



# UI PATTERN LIBRARY

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GDVX 754 - Curated Narrative for Dynamic Content  
Fall 2018 - Professor Holly Quarzo  
UI Pattern Library - Website: [www.walmart.com](http://www.walmart.com)

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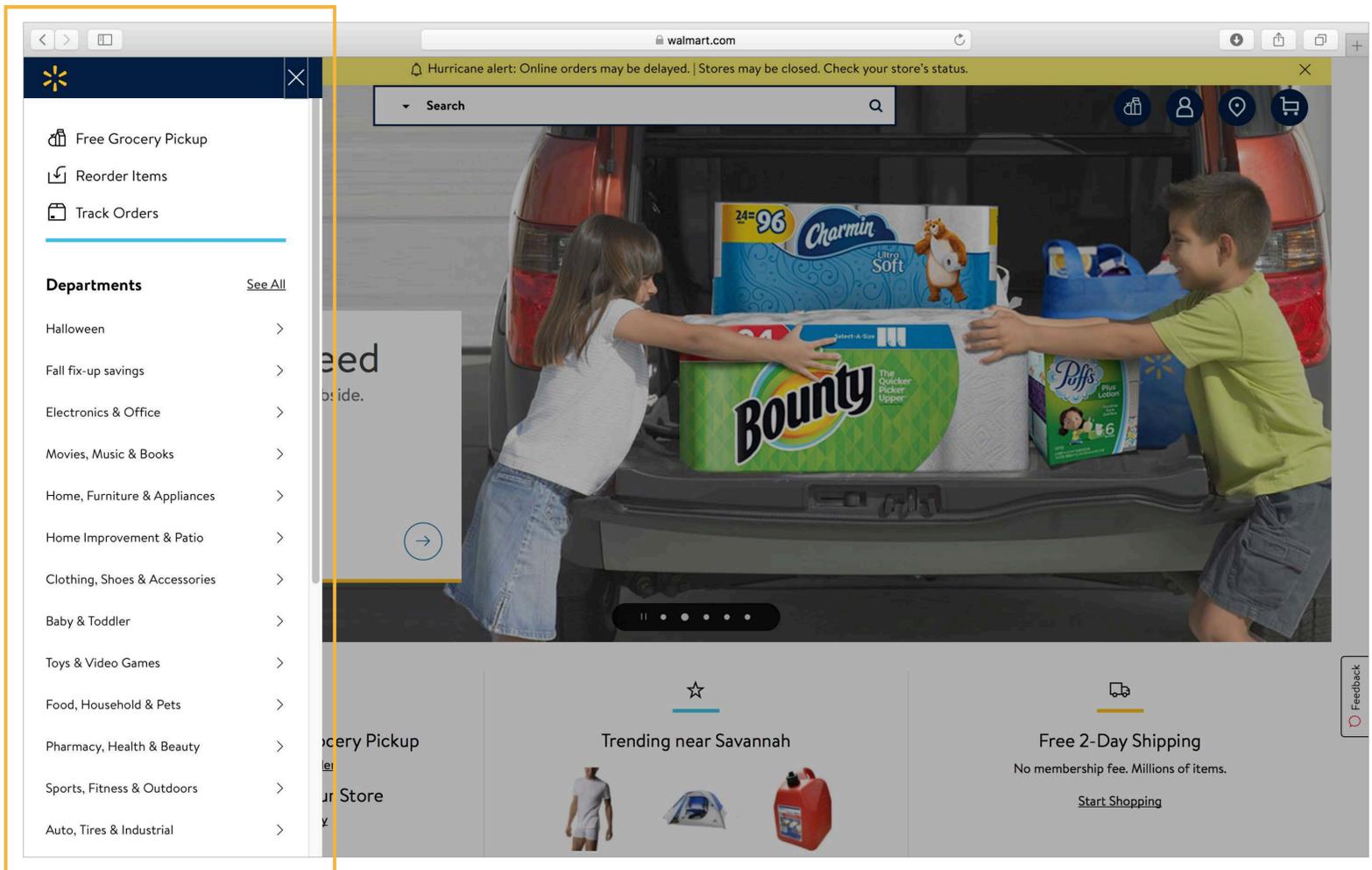
Shopping Cart

Captcha

The Off Canvas Page Slide

# NAVIGATION

# The Off Canvas Page Slide



## What

Off-canvas panels are positioned outside of the viewport and slide in when activated. Over the past few years, this method has really become the standard method of responsive navigation. **This menu pattern was originally derived from how Facebook has popularized the "off-canvas" look on their mobile website and app.** When the browser gets down below a certain breakpoint, the menu disappears and we are presented with a single "menu" button. When this button is clicked, the menu slides out from the left and the main body content moves to the right. This gives the appearance of a menu that is sitting "off canvas" or out of the picture, then it slides in to reveal itself. I used to think that this menu couldn't accommodate a large menu with lots of sub-navigation. However, if you add a scrolling pane to it - then bam - you can add tons of links in there.

## Use When

Use when **it feels very natural to users because it's like holding onto a physical item to save your place** while looking for something else, can save space, provide a clean layout with access to content. It can be bad for engagement, people may not know to look there, people may forget they exist, require more effort because you have to tap first to see the options, may hinder discoverability, not glance-able.

## Why

**It allows users to explore a wide range of options quickly.** For precise input, a slider can never beat a regular input field, but we can use a slider to nudge our customers to explore available options and, hence, aid them in making an informed decision.

## How

Off-canvas is a well established mobile pattern for navigation that can also be used to create a responsive sidebar. **It can open from any direction, left, right, top, and bottom.** There are options to allow the Off-canvas to push your page over or to overlap your page plus a few other neat tricks.

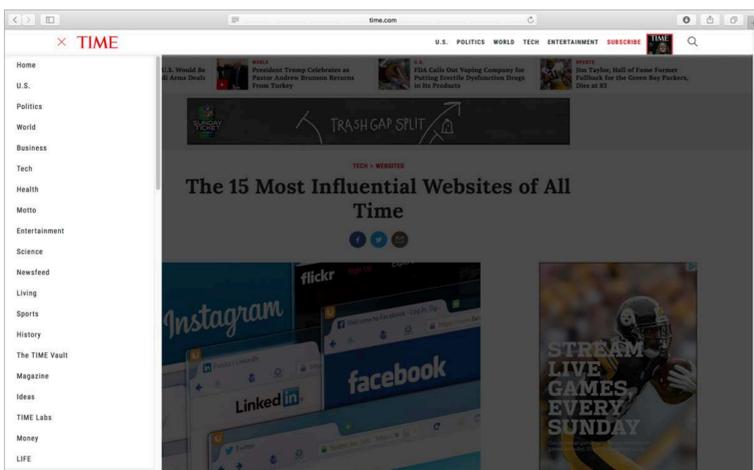
## RELATED PATTERN

**Fly-out menus, sliding drawer menus, side menus, navigation drawers, sidebar menus, hamburgers, or basements.**

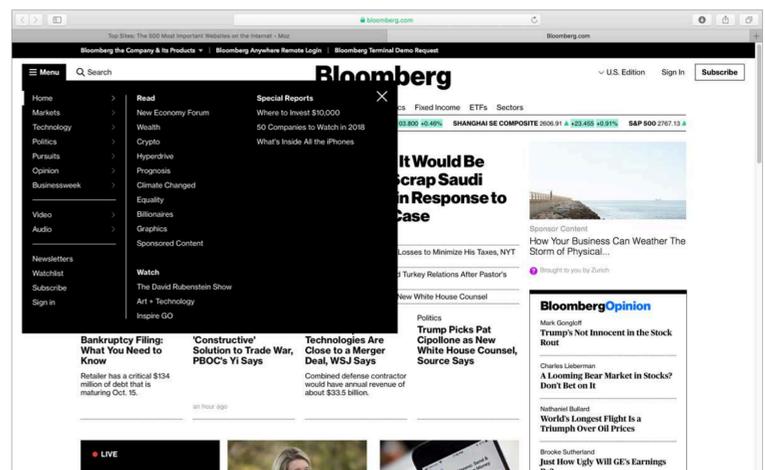
## Opposite to Illusion of control

This Ui pattern cannot act as a motivational factor for conducting certain behavior that is either safe or that we believe will bring user closer to a goal.

# Examples

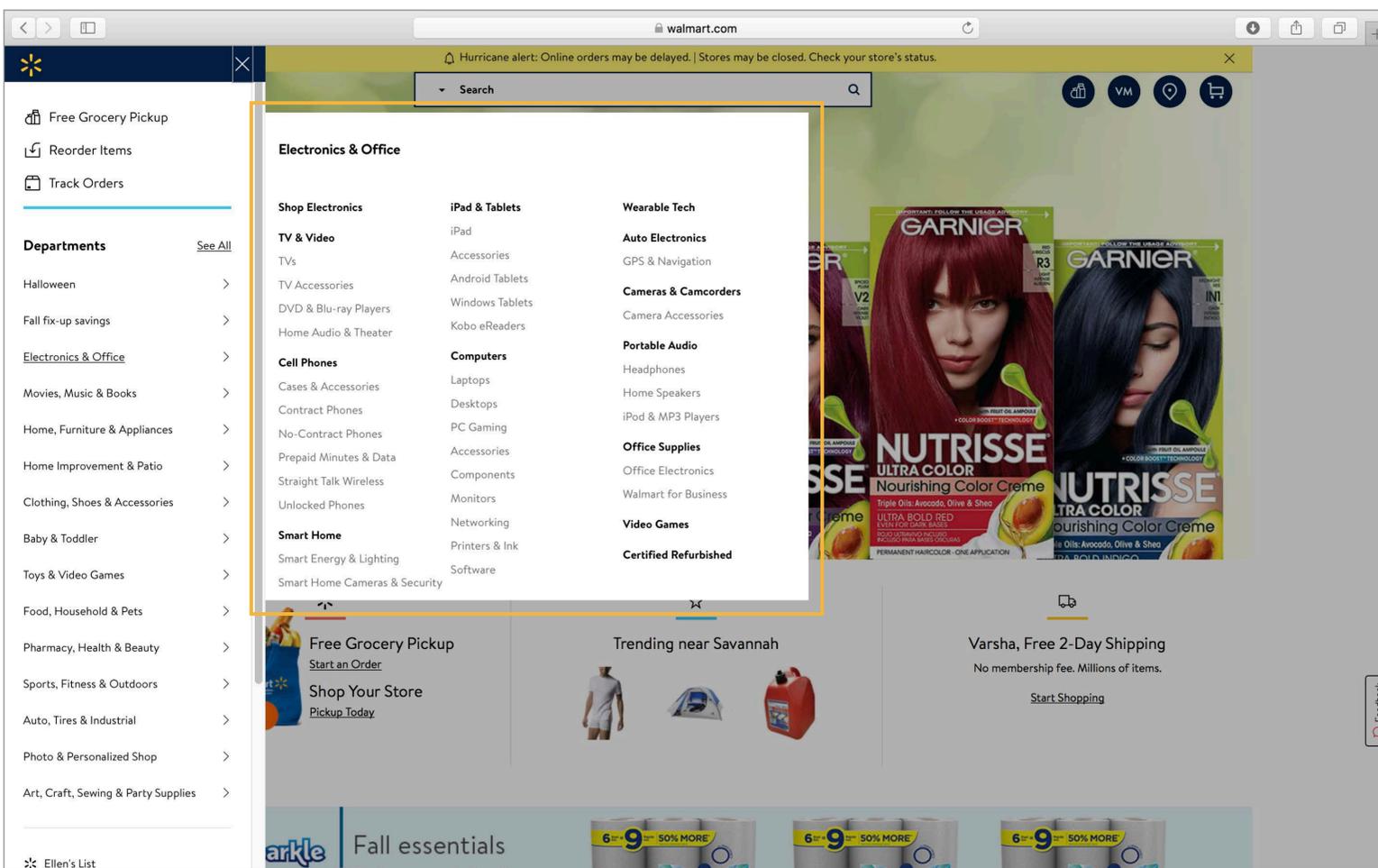


<http://time.com/4960202/most-influential-websites/>



<https://www.bloomberg.com>

# Horizontal Dropdown Menu



## What

The user needs to navigate among sections of a website, but space to show such navigation is limited. **Stack panels vertically or horizontally and open up one panel at the time while collapsing the other panels.**

## Use When

Use when there are between 2 – 9 sections of **content that need a hierarchical navigation structure**. Use when your functionality resembles one of a desktop application. Imitate the metaphor. Do not use when there is a need to single out the location of the current section of the site. Then use the Navigation Tabs.

## Why

Drop-down menus **save space by organising and concealing information**. Drop-down menus are not regarded as a technique that increases usability, as they can often be difficult to use. Flyout menus allow for only showing top levels of the page's hierarchy permanently, while still giving the option to show deeper levels on mouse over.

## How

A list of main sections are displayed as links in a single vertical strip. **When a user hovers their cursor over a list item or clicks a list item, a sub list is displayed (usually adjacent and below)**. The user can then follow the now horizontally extended list item down, and select the subsection they are interested in. Traditionally, when the user's cursor leaves a drop down menu, the menus are no longer visible. However, this is an unforgiving interaction method. **As humans, we do not always act perfectly as the system would like us to**. To cope with human errors and to guide us to act as you would like us to, you can implement the following: On mouseout events (when the user takes his mouse away from the drop-down'ed box), add a delay before hiding the drop-down'ed box (typically 200-300 ms.) Make the area of each menu item wider than just the text of the menu item so that the user has more space to put his mouse cursor over. Change the cursor image as the user hovers over a list item.

## RELATED PATTERN

### Collapsible Panels

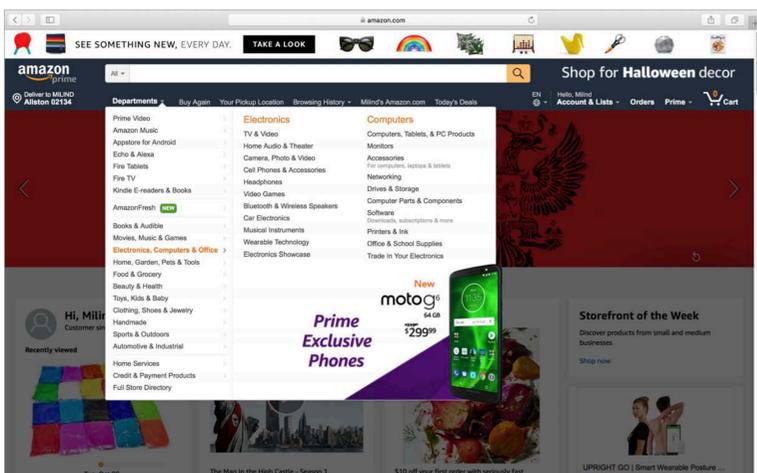
Users need to access information or functionality but they only need in under certain (temporal) circumstances.

### Accordion

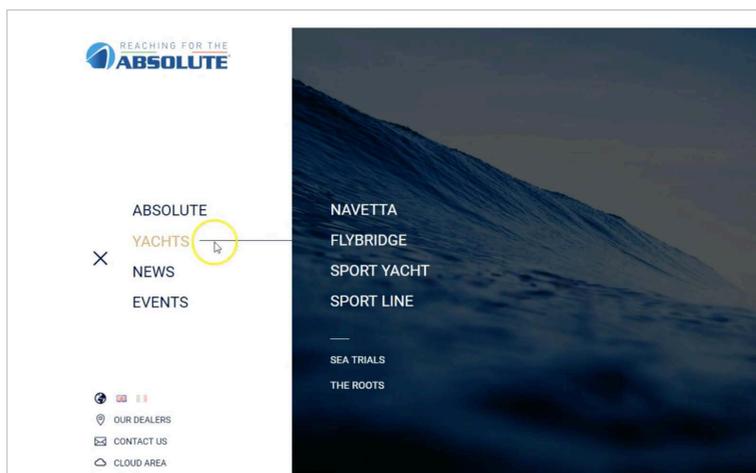
Stack panels vertically or horizontally and open up one panel at the time while collapsing the other panels

**Design your system into levels of increasing features in order to keep users engaged, away from boredom.**

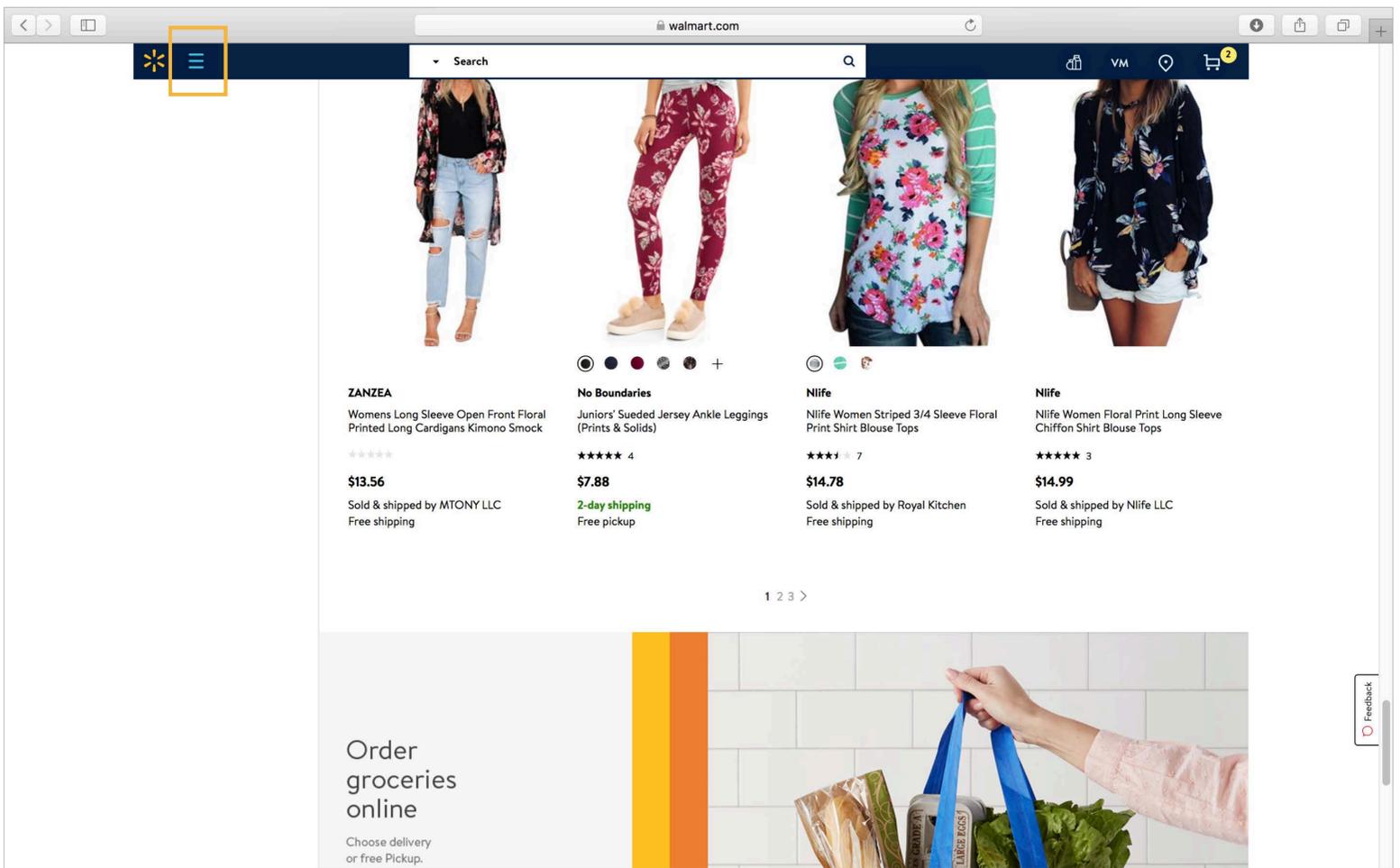
# Examples



<https://www.amazon.com>



# Hamburger Menu



## What

The **hamburger menu**. An icon of three stacked lines (two buns and the meat in the middle) used to represent a menu. Clicking/Tapping on the icon reveals available navigation options. Hamburger as a Secondary Navigation. Since the main downside of the hamburger menu is its low discoverability, it's not recommended for the main navigation menu.

## Use When

However, when designing secondary navigation options, this pattern might be an appropriate solution. If the primary navigation options are available as on-screen CTA buttons or in some other form, the hamburger menu can be a good place for all the secondary navigation.

## Why

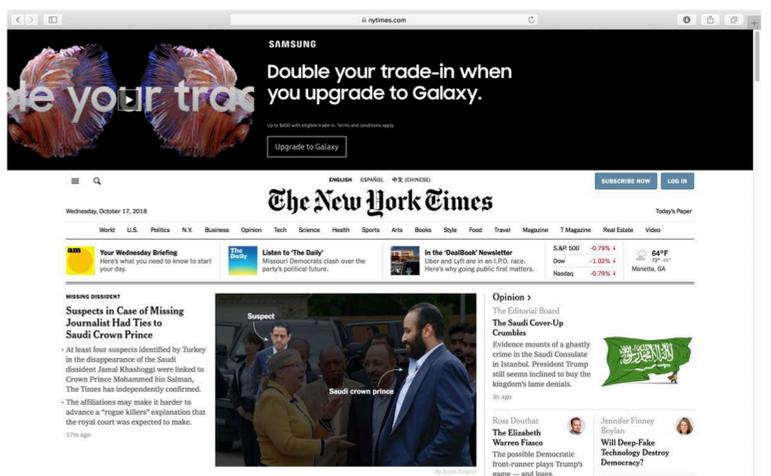
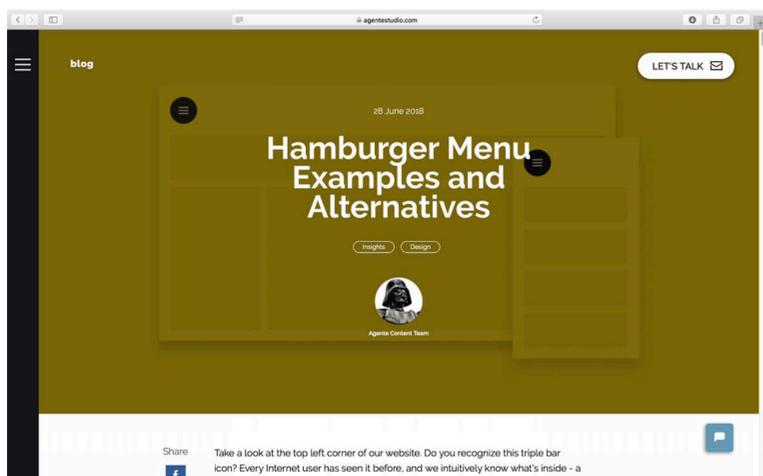
The **hamburger icon doesn't distract users from the task**, and still, gives them access to the all the navigation features.

## How

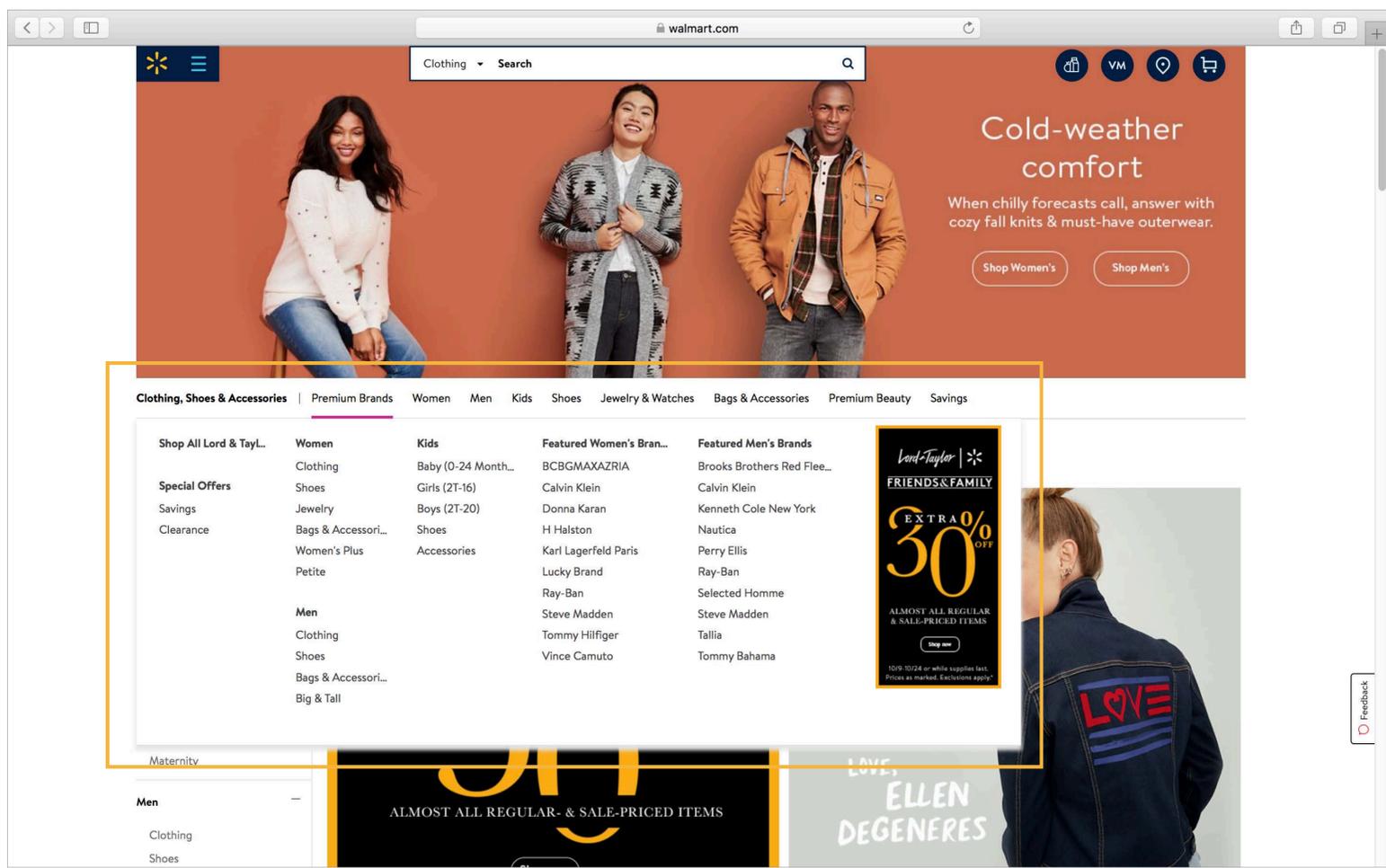
While **hidden navigation is very often harmful to the user**, though any design decisions must always be considered within the context of the user's goal.

**Label the menu to add some information scent and to also help users who are not yet familiar with the hamburger icon. The label should be legible and have high contrast.**

# Examples



# Vertical Dropdown Menu



## What

The user **needs to navigate among sections of a website**, but space to show such navigation is limited.

## Use When

Use when there are between 2 – 9 sections of **content that need a hierarchical navigation structure**. Use when your functionality resembles one of a desktop application. Imitate the metaphor. Do not use when there is a need to single out the location of the current section of the site. Then use the Navigation Tabs.

## Why

Drop-down menus save space. This is the main reason for using them. Otherwise, **drop-down menus are not regarded as a technique that increases usability, as they can often be difficult to use**. Flyout menus allow for only showing top levels of the page's hierarchy permanently, while still giving the option to show deeper levels on mouse over.

