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# ACCESSIBILITY IS AN OPPORTUNITY, NOT A BURDEN

A HANDBOOK ON E-COMMERCE ACCESSIBILITY  
TAILORED TO THE NEEDS OF INDIVIDUALS WHO  
ARE BLIND OR VISUALLY IMPAIRED

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# 01



## INTRODUCTION

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# INTRODUCTION

Fashion plays an important role in the personality development of people with disabilities. It is much more than its visual aspects. It is a form of expression and a way of showing the world that people have an identity besides their disability. Through fashion, individuals can communicate who they are on the inside, articulate their individualism, and strengthen their identity.

The handbook titled, "Accessibility is An Opportunity, Not a Burden" has been designed to help brands understand that accessibility is a unique opportunity for them. The fashion industry has been lagging behind in providing inclusive and welcoming platforms for individuals with disabilities. Without meeting the accessibility needs of these consumers, brands are excluding them from online shopping and missing out on the opportunity to acquire loyal customers that have a tremendous purchasing power (\$1 trillion in disposable income).

Throughout the handbook, brands will receive advice and guidance on the steps they can take to adapt their websites to the needs of individuals who are blind or visually impaired. The handbook is not intended to overwhelm and saturate those who read it, instead, it is designed to inspire brands to accommodate the needs of individuals with disabilities. After reading it, brands will understand the main difficulties that individuals who are blind or visually impaired face when shopping online. All of which are, website design, convenience, support, and inclusion. All these needs are accompanied by suggestions and steps that brands can take to adjust their e-commerce platforms.

I hope that this manual will make your brand feel empowered and ready to take initiative. I dream of making the world a more welcoming place for all and I invite all the leaders behind each brand to open their minds because blindness is in the mind, not in the eyes.

*Mariana Suarez Clarke*



02



WEBSITE DESIGN

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# WEBSITE DESIGN

Website design and poor navigation are the first and most important needs consumers who are blind or visually impaired face. This occurs primarily because of the lack of descriptions in the visual elements and the lack of compatibility with assistive technologies that help users shop online. The most common difficulties related to website design that individuals who are blind or visually impaired face are related to:

1. Alternative Text
2. Structural navigation
3. Contrast requirements

## RECOMMENDATIONS TO ADDRESS THESE DIFFICULTIES

### 1. **Alternative Text**

Alternative Text, also known as, “alt text,” “alt attributes” or “alt descriptions” is a function that provides a textual alternative to content that is non-textual in a website. In e-commerce sites, alternative text is used primarily to provide alternative information to images for users who navigate using assistive technologies and for users who do not have a fast internet connection. This feature is the most important in a website when it comes to adjusting to the needs of individuals who are blind or visually impaired because when shopping online, images communicate valuable information and inform the user on the item they are looking at to help them make a decision.

Without alternative text, the information gets lost and users who rely on these alternative descriptions will not be able to finalize their purchase without human assistance. This happens because computers and assistive technologies do not have the power or capability to analyze images and provide an alternative description to the users. Therefore, The text must be provided in order for the computer or assistive technology to read it to the user out loud.

Although alternative text can get overwhelming, it is the most important resource to create a seamless experience for users who are blind or visually impaired. For this reason, every image on a shopping platform must contain an alternative text, regardless of its purpose.

# DO'S

- **Every image should contain an alternative text**
  - If the image communicates information visually, the alternative text must communicate the same information
  - If the image is decorative meaning it does not communicate relevant information, the alternative text should be given an empty value (alt=" ")
- **Describe the content and the information as seen in the image**
  - Describe materials, textures, design for clothing items and accessories
  - Include any text that is over the image if it adds meaning to the product
- **Alternative text and descriptions will vary depending on the context**
  - Be specific in the right way, describe the information that is useful for the given context, and be concise
- **Test your alternative text to make sure it is useful using tools such as the Web Developer Chrome extension**
  - With this extension, you will see the alternative text for each image when you hover it

# DON'TS

- **Do not exceed 125 characters for alternative text.**
  - Screen readers stop reading descriptions to the user after 125 characters.
- **Do not use alternative text for better Search Engine Optimization.**
  - Although the descriptions can include keywords, this section is meant to communicate important details and information on the product for users who rely on it
- **Avoid starting the alternative text with “Image of...” or “Picture of...”**
  - This will get repetitive as the user listens to every image description on the page
- **Do not make assumptions about ethnicity or gender (for models)**
  - If you are stating the ethnicity or gender of the model, make sure to ask prior to doing so to avoid incorrect assumptions
- **Do not copy and paste the product title into the alternative text field**
  - This is not informative of the product characteristics
- **Do not rely uniquely on artificial intelligence to write alternative text.**
  - It is problematic and dangerous (can describe individuals offensively, insensitively)

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# EXAMPLES

FIGURE 1. IN THIS EXAMPLE, THE ALT DESCRIPTION EMPHASIZES THE MOST RELEVANT, SPECIFIC DETAILS.



