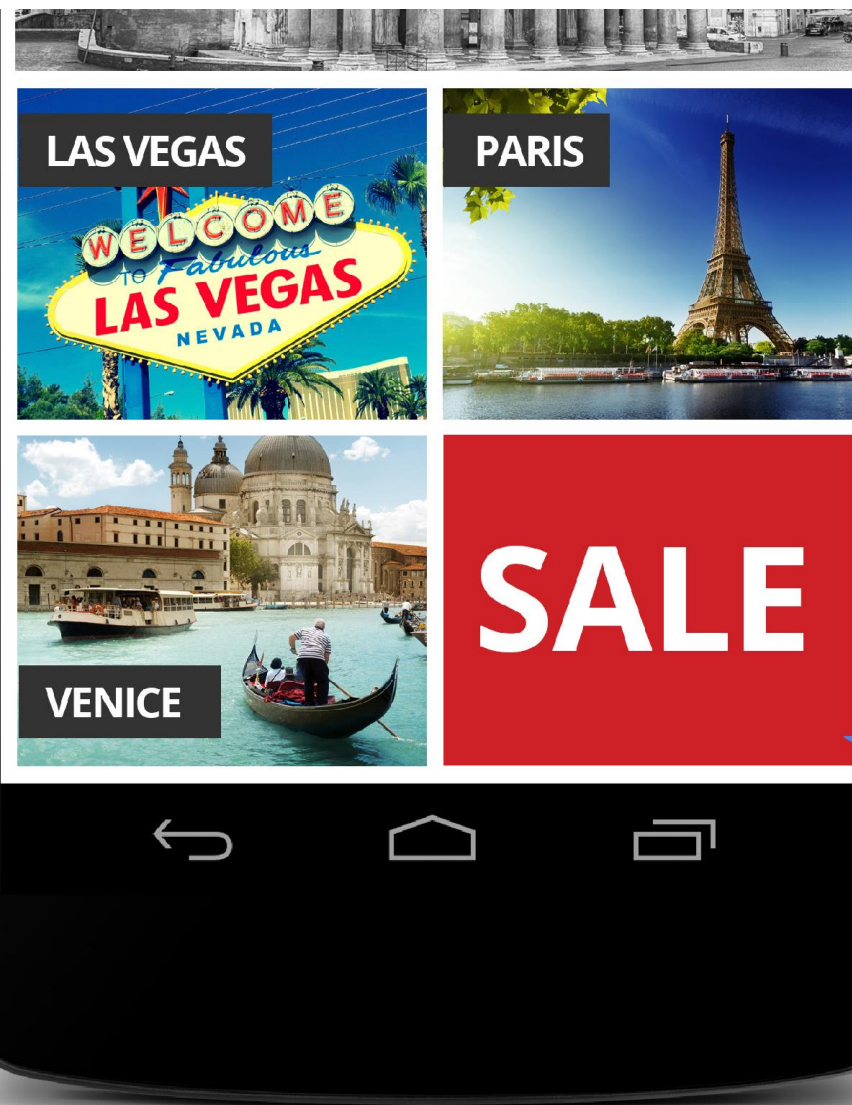
When mobile users navigate through your site, they want an easy way to get back to your initial homepage. In the study, participants usually expected tapping the logo at the top of a page to take them back to the homepage, and became frustrated if it didn't work.

#### Key Takeaway

Use your logo as a navigation button to return to the homepage.

Example from 1800 Flowers Mobile Site.





## 4. DON'T LET PROMOTIONS STEAL THE SHOW

Promotions and ads can overshadow the content they're next to, and make it harder for users to accomplish tasks. Participants visiting one company's mobile site were distracted by a large promotional banner and missed the navigational buttons beneath it, making it hard for them to learn more about the company's offerings.

### Key Takeaway



Make sure promotions do not interfere with navigation and are clearly distinct from calls-to-action.

For app promotions, participants preferred easily dismissible banners as opposed to large interstitials.

Sample screen for illustration only.



# **SITE SEARCH**

## SITE SEARCH

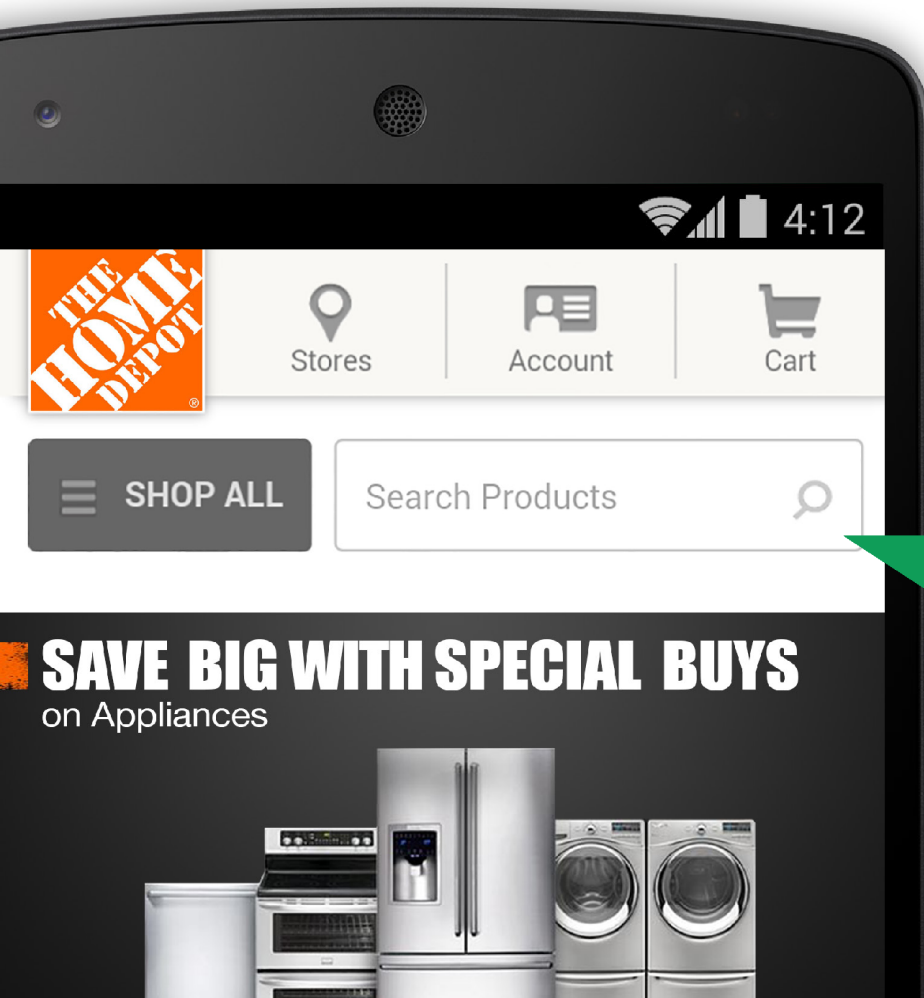


Site search is vital for helping mobile users find what they're looking for in a hurry. This section offers tips for maximizing the value of your site's search.

### PRINCIPLES

- 5 MAKE SITE SEARCH VISIBLE**
- 6 ENSURE SITE SEARCH RESULTS ARE RELEVANT**
- 7 IMPLEMENT FILTERS TO IMPROVE SITE SEARCH USABILITY**
- 8 GUIDE USERS TO BETTER SITE SEARCH RESULTS**