## How

A list of main sections is listed on the same horizontal line. **Once the user has his mouse cursor over one of the list items, a drop-down list of new options is shown below the list item the mouse cursor is pointing at**. The user can then follow the now vertically extended list item down, to select the menu item he wants to click. Once the user removes the cursor from the box of drop-down'ed options, the box disappears. He can then put his mouse cursor over another list item, whereafter the process starts over. As humans, we do not always act perfectly as the system would like us to. To cope with human errors and to guide us to act as you would like us to, you can implement the following: On mouseout events (when the user takes his mouse away from the drop-down'ed box), add a delay before hiding the drop-down'ed box (typically 200-300 ms.) Make the area of each menu item wider than just the text of the menu item so that the user has more space to put his mouse cursor over. Change the cursor image as the user hovers over a list item.

## RELATED PATTERN

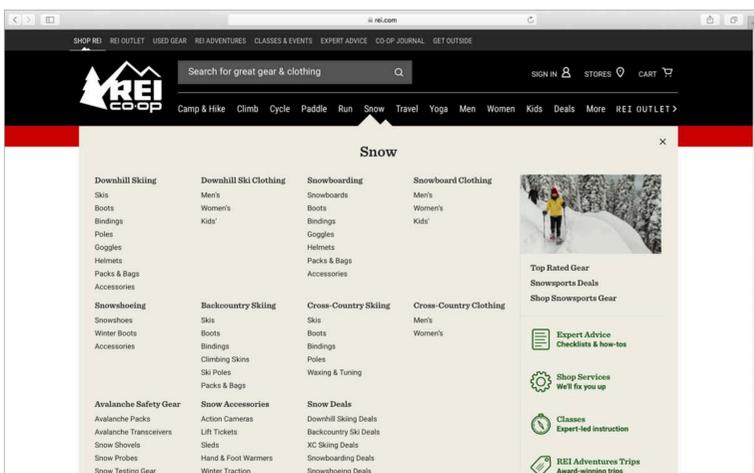
### Collapsible Panels

Users need to access information or functionality but they only need in under certain (temporal) circumstances.

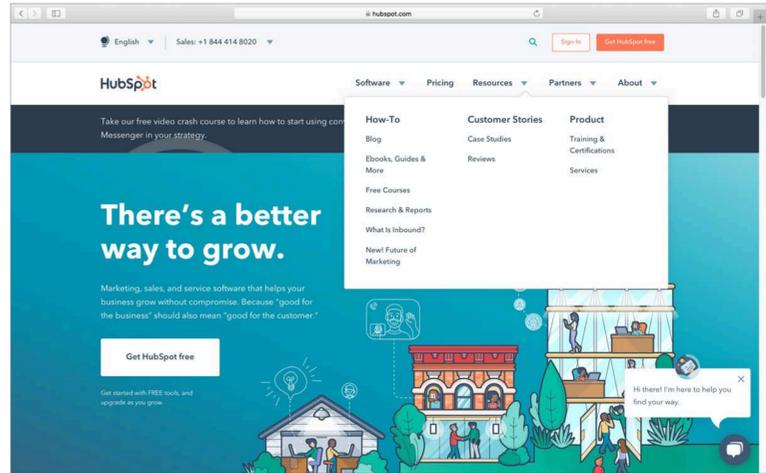
### Accordion

Stack panels vertically or horizontally and open up one panel at the time while collapsing the other panels

# Examples

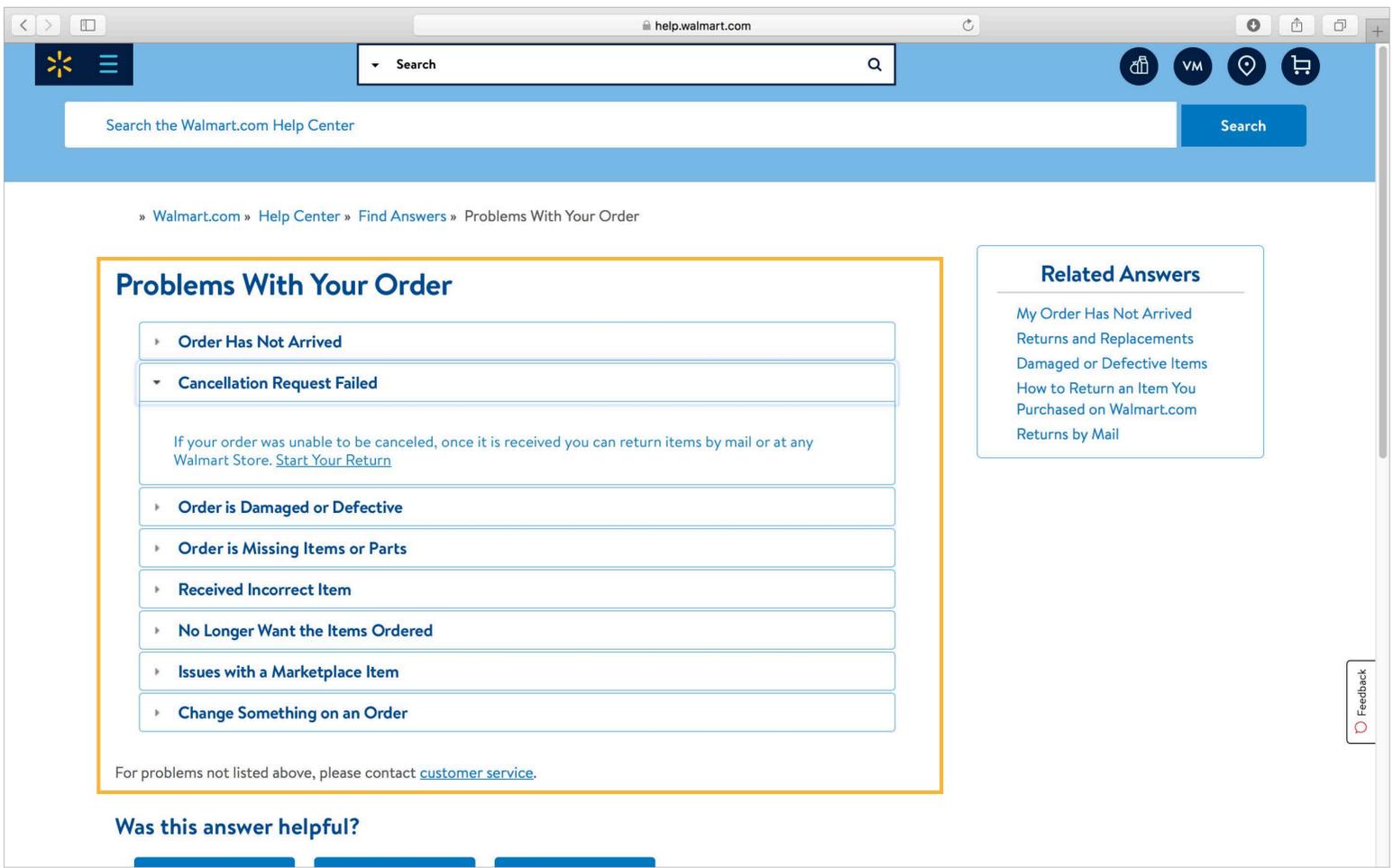


<https://www.rei.com/c/kayak-paddles>



[https://www.hubspot.com/?\\_ga=2.169792228.433849686.1539563269-2031412185.1539563269](https://www.hubspot.com/?_ga=2.169792228.433849686.1539563269-2031412185.1539563269)

# Accordion Menu



## What

User needs to navigate among a website's main sections while still being able to quickly **browse to the subsection** of another .

## Use When

Use when you want the benefits of a normal sidebar menu, but do not have the space to list all options. Use when there are more than 2 main sections on a website each with 2 or more subsections. Use when you have less than 10 main sections **Use when you only have two levels to show in the main navigation.**

## Why

Accordion menus are often used as a website's main navigation. In this way, it acts much like Navigation Tabs, as menu items are collapsed when a new panel is clicked. Where the Navigation Tabs are most often used horizontally, **Accordion menus are most often used vertically.** Accordion menus can however also function quite well as sub-navigation for a specific section of a website.

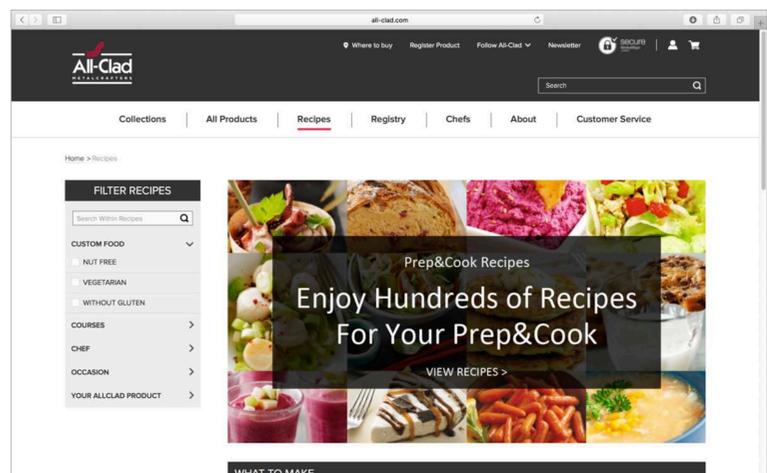
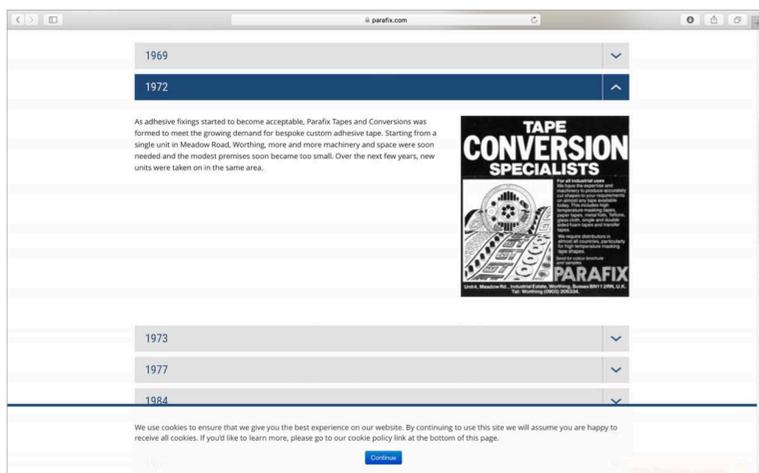
## How

Each headline / section has a panel, which upon clicking can be expanded either vertically or horizontally into showing its subsections. Vertical Accordion menus are the most frequently used. The transition from showing no options of a headline to showing a headline's list of options can be done either with a page refresh or with a javascript DHTML animation. **When one panel is clicked it is expanded, while other panels are collapsed..**

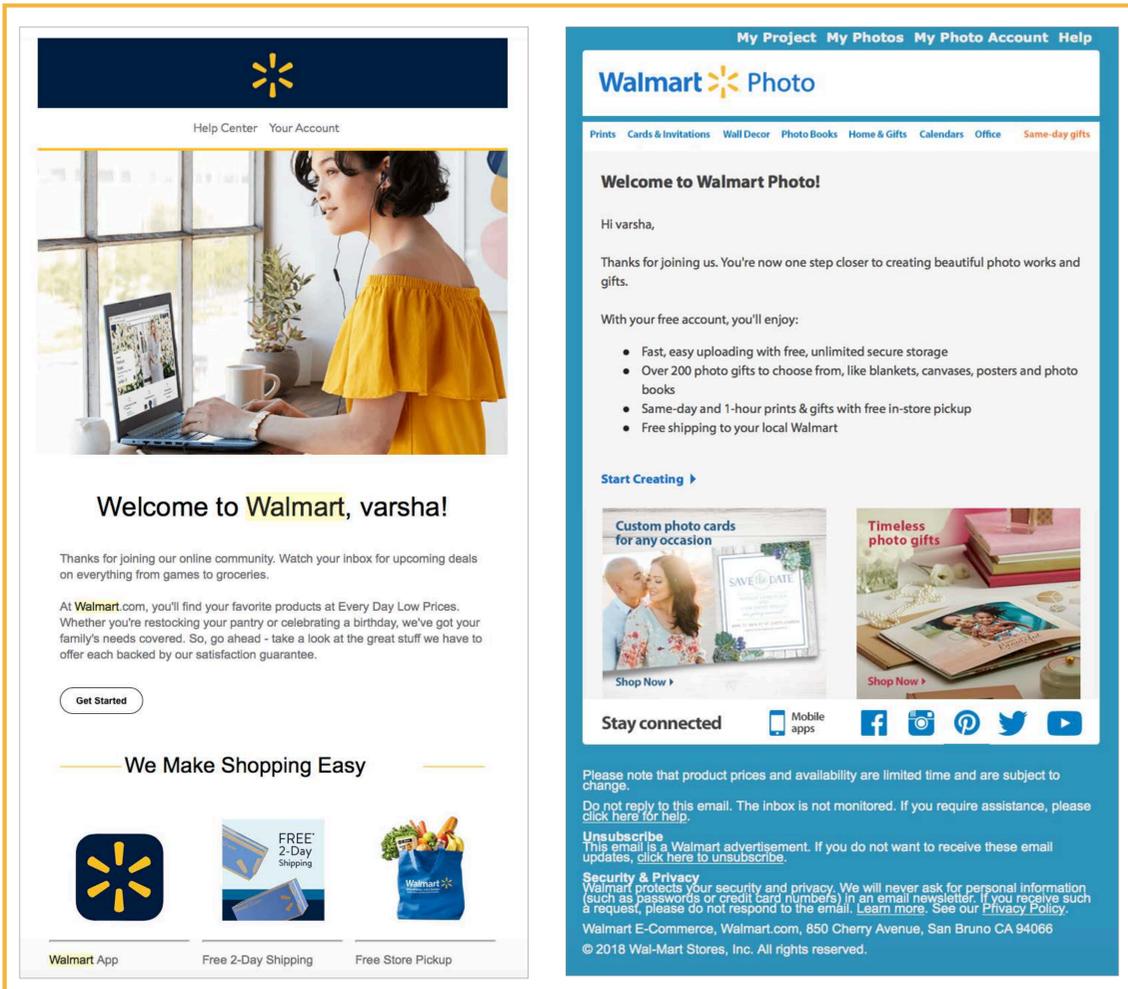
**Easy access to information**

Accordion menu lets Walmart users locate helpful information at a glance.

# Examples



# Notifications



## What

The user wants to be informed about important updates and messages.

## Use When

Use when you want to draw attention to important updates or messages. Do not notify users about time-sensitive information directed specifically at them. Do not notify users about information that is currently on screen (e.g. active chat conversations). Do not notify users about technical operations that do not require user involvement (such as syncing). **Do not notify users about error messages that can be resolved without user action.**

## Why

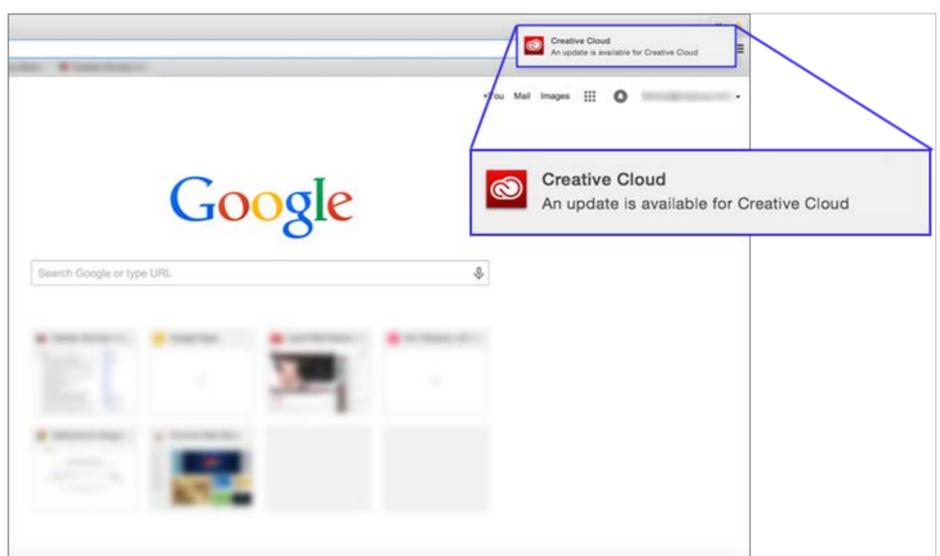
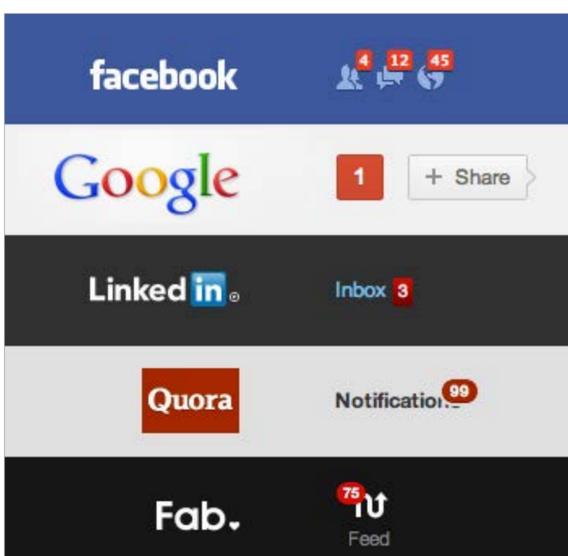
Across devices: Once a users has consumed a notification, he or she should not see it again. Similarly, users should be able to retrieve already consumed notifications on another device more suitable for consuming the content the user was notified about. **Notifications should be synced to all of a user's devices.**

## How

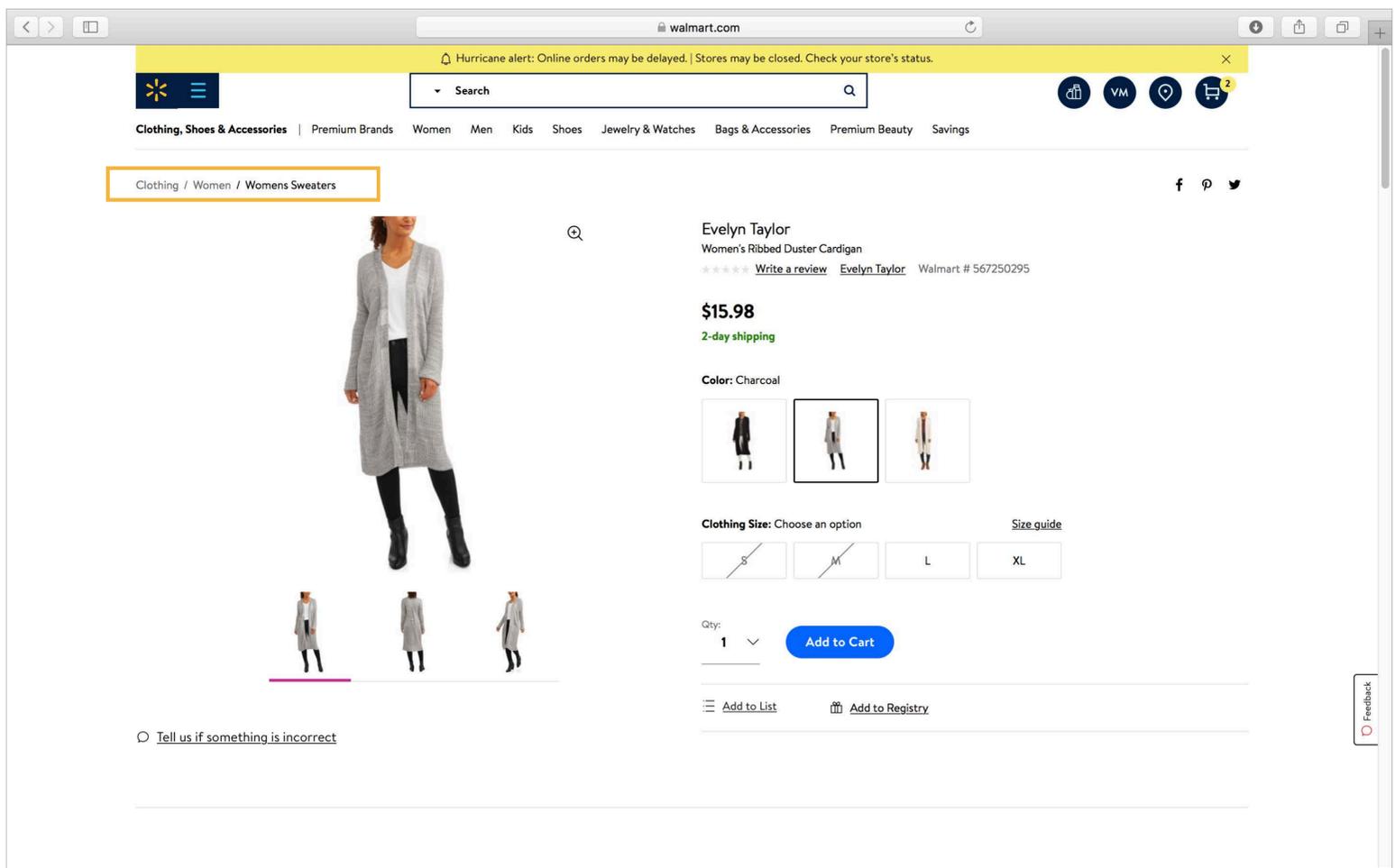
Inform your users about relevant and timely events. Notify users about important updates while they are focused elsewhere. **Adjust the rate and relevancy of notifications aptly, as they can be interruptive.** Empower users to disable or change notifications in their settings. Create personalized, summarized, and timely notifications that may serve as entry points to more detailed information. Use notifications to draw attention to important updates: messages from friends, new friend requests, relevant nearby offers, and many more.

**This is not like Modal design pattern where users have to take action but notifications should be synced to all of a user's devices. The design should also be similar for all things related to the brand. Right now walmart welcome email once you open an account and walmart photo section email design is not from one family.**

# Examples



# Breadcrumbs



## What

The user needs to know their location in the website's hierarchical structure in order to possibly browse back to a higher level in the hierarchy.

## Use When

Sites with a large hierarchical information structure, typically more than 3 levels deep. Such sites are medium to large sized and include **E-commerce Site, catalogs, Portal Site, Corporate Site etc.** The site has got some type of Main Navigation that allows users to traverse the hierarchy. Users may want to jump several steps back instead of following the hierarchy. Users may be unfamiliar with the hierarchical structure of the information.

## Why

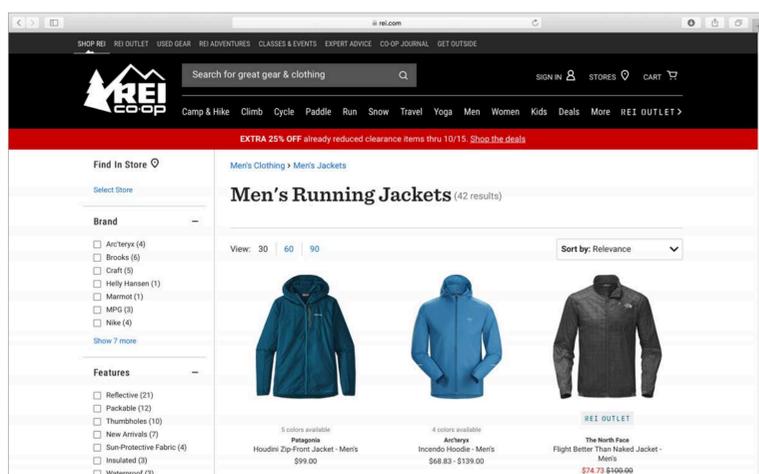
The bread crumbs show the users **where they are and how the information is structured.** Because users see the way the hierarchy is structured they can learn it more easily. By making each label a link, the users can quickly browse up the hierarchy. They take up minimal space on the page and leave most of the space for the real content. **Breadcrumbs are not for primary navigation and should always be used together with a form of Main Navigation.** The name breadcrumb refers to the fairy-tale of Hansel and Gretel where a breadcrumb trail is used to mark the places Hansel has been. If the analogy were correct a breadcrumb should show the history of the users' actions rather than the position in the hierarchy. So the name breadcrumb is actually wrong.

## How

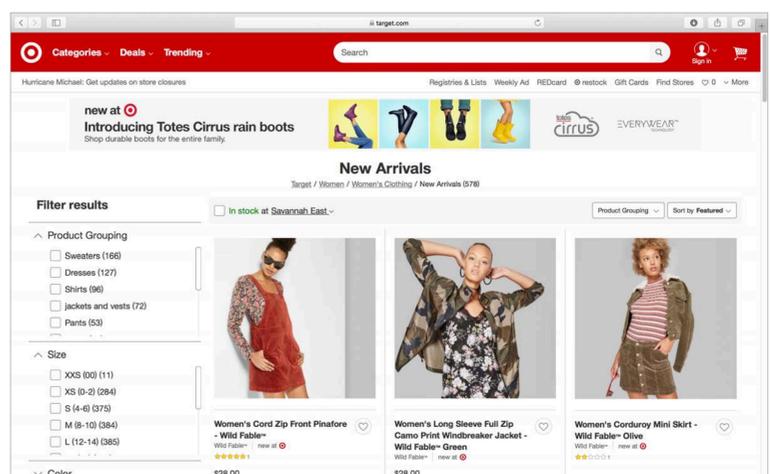
The path shows the location of the current page in the total information structure. **Each level of the hierarchy is labeled and functions as a link to that level.** The current page is marked in order to give the users feedback about where they are now and should not be a link. The path shows that a top-down path is traversed by using appropriate separators such as > or \ that suggest a downward motion. If the path becomes too long to fit in the designated place, some of the steps can be replaced by an ellipsis e.g. "...". The path is placed in a separate "bar" that preferably spans the entire width of the content area. It is placed close to the content area, preferably above the content area but below the page header.