## INCORRECT ALTERNATIVE TEXT

- Image 1 of striped jacket
- Striped jacket/sweater
- Image
- Green and pink striped jacket

## APPROPRIATE ALTERNATIVE TEXT

- **Short-sleeve pointelle cardigan with pink and green stripes, v-neck, and front white button closure reaching the belly button (125 characters)**

# EXAMPLES

FIGURE 2. IN THIS EXAMPLE, THE ALT DESCRIPTION EMPHASIZES THE MOST RELEVANT, SPECIFIC DETAILS.



## INCORRECT ALTERNATIVE TEXT

- Regular Fit Sweatshorts
- Green shorts
- Sweatshorts in a cotton blend
- Man with tattoos, wearing green shorts, white socks, white sneakers, and a beige shirt

## APPROPRIATE ALTERNATIVE TEXT

- **Khaki green sweatshorts with elasticized waistband with drawstring, side and open back pockets, and raw, rolled-edge hems (121 characters)**

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## 2. Structural Navigation

Structural Navigation is an important part of website accessibility because the order in which elements are read out loud to users with assistive technologies is very important. A common mistake is that brands do not put their navigation or reading order in the way that is visually displayed, making it challenging and overwhelming to complete a task logically using assistive technology.

### DO'S

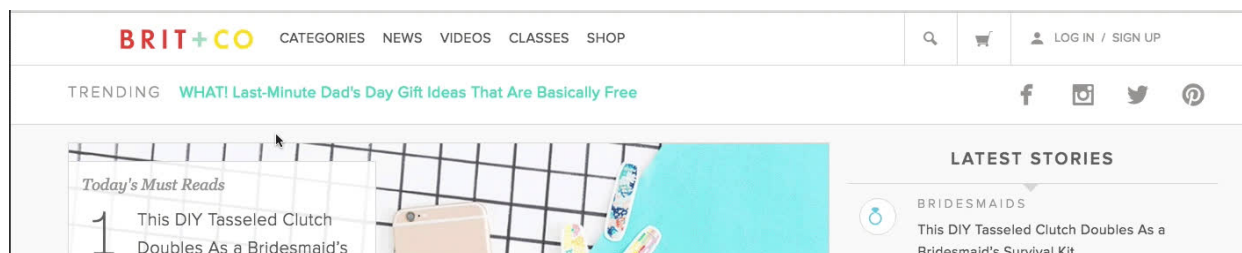
- **Use an ordered list since the sequence of the items in the menu is important.**
  - If not, the assistive reader will recognize the items out of order which will overwhelm and confuse the user on how to navigate the site.
- **Organize the items in the menu in the order that they are displayed**
- **Label menus in the HTML so the assistive technology can recognize the menus**
- **Test your navigation to ensure that there is consistency with the items in the menu, the order, and what is displayed on each page**
  - you will see the alternative text for each image when you hover it

### DON'TS

- Do not use an unordered list
- Do not overlook the structural navigation

# EXAMPLES

FIGURE 1. IN THIS EXAMPLE, THE STRUCTURAL NAVIGATION IS OUT OF ORDER



The example above shows what happens when the navigation is out of order. When using assistive technology, the tab order is not aligned with what is shown on the screen. The screen reader recognizes the logo first, skips directly to the search and add to cart icons, and then returns to the navigation bar to read the different categories of content. An individual faced with these difficulties will be confused and will not enjoy their experience shopping online because they won't know where items are located since the navigation is out of order from the keys on the screen.

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### 3. Contrast Requirements

Contrast ratios are extremely important because individuals who are blind or visually impaired invert the colors on their screen to make it easier to read. When contrast ratios do not follow the guidelines, screen readers will invert the text/images to white and the information will get washed. The guidelines that are recommended for e-commerce sites are the ones listed under the Web Content Accessibility Guidelines which require that text and images of text have a contrast ratio of at least 4.5:1 for large text (14 pt) and 7:1 for normal text (smaller than 14 pt).