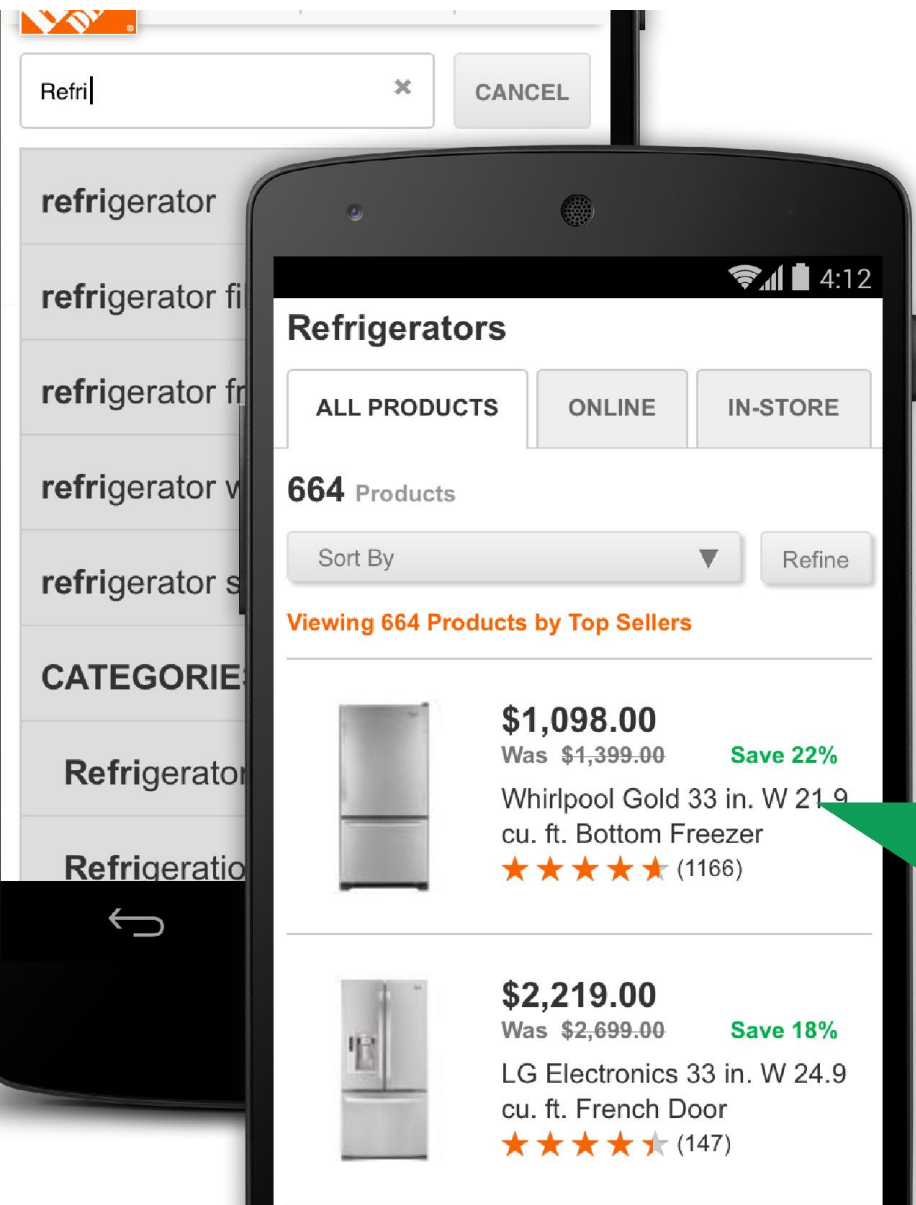
## 5. MAKE SITE SEARCH VISIBLE

Users looking for specific information usually turn to search - so search should be one of the first things mobile users see on your site. In the study, participants responded best to easily-visible, open text search boxes at the top of a page.

### Key Takeaway

Place your site search near the top of your homepage via an open text field.

Example from The Home Depot Mobile Site.



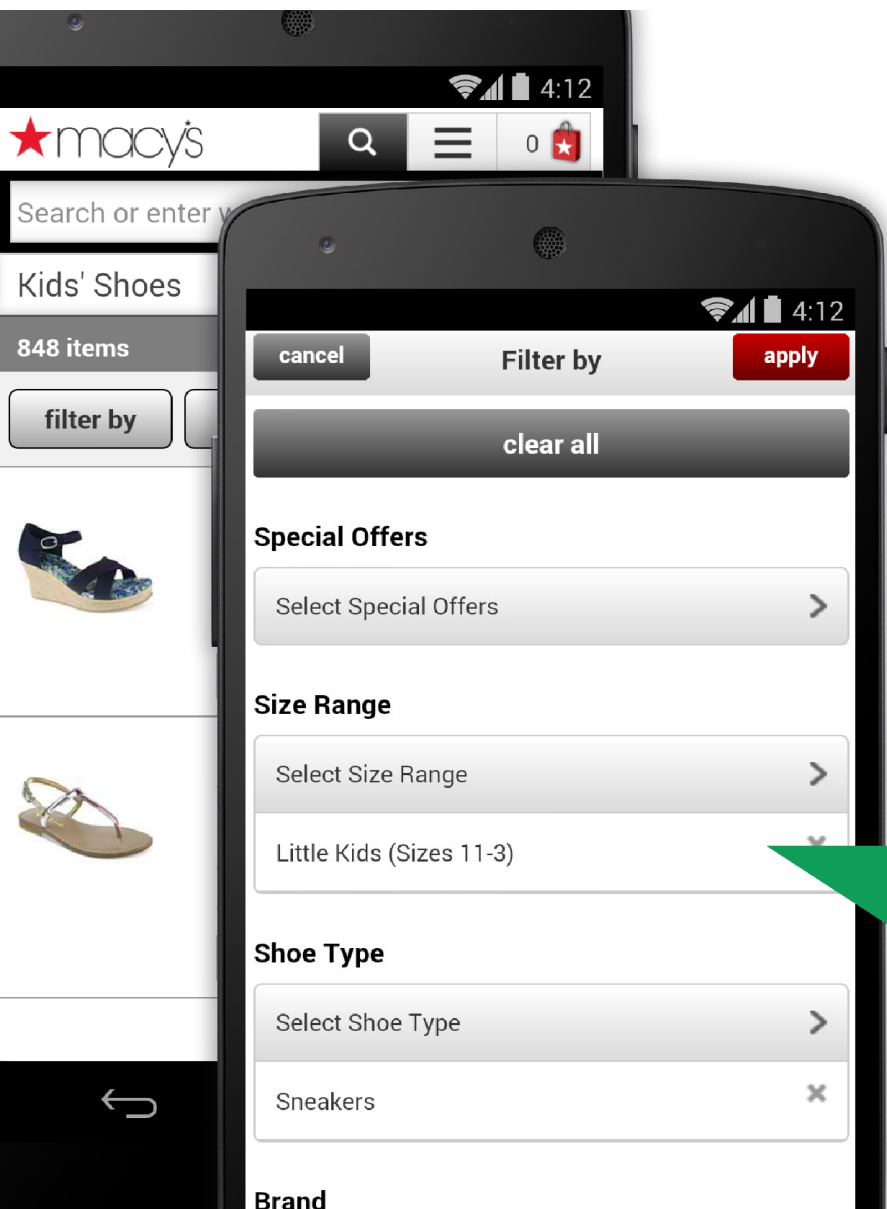
## 6. ENSURE SITE SEARCH RESULTS ARE RELEVANT

Participants didn't bother to swipe through multiple pages of search results. Instead, they judged a site's search based on the results it returned first, so make sure your first page of search results are the strongest. Make life easier for users on small screens with smart-search features like autocomplete and corrected misspellings.

### Key Takeaway

Make sure your site search returns the strongest results first, and implement smart-search features like autocomplete and spelling corrections.

Example from The Home Depot Mobile Site.



## 7. IMPLEMENT FILTERS TO IMPROVE SITE SEARCH USABILITY

Participants relied on filters to narrow down search results, and actually abandoned sites that couldn't reduce volume. However, you also need to ensure users don't filter themselves into a box - one car dealer site allowed participants to specify configurations that didn't actually exist. Help users avoid problems by letting them know how many results will be returned with a particular filter applied.

### Key Takeaway

Offer filters to help users get what they need from search, but make sure users can't filter a search to return zero results.