**Don't use the current page name in the breadcrumb as the only way to show section title, add a title anyway. Usability testing has shown that breadcrumbs never cause trouble and that at least some people use them. So it is nearly always good to use them.**

# Examples



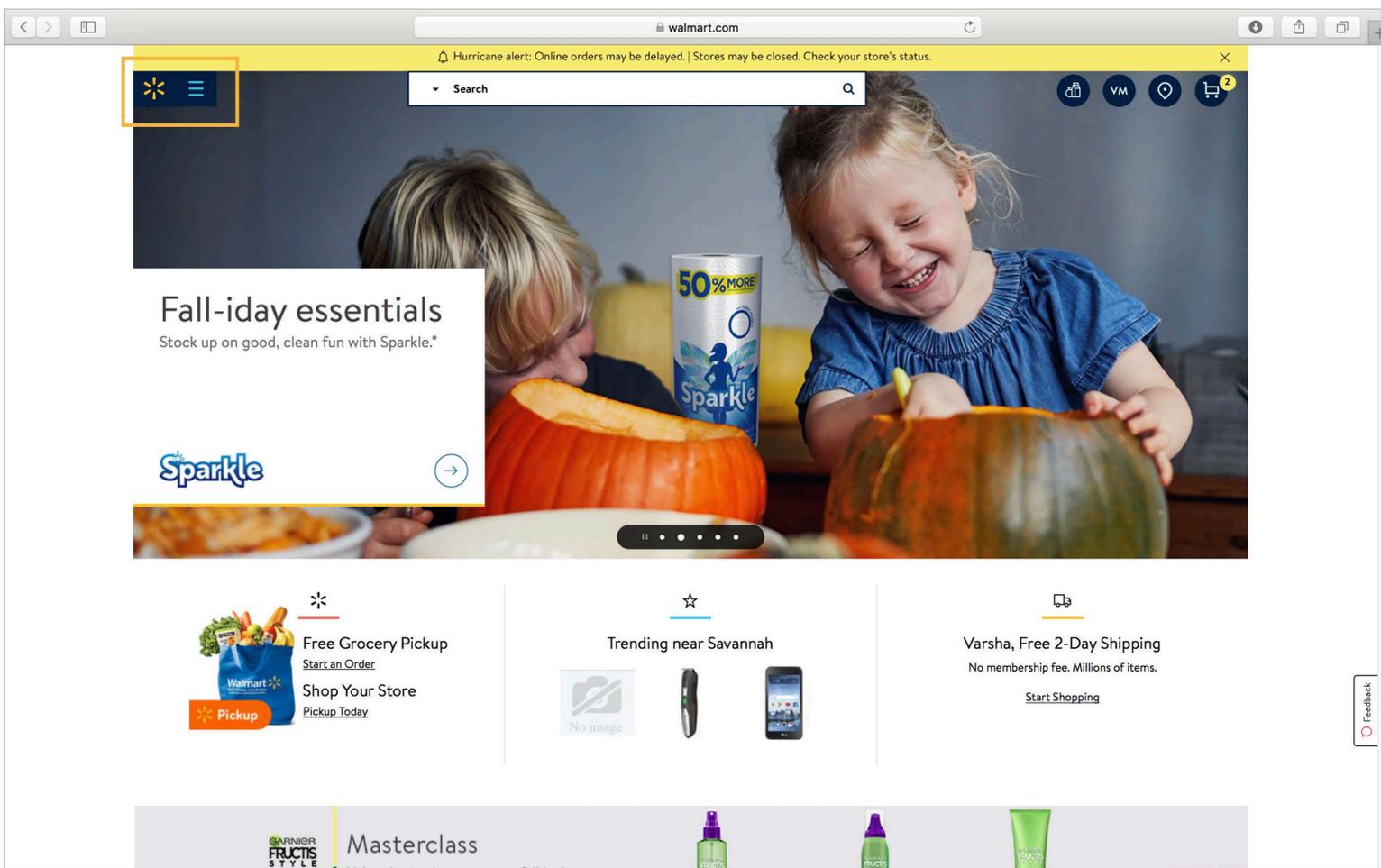
<https://www.rei.com/c/mens-running-jackets>



<https://www.target.com/c/new-arrivals/-/N-4ykw6>



# Home Link



## What

The user needs to go back to a safe start location of the site.

## Use When

Use when users frequently enter the website through a page other than the home page. The user needs to be able to **easily navigate to the starting point or front page of the website.**

## Why

It has become **a standard in webdesign, that the site's logo is always linked to a safe start location** for the user. Normally, this is the front page of the site, but it could also be the front page of a section in the site, or some other safe start location for the user.

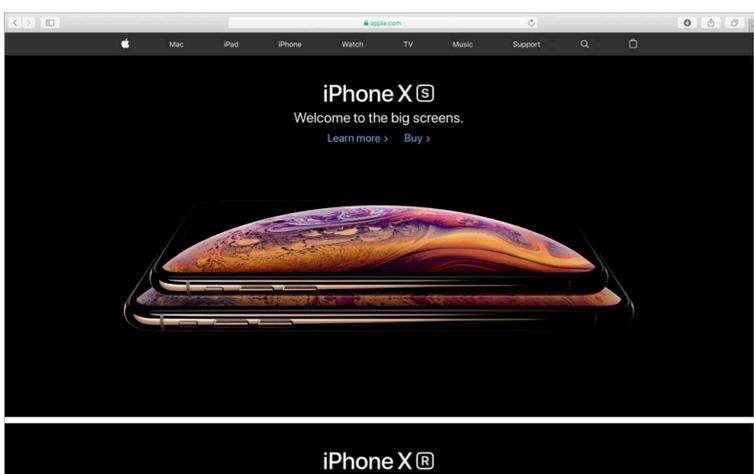
## How

Create a link to the starting point or front page of the website on the site's logo on every single page on the website. If the site does not have a logo, then create a link to the front page of the website with the text 'Home'. The link and/or linked images should always be in the same location on all pages. **If the website has more than one home, then be sure to make the distinction in linking between the root home and the local home.**

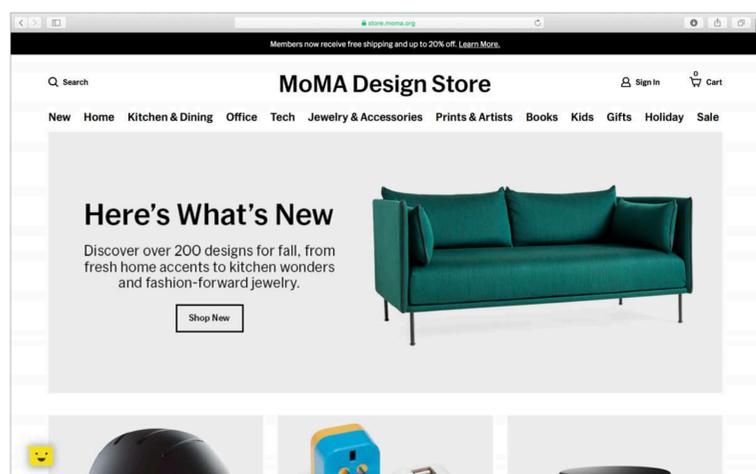
## Power of Control

Home link gives us a sense of power and in turn happiness. When we believe we are in control, we do not have to rationally analyze facts in order to make a decision. This helps us dive into the website deeply as back of our mind we know we can have a safe return at the start when we click on it. It drives us forward.

# Examples

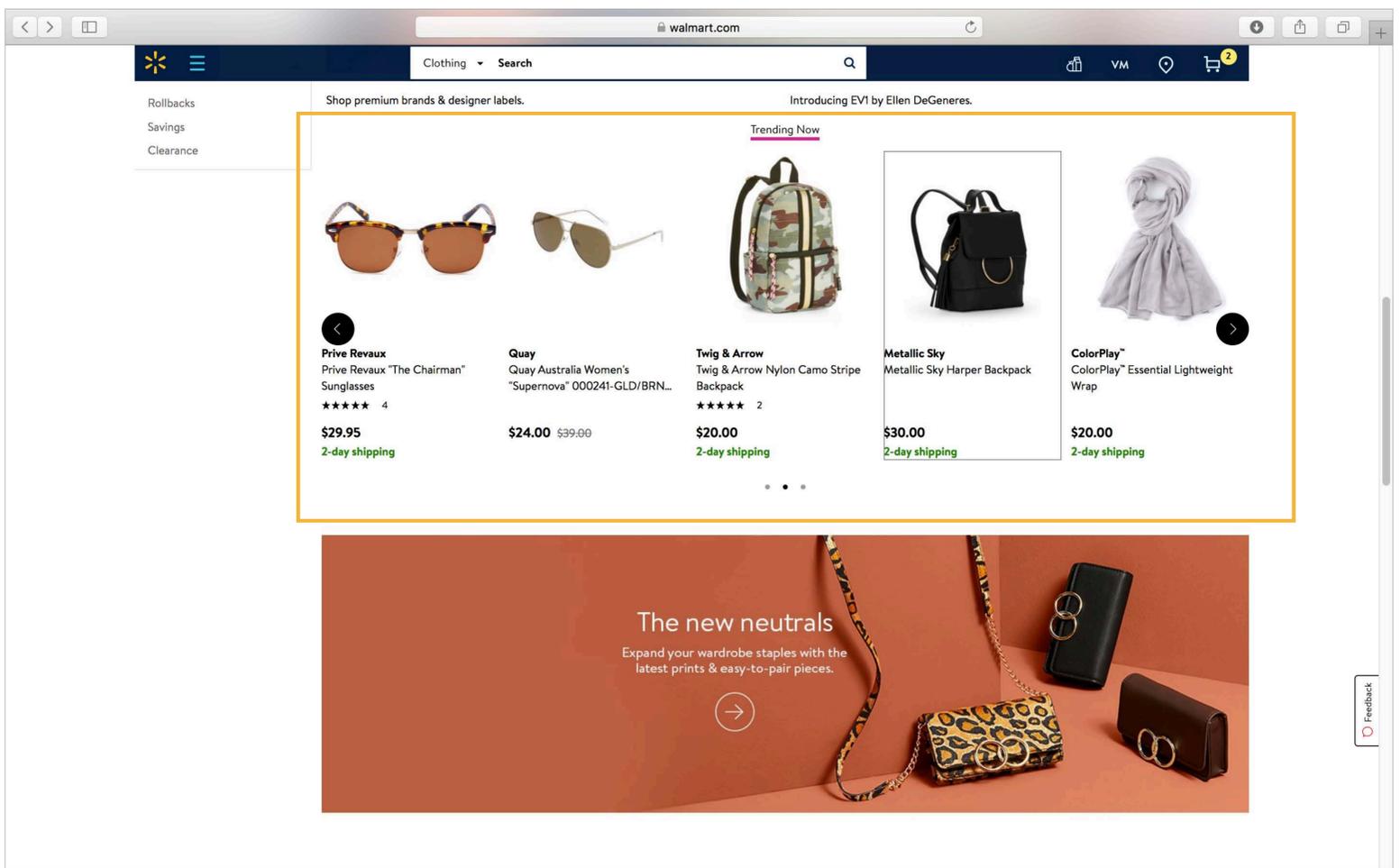


<https://www.apple.com>



<https://store.moma.org>

# Carousel



## What

The user needs to browse through a set of items and possibly select one of them.

## Use When

Use when you have a large set of items to show, but want to let the user concentrate his or her attention only on a select few items at a time. **Use when you want to tease the user by letting him or her know that there are more items available than what is currently shown.** Use when you do not have enough space to show all items at once. Use when you have highly visual items to display such as movie posters, album covers, products etc. Do not use when the items are non-visual such as links to text articles, PDF documents etc. **Do not use when the content linked to cannot be immediately identified by an image.**

## Why

A carousel optimizes screen space by displaying only a subset of images from a collection of images in a cyclic view. The navigational controls on a carousel suggests additional content that is not currently visible, this encourages the user to continue exploring. The carousel pattern can in this way be used as an extra incentive for the user to browse through all items of the list, as **we as humans do not feel comfortable by not being aware of the "full picture"**. As the carousel is circular, the start of the list will be shown after the user has reached the end. This behavior encourages the user to continue browsing through the list.

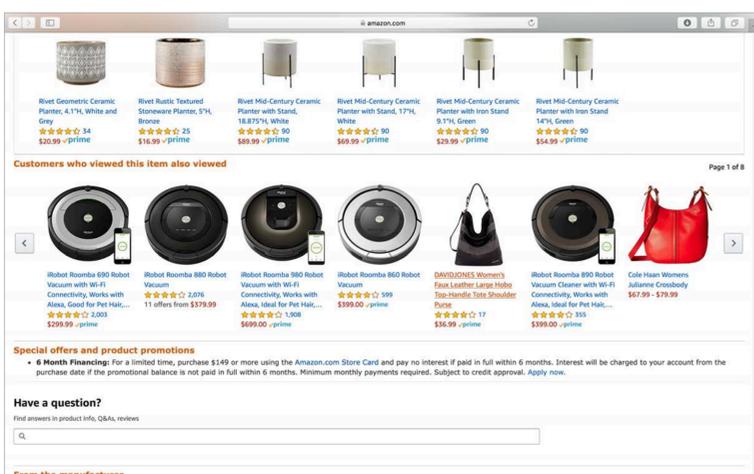
## How

Arrange a set of items on a horizontal line where each item preferably has an thumbnail image attached (or the item is only represented by the image). Even though the list of items is long, only 3-8 images are shown at the same time. **If the user wants to view the rest of the items on the list, he or she must click one of the navigational controls such as an arrows pointing either left/right or up/down.** Once one of the arrow is clicked, the subsequent "view" is loaded, a transitional animation moves the requested item into focus.

The user in this pattern browse the list of items back and forth in a circular fashion – hence the name Carousel.

Like menus and accordions, carousels have an important advantage on mobile: they fit a lot of content into a relatively small footprint. Their second big plus is that they may solve content-priority quarrels within the organization by allowing everybody to make their mark on the main screen (even though it often turns into an invisible mark).

# Examples

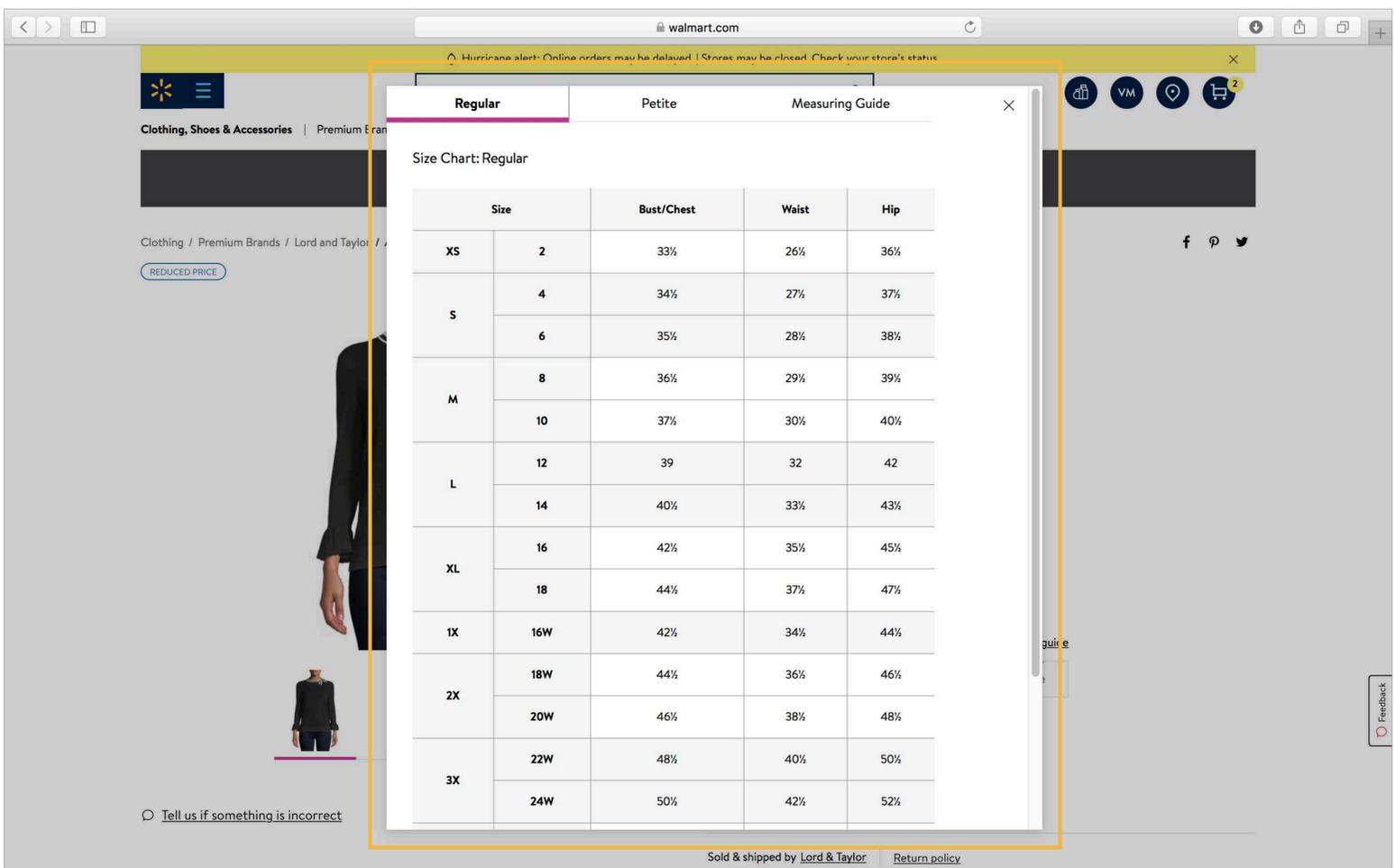


https://www.amazon.com



http://www.publix.com/products-services

# Progressive Disclosure



## What

The user wants to focus on the task at hand with as few distractions as possible while still being able to dig deeper in details if necessary.

## Use When

Use when you want to **reduce feelings of being overwhelmed**.

## Why

Maintain the focus and attention of users by reducing clutter, confusion, and cognitive workload. Ramp up the experience, moving from simple to complex, from abstract to specific. Progressive Disclosure defers advanced or rarely used features to a secondary screen, reducing cognitive load on the current task at hand. **This will help making your application easier to learn and less error-prone due to fewer distractions. By showing only the information or features relevant to the user's current activity and delaying other information until it is requested, the user can focus on the main task at hand.** By hiding more complex or infrequently used, the interface is de-cluttered; by revealing them only as they are needed, you help users perform a complex, multi-step process on a single page<sup>2</sup>. You want to show only essential information in the first step, but still invite to take the next. When a user completes a step, reveal information needed for the next step, keeping all previous steps visible. By keeping previous steps visible, you allow users to change what has been entered. Like in a Wizard, data entered in the current step can affect the behavior of the next.

## How

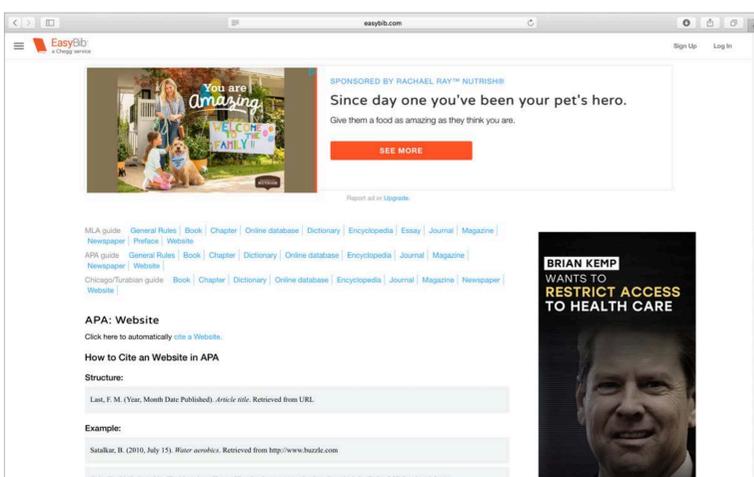
Present only the minimum data required for the task at hand. **Move complex and less frequently used options out of the main interface.** Reveal only essential information and help manage complexity by disclosing information and options progressively. Examples of Progressive Disclosure are plentiful. **A simple "Show more" link, revealing more information about something, is one of the simplest forms of Progressive Disclosure.**

## Similar to Wizard Pattern

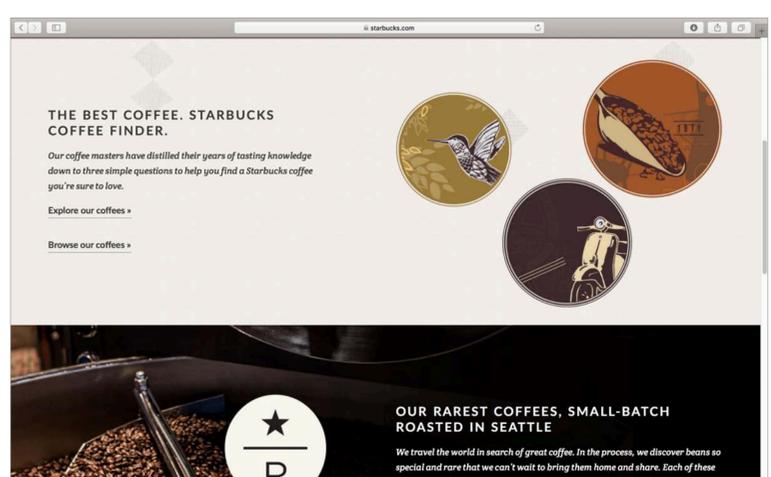
The user wants to achieve a single goal which can be broken down into dependable sub-tasks.

**The principle is used in journalism's inverted pyramid style, learning's spiral approach, and the game twenty questions.**

# Examples

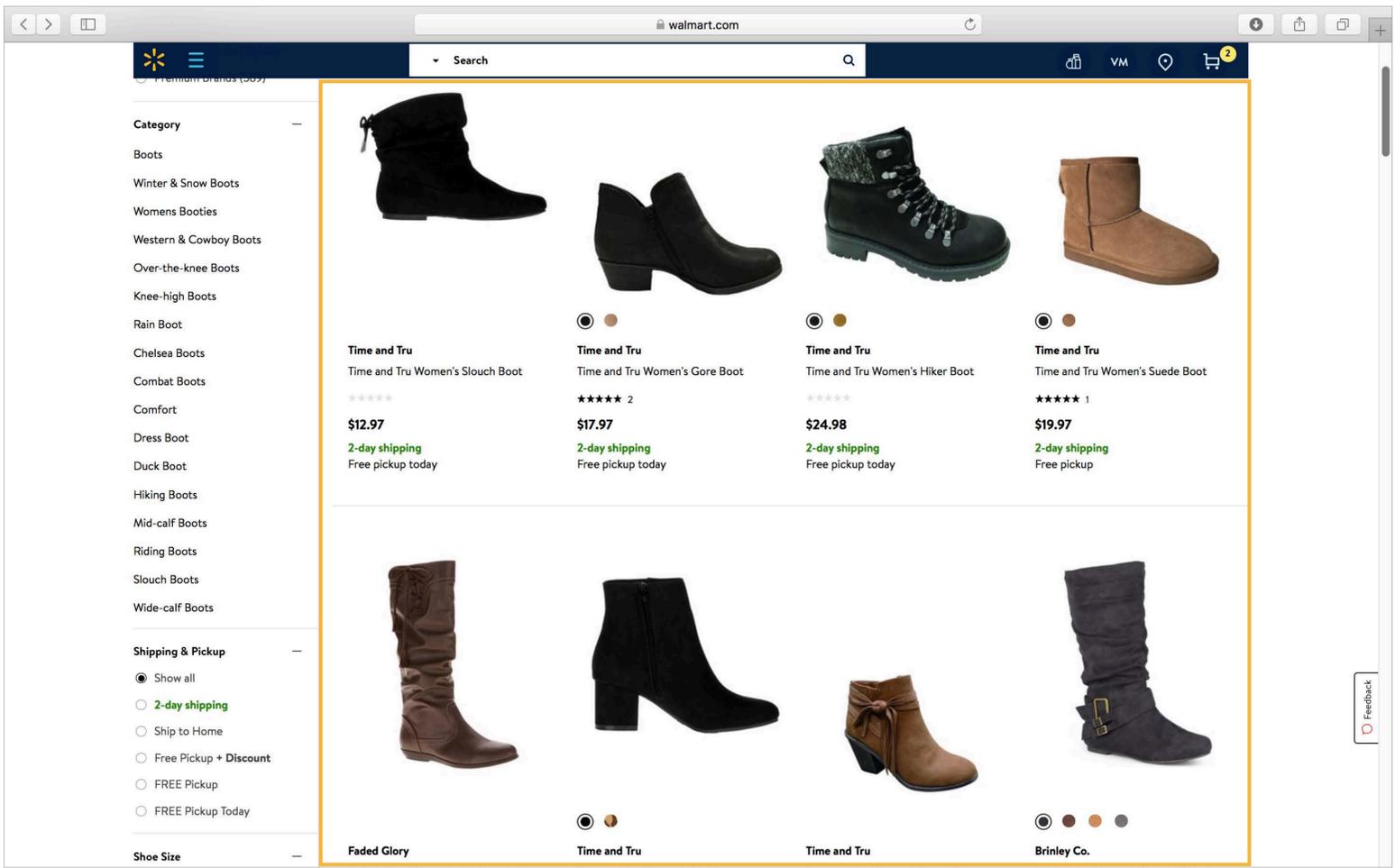


<http://www.easybib.com/reference/guide/apa/website>



<https://www.starbucks.com/coffee>

# Thumbnail



## What

The user needs to get an overview of multiple pictures without having to download each of the full size images.

## Use When

Use when you have a collection of images that you want to present to the user. Use when downloading full-size versions of all of the images you want to present to the user will both take up much bandwidth but will also take a long time for the user to download. **Use when you want to allow the user to browse quickly through a collection of images.** Use when you want to give the user an impression of an image, movie or page before he or she decides to download the original.

It can motivate engagement, invitations, quality, or whatever behavior User like.

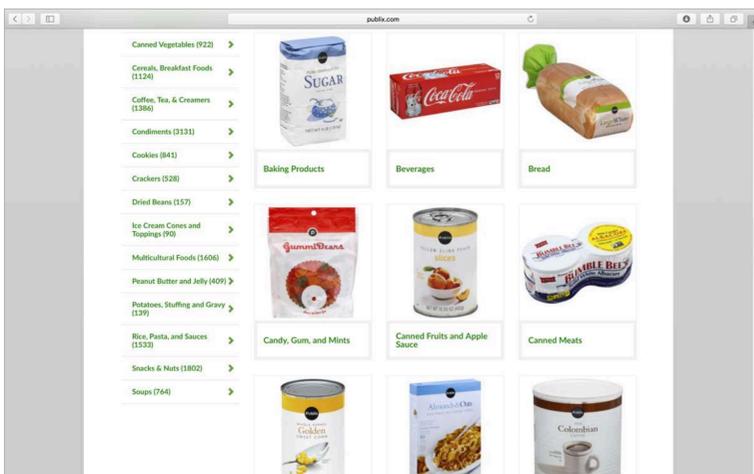
## Why

Using thumbnails provides the user with an overview of several images or movies in the space of one web page. Furthermore, thumbnails save bandwidth as the user does not have to click through all images to find the one he or she is looking for, but can be guided by the previews provided by the thumbnails.

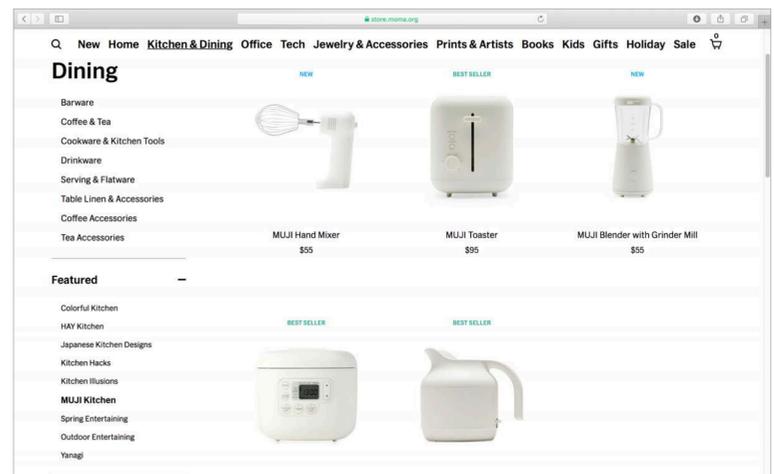
## How

A thumbnail is a miniature version of a larger picture. The thumbnail can illustrate anything graphical: a picture, movie or even a screenshot of a webpage. The dimensions (width and height) of multiple thumbnails appearing next to each other are the exact same. In order to preserve the same proportions in the thumbnail image as were found in the original image, both resizing and cropping is part of the image manipulation process.