## DO'S

- **Test your website by inverting colors using Chrome extensions, such as High Contrast**
  - These tools help you visualize which images are following the contrast requirements and which images will be visible to users who invert the colors on their screen
- **Generate palettes for your e-commerce website based on Web Content Accessibility Guidelines.**
  - There are online tools such as Color Safe which automatically generates text colors using the guidelines required by law

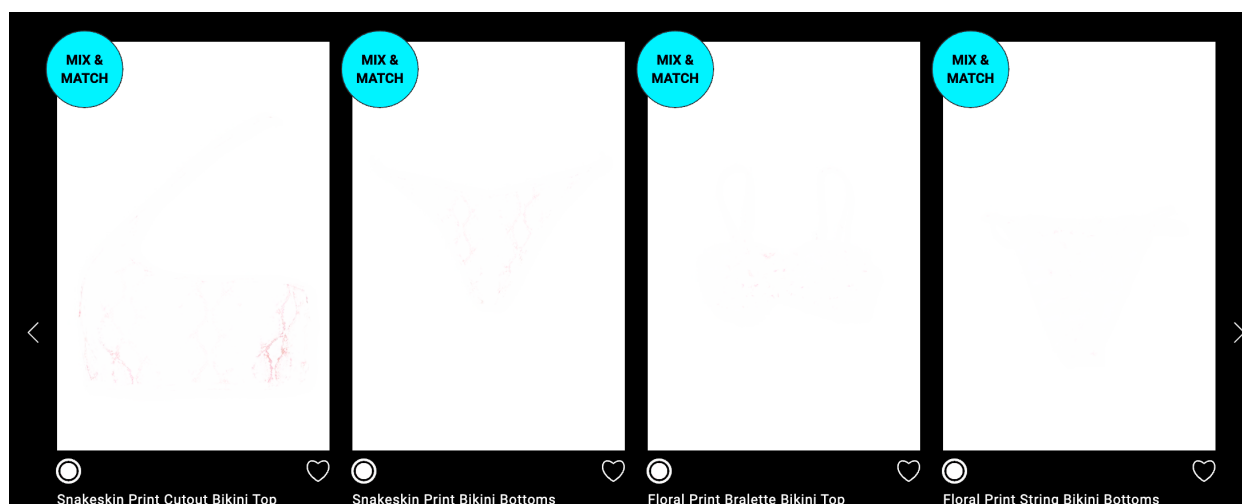
## DON'TS

- **Do not round contrast ratios**
  - This is not permitted under the Web Content Accessibility Guidelines
  - Rounding contrast ratios means that a contrast ratio of 4.49124578:1 can't be assumed to be the same as 4.5:1
- **Text that is meant to be hidden, should not be visible to anyone when contrast is inverted.**
  - For instance, if the text that has the same color as the background and cannot be seen with predetermined contrast, it should not be visible when the user inverts the colors.