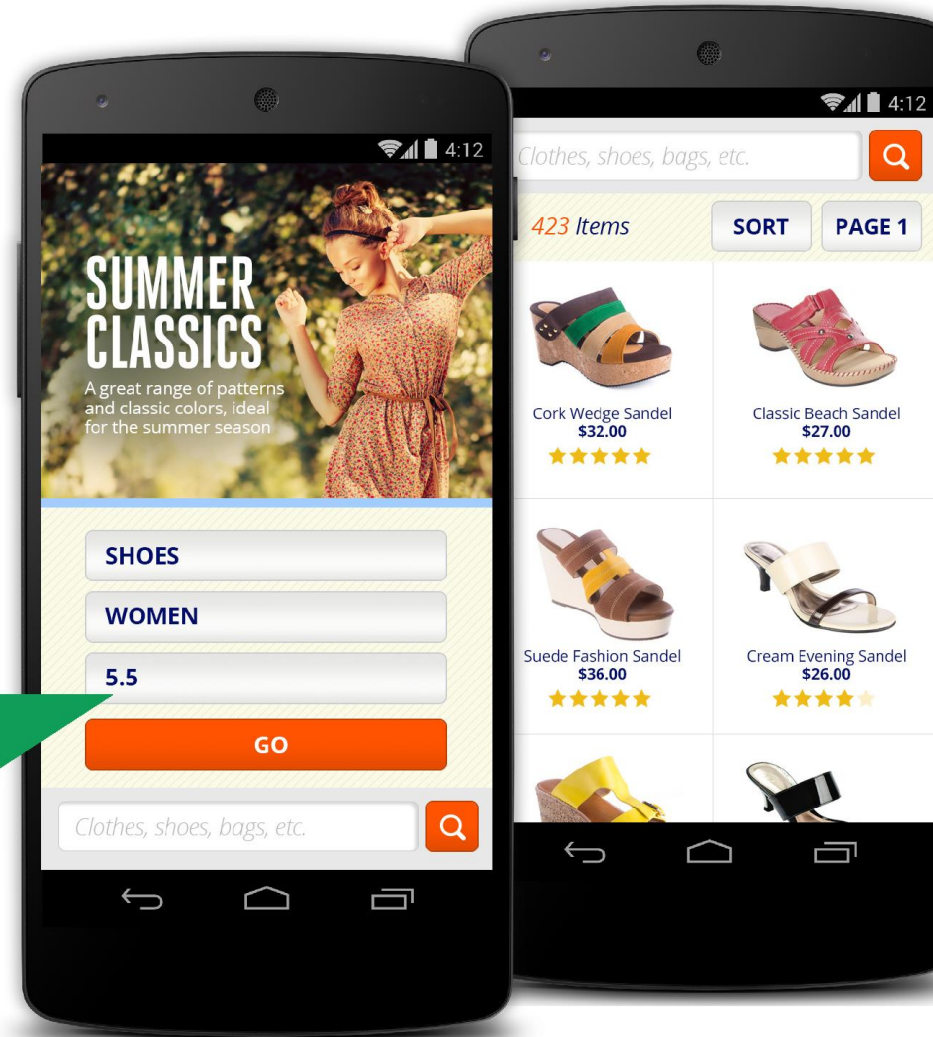
Example from Macy's Mobile Site.

## 8. GUIDE USERS TO BETTER SITE SEARCH RESULTS

For sites that serve diverse customer segments, it can be helpful to ask users a few questions before they search to ensure they get results from the most relevant content segment. For example, a large shoe retailer began its mobile searches by having participants select the gender and size of shoe they were looking for.

### Key Takeaway

If your offerings can be easily narrowed by segment, asking a few questions upfront helps ensure visitors see relevant results.



Sample screen for illustration only.



# COMMERCE & CONVERSIONS

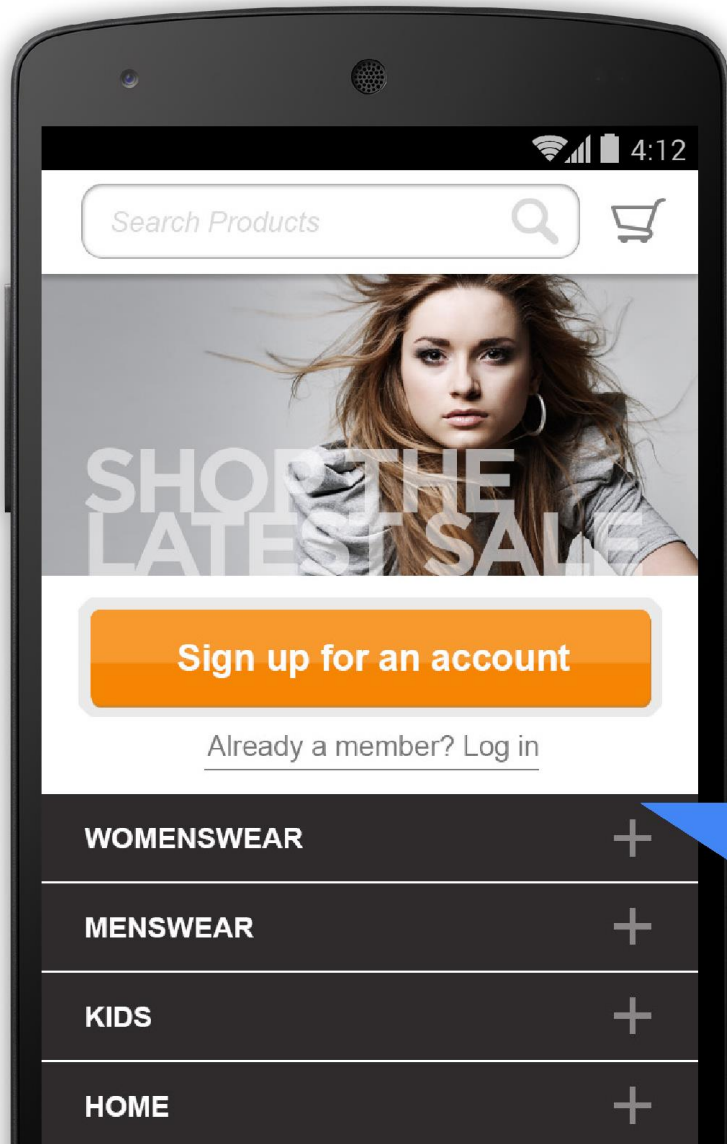
## COMMERCE & CONVERSIONS

The customer journey is getting more complex, and users expect to convert on their own terms. In this section, we look at how to drive conversions by putting your visitors in control.

### PRINCIPLES

- 9 LET USERS EXPLORE BEFORE THEY COMMIT**
- 10 LET USERS PURCHASE AS A GUEST**
- 11 USE EXISTING INFORMATION TO MAXIMIZE CONVENIENCE**
- 12 USE CLICK-TO-CALL BUTTONS FOR COMPLEX TASKS**
- 13 MAKE IT EASY TO FINISH CONVERTING ON ANOTHER DEVICE**





## 9. LET USERS EXPLORE BEFORE THEY COMMIT

Placing registration gates too early in a site experience can be detrimental to conversion. In the study, participants became frustrated by sites that demanded registration in order to continue - especially if the site was an unfamiliar brand. Before offering their personal information, participants wanted to browse content and get a sense of what a site had to offer them.

### Key Takeaway

Allow visitors to use your site without registering for an account.

Sample screen for illustration only.

## 10. LET USERS PURCHASE AS A GUEST

Even when participants were making a purchase, they didn't necessarily want to commit to creating an account with the retailer. Participants described the guest checkout as "convenient," "simple," and "easy [and] quick." They were annoyed at a site that required registration to purchase, especially since the site didn't explain how registration would benefit them.

### Key Takeaway

Offer the option to check out as a guest, and encourage registration with tangible benefits.



The image shows a mobile app interface for a checkout process. It is divided into two main sections. The top section is for users who already have a profile, with the heading "Have a profile?" in red. It includes a subtext "Sign in to enjoy faster, easier checkout." followed by input fields for "Email Address:" and "Password:". A note below the password field states "Password is case sensitive". There is a link for "Forgot Your Password?". A large red button labeled "checkout" is positioned below these fields. The bottom section is for users who do not have a profile, with the heading "No profile yet?" in red. It includes a subtext "No problem! You'll be able to create a profile during checkout." and a large red button labeled "checkout as a guest". The entire interface is displayed on a black smartphone frame with standard Android navigation icons at the bottom.