# Examples

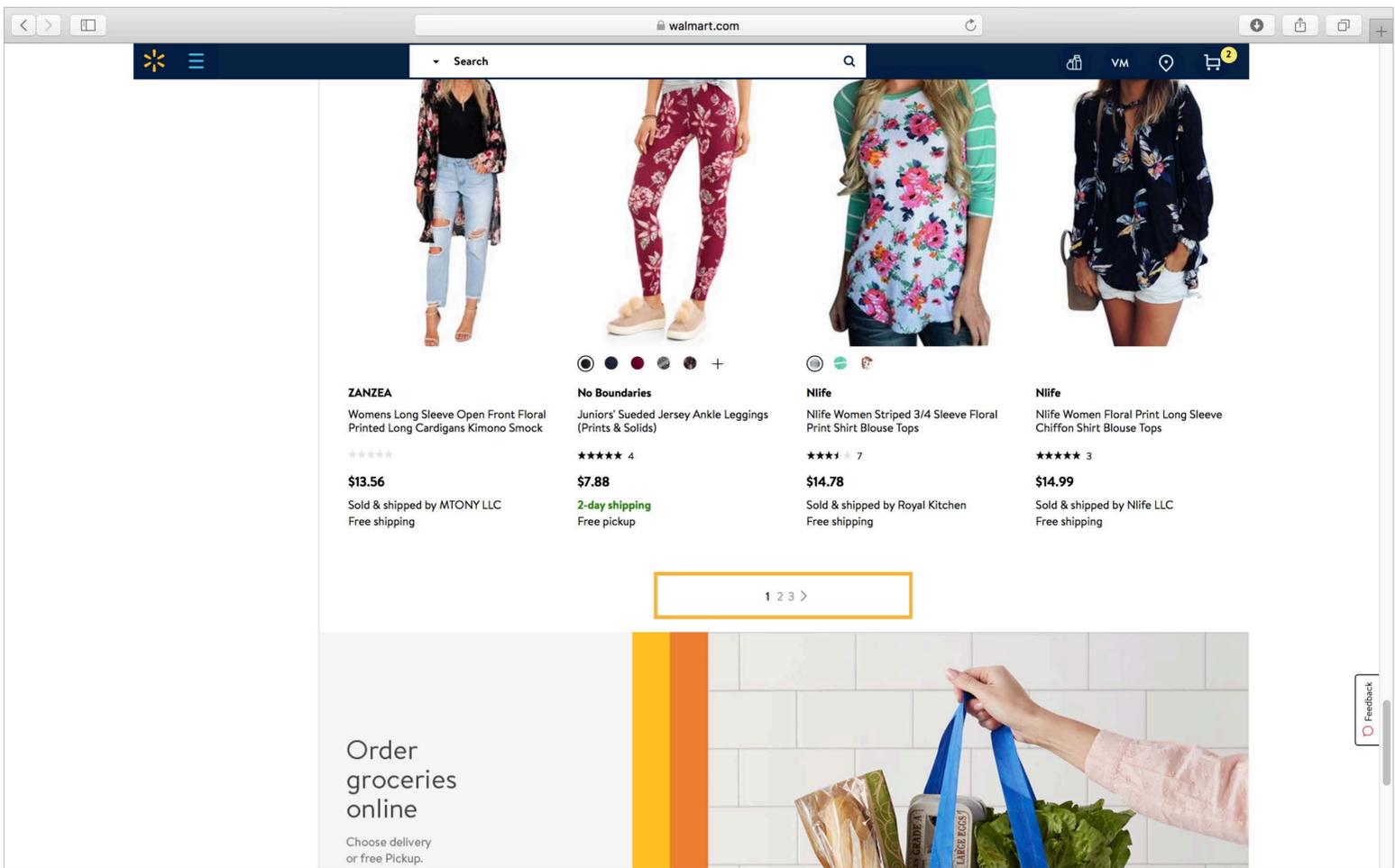


<http://www.publix.com/all-products/grocery>



<https://store.moma.org/kitchen-dining/featured/muji-kitchen>

# Pagination



## What

The user needs to view a subset of sorted data in a comprehensible form.

## Use When

Use when it is unsuitable to display all the data on a single page/screen. Use when the dataset is in some way ordered. Do not use when you don't want the user to pause for navigating to the next page.

## Why

Reduce perceived complexity by parting large datasets into smaller chunks that are more manageable for the user. Significant technical performance can be achieved by only having to return subsets of the overall data. First and foremost, pagination parts large datasets into smaller bits that are manageable for the user to read and cope with. Secondly, pagination controls conveys information to the user about, how big the dataset is, and how much is left to read or view and how much have they already viewed. **Pagination provides the user with a natural break from reading or scanning the contents of the dataset, and allows them to re-evaluate whether they wish to continue looking through more data, or navigate away from the page.** This is also why pagination controls are most often placed below the list: to provide the user with an option to continue reading through the larger dataset.

## How

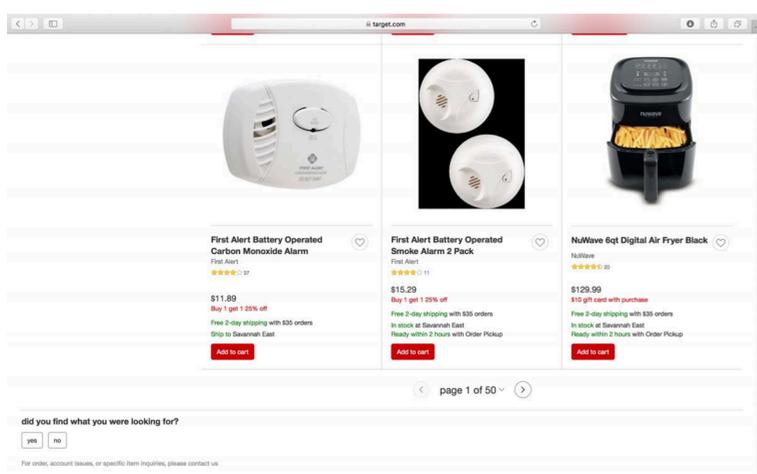
Break a complete dataset into smaller sequential parts and provide separate links to each. Provide pagination control to browse from page to page. Let the user browse to the previous and next pages by providing links to such actions. **Also, provide links to the absolute start and end of the dataset (first and last).** If the dataset has a known size then show a link to the last page. If the dataset's size is variable then do not show a link to the last page.

## Google has the best Pagination

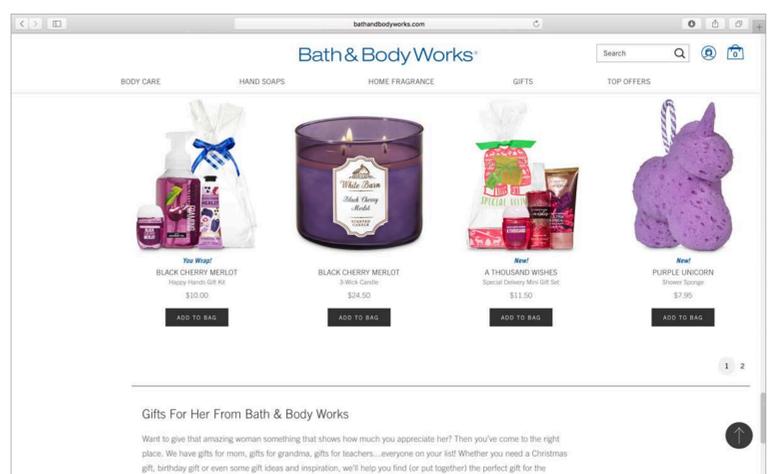
Pagination works in pages that are information heavy, have complex architecture or have to be kept brief. For example, Google uses pagination on their Search results so that users can choose how deep into results they want to go; they use infinite scroll on image results because users generally get caught up in browsing and are less intent on finding a specific, 100% match to their query.

**It can motivate engagement, invitations, quality, or whatever behavior User like.**

# Examples



<https://www.target.com/c/home-sale/-/N-4u97i>



<http://www.bathandbodyworks.com/c/gifts/gifts-for-her>

# GETTING INPUT

# Login

## What

The users need to identify themselves so that stored data about/of them can be used in the process they are in. When needed, ask **the users to login using a combination of an email-address and a password.**

## Use When

When users **frequently return to a site that uses large amounts of data about or belonging to the users, it is convenient to have users enter that information once and use it again for future visits to the site.** Usually the information that is stored is personal information and can include name, age, gender, shipping addresses, stock portfolio, bank account numbers and credit card numbers. In order to be able to access their data, users must complete their Registration first. For many site types it can be convenient to store information of/about visitor. Often these are E-commerce Site, Community Site or Web-based Application such as electronic banking applications.

## Why

Users do not like to be bothered with login procedures. Only if they believe they have a reason to return frequently and the benefits of registering are clear, they will actually register. Even so, they should only be asked to do so when it is absolutely necessary. This also **facilitates browsing and exploring the site without commitments.** Using a combination of the email address as the username and password makes it possible to email users their password when they lose it, and relieves them from remembering again another login name.

## How

The login screen usually starts with a statement that the user needs to log in, **including a solid reason that should motivate the user to do so.** If that statement requires elaboration, provide a link to a help text. Then the username and password fields are shown. Users can use the TAB key to go from the username field to the password field and press ENTER instead of selecting the "Log in" button. A link to help users who have forgotten their password must be displayed directly under the password field.

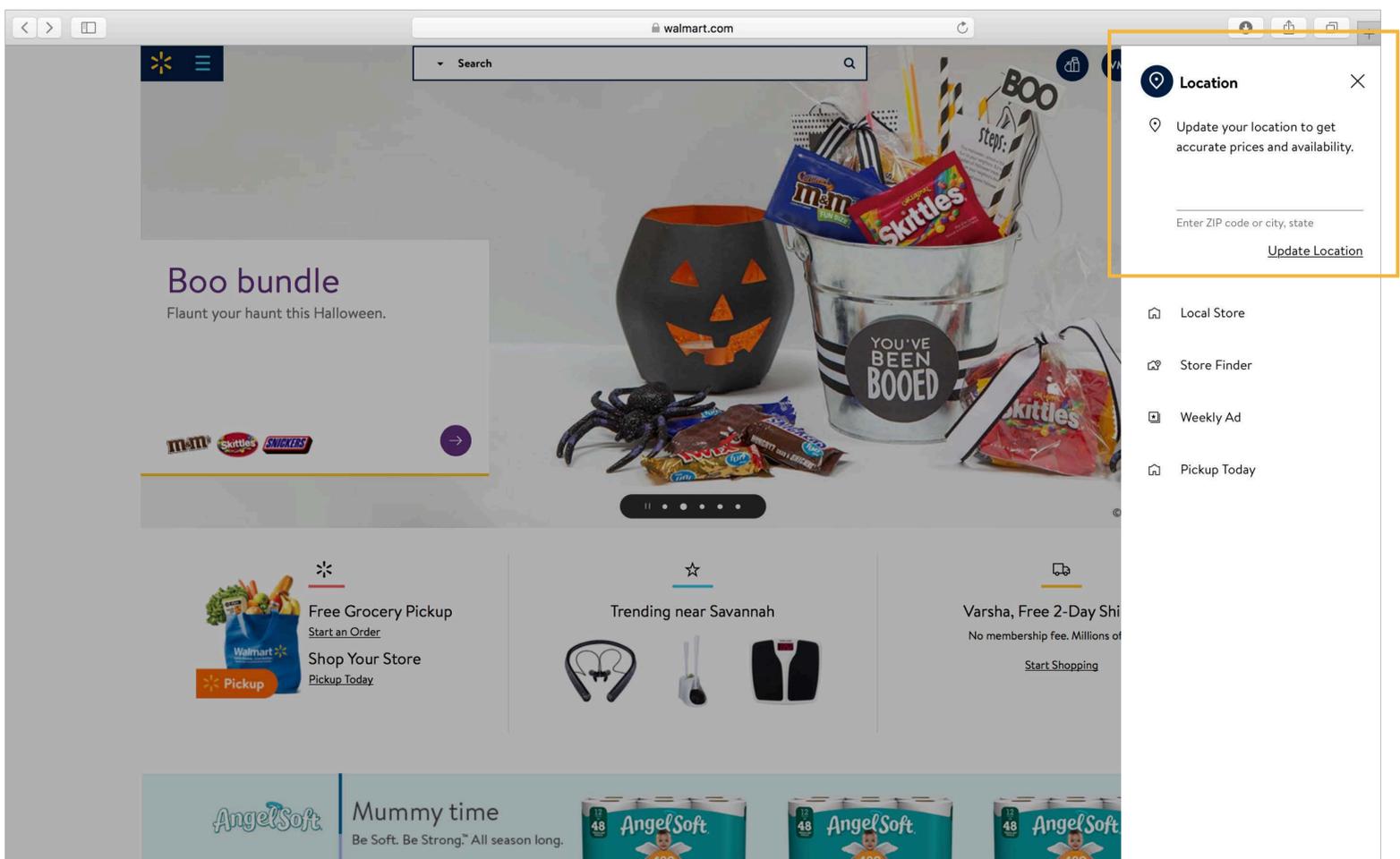
## Security

It gives user secure user management options.

# Examples



# Forgiving Format



## What

The user needs to quickly enter data into the system, which then in turn **interprets the user's input**.

## Use When

Use when the more explicit select boxes, radio buttons, and checkboxes make entering data a too complicated process for the user to engage with the system. Use when the time it takes to complete a task proportional exceeds the importance of the goal the user wants to accomplish. Use when the input you want to collect is relates to one topic. **For instance a physical location** or an event with a given start time. Use when the expected user input can be somewhat easily interpreted by a computer program. Do not use when the user can possibly ask or input anything. **Only use for a narrowly defined purpose.**

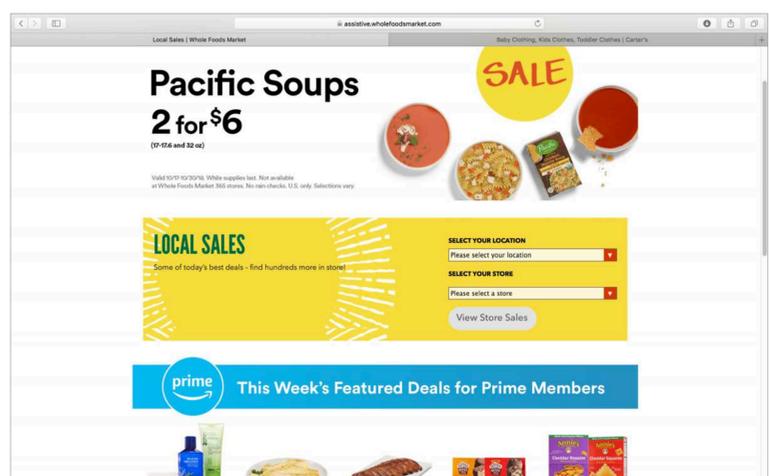
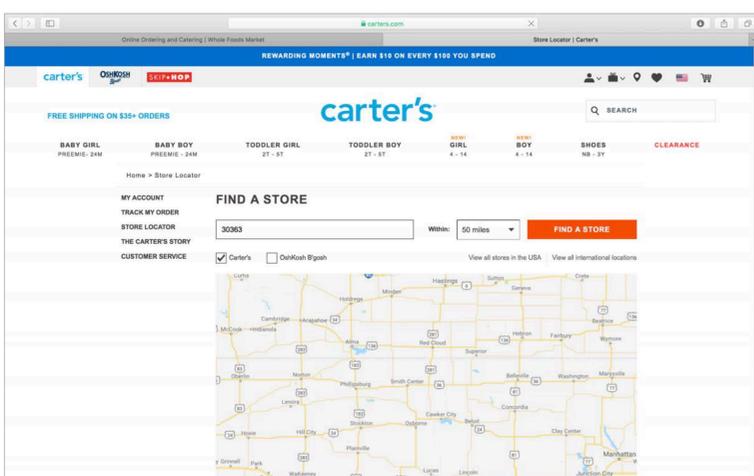
## Why

Using the forgiving format **pattern saves space and decreases the barrier for the user to interact with the system**. Depending on how widely defined the input topic is, it can be increasingly hard for the backend program to interpret the input field. The success of this pattern has much to do with how information requested – how the user is prompted..

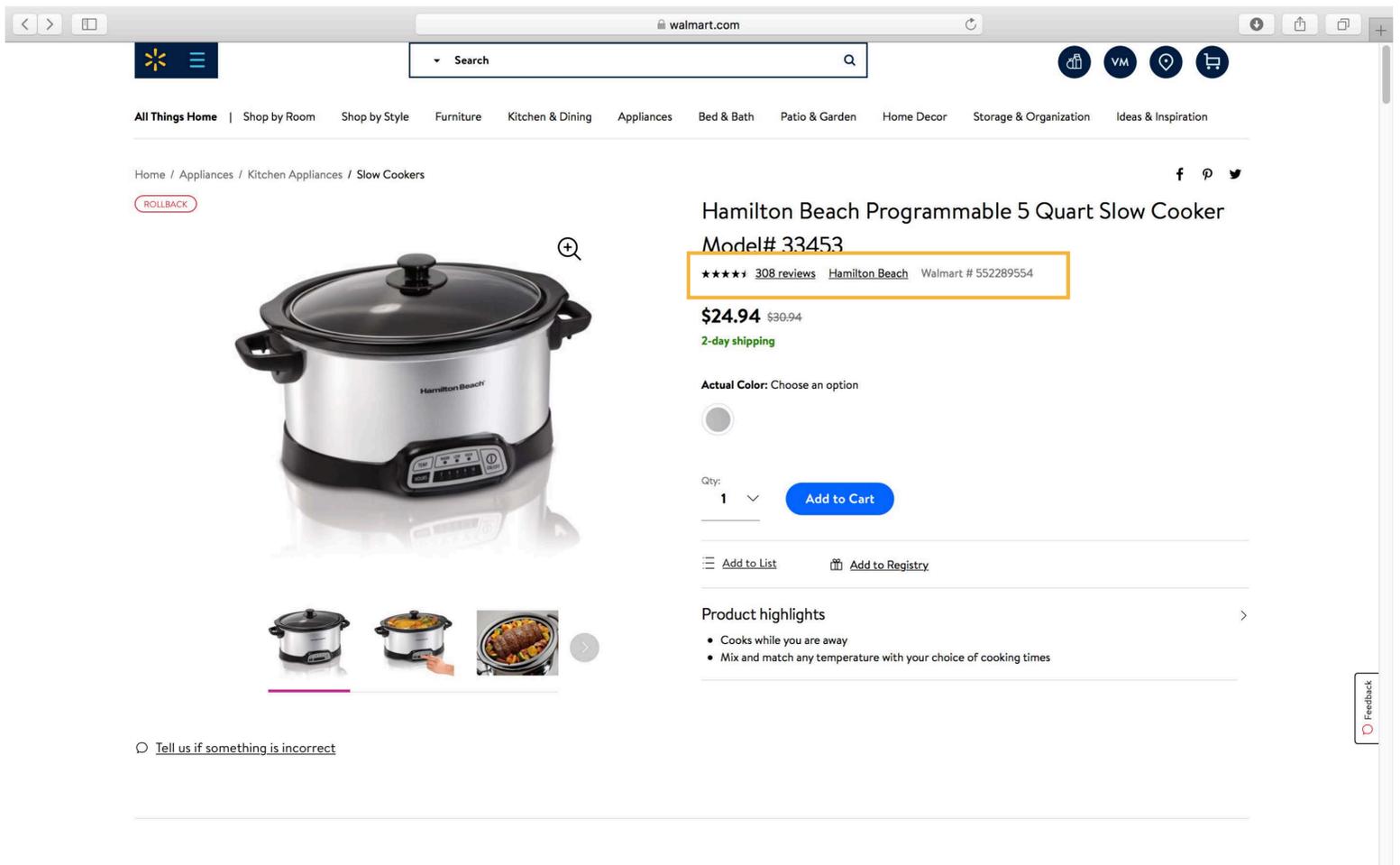
## How

Allow users to enter text in their own format and syntax, and let the system interpret it intelligently. Let users focus on getting things done rather than typing in things correctly. **Lower the barrier for users to interact by allowing a broad spectrum of formats and syntaxes to be inputted.** Consider nudging users to provide more easily interpreted information by paying attention to how you ask for input. Transfer the problem inputting data from a user interface problem to a programming problem. Behind the scenes, an interpreter checks for different word patterns, and converts them into a formatted value.

# Examples



# Rate Content



## What

The user wants to promote a specific piece of content in order to **democratically help decide what content is of higher quality.**

## Use When

**Use when you want a mechanism to handle risk for your users: is an item of content worthwhile spending time and/or money on.** Use when you want your users' help to democratically decide what content is of higher quality. Use when you want to let the voice of your users guide other users in what is good and bad. Use when your website has a large user-base. Use when you feel that you can trust your users' subjective opinion on which items are of higher quality than others. Do not use when your website has a small community. A large user base and a strong community is important for enough votes to be generated and in turn for comparison between items to render meaningful.

## Why

The Rate Content pattern promotes community participation and can assist you in separating good quality content from bad quality content. **This is especially useful when your website relies on user submitted content.**

## How

Let users rate content in order to democratically help decide **what is of higher quality.** User ratings act as a mechanism to handle risk for your users: is something worthwhile to spend time or money on? Promote community participation by letting users democratically decide what is of higher quality. Consider accompanying quantitative ratings with qualitative comments or reviews. The pattern consists of a number of mechanisms that work together like Voting mechanism, Display the average rating an item has received, Display explanatory comments from users rating an item, Show the highest rated items, Favor quality items and Related items.

## PERSUASIVE DESIGN PATTERN

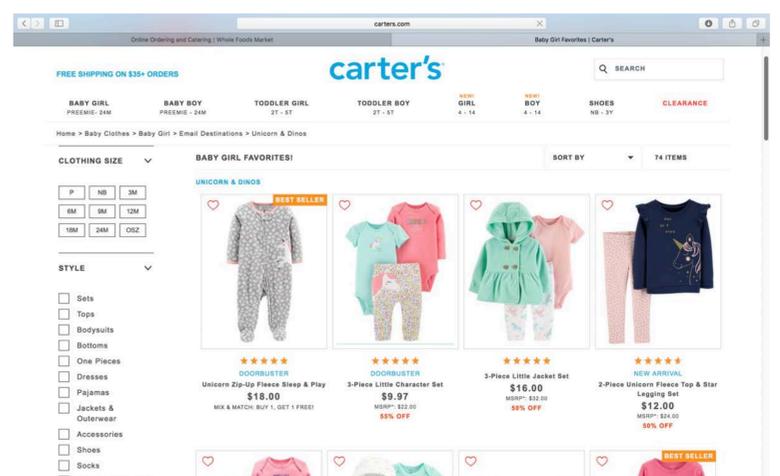
### Social proof

Use to assure visitors of that your product is well respected and frequently used by their similar others. It establish trust.

### Feedback loops

Communicate how user actions modify subsequent results

# Examples



# DEALING WITH DATA

# Table Filter or Sort By

The screenshot shows the Walmart website interface for music albums. At the top, there's a search bar and navigation icons. Below the search bar, the page title is 'Garnier Fructis Sleek & Shine' with a 'Shop now' button. The main content area displays a grid of music albums. A 'Sort by' dropdown menu is open, showing options: 'Best Sellers', 'Price: low to high', 'Price: high to low', 'Highest Rating', and 'New'. The album covers shown include 'Dancing Queen', 'Bob Seger - Icon Series: Bob Seger & The Silver Bull...', 'Love Yourself: Answer', 'Guardians Of The Galaxy: Awesome Mix, Vol. 1 Soundtr...', 'REPUTATION', 'Chris Stapleton - Traveller (CD)', 'Tha Carter V (2 CD)', 'Guns N' Roses - Greatest Hits (CD)', 'Vault: Greatest Hits', and 'Desperate Man (CD)'. Each album cover includes its title, artist, star rating, and price.

## What

The user needs to categorically filter the data displayed in tables by the columns.

## Use When

Use when you have a very large data set of results that is too large to show in one page. **Use when one or more table columns can easily be summarized into categories to filter by.**

## Why

Adding filters to your tables lets the user reduce the amount of items shown. **Filters help narrow down search results, letting the user find more accurate results.**

## How

Provide dropdown inputs that present the categories by which the user can filter the data set by. Once the user selects a category and clicks "Filter" or something similar (when the user submits the form), only the row that belong to the selected category are displayed. **Optionally, multiple filters can be added.** If this solution is chosen, you must be aware to update the categories of each dropdown box accordingly when one category is selected – as the selecting values in one category might reduce the options left in another.

The pattern provides an easy way to organize and compare data in a table. Furthermore, the pattern is also well known from desktop applications dealing with rows of data.

# Examples

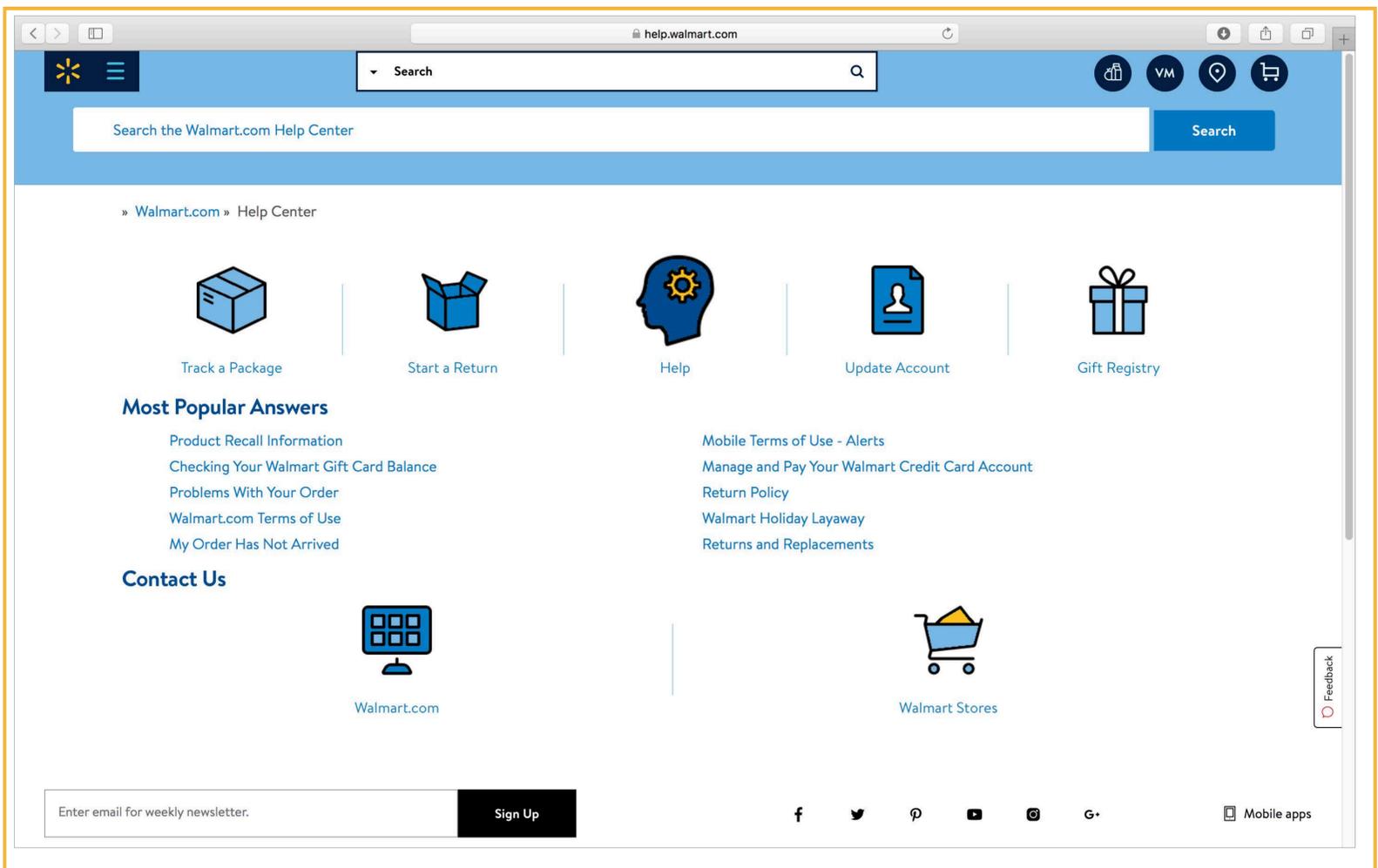
The screenshot shows the Airbnb search interface. It features a search form with the following fields: 'WHERE' (Anywhere), 'CHECK IN' (mm/dd/yyyy), 'CHECK OUT' (mm/dd/yyyy), and 'GUESTS' (1 guest). The 'GUESTS' section is expanded to show a breakdown: Adults (1), Children (0), and Infants (0). The background shows a scenic view of a wooden tower in a forest.