# EXAMPLES

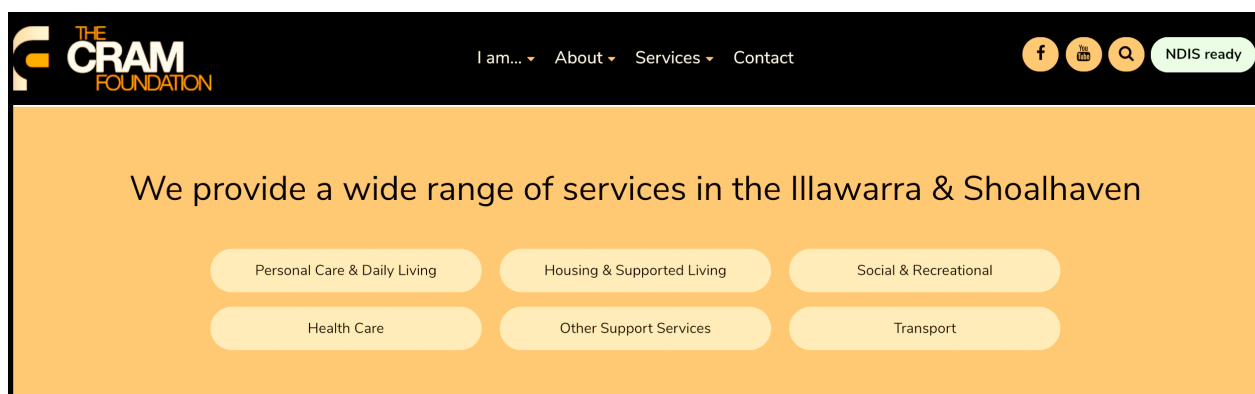
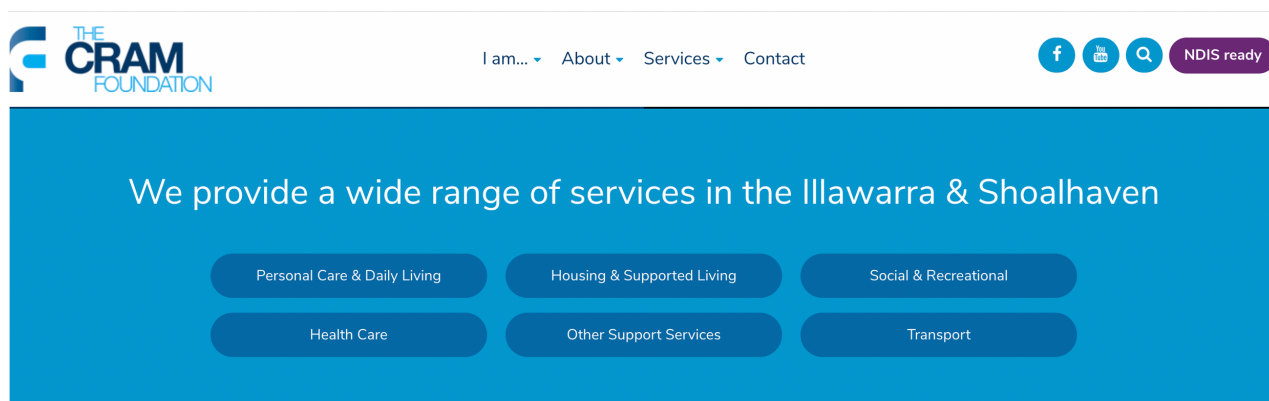
FIGURE 1. IN THIS EXAMPLE, THE CONTRAST REQUIREMENTS DO NOT FOLLOW ACCESSIBILITY GUIDELINES



The example above illustrates what happens when contrast requirements are not met. When individuals invert their screen colors, images disappear and what they see on their screen are white boxes of lost information or lost pictures. When this happens, individuals can't complete their purchase because they can't visualize the product they have on their screen when colors are inverted.

# EXAMPLES

FIGURE 2. IN THIS EXAMPLE, THE CONTRAST REQUIREMENTS ARE MET AND NO INFORMATION GETS LOST WHEN COLORS ARE INVERTED.



The example above shows an appropriate use of contrast requirements on a website. The first image shows the regular website and the second one is the resulting page when colors are inverted. As seen above, no information gets lost, creating an online experience that is accessible and smooth for everyone.

03



CONVENIENCE

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# CONVENIENCE

The idea behind online shopping platforms is to offer customers the convenience of being able to compare multiple products across brands seamlessly and then easily complete a purchase. For people with visual impairments or blindness, this is not the case. With the current design of e-commerce sites, the process becomes very time-consuming because websites are not always accessible with assistive technology. Some of the common difficulties related to the convenience that individuals with visual impairments or blindness face when shopping online are related to:

1. Too many stimuli together
2. Accessible overlays

## RECOMMENDATIONS TO ADDRESS THESE DIFFICULTIES

### 1. Stimuli

For individuals with partial vision, it is overwhelming to shop online when too much is going on. They will generally use the zoom feature to enlarge text and images. When there are pop-ups, calls-to-action, and flashing elements, it becomes difficult to focus on one thing. They will most likely abandon a page if this occurs because it will get them tired or exhausted quickly since there is so much their partial vision will let them grasp at a time. For this reason, too many stimuli together is a common issue in e-commerce platforms because there are many opportunities to promote discounts, sales, newsletters, and more. The best approach you can take for your website is to keep it simple and straightforward. This means having one stimulus at a time and not overpopulating each page with numerous pop-ups and flashing elements.