**Have a profile?**  
Sign in to enjoy faster, easier checkout.

**Email Address:**

**Password:**

Password is case sensitive

**Forgot Your Password?**

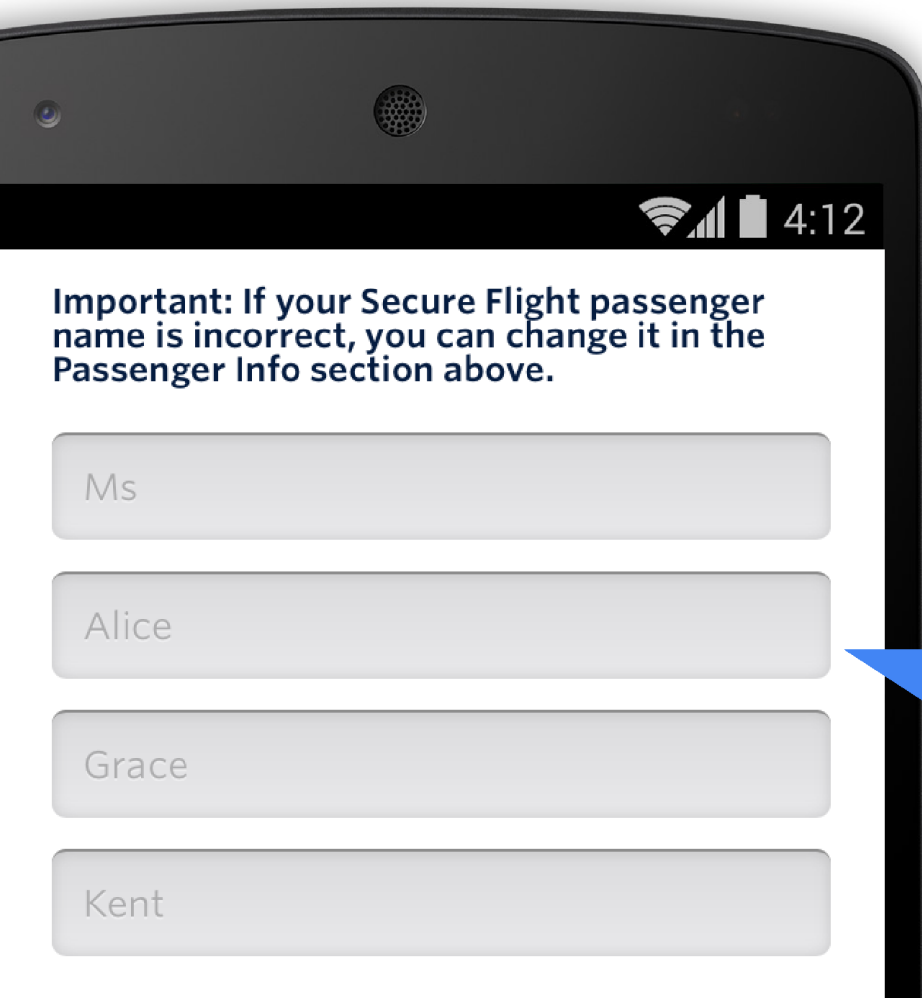
**checkout**

**No profile yet?**  
No problem! You'll be able to create a profile during checkout.

**checkout as a guest**

Example from Macy's Mobile Site.





## 11. USE EXISTING INFORMATION TO MAXIMIZE CONVENIENCE

For your registered users, remember and pre-fill their preferences. For new users, offer a third-party checkout service they may already use. Several retail sites in the study offered third-party payment services as an option, reducing purchasing friction for users of those services and allowing the site to prefill shipping info.

### Key Takeaway



Take advantage of information you already have, and/or use third-party payment services to make conversion as easy as possible.

Example from Delta Mobile Site.

## 12. USE CLICK-TO-CALL BUTTONS FOR COMPLEX TASKS

Offer click-to-call at points in the conversion process that require entry of complex or sensitive information.

### Key Takeaway

Offering a prominent click-to-call button can keep users from dropping out of the funnel when they need to provide complex information.

Participants appreciated the option to call a financial services company to complete an action over the phone, rather than fill out complicated forms on their mobile device.

Example from Progressive Mobile Site.

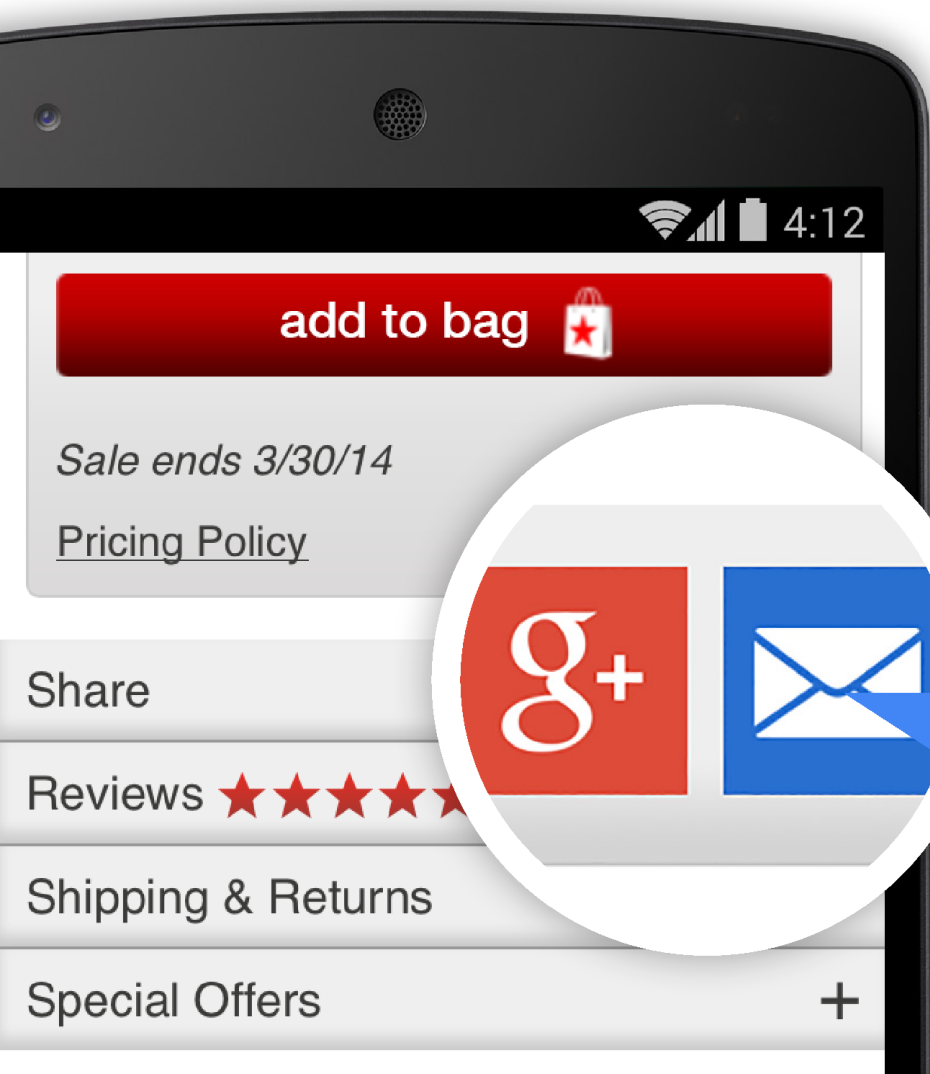
Please review our [Privacy Policy](#) and information about our use of [consumer reports](#).

Okay, start my quote.

[No, thanks.](#)

> FAQs

NEED HELP? 📞 1-877-649-0149



## 13. MAKE IT EASY TO FINISH CONVERTING ON ANOTHER DEVICE

Not all participants were comfortable converting on their mobile device. Offer an easy way to save or share information across devices to keep users in your funnel. For instance, a career site allowed participants to email themselves jobs to apply for later.

### Key Takeaway



Mobile visitors may be researching to convert later, so offer a simple way to resume their journey on another device via social sharing, email or save-to-cart functionality.

Example from Macy's Mobile Site.



# FORM ENTRY

## FORM ENTRY



Whether it's making a purchase, getting a quote or joining an email list, your user's conversion experience should be as seamless as possible. This section explores how to reduce friction at the finish line through streamlined form entry.

### PRINCIPLES

#### 14 STREAMLINE INFORMATION ENTRY

#### 15 CHOOSE THE SIMPLEST INPUT METHOD FOR EACH TASK

#### 16 PROVIDE A VISUAL CALENDAR WHEN SELECTING DATES

#### 17 MINIMIZE FORM ERRORS WITH LABELING AND REAL-TIME VALIDATION

#### 18 DESIGN EFFICIENT FORMS

The image shows a smartphone screen with a 'Phone' form. The status bar at the top shows signal strength, battery, and the time 4:12. The form title is 'Phone' with a subtitle 'In case we need to contact you about this transaction.' Below the title are three input fields: 'DEVICE TYPE' with a dropdown menu showing 'Cell', 'COUNTRY' with a dropdown menu showing 'United States (+001)', and a text field labeled 'Area/City code and telephone number'. A numeric keypad is overlaid on the bottom half of the screen, featuring buttons for digits 1-9, \*, #, 0+, a backspace key, and a 'Next' button.

## 14. STREAMLINE INFORMATION ENTRY

Participants were pleased when sites automatically presented number pads for entering values like zip codes or birth dates. They also appreciated forms that automatically advanced through fields as they entered information. Conversely, they got frustrated when they had to repeatedly tap small form fields and switch their phone keyboard to numeric mode.

### Key Takeaway

Offer users a number pad for fields requiring number entry, and automatically advance them through form fields as they input information.

Example from Delta Mobile Site.

Select card

card number:

expiration:

Month

please enter se

Paying with a d

billing address

Please enter your as it appears on y required.

☐ Use my Ship

first name:

last name:

card type:

Month ☒

January ☐

February ☐

March ☐

April ☐

May ☐

June ☐

## 15. CHOOSE THE SIMPLEST INPUT METHOD FOR EACH TASK

When participants needed to make a choice with limited options, it was easier for them to tap a large toggle icon than to enter text or select from a dropdown. For selecting one of many options, a traditional dropdown was most straightforward. Choose the simplest input method for a task, and always be sure the tap targets are large and easily identifiable.