<https://www.airbnb.com>

The screenshot shows the Nature website search results page. It features a search bar, a navigation menu, and a grid of research articles. A 'All Subjects' dropdown menu is open, showing a list of subjects: 'All Subjects', 'Biotechnology', 'Bioinformatics', 'Biophysics', 'Biochemistry', 'Cell biology', 'Chemical biology', 'Computational biology and bioinformatics', 'Developmental biology', 'Drug discovery', 'Ecology', 'Evolution', 'Genetics', 'Immunology', 'Microbiology', 'Neuroscience', 'Physiology', 'Plant sciences', 'Psychology', 'Stem cells', 'Structural biology', 'Systems biology', and 'Zoology'. The background shows a scenic view of a forest.

<https://www.nature.com>

# Frequently Asked Questions (FAQ)



## What

The user has questions concerning a site and its related services.

## Use When

Use when users typically has the same concerns and questions about a service. **Use to collect answers to common questions from your support department or other type of feedback mechanism.**

## Why

Focus on information. When it comes to FAQ pages, your ultimate goal is to let users find the information they are looking for as easily and quickly as possible. Your main design goal is to present its content in the most efficient and effective way possible. **Information comes first – don't let design decisions overshadow content..**

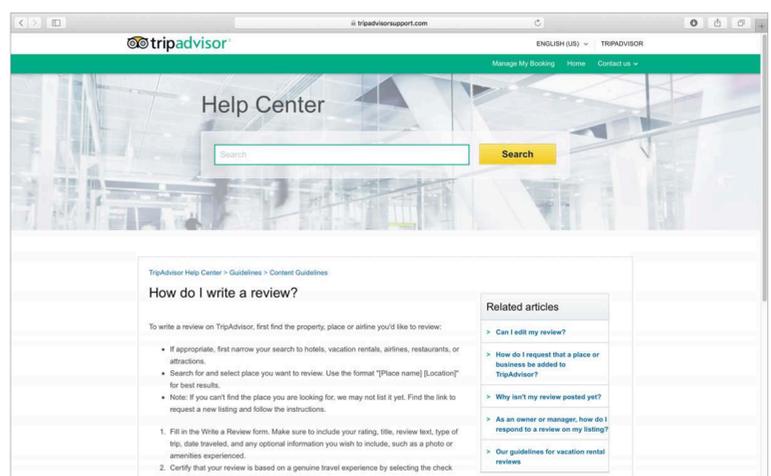
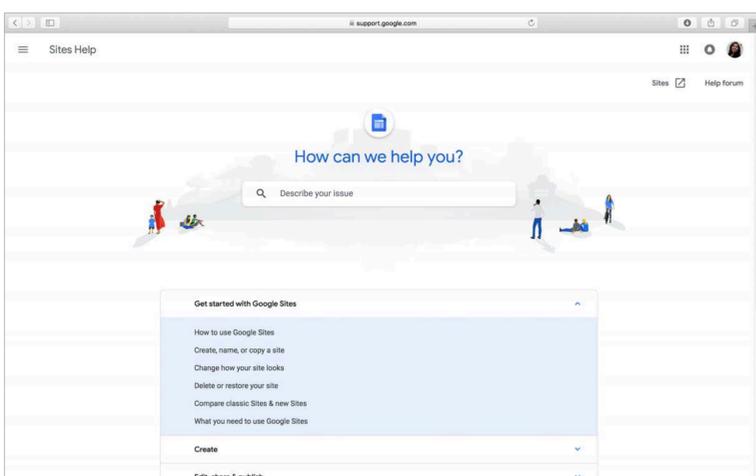
## How

The longer your FAQ page is, the more attention you need toward making it easy for users to find the answers they are looking for. There are several tools available: **Organize questions in categories.** The categories you choose is up to you, however, your goal should be to make it easier for users to find the information they are looking for. Make them logical and without too many questions within them. Consider finding the right categorization through card-sorting. **Let users search questions.** Allowing users to search questions will help users browse through possibly hundreds of questions fast. However, the words your users choose might not be the ones you chose yourself. Browse through the search log of your FAQ page to discover with what words your users think and what wording it makes sense for you to use yourself. **Prioritize the most frequently asked questions first.** A 80/20 rule typically applies to FAQs: 80% of queries can be answered by 20% of your documented answers.

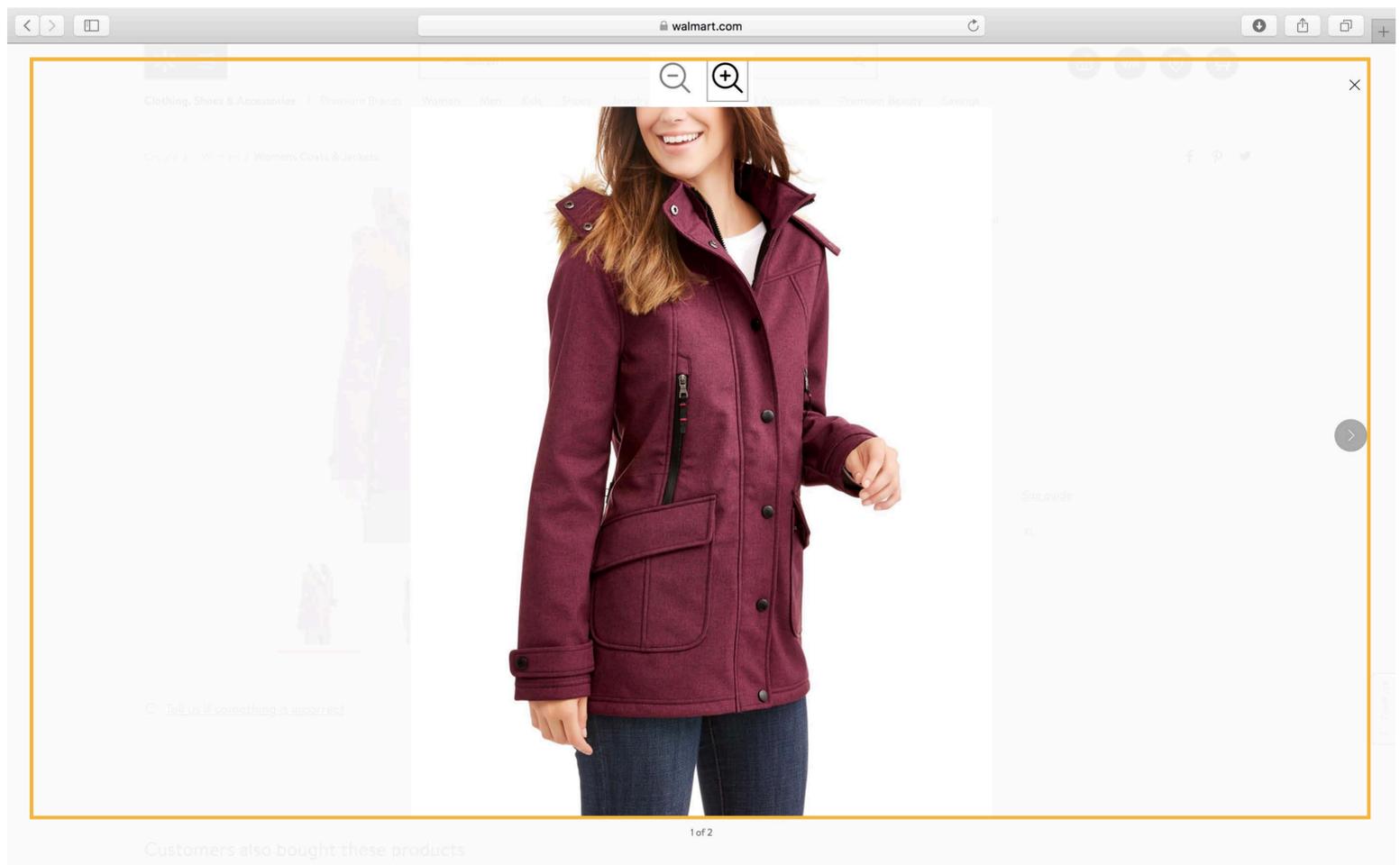
## Card sorting

A good tool to help you find a user-centered categorization is through card sorting<sup>2</sup>. Card sorting will help design and evaluate your information architecture by letting users organize topics into categories that makes sense for them as well as labelling them.

# Examples



# Image Zoom



## What

The user wants to zoom in on an image to view the details in a higher image resolution.

## Use When

Use when the normal image size displayed is not in high enough resolution to for the user to grasp the details in the image. Use when downloading full-sized and detailed versions of a all images takes up more bandwidth than you're interested in sharing. **Use when showing a full-sized and detailed version of an image does not fit into the website's design.** Use when showing a full-sized and detailed version of an image will prevent the user from getting an overview of the picture. Use when downloading a full-sized and detailed version of every image will take a disproportionate amount of download time for the user compared to the provided value. Only show images in high resolution when they are requested as all images might not be of equal interested to the user.

## Why

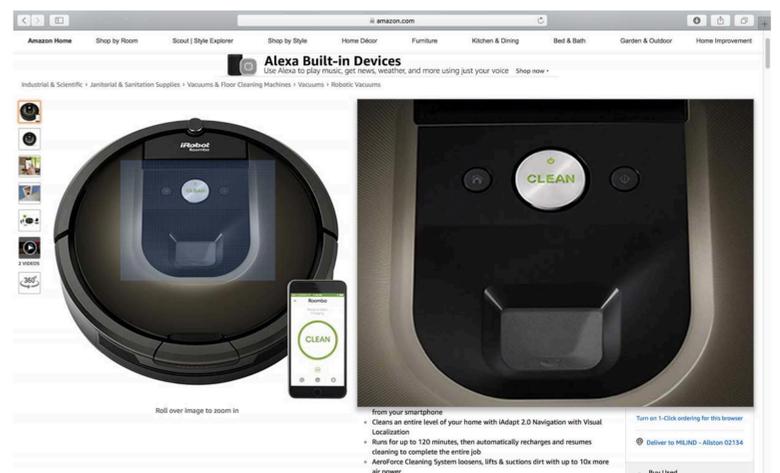
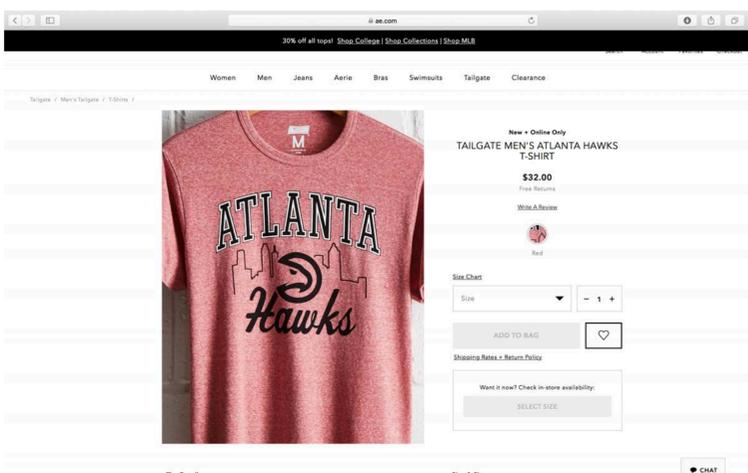
**Allowing the user to zoom in on an image permits exploration of the image's details.** Depending on the zoom factor, showing the entire high resolution image from the beginning will not provide the user with an overview of the entire image thus removing the context of the details viewed. By providing a zoom functionality, a user can zoom into just one area of the image that he or she is interested in. In this way, the user is not bothered by the other details.

## How

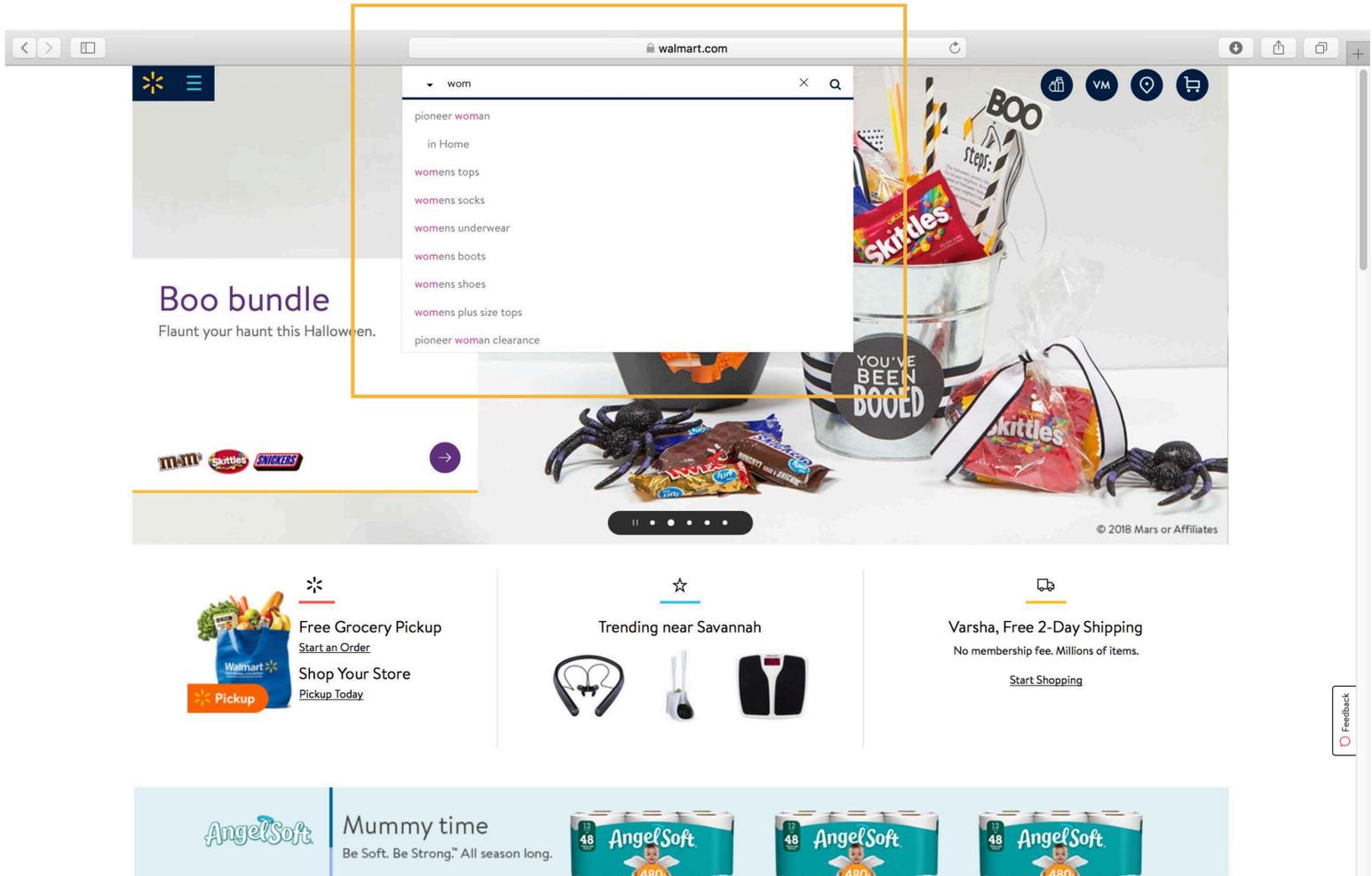
Provide a mechanism that allows the user to zoom an image to view its details. **From a server point of view, an important goal is not to pre-load high resolution images before they are requested.** This will help save bandwidth. An intuitive way of doing this is to allow the user to click a spot on a given image. As the user clicks the image to zoom, a higher resolution image is preloaded. Provide graphics or text about zooming in on the image; a bare image will not suggest zoom functionality to the user in itself.

Another way is to MagicMagnify zoom function shows a zoomed-in version of an image in a circle where your mouse cursor is hovering the original image. The effect enhances the feeling of exploring the details of a product.

# Examples



# Autocomplete



## What

The user needs recognition aided search when performing search tasks that are difficult to remember or easily mistyped.

## Use When

**Use to assist with ambiguity-issues, when an item can be entered in multiple ways.** Use when the type of information entered can readily be matched with a specific piece of information in the system. E.g. A user may not recall how to spell "Amorphous" but is able to input the first 3 letters and find the word from the autocomplete list. Use when autocomplete suggestions can be pulled from a set of data that is manageable in size. Use when input speed is an important goal. Use when input accuracy is an important goal. Use when the number of items would be too large or inconvenient to display in a standard drop down box. Do not use if you want to provide the user an overview of all options available.

## Why

**The Autocomplete pattern allows faster input, reduces the number of keystrokes needed, prevents typing errors, and provides feedback on the validity of what is being entered.** It also allows designers to include longer lists for users to choose from without taking up extra screen real estate. Autocompletion and search suggestions save the user keystrokes by matching a user's query with potential matches that are displayed as the query is being typed.

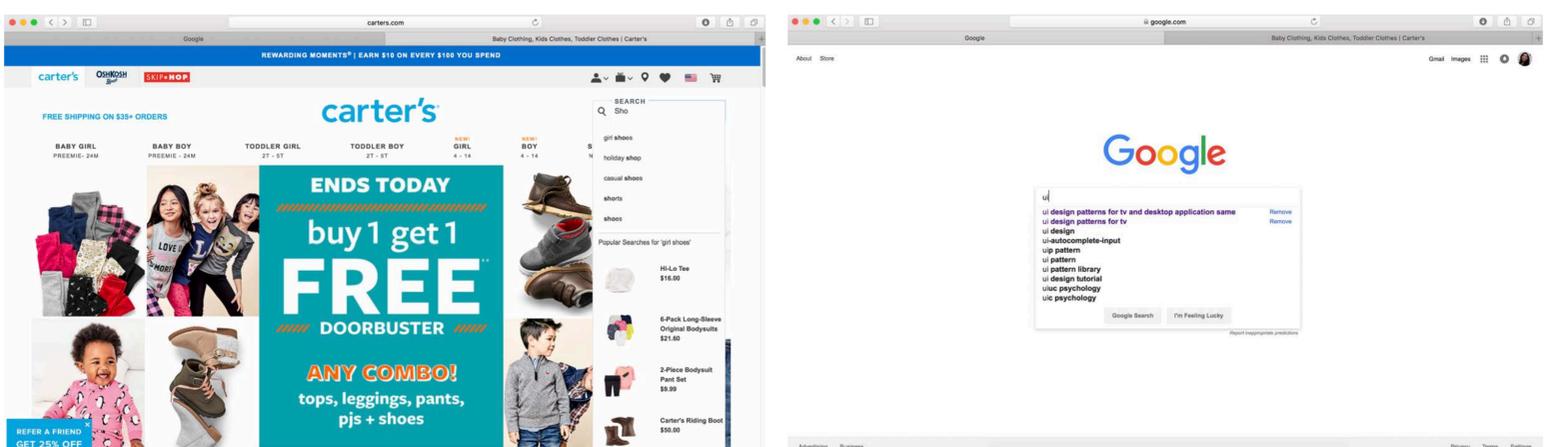
## How

Suggest possible matches for a search as users are typing. **The Autocomplete pattern is a predictive, recognition based mechanism used to assist users when searching.** An autocomplete search field presents items which match the users input as they type. As the user types in more text into the search field, the list of matching items is narrowed down. The list of matching items must allow users to select items using input devices such as keyboard arrow navigation, touch and mouse click. This allows the user to quickly select the term without having to type out the entire term. The patterns name comes from the notion that the system completes your search. Limit the number of matching items to display when working with large dataset. A standard limit is 10 matching items.

## People are task focused

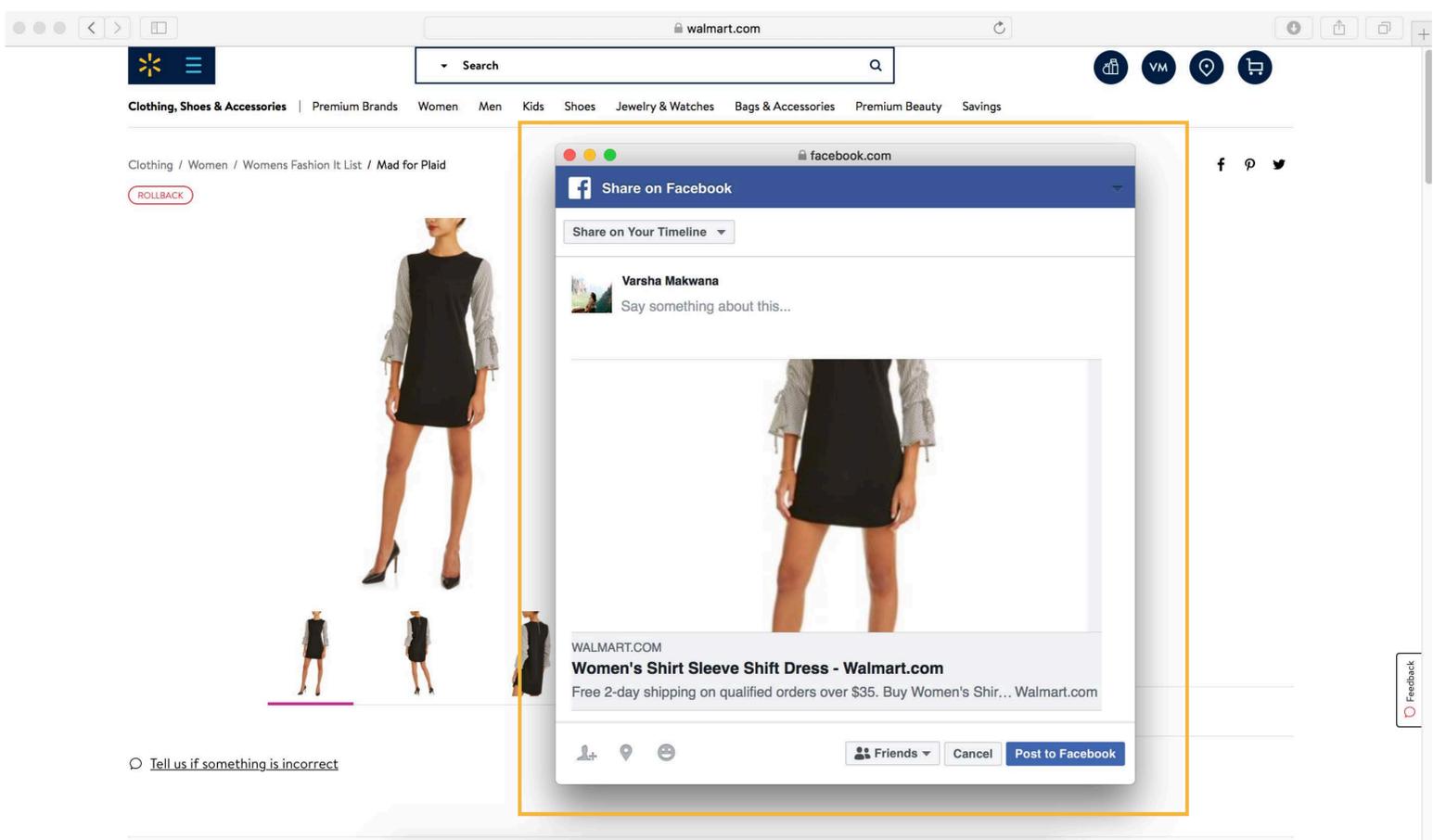
They think about the end result, not about what the interface allows them to do (or what the system has selected on their behalf). Most often, they start typing in the search box and click Go without bothering to look around for drop-downs or autosuggestions and to make sure that the default selections are right. Users expect your search feature to behave like tons of other search tools that they've seen on the web. And most of these other search tools are not accompanied by widgets that need to be properly initialized.

# Examples



**SOCIAL**

# Auto-sharing



## What

The user wants to easily share their activity with their social networks..

## Use When

Use when you want social sharing to be an integrated part of the flow. Use when you would like to lower the friction and make it easy for people to share their story on social networks. Do not use when information shared is personal or sensitive – when the user would be reluctant to share the content in the first place.

## Why

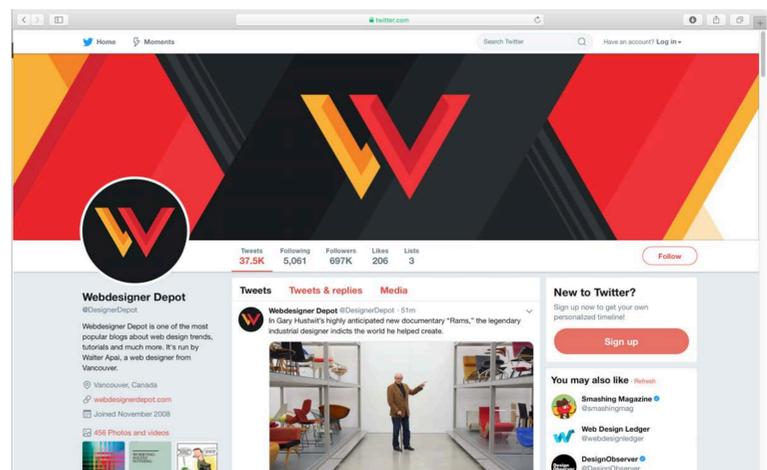
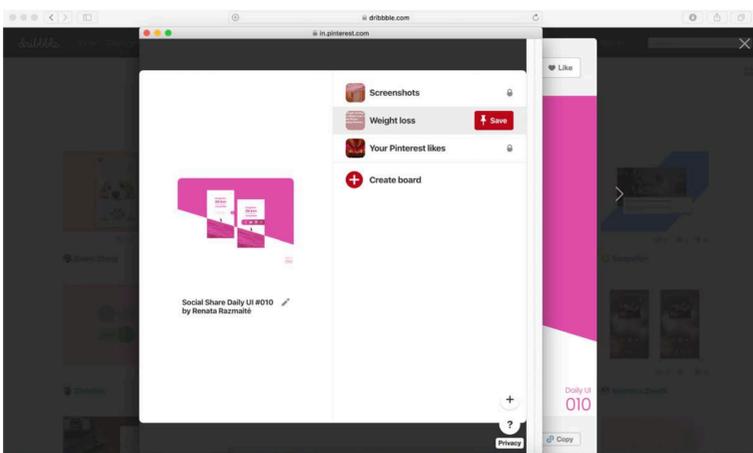
Auto-sharing help users engage with their friends and family in everyday activities like listening to a song or reading an article on an external website. Furthermore, auto-sharing is a great way to build awareness and engagement within the application itself. For interactions like uploading a photo to Carousel or a video to Vimeo, this pattern makes it even easier for users by eliminating an extra step in the process which they are most likely going to take.