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## DO'S

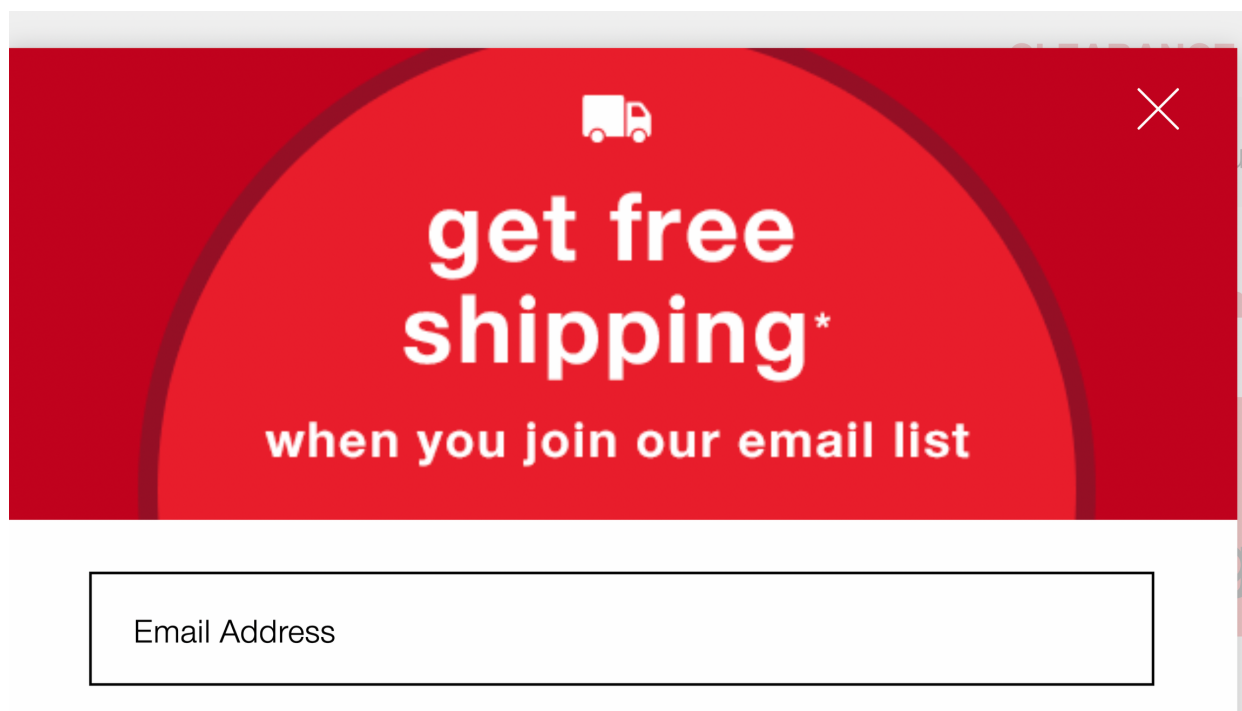
- Instead of using pop-ups to offer discounts and encourage customers to sign up to the newsletter, use the footer of the page to invite customers to register
- If pop-ups or alerts are incorporated, ensure that they can be closed with the keyboard using any key
- Ensure that the home page is as simple as possible, with no text over images and unnecessary pop-ups
- Ensure that any text that is important is adjusted for contrast, especially discounts or offers that are promoted on the home page
- Ensure that the navigation order is adjusted to the display menu to provide the best first impression to new customers using assistive technology
- Prioritize information from most important to least
- Provide an option to turn off pop-ups and flashing elements that are located easily, not at the bottom of the page because until the user scrolls down they can get affected or overwhelmed by those elements
- Give the user the option to choose how many items per page they would like to see

## DON'TS

- Do not include an excessive number of product images on the home page, leave those for the page that is designated to each clothing category
- Do not have endless pages. Divide products into different sections and categories