### Key Takeaway

Consider if a toggle or dropdown menu is the optimal choice for each entry on your mobile forms, and always make sure they're easy for users to tap.

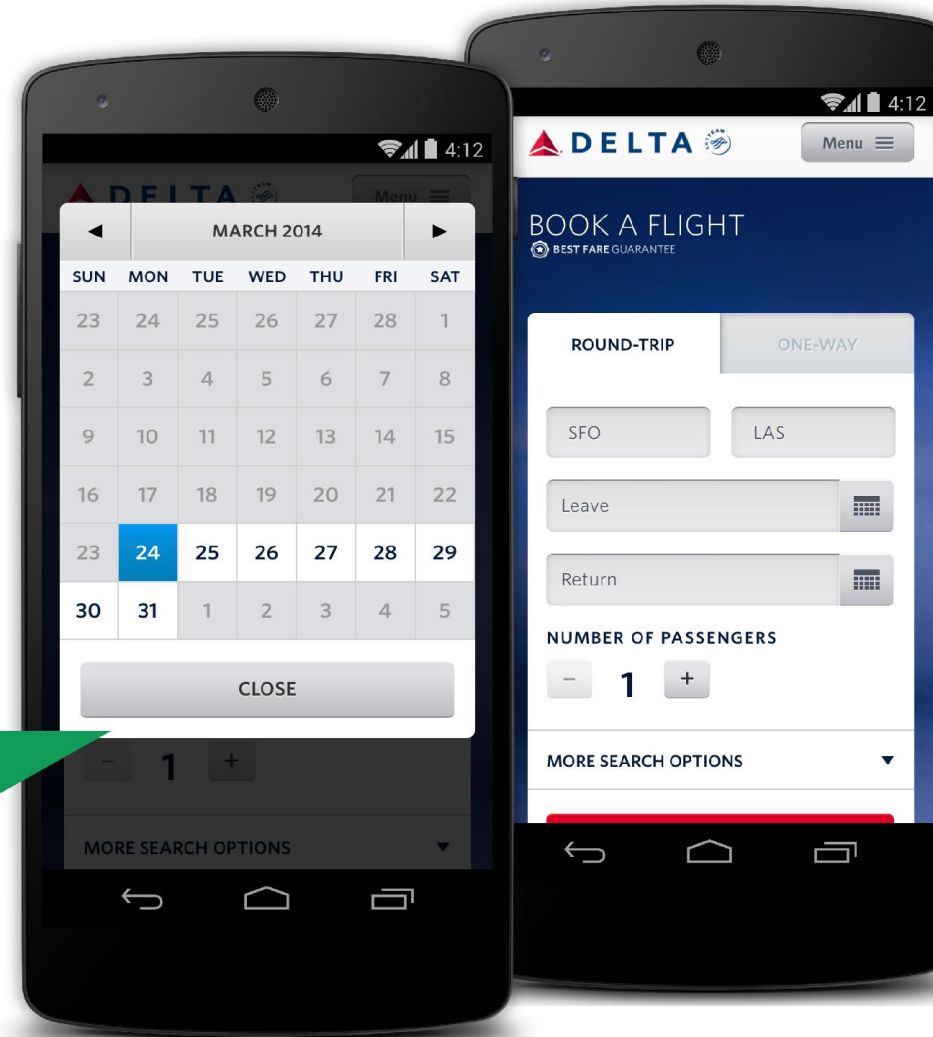
Example from Macy's Mobile Site.

## 16. PROVIDE A VISUAL CALENDAR WHEN SELECTING DATES

Participants didn't always remember the exact dates for "next weekend" when booking a flight. Offer a visual calendar when selecting dates so visitors don't need to leave your site to check their calendar app. Prevent confusion by providing clear labeling for selecting start and end dates.

### Key Takeaway

Keep visitors on your site by offering date selection via a visual calendar with clear instructions.



Example from Delta Mobile Site.



impressing friends and family or for simply dressing up any room in the home. [Read More...](#)

## 1. Select Your Item

- |                                  |               |                  |
|----------------------------------|---------------|------------------|
| <input checked="" type="radio"/> | <b>Large</b>  | <b>(\$69.99)</b> |
| <input type="radio"/>            | <b>Medium</b> | <b>(\$59.99)</b> |
| <input type="radio"/>            | <b>Small</b>  | <b>(\$49.99)</b> |

## 2. Your Recipient

Zip / Postal Code

Please enter a valid Zip Code

(zip/postal code)

Location Type

Residence

Delivery Notes: Gifts cannot be delivered to P.O. Boxes or APO installations.

# 17. MINIMIZE FORM ERRORS WITH LABELING AND REAL-TIME VALIDATION

Label your forms clearly, and make sure the labels are visible when users are actually entering information - one participant mistakenly entered his street address into the email address field, because only “address” was visible. Likewise, putting labels inside fields caused problems if they disappeared when information was entered, leaving participants without guidance. Once information is entered, validate it for errors in real time prior to submission to prevent users from having to resubmit.

### Key Takeaway

Use clearly visible labels to let users know what you need, and validate for errors in real time to let them know if there's a problem before they submit a form.



Example from 1800 Flowers Mobile Site.

START

Let's

First Name

Last Name

Mailing Address

City

☐ P.O. Box or Military Address

Date of Birth

MM / DD / YYYY

Last Name

Suffix

Mailing Address

Apt./Unit #

City, OH 44107

☐ P.O. Box or Military Address

Date of Birth

MM / DD / YYYY

## 18. DESIGN EFFICIENT FORMS

Make sure your forms have no repeated actions, only as many fields as necessary, and take advantage of autofill. With multi-part forms, let your users know what's coming with a progress bar on top. Participants were intimidated by a multi-part form with a very complex initial step, but felt much more comfortable with a different, more straightforward form that clearly labeled each upcoming section. Participants also appreciated multi-part forms that prefilled information they had already entered, like their name and zip code.

### Key Takeaway

Minimize the number of fields in your forms, and autofill information wherever possible. Use clearly-labeled progress bars to help users get through multi-part forms.

Example from Progressive Mobile Site.



# **USABILITY & FORM FACTOR**

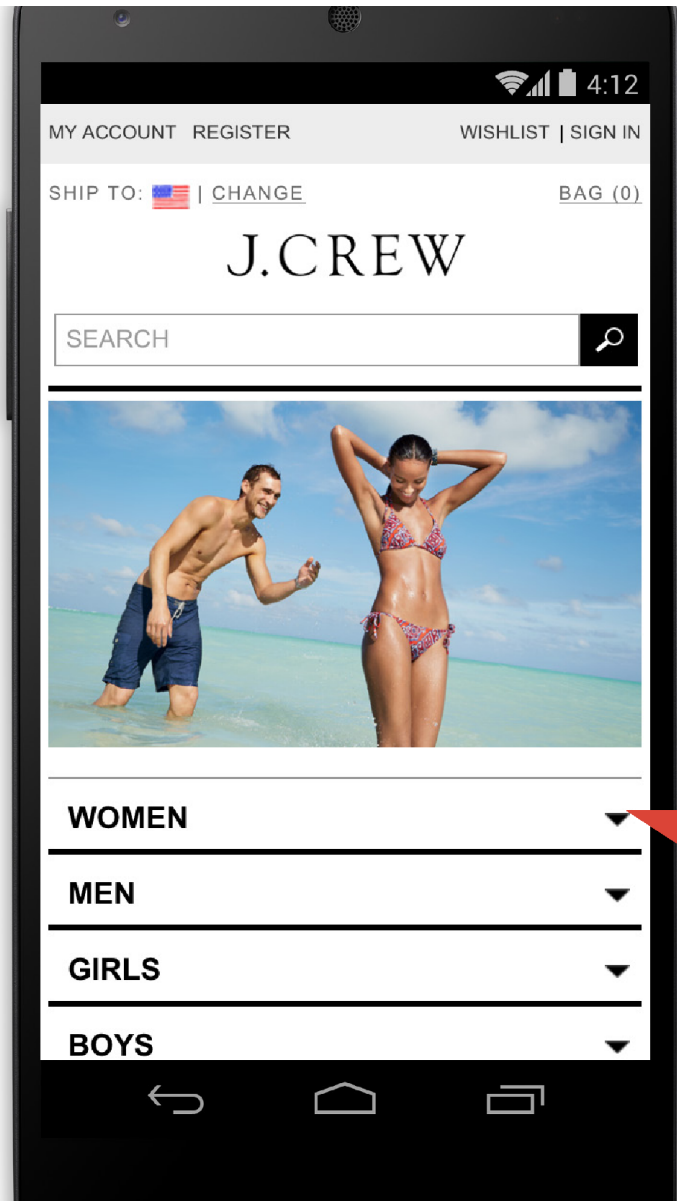
## USABILITY & FORM FACTOR



Mobile users will notice and be delighted by the small things you do for them to enhance their experience. This section discusses how to design your entire site to account for mobile's form factor and unique user needs.