## How

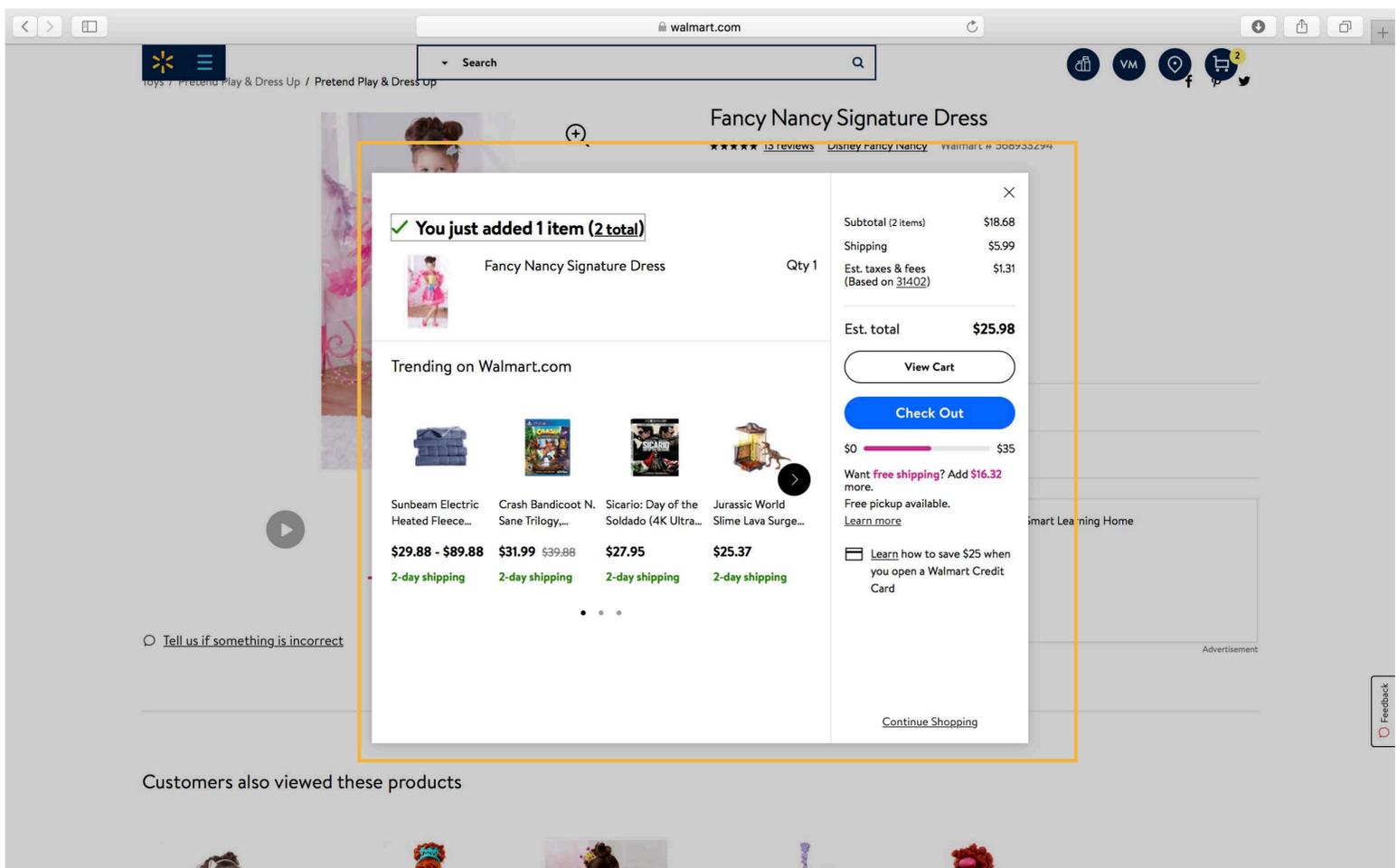
Lets Allow users to quickly and easily share particular interactions with their social networks. Web applications like Tumblr, Spotify and Vimeo all have granular sharing settings, which allow users to automatically post updates to their networks based on their activity. These updates can be posted within the application or even shared with external social channels like Facebook or Twitter.

For interactions like uploading a photo to Carousel or a video to Vimeo, this pattern makes it even easier for users by eliminating an extra step in the process which they are most likely going to take regardless.

# Examples



# Shopping Cart



## What

The online shopping experience needs to be realized through a real world analogy.

## Use When

Use when the user can possibly buy more than one product. Use when the user can possibly buy more than one instance of a product. Use when the user may want to return later to carry on shopping. Use when the user may want to return at a later time to conduct payment. **Do not use when you only have one product to sell.** Do not use when your site is arranged in a way, so that it does not make sense for the user to buy more than one product at a time (for instance for Application Service Providers (ASPs) allowing a user to upgrade his service).

## Why

The shopping cart is a well known metaphor for shopping online. The metaphor provides the user with the idea, that putting items in the shopping cart does not necessarily mean that he or she is buying those items, as they can be removed before checking out of the store. The shopping cart pattern allows the user to collect a number of items first in order to pay for them all at a later time. The checkout metaphor goes well with the shopping cart as it resembles the process at a real super market.

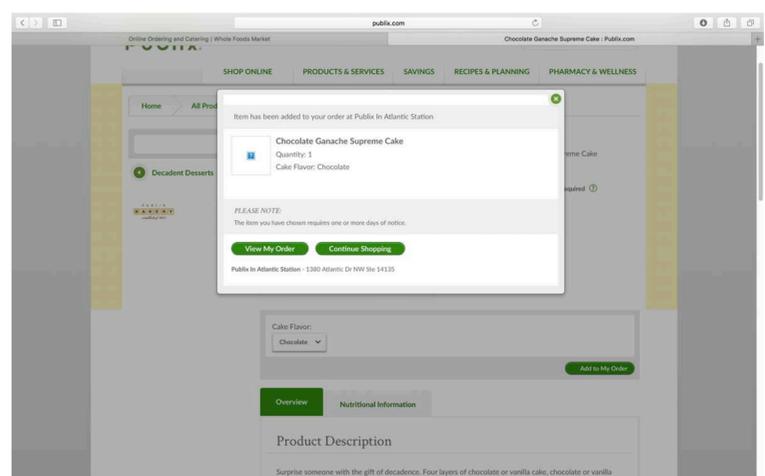
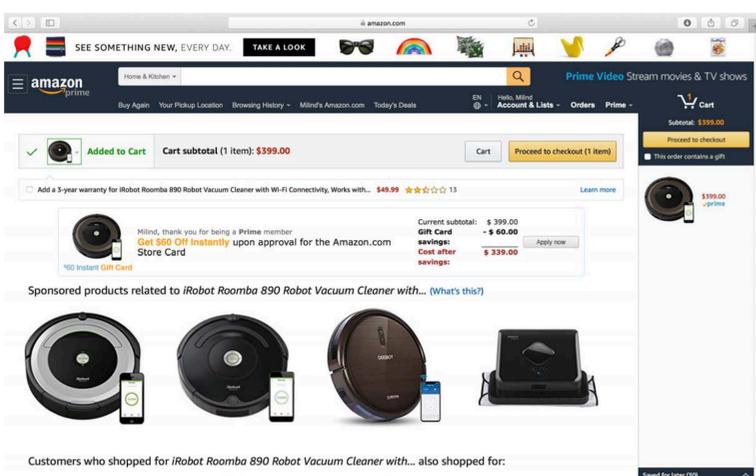
## How

A shopping cart is a collection of selected products that the user can use to manage their online shopping experience. The user can add, update and remove products from their cart. Further, the user can choose to change the quantity of each product in the shopping cart. A subtotal cost is displayed for each of the items in the cart plus shipping charges, VAT, etc. At any time, the user can choose to continue shopping or proceed to checkout – meaning to paying and ordering what is in the shopping cart. Whenever a product is presented, a complimenting “add to cart” button should be visible, this lets the user add the respective product to the product cart. **The contents of the cart can viewed at any time, in detail by clicking on a “show cart” link.** When the user chooses to checkout, he is presented with a final list of items on the order, as well as payment options (credit card, wire transfer or cash on delivery).

Present users with the option to make a purchase at the right time in their decision making process.

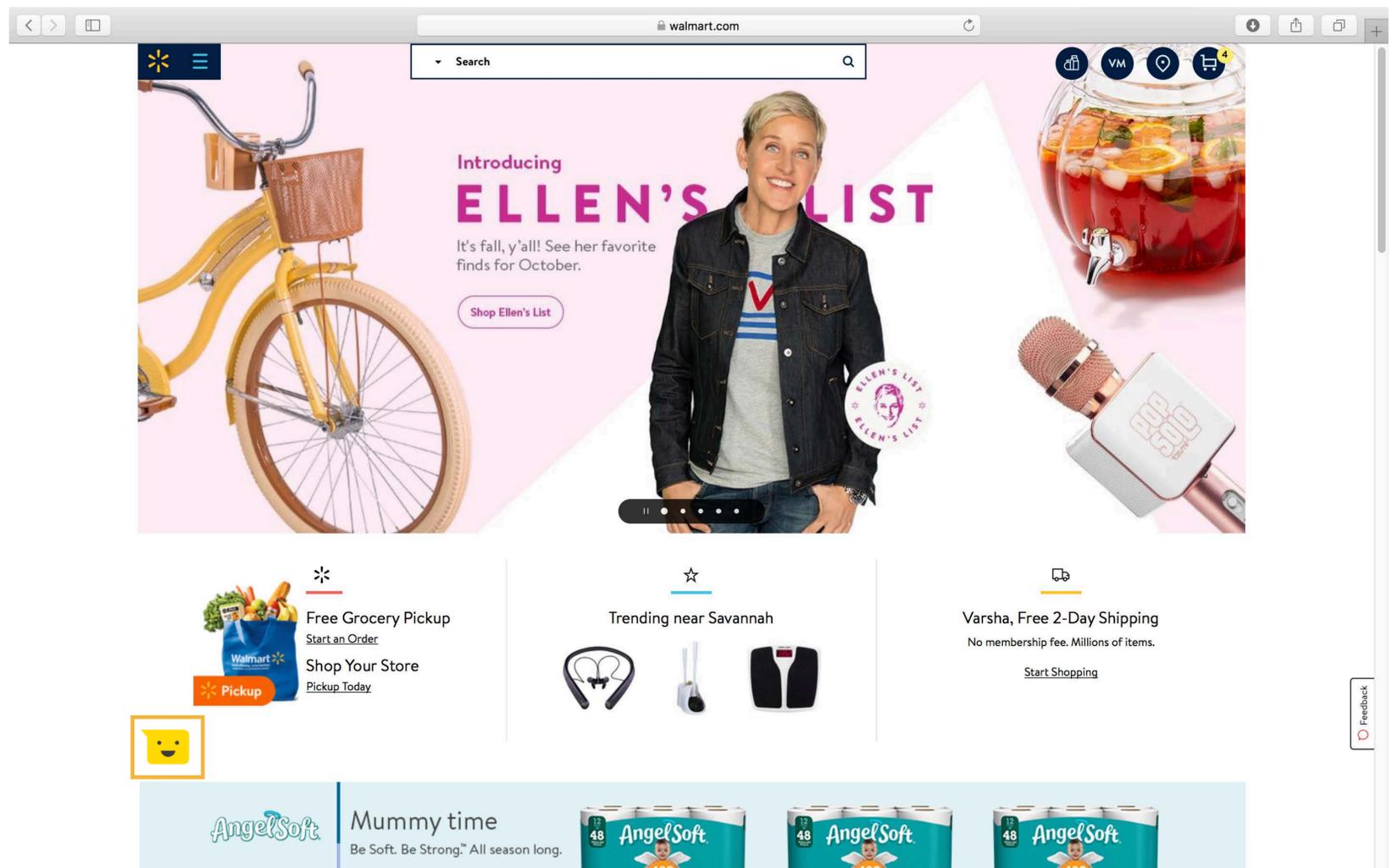
“Instead of guessing when that time is,” explained Victor Yocco, UX researcher and author of Design for the Mind, “you can allow for users to add an item to their cart or enter the checkout flow from multiple points in the experience.”

# Examples



**NEW FEATURE**

# Reaction



Click Icon to go to the next page

Page: 1/3

## What

The user wants to express their emotions in a simple way.

## Use When

Use when you want to let users rate content without having to worry about the degrees to which they like it. Use when you want to provide an easy and informal way for users to provide information about their likes and preferences.

## Why

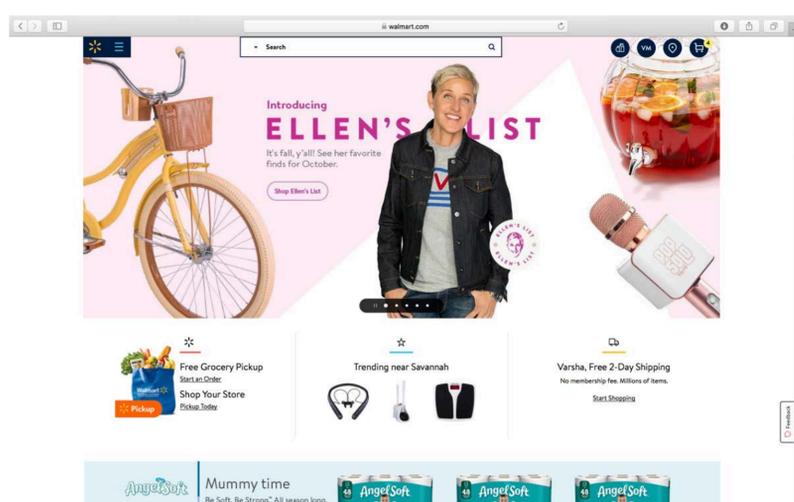
Eliminating the fine-grain of stars and rating scores, this makes rating things easier for users as well as interpreting them.

## How

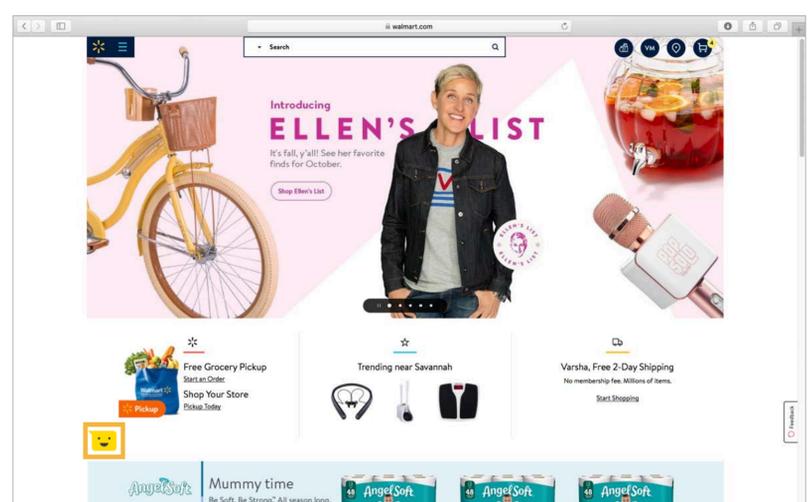
Let users express their immediate emotions in a simple way. Simplify rating controls by making them binary choices of emotional consent rather than fine-grained ratings of stars or scores. Use reaction activity to discover what content might be more relevant for your users.

The form is matched to preexisting patterns of what dancers look like. Pattern matching (or pattern recognition) is the way we process everything we see from people's faces to the written word. When visual stimuli enters our eye it immediately starts a chain reaction in the brain.

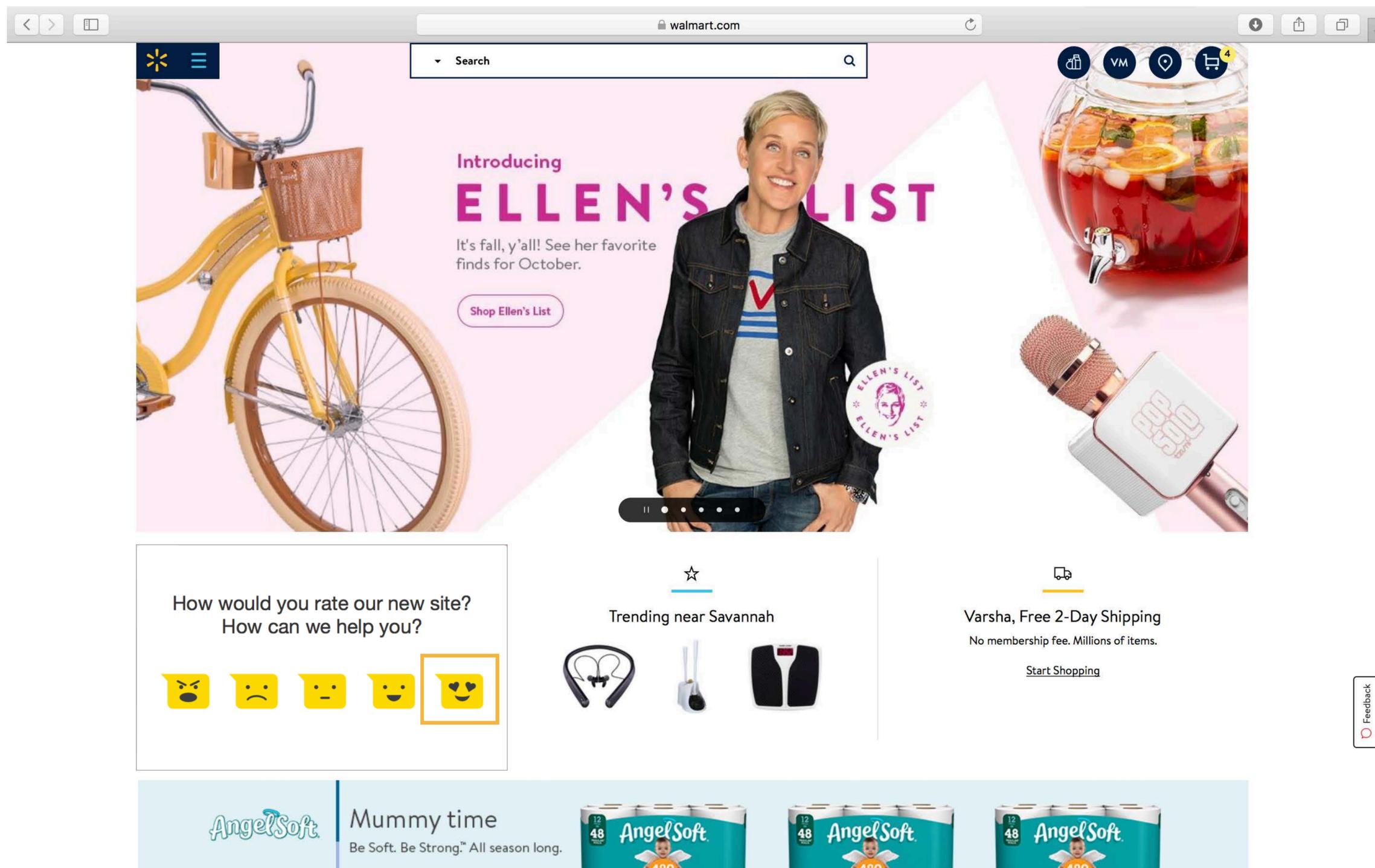
## Before



## After



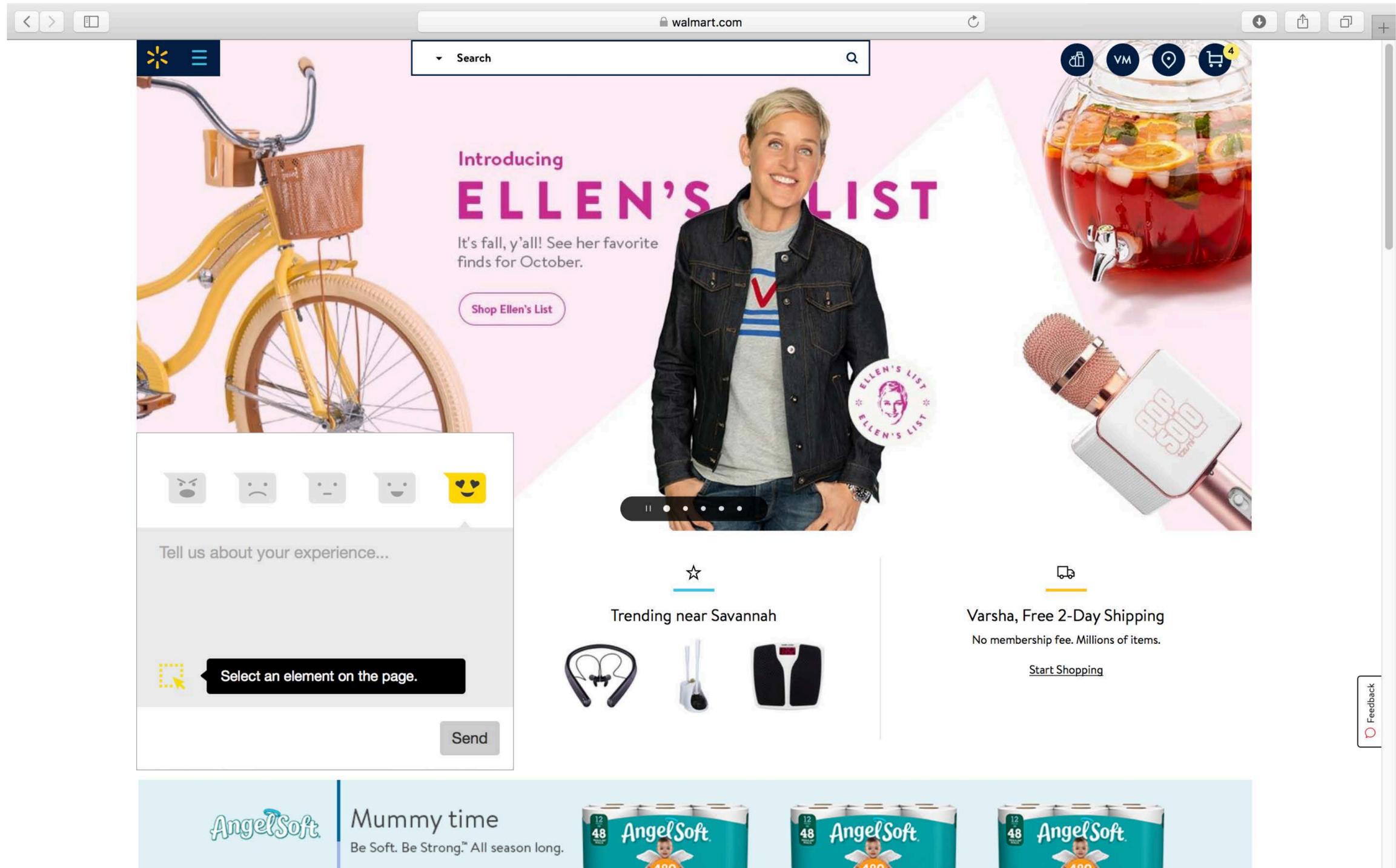
# Reaction



Click Icon to go to the next page

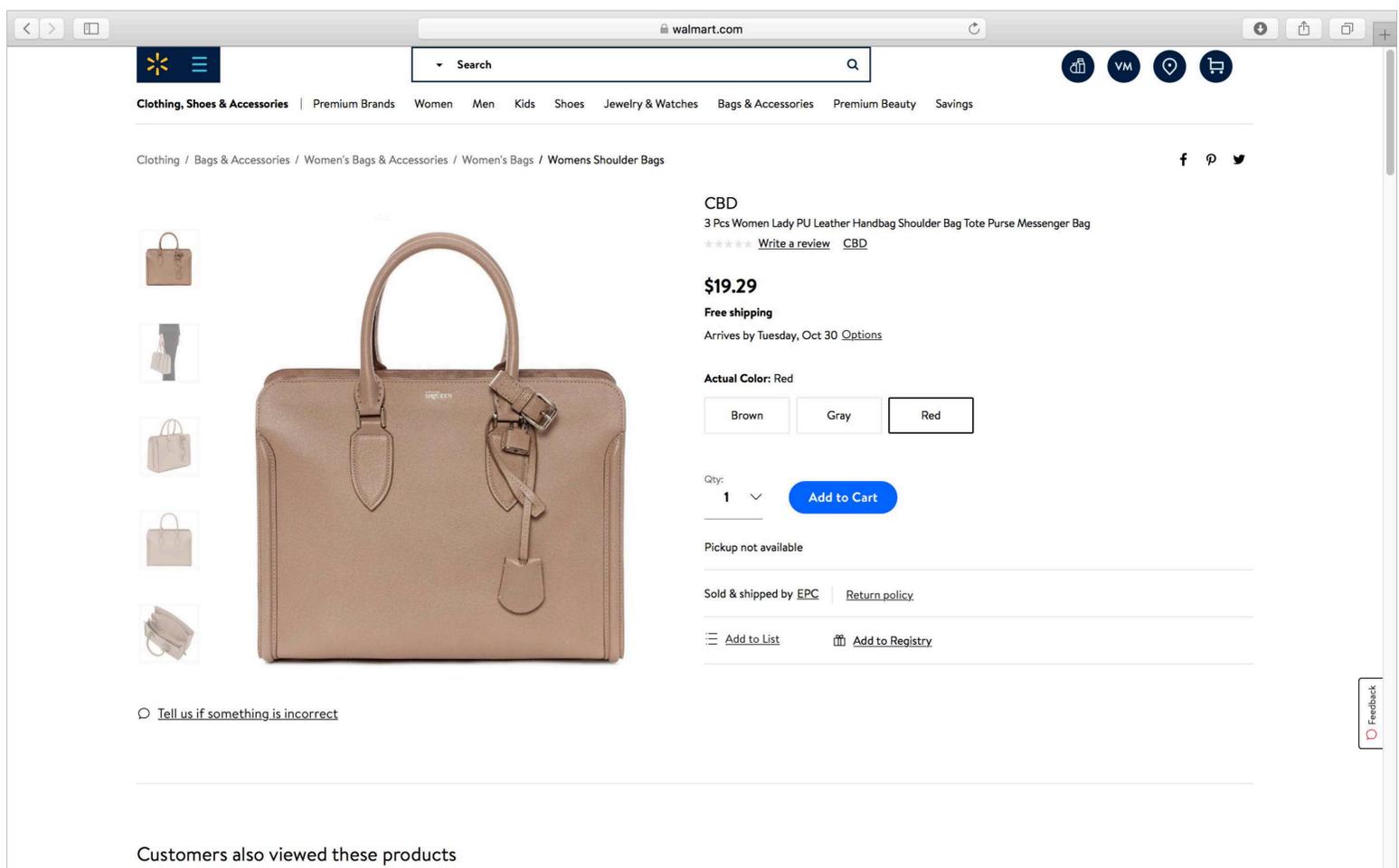
Page: 2/3

# Reaction



The screenshot shows a browser window at walmart.com. The main content is a video player for 'Introducing ELLEN'S LIST'. The video features Ellen DeGeneres and a 'POP SUD' microphone. A feedback overlay is present on the left side of the video player, containing a row of five reaction icons (angry, sad, neutral, happy, love), a text input field with the placeholder 'Tell us about your experience...', a 'Send' button, and a tooltip that says 'Select an element on the page.' with a cursor icon. Below the video player, there are two promotional sections: 'Trending near Savannah' with icons for headphones, a spatula, and a suit; and 'Varsha, Free 2-Day Shipping' with the text 'No membership fee. Millions of items.' and a 'Start Shopping' link. At the bottom of the page, there is a banner for 'AngelSoft' diapers with the text 'Mummy time Be Soft. Be Strong.™ All season long.' and three images of diaper packages. A 'Feedback' button is located on the right side of the page.