# EXAMPLES

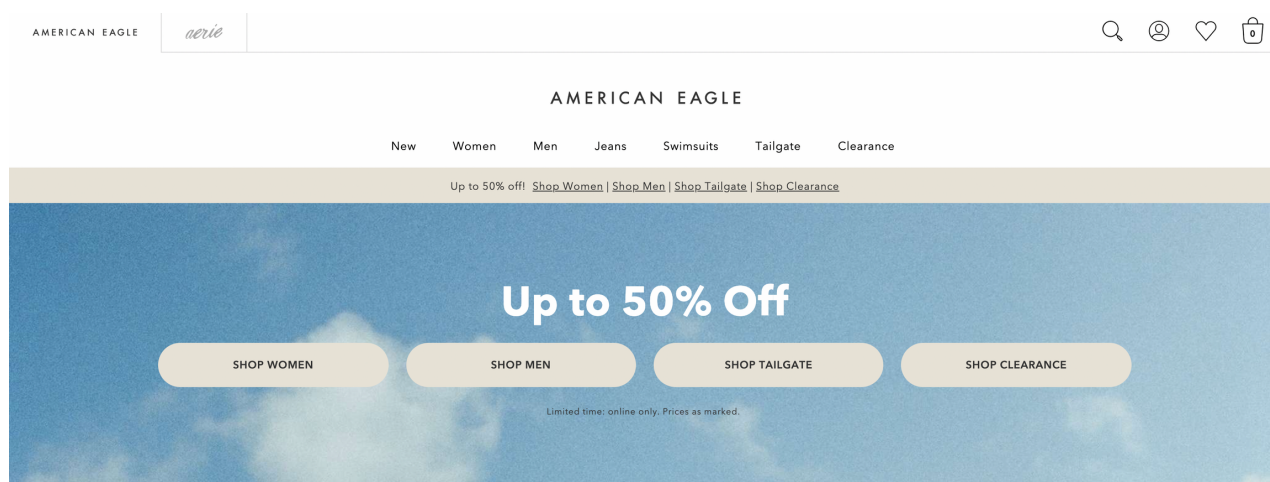
FIGURE 1. IN THIS EXAMPLE, THE TJMAXX WEBSITE HAS POP-UPS AS SOON AS THE USER OPENS THE SITE WHICH ARE NOT RESPONSIVE AND ACCESSIBLE



If a customer using assistive technologies visited the site he/she/they would abandon the website because 1) the screen reader is most likely not able to recognize the advertisement 2) the user cannot close the pop-up with the keyboard, and 3) the call to action covers the entire page when items are zoomed in, not letting the user visualize the product images and the store name, and not communicating any meaning about the brand.

# EXAMPLES

FIGURE 2. IN THIS EXAMPLE, WE CAN SEE AN APPROPRIATE BALANCE BETWEEN TEXT AND STIMULI WHICH ARE ACCESSIBLE



The American Eagle homepage does not have any unnecessary pop-up or element flashing that will overwhelm the user. The discount is clearly communicated and the page is not filled with product images. The options for signing up for the newsletter are included at the end of the page. This is a good example of balancing the elements in the home page to create a smooth and accessible experience for users who are blind or visually impaired.

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## 2. Accessible Overlays

Recently, it has become popular to use accessible overlays to solve the accessibility issue that many e-commerce websites have. Brands will hire someone that creates an accessibility toolbar for their existing websites and will treat accessibility as a check-box exercise. The truth is that accessibility overlays do not work and create more difficulties for the user with an assistive technology. This happens because accessible overlays are automated, they do not work on mobile devices, and they are not compatible with assistive technology. What does this mean for your customer? If they are navigating your site using a mobile device, they will leave because their screen recorder will not recognize the accessible overlays that will adjust the website to their needs. Secondly, if they are navigating with a laptop or PC, the assistive technology will still not recognize the overlay so the user will only be able to navigate with what you have adapted on your website manually, such as alternative text options, contrast features, etc. Finally, since accessible overlays are automated, they will most likely miss important information or elements when used by any other user with a disability, which is not ideal for a customer to finalize a purchase.

## DO'S

- Implement the changes in your HTML code because this will make your website accessible based on Web Content Accessibility Guidelines