### PRINCIPLES

- 19 OPTIMIZE YOUR ENTIRE SITE FOR MOBILE**
- 20 DON'T MAKE USERS PINCH-TO-ZOOM**
- 21 MAKE PRODUCT IMAGES EXPANDABLE**
- 22 TELL USERS WHICH SCREEN ORIENTATION WORKS BEST**
- 23 KEEP YOUR USER IN A SINGLE BROWSER WINDOW**
- 24 AVOID "FULL SITE" LABELING**
- 25 BE CLEAR WHY YOU NEED A USER'S LOCATION**



## 19. OPTIMIZE YOUR ENTIRE SITE FOR MOBILE

Unsurprisingly, participants had a much easier time navigating mobile-optimized sites than trying to navigate desktop sites on mobile devices. Sites that included a mix of desktop and mobile-optimized pages were actually harder for participants to use than all-desktop sites.

### Key Takeaway

Your site is easiest to use if all your pages are designed for mobile.

Example from J.Crew Mobile Site.

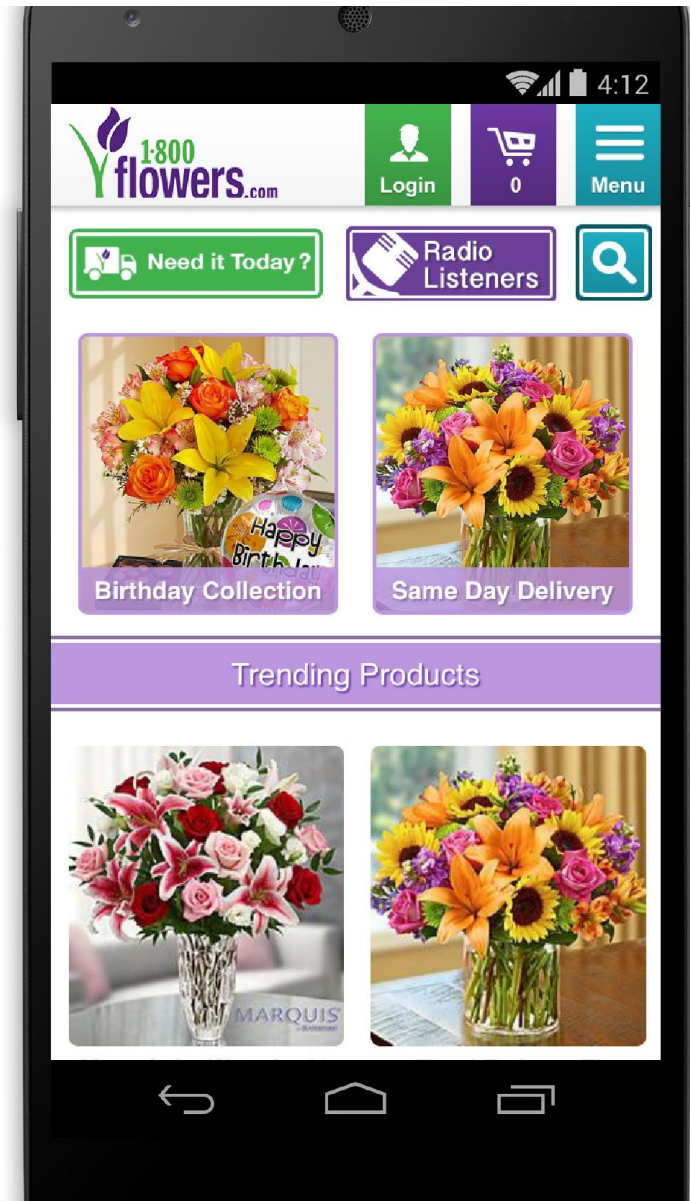
## 20. DON'T MAKE USERS PINCH-TO-ZOOM

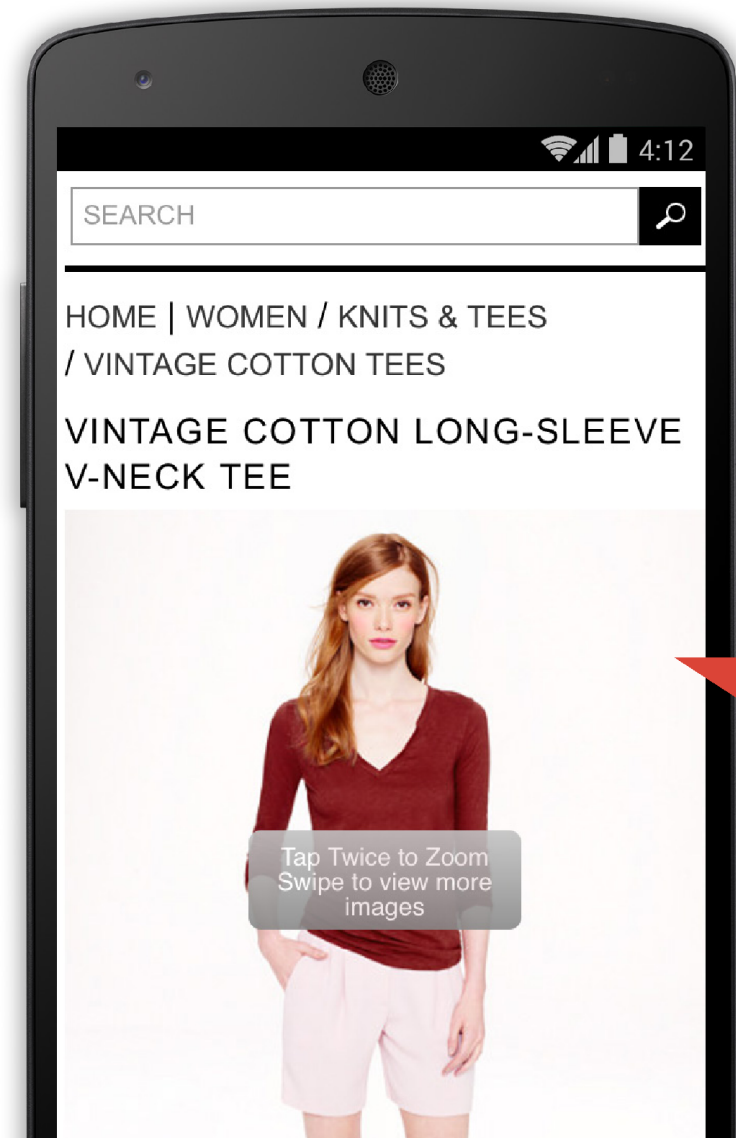
Participants were frustrated when they needed to zoom in or out, and sometimes missed important messaging and calls-to-action. Design your mobile site so that users won't ever need to change the size. Some mobile sites even disable pinch-to-zoom on their screens - if your site is designed correctly, users will never notice it's gone.

### Key Takeaway

Visitors can miss calls-to-action if they have to zoom in a site. Design your site so that they never need to.

Example from 1800 Flowers Mobile Site.





## 21. MAKE PRODUCT IMAGES EXPANDABLE

Customers want to see what they're buying. On retail sites, participants expected to be able to view high-resolution closeups of products to get a better look at details, and got frustrated if they weren't able to.

### Key Takeaway

Include high-quality closeups of key images like product photos.