# Magnifying Zoom in



Click on the bag to zoom in page

Page: 1/2

## What

The user wants to zoom in on an image to view the details in a higher image resolution.

## Use When

Use when the normal image size displayed is not in high enough resolution to for the user to grasp the details in the image. Use when downloading full-sized and detailed versions of a all images takes up more bandwidth than you're interested in sharing. **Use when showing a full-sized and detailed version of an image does not fit into the website's design.** Use when showing a full-sized and detailed version of an image will prevent the user from getting an overview of the picture. Use when downloading a full-sized and detailed version of every image will take a disproportionate amount of download time for the user compared to the provided value. Only show images in high resolution when they are requested as all images might not be of equal interested to the user.

## Why

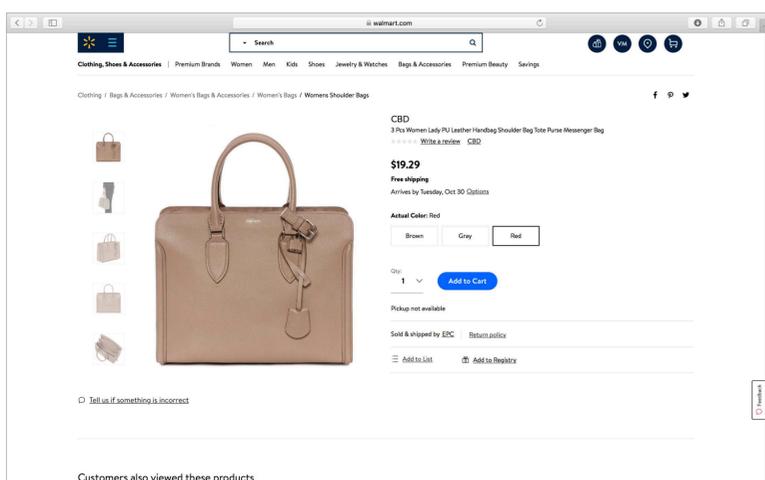
**Allowing the user to zoom in on an image permits exploration of the image's details.** Depending on the zoom factor, showing the entire high resolution image from the beginning will not provide the user with an overview of the entire image thus removing the context of the details viewed. By providing a zoom functionality, a user can zoom into just one area of the image that he or she is interested in. In this way, the user is not bothered by the other details.

## How

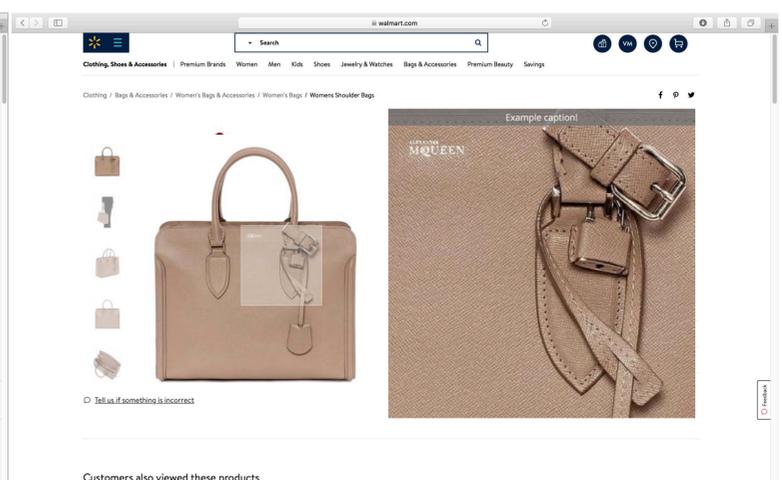
Provide a mechanism that allows the user to zoom an image to view its details. **From a server point of view, an important goal is not to pre-load high resolution images before they are requested.** This will help save bandwidth. An intuitive way of doing this is to allow the user to click a spot on a given image. As the user clicks the image to zoom, a higher resolution image is preloaded. Provide graphics or text about zooming in on the image; a bare image will not suggest zoom functionality to the user in itself.

Engage your visitors and increase sales with our Phenomenal image zoom

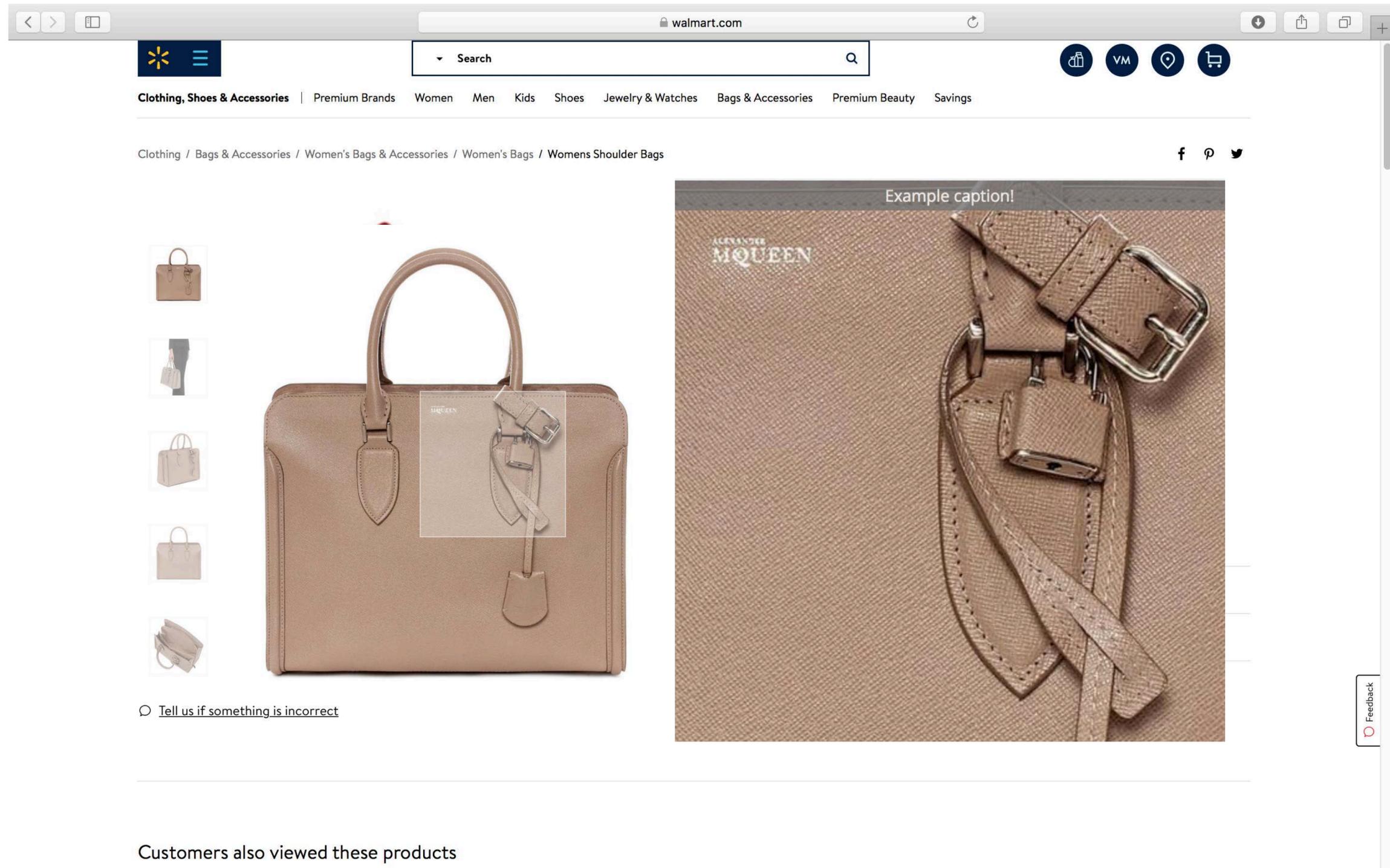
## Before



## After



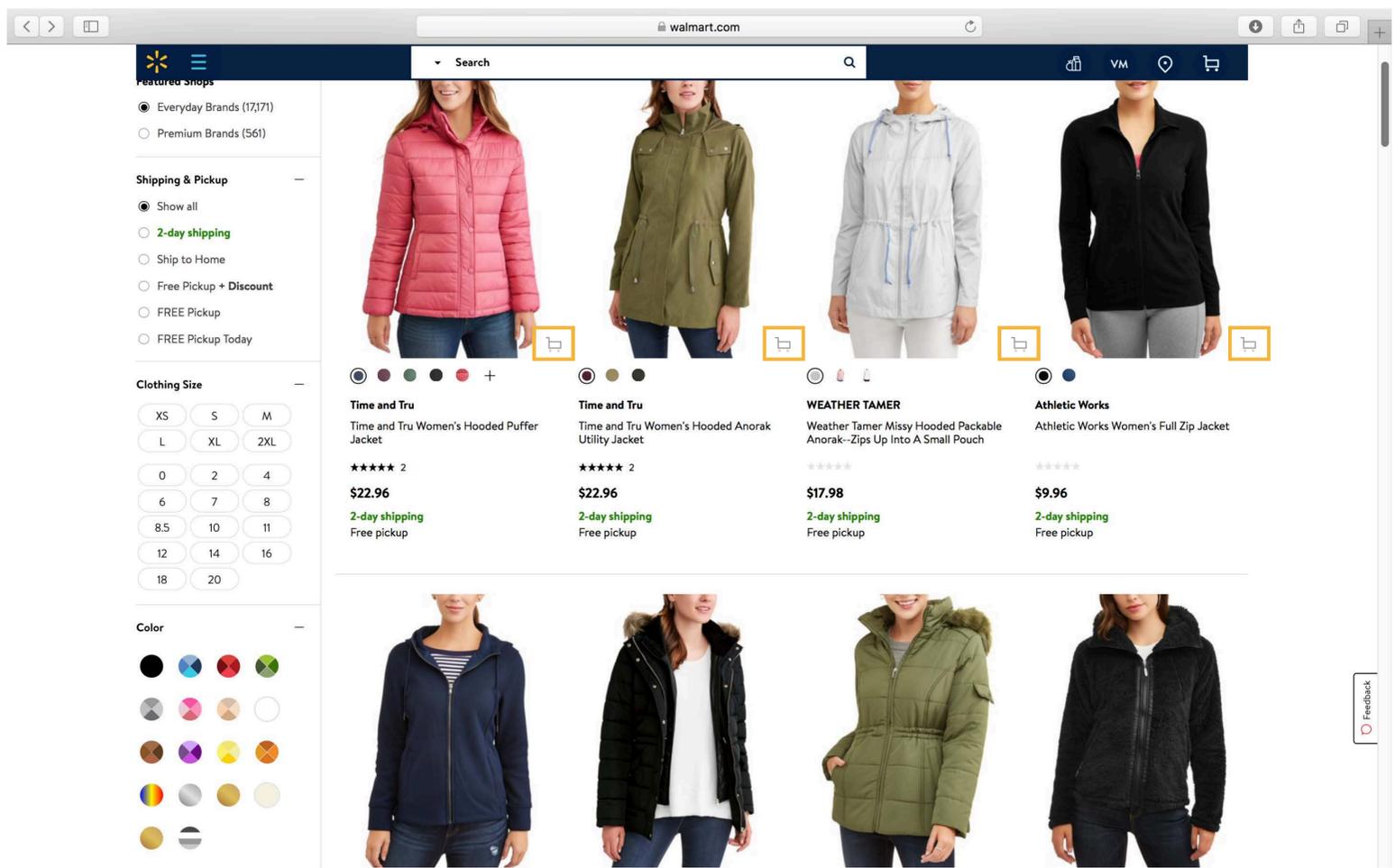
# Magnifying Zoom in



Customers also viewed these products

[Click Icon to go to the next page](#)

# Shopping Cart



Click on the last shopping cart icon to go to the next page

Page: 1/2

## What

The online shopping experience needs to be realized through a real world analogy.

## Use When

Use when the user can possibly buy more than one product. Use when the user can possibly buy more than one instance of a product. Use when the user may want to return later to carry on shopping. Use when the user may want to return at a later time to conduct payment. **Do not use when you only have one product to sell.** Do not use when your site is arranged in a way, so that it does not make sense for the user to buy more than one product at a time (for instance for Application Service Providers (ASPs) allowing a user to upgrade his service).

## Why

The shopping cart is a well known metaphor for shopping online. The metaphor provides the user with the idea, that putting items in the shopping cart does not necessarily mean that he or she is buying those items, as they can be removed before checking out of the store. The shopping cart pattern allows the user to collect a number of items first in order to pay for them all at a later time. The checkout metaphor goes well with the shopping cart as it resembles the process at a real super market.

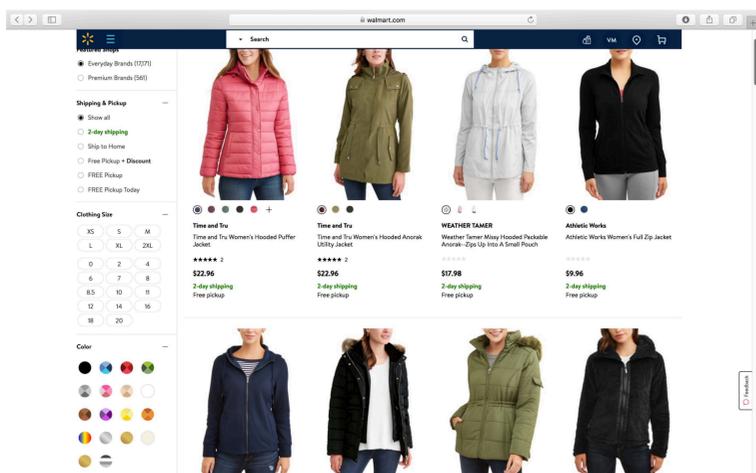
## How

A shopping cart is a collection of selected products that the user can use to manage their online shopping experience. The user can add, update and remove products from their cart. Further, the user can choose to change the quantity of each product in the shopping cart. A subtotal cost is displayed for each of the items in the cart plus shipping charges, VAT, etc. At any time, the user can choose to continue shopping or proceed to checkout – meaning to paying and ordering what is in the shopping cart. Whenever a product is presented, a complimenting “add to cart” button should be visible, this lets the user add the respective product to the product cart. **The contents of the cart can viewed at any time, in detail by clicking on a “show cart” link.** When the user chooses to checkout, he is presented with a final list of items on the order, as well as payment options (credit card, wire transfer or cash on delivery).

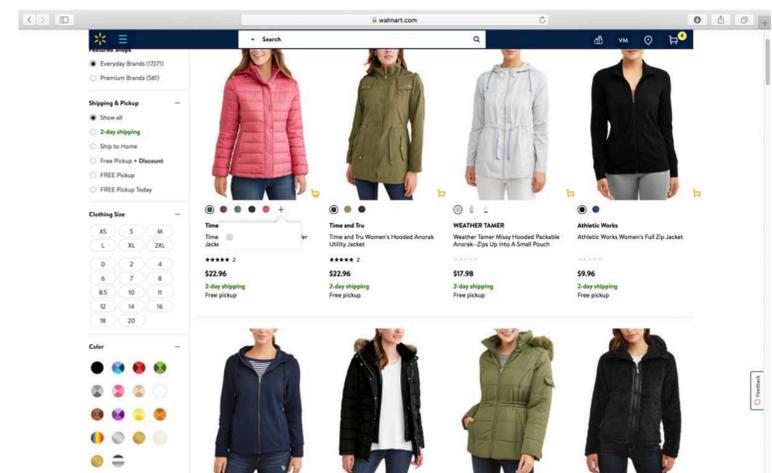
Provide frequent and varied add-to-cart and checkout options.

Frequent visitor website like walmart should take advantage of the of multiple checkout options, including the use of authenticated credentials, PayPal or Apple Pay, or checking out as a guest.

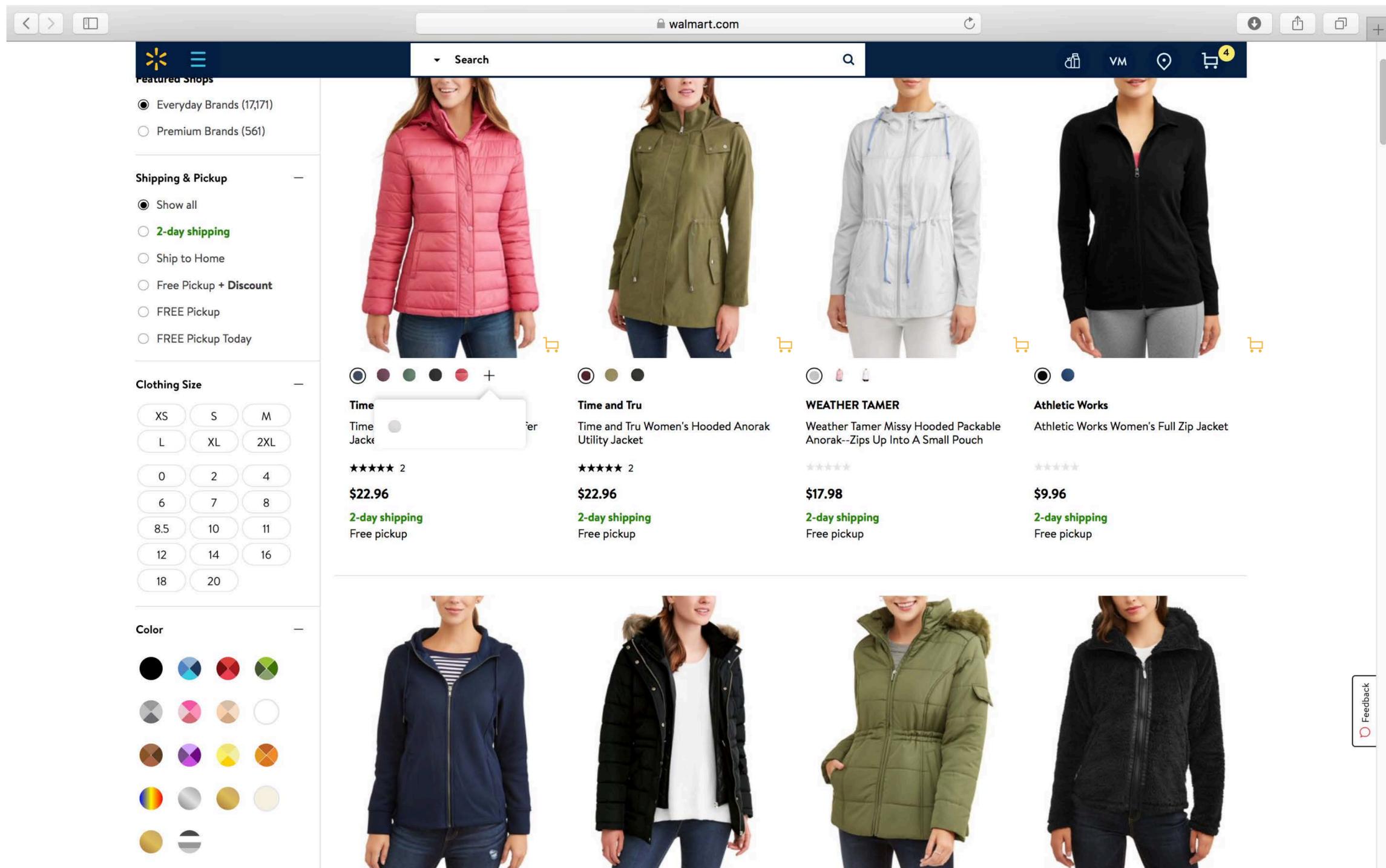
## Before



## After



# Shopping Cart

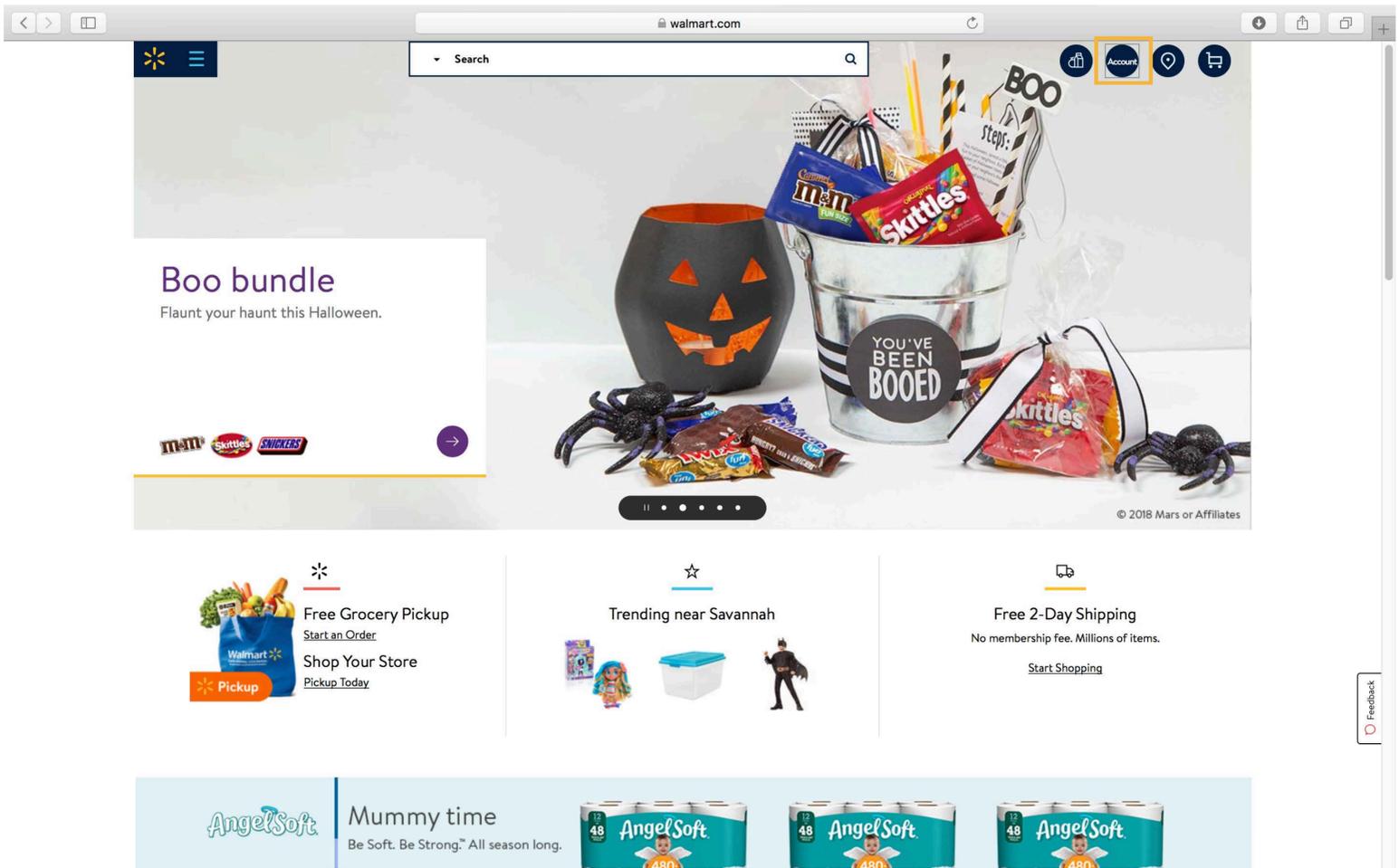


The screenshot shows the Walmart.com shopping cart page. The browser address bar displays 'walmart.com'. The page features a dark blue navigation bar with a search bar and icons for home, VM, location, and a shopping cart with a '4' badge. On the left, there are filter sections: 'Featured Shops' with 'Everyday Brands (17,171)' selected and 'Premium Brands (561)'; 'Shipping & Pickup' with 'Show all' selected and options for '2-day shipping', 'Ship to Home', 'Free Pickup + Discount', 'FREE Pickup', and 'FREE Pickup Today'; 'Clothing Size' with buttons for XS, S, M, L, XL, 2XL and numeric sizes 0-20; and 'Color' with a grid of 20 color swatches. The main content area displays a grid of eight jackets. The top row shows four jackets: a pink quilted jacket, an olive green hooded anorak, a light grey hooded packable anorak, and a black athletic zip jacket. The bottom row shows four more jackets: a navy blue zip jacket, a black hooded anorak, an olive green quilted jacket, and a black quilted jacket. Each product card includes a model image, a color selection dropdown, the brand name, product title, price, and shipping/pickup options. A 'Feedback' icon is visible in the bottom right corner of the page.

Click Icon to go to the next page

Page: 2/2

# Captcha



Click on the account icon to go to the next page

Page: 1/5

## What

The application needs to verify that the data submitted originates from an actual human and not a robot.

## Use When

Websites featuring the ability for visitors to comment, register as a user, or otherwise actively post content on the website are often exposed to attacks from spam-robots. The content posted by such spam-robots can be compared to spam sent by e-mail. The main purpose of spam-robots on the web is to create and spread links to a specific website, in order to increase the website's search rating on search engines like google.com. These spam-posts rarely have anything to do with the subject of the website, hence the spam categorization. To avoid such spam, captchas are introduced. The whole idea behind Captchas is to create a way to distinguish real human beings from automated robots. Use when your web application experiences attacks from malicious web-robots trying to post spam-content on your site. Use to protect your website from automated robots. Use when the capability to post content to your website is not blocked by the need to be logged in. Registration processes are included.