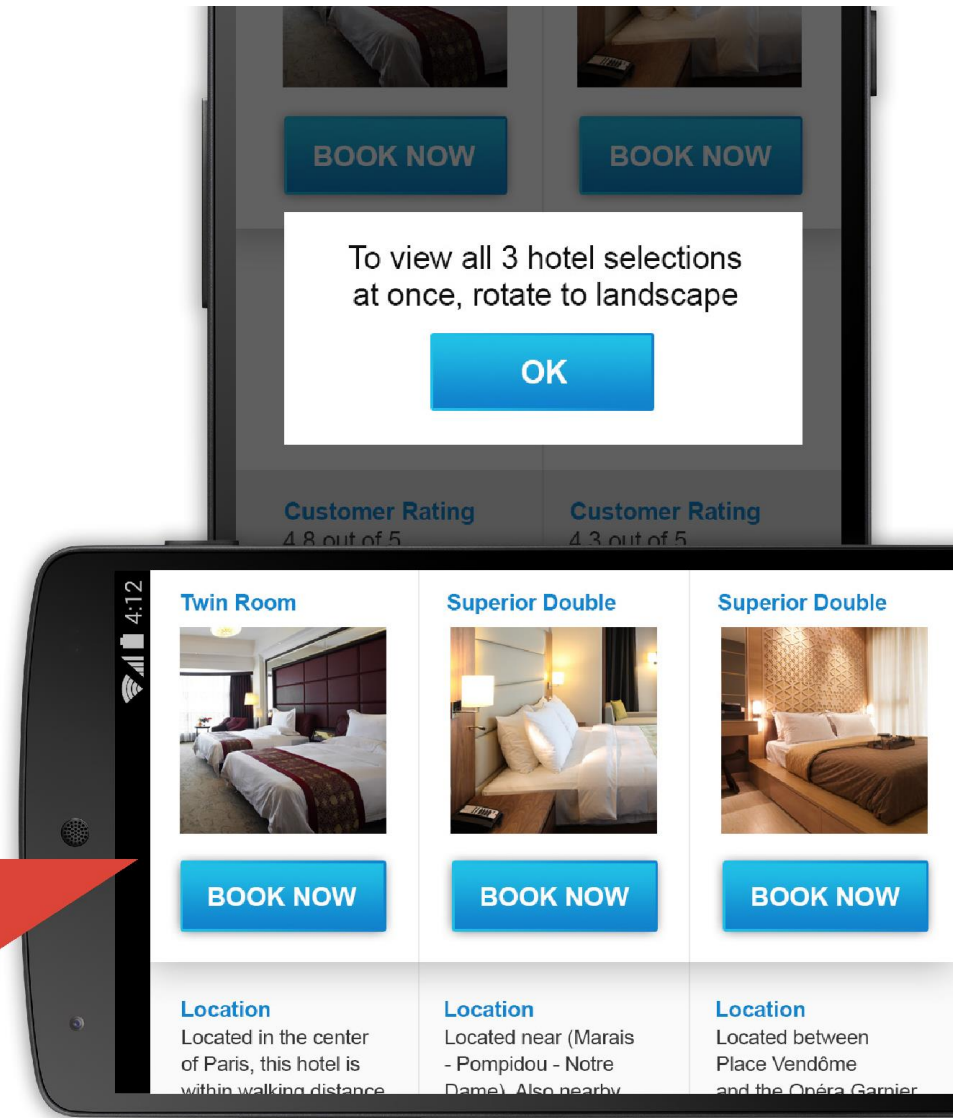
Example from J Crew Mobile Site.

## 22. TELL USERS WHICH SCREEN ORIENTATION WORKS BEST

Study participants tended to stay in the same screen orientation until something prompted them to switch, like trying to read small type or watch a video. Either design for both landscape and portrait, or encourage users to switch to the optimal screen orientation - but make sure your important calls-to-action can be completed even if they ignore the suggestion to switch.

### Key Takeaway

Communicate to users if your site works best in a certain orientation, but ensure your important calls-to-action can be completed regardless of orientation.



Sample screen for illustration only.

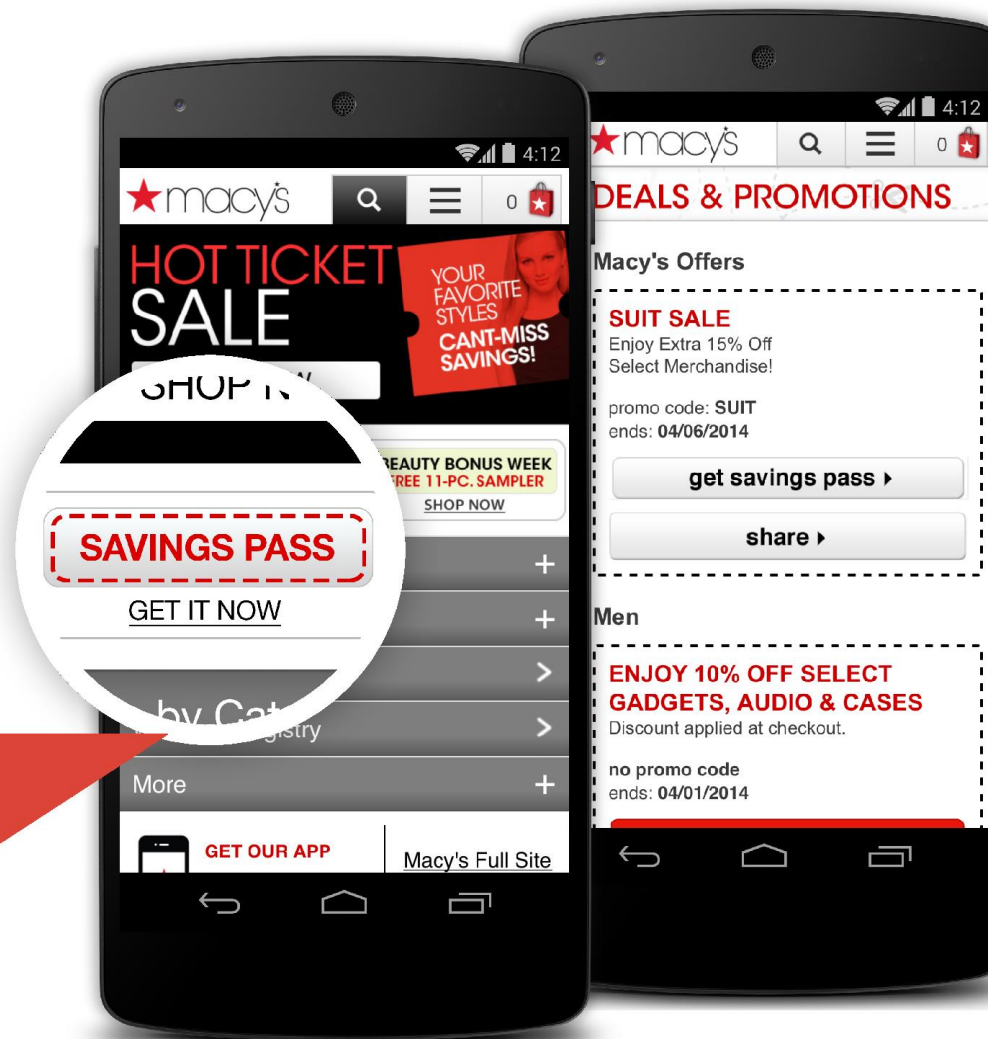


## 23. KEEP YOUR USER IN A SINGLE BROWSER WINDOW

Switching between windows on a smartphone can be troublesome, and raises the risk that visitors might not find their way back to your site. Try to keep users in one place by avoiding calls-to-action that launch new windows. Participants also sometimes opened new windows to search for coupons - consider offering these on your site to avoid users looking elsewhere.

### Key Takeaway

Ensure your calls-to-action stay in the same browser window, and add functionality to your site that addresses why consumers might switch windows.



Example from Macy's Mobile Site.

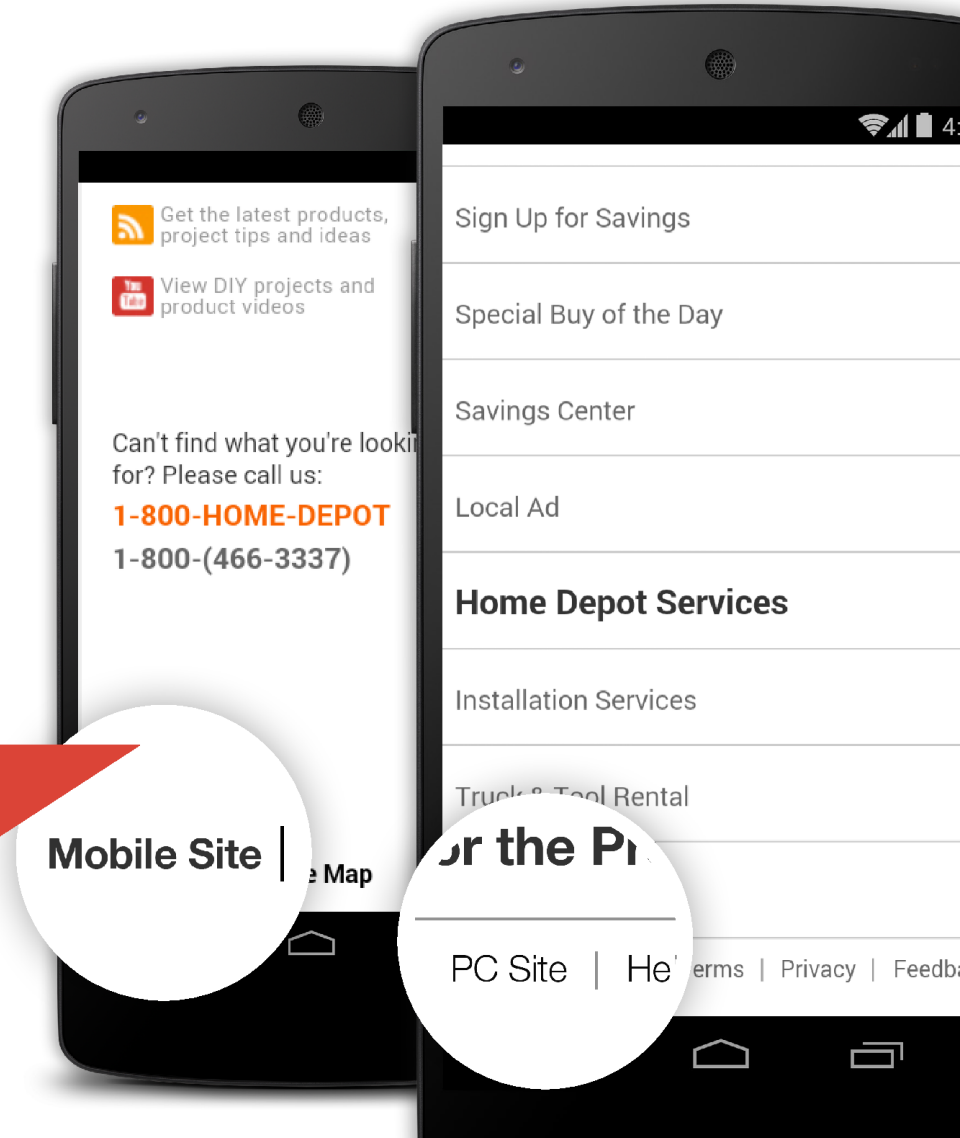
## 24. AVOID “FULL SITE” LABELING

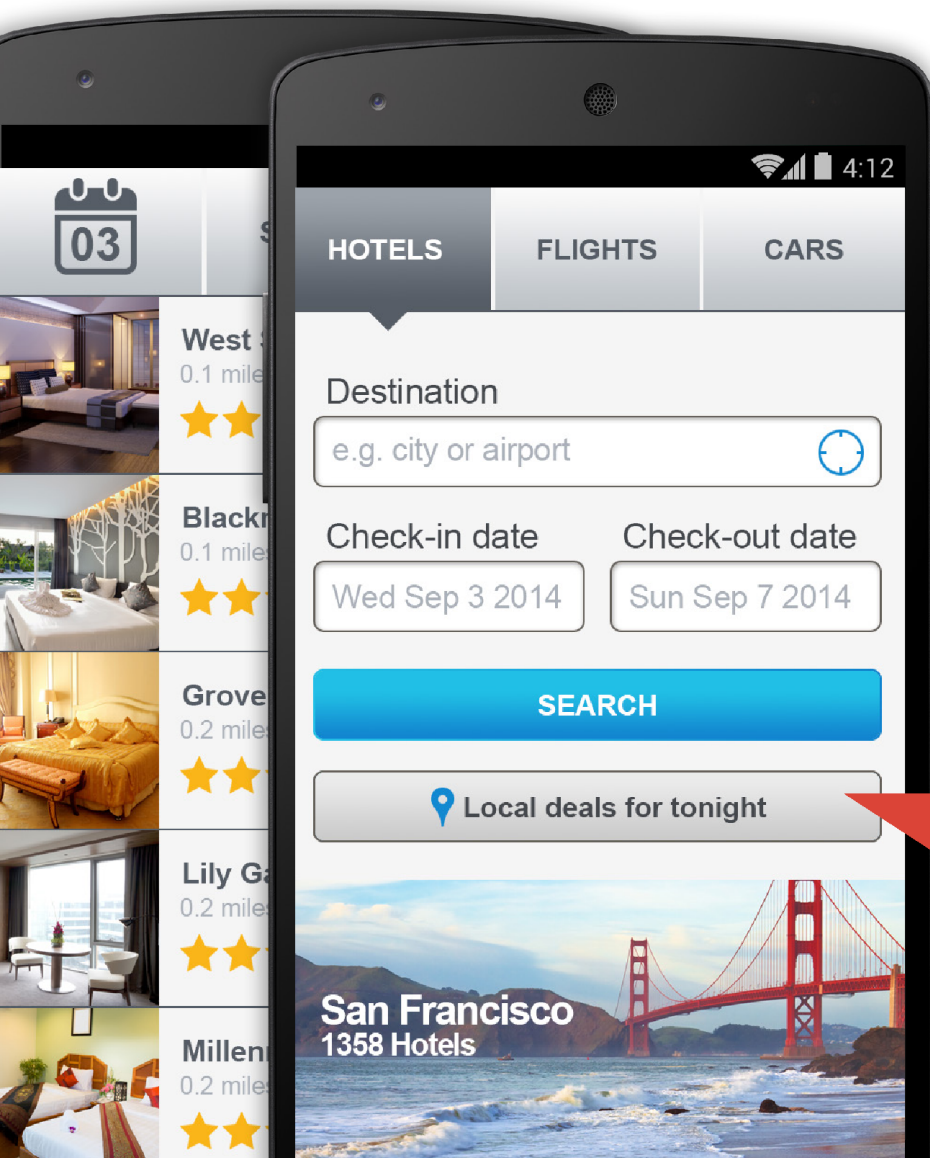
When participants saw an option for “full site” vs “mobile site,” they assumed the mobile site was condensed and chose the full site instead. One participant preferred the desktop site because it had “so much more information” - even though the mobile and desktop sites had the same content. Using terms like “desktop” instead of “full” can help avoid these perceptions.

### Key Takeaway

Make it easy to switch between site experiences, but use labels like “desktop” instead of “full” to be clear that both sites offer a full experience.

Example from The Home Depot Mobile Site.





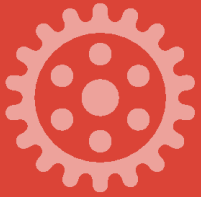
## 25. BE CLEAR WHY YOU NEED A USER'S LOCATION

Users should always understand why you're asking for their location. Participants trying to book a hotel in another city became confused when a travel site detected their location and offered hotels in their current city instead. Leave location fields blank by default, and let users choose to populate them through a clear call-to-action like "Find Near Me."

### Key Takeaway

Always make it clear why you need a user's location, and how the information will influence their experience.

Sample screen for illustration only.



# TECHNICAL CHECKLIST

# TECHNICAL CHECKLIST

Great design is only part of a mobile site's success - it's important to get the technical side right as well. Here's a few tips to avoid common pitfalls.



## **MAKE SURE YOUR MOBILE ADS ARE CONFIGURED TO TAKE USERS TO THE MOBILE SITE**

Incorrect configurations might result in your mobile ads pointing towards the desktop site.



## **MINIMIZE DOWNLOADS TO ENSURE A SMOOTH EXPERIENCE**

Consolidate and preload your mobile web content for larger but fewer downloads.



## **TEST ON A RANGE OF DEVICES**

Test your site in multiple browsers and devices to ensure maximum performance.



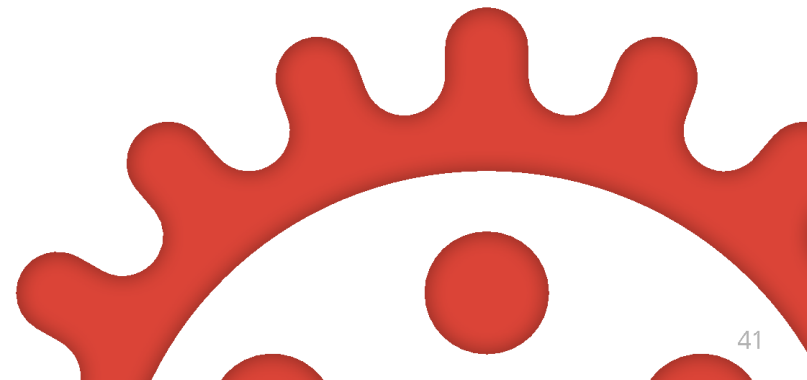
## **MAKE SURE YOUR PAGE CONTENT LOADS IN A LOGICAL ORDER**

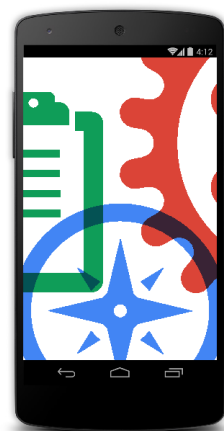
Consider your page as a user would to proactively identify possible issues.



## **IMPLEMENT ANALYTICS AND CONVERSION TRACKING ACROSS YOUR MOBILE SITE**

Ensure mobile conversions are tracked alongside desktop conversions.





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