## Why

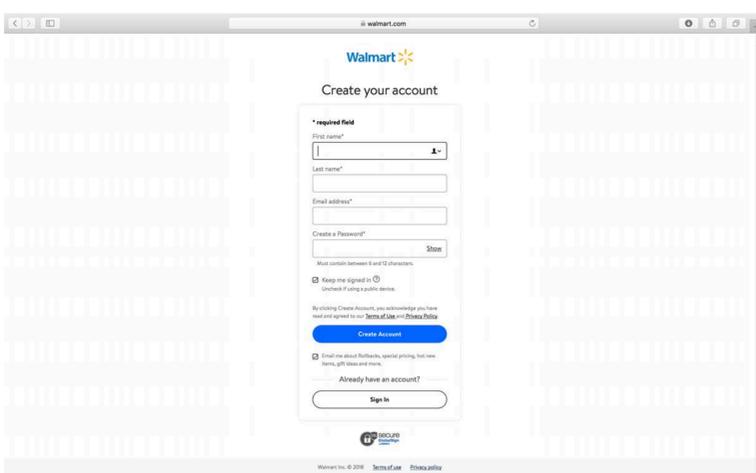
Captchas are short for 'Completely Automated Public Turing test to tell Computers and Humans Apart'. The whole idea behind Captchas is to distinguish humans from computers, letting the user perform an action a computer can't. A captcha is a simple Turing test. There is a fine line between making a captcha unrecognizable for OCR scanners and still readable for human beings. Readability for the human has to come first. Other problems with implementing captchas to protect your website include a lock-out from visually impaired users as they can't use voice software to speak what the captcha reads. Other forms of protection from malicious spammers are asking questions like "what is 2 + 3" or "what is two plus three" or using voice captchas.

## How

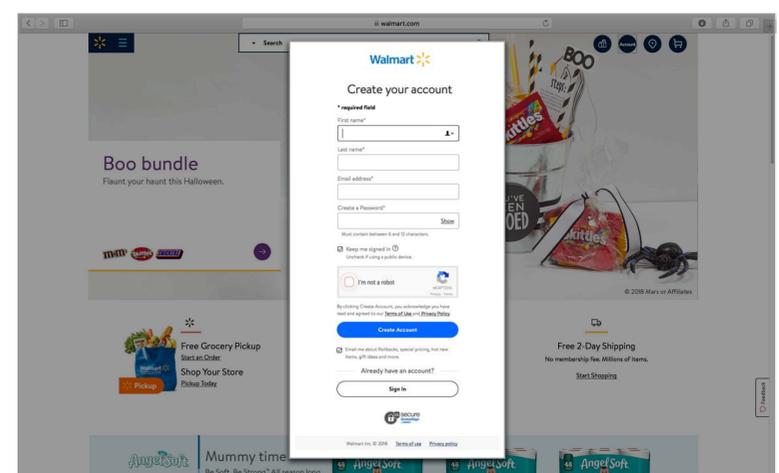
The most popular form of Captchas are images that represent letters and numbers inside. The user is prompted to write in a separate form field what the image reads in a separate form field. To prevent spammers from using OCR software to read the image, the image is manipulated in different ways, which makes it hard for computers while maintaining readability for humans. If the user succeeds in typing what the image says, his content is posted to the website. If not, the action will be refused. It is common to allow a number of tries to enter the captcha text, as some captcha images are even unreadable to humans due to the strong image manipulation that has been exposed to.

Since 2000, CAPTCHAs have been understood as annoying-but-bulletproof, but this understanding is being challenged today (at least the "bulletproof" part). One San Francisco-based startup has claimed to have created an algorithm that cracks CAPTCHAs with 90 percent accuracy. Google Maps' clever street address-reading algorithm has beckoned the downfall of CAPTCHAs with 99.8 percent accuracy. The robots may be winning.

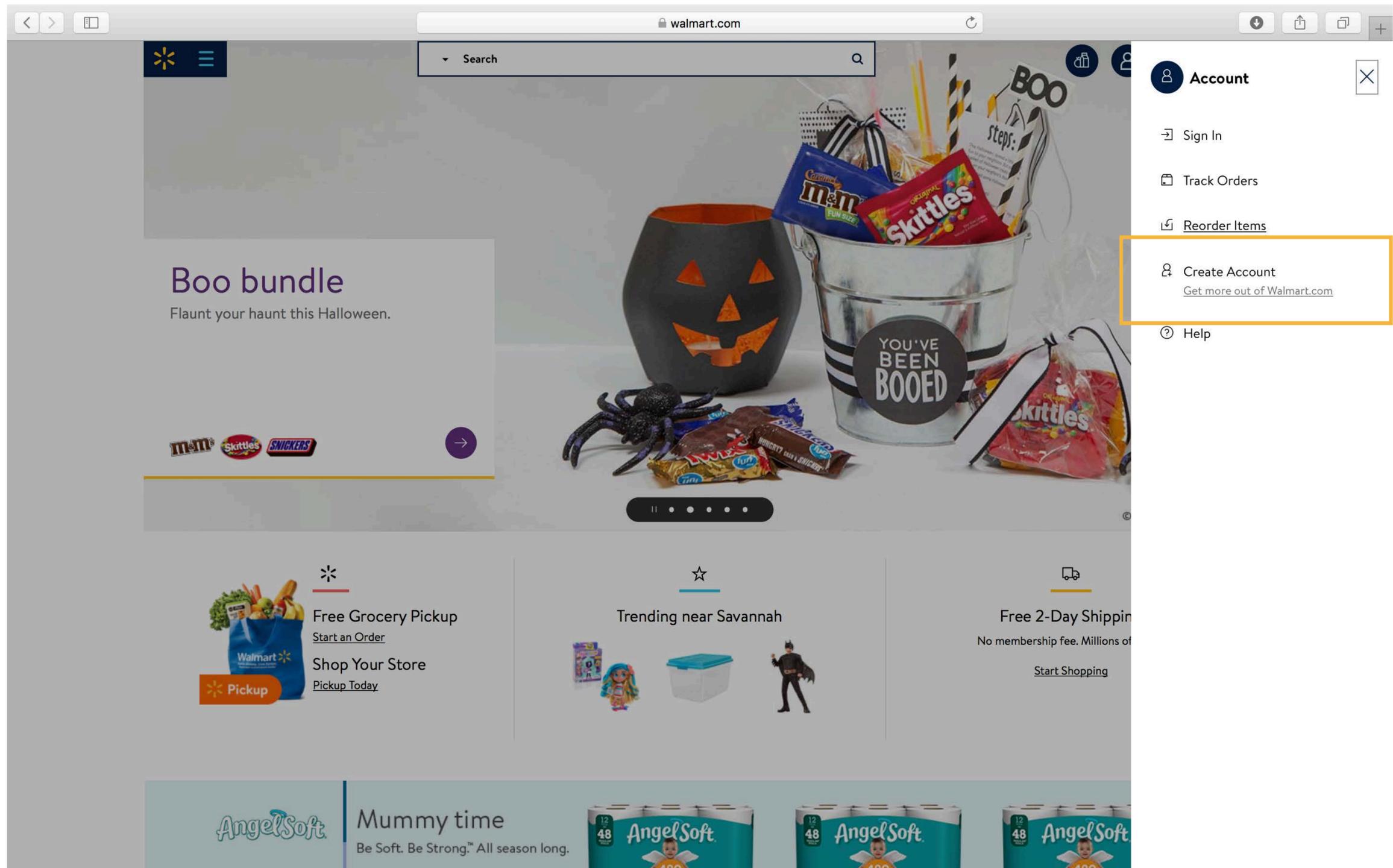
## Before



## After

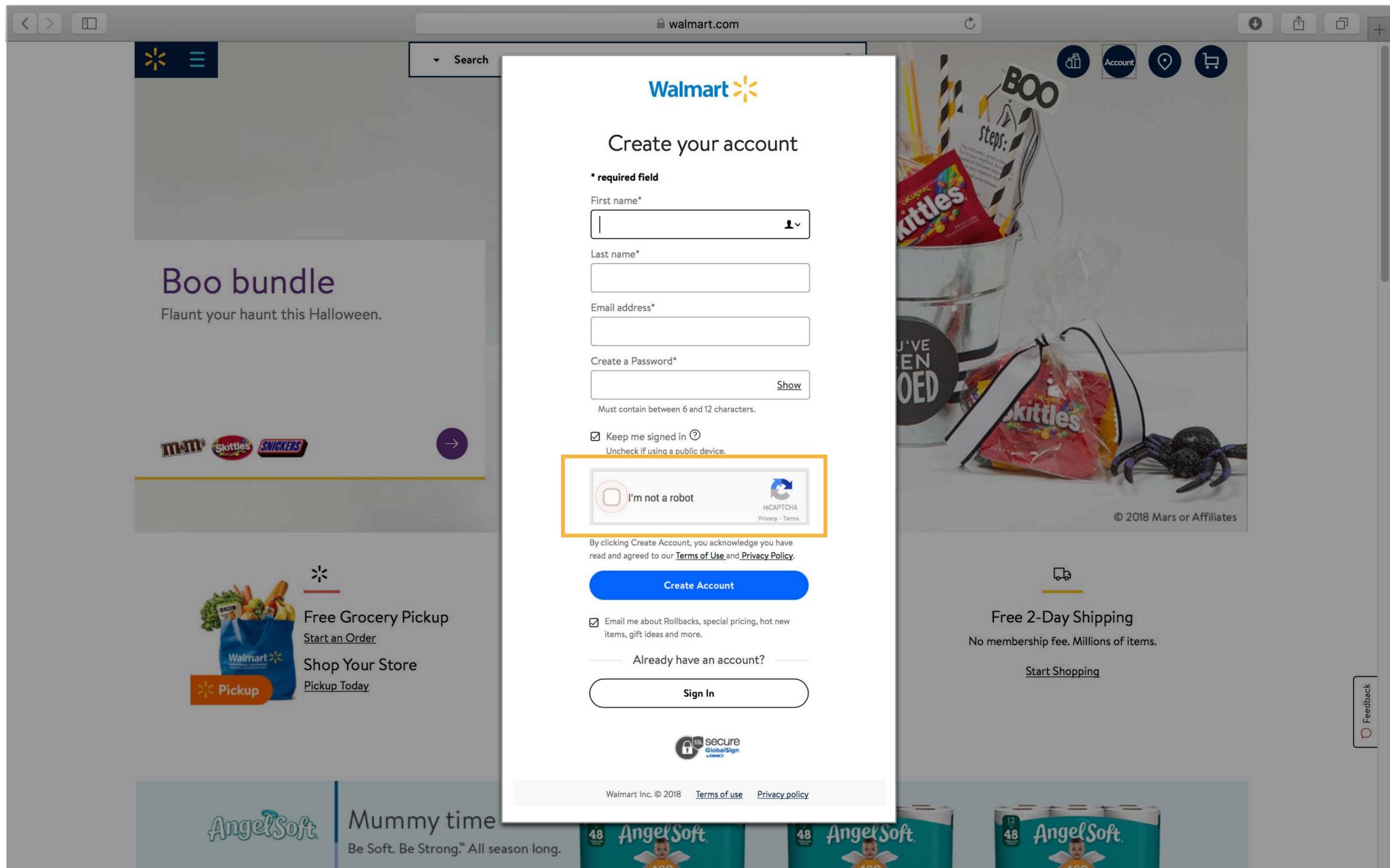


# Captcha



Click to create account

# Captcha



The image shows a screenshot of the Walmart.com website with a 'Create your account' modal open. The modal contains the following fields and elements:

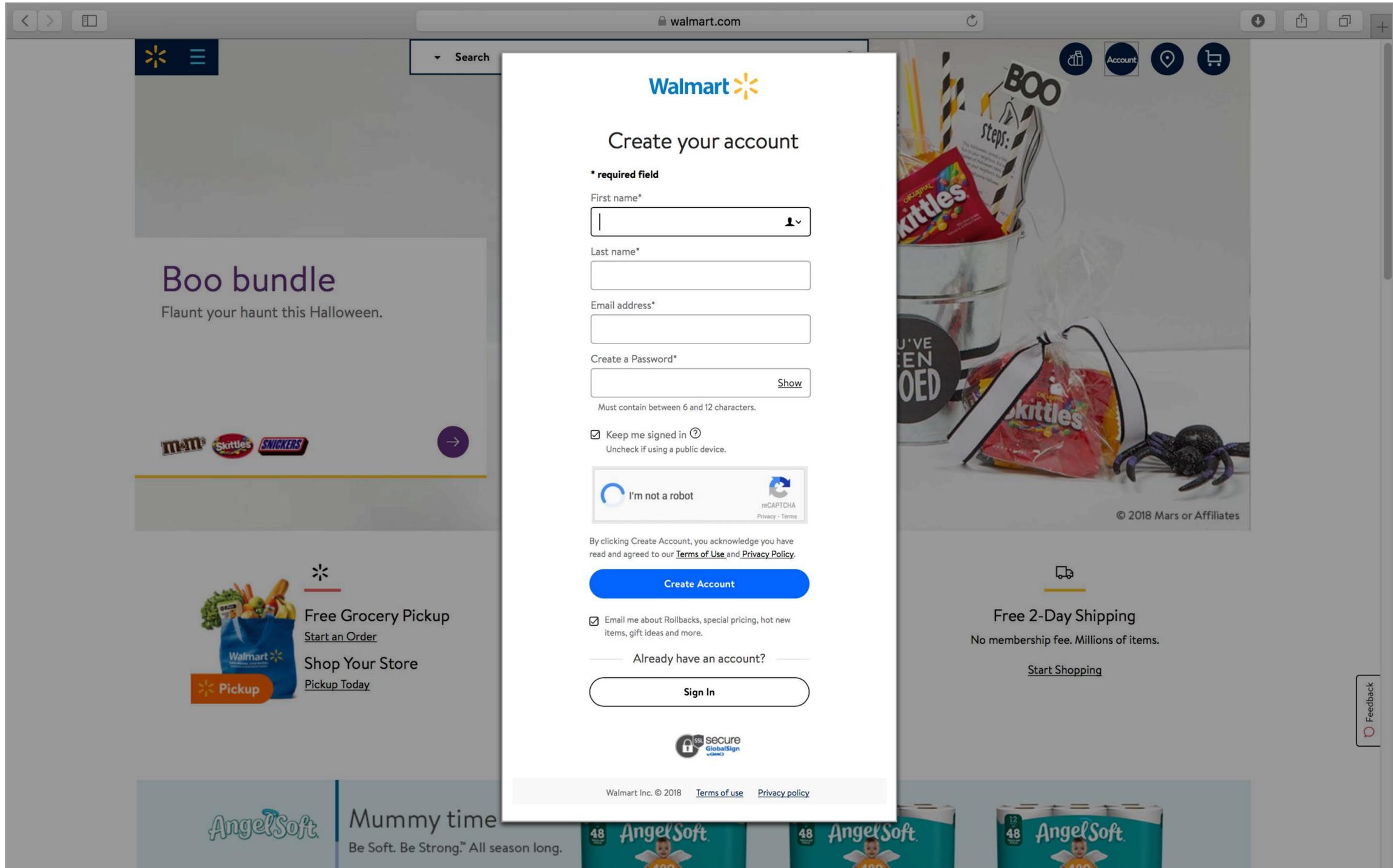
- Walmart logo
- Header: Create your account
- \* required field
- First name\* (text input)
- Last name\* (text input)
- Email address\* (text input)
- Create a Password\* (text input with a 'Show' button)
- Must contain between 6 and 12 characters.
- Keep me signed in ⓘ  
Uncheck if using a public device.
- I'm not a robot (reCAPTCHA widget, highlighted with a yellow box)
- By clicking Create Account, you acknowledge you have read and agreed to our [Terms of Use](#) and [Privacy Policy](#).
- Create Account (blue button)
- Email me about Rollbacks, special pricing, hot new items, gift ideas and more.
- Already have an account? (text)
- Sign In (button)
- Secure GlobalSign logo
- Footer: Walmart Inc. © 2018 [Terms of use](#) [Privacy policy](#)

The background of the website shows a 'Boo bundle' promotion with M&M's, Skittles, and SNICKERS, and a 'Free 2-Day Shipping' offer.

Click I am not a robot

Page: 3/5

# Captcha



The image shows a screenshot of the Walmart.com website with a 'Create your account' modal open. The modal contains the following elements:

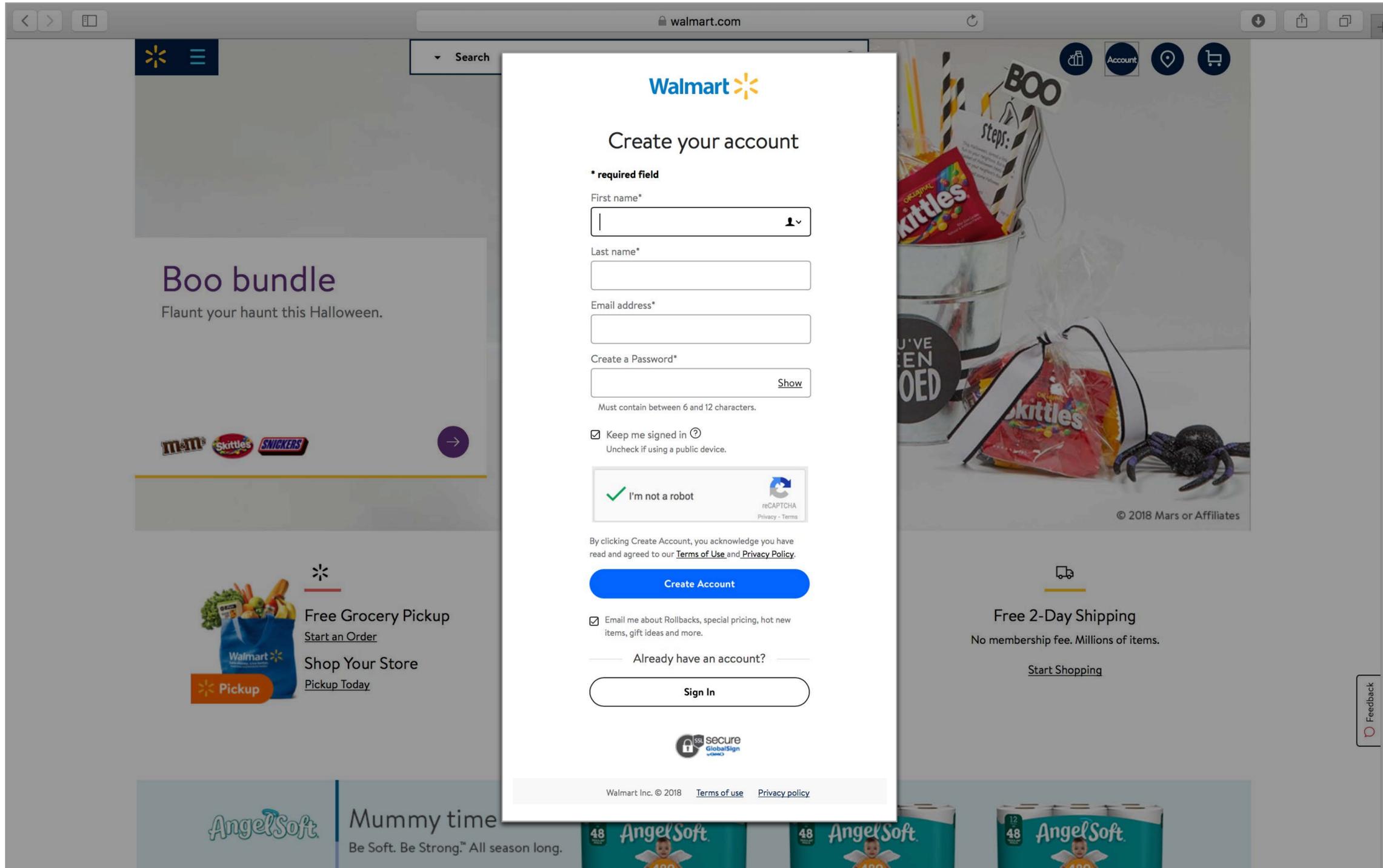
- Walmart logo
- Section title: 'Create your account'
- '\* required field' label
- Form fields: 'First name\*', 'Last name\*', 'Email address\*', and 'Create a Password\*' (with a 'Show' toggle).
- Validation: 'Must contain between 6 and 12 characters.'
- Checkbox: 'Keep me signed in' (checked) with a help icon and subtext 'Uncheck if using a public device.'
- reCAPTCHA: 'I'm not a robot' challenge with a 'reCAPTCHA Privacy - Terms' link.
- Disclaimer: 'By clicking Create Account, you acknowledge you have read and agreed to our Terms of Use and Privacy Policy.'
- Buttons: 'Create Account' (blue) and 'Sign In' (white).
- Footer: 'Walmart Inc. © 2018 Terms of use Privacy policy' and a 'Secure GlobalSign' logo.

The background shows a 'Boo bundle' promotion with candy (M&M's, Skittles, SNICKERS) and a 'Free 2-Day Shipping' offer. A 'Feedback' icon is visible in the bottom right corner.

Click Icon to go to the next page

Page: 4/5

# Captcha



The image shows a screenshot of the Walmart.com website with a 'Create your account' modal form overlaid. The form includes the Walmart logo, the title 'Create your account', and a list of required fields: First name\*, Last name\*, Email address\*, and Create a Password\*. The password field has a 'Show' button and a note: 'Must contain between 6 and 12 characters.' There is a checkbox for 'Keep me signed in' and a reCAPTCHA widget with the text 'I'm not a robot'. Below the form, there are links for 'Terms of Use' and 'Privacy Policy', a 'Create Account' button, a checkbox for 'Email me about Rollbacks, special pricing, hot new items, gift ideas and more.', a 'Sign In' button, and a 'Secure GlobalSign' logo. The background shows a 'Boo bundle' promotion with candy and a 'Free Grocery Pickup' section.

Walmart 

## Create your account

**\* required field**

First name\*

Last name\*

Email address\*

Create a Password\*  [Show](#)

Must contain between 6 and 12 characters.

Keep me signed in [?](#)  
Uncheck if using a public device.

I'm not a robot  reCAPTCHA  
[Privacy - Terms](#)

By clicking Create Account, you acknowledge you have read and agreed to our [Terms of Use](#) and [Privacy Policy](#).

[Create Account](#)

Email me about Rollbacks, special pricing, hot new items, gift ideas and more.

— Already have an account? —

[Sign In](#)

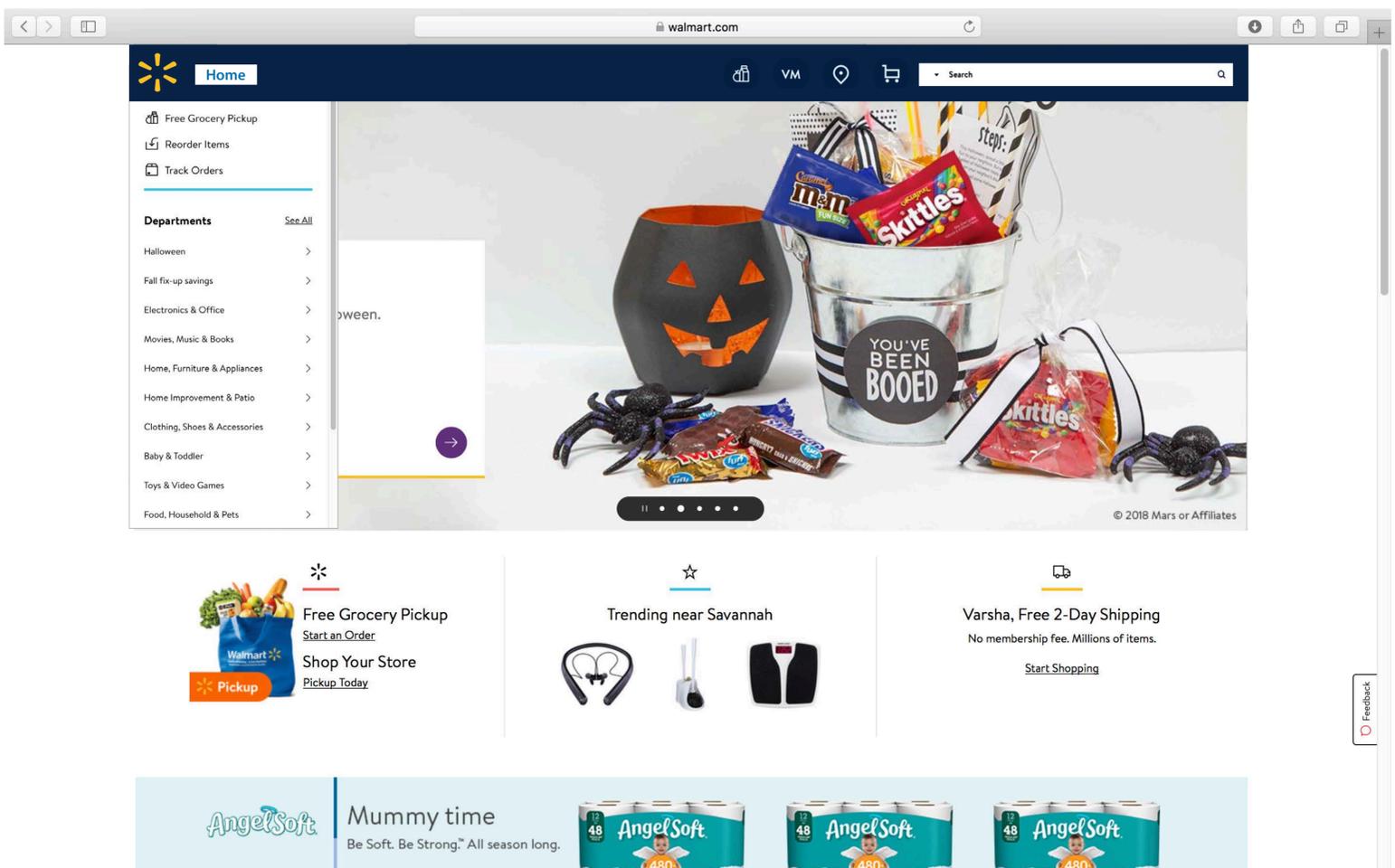
 **Secure GlobalSign**

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Click Icon to go to the next page

Page: 5/5

# The Off Canvas Page Slide



## What

Off-canvas panels are positioned outside of the viewport and slide in when activated. Over the past few years, this method has really become the standard method of responsive navigation. **This menu pattern was originally derived from how Facebook has popularized the "off-canvas" look on their mobile website and app.** When the browser gets down below a certain breakpoint, the menu disappears and we are presented with a single "menu" button. When this button is clicked, the menu slides out from the left and the main body content moves to the right. This gives the appearance of a menu that is sitting "off canvas" or out of the picture, then it slides in to reveal itself. I used to think that this menu couldn't accommodate a large menu with lots of sub-navigation. However, if you add a scrolling pane to it - then bam - you can add tons of links in there.

## Use When

Use when **it feels very natural to users because it's like holding onto a physical item to save your place** while looking for something else, can save space, provide a clean layout with access to content. It can be bad for engagement, people may not know to look there, people may forget they exist, require more effort because you have to tap first to see the options, may hinder discoverability, not glance-able.

## Why

**It allows users to explore a wide range of options quickly.** For precise input, a slider can never beat a regular input field, but we can use a slider to nudge our customers to explore available options and, hence, aid them in making an informed decision.

## How

Off-canvas is a well established mobile pattern for navigation that can also be used to create a responsive sidebar. **It can open from any direction, left, right, top, and bottom.** There are options to allow the Off-canvas to push your page over or to overlap your page plus a few other neat tricks.

## RELATED PATTERN

**Fly-out menus, sliding drawer menus, side menus, navigation drawers, sidebar menus, hamburgers, or basements.**

## Opposite to Illusion of control

This Ui pattern cannot act as a motivational factor for conducting certain behavior that is either safe or that we believe will bring user closer to a goal.

## Before

## After