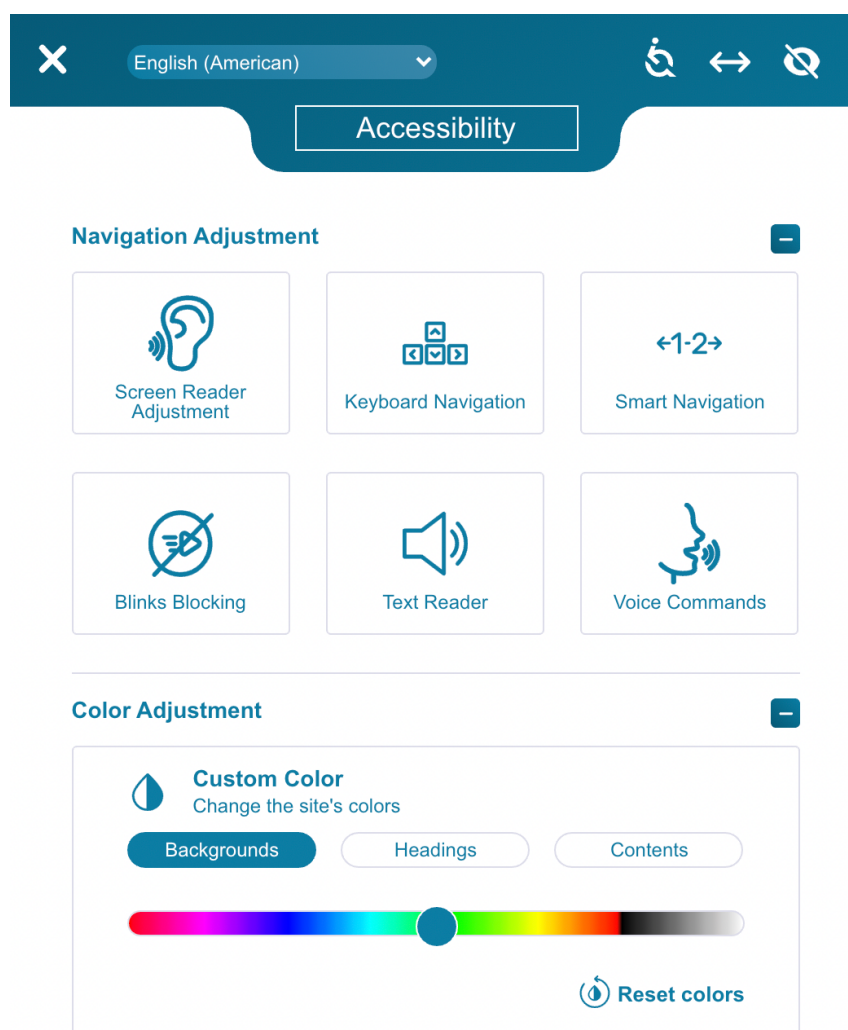
## DON'TS

- Do not use accessible overlays. Besides being problematic to users with disabilities, it can also result in a lawsuit for not following Web Content Accessibility Guidelines.



# EXAMPLES

FIGURE 1. IN THIS EXAMPLE, WE CAN SEE A COMMON VERSION OF AN ACCESSIBLE OVERLAY



The accessible overlay pictured above is one of many examples that are implemented on e-commerce platforms to adjust to the needs of individuals with disabilities. Unfortunately, these overlays are not accessible despite listing all the accessibility needs because they are not compatible with assistive technologies or mobile devices. The only people that can make use of them are sighted individuals.

04



SUPPORT

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# SUPPORT

Customer support is important for everyone who shops online. Individuals with visual impairments or blindness rely heavily on reviews as a form of support because they give them reassurance since they can understand and get a sense of what other people are saying about the same product or accessory. For this reason, the most common issue related to creating an enjoyable experience for individuals with visual impairments or blindness is related to:

## 1. Reviews

### **RECOMMENDATIONS TO ADDRESS THESE DIFFICULTIES**

#### **1. Reviews**

Reviews are one of the most important sections of an e-commerce website for users who are blind or visually impaired. These are helpful to them because it helps them envision the product they have in front of them and understand if that will meet their needs. Reviews are also important because they provide reassurance. Many times, individuals who are blind or visually impaired are worried that their purchasing decisions will be judged. Therefore, reading what others are thinking and saying about a specific product will help them feel included. Finally, reviews are also important because they give everyone an opportunity to become an opinion leader. Users will not only read the reviews but they will have the opportunity to voice their opinion and experience with a product.

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## DO'S

- Make reviews visible
- Make reviews accessible to screen readers. Ensure that the text can be recognized because reviews communicate significant information
- Ensure that the user can interact with the reviews section
- If images are shown, label them with their respective alternative text
- Make it easy and convenient for the user to add reviews
- When possible, allow customers to record themselves sharing their experience with a product so that other users can hear their thoughts. This can be in a form of a voice recording or a video review

## DON'TS

- Do not leave reviews until the end of the page
- Do not overload the reviews section with sidebars, keywords, filters, and images out of order
- Do not use only visuals to communicate the rating of a product. If you use the star symbols to indicate the store, make sure that your code translates stars into human-readable prose, such as “Five stars out of five.”
- Do not label images as descriptive in the reviews section because they communicate very important information

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# EXAMPLES

FIGURE 1. THIS EXAMPLE SHOWS THE STAR RATING METHOD MOST COMMON IN E-COMMERCE PLATFORMS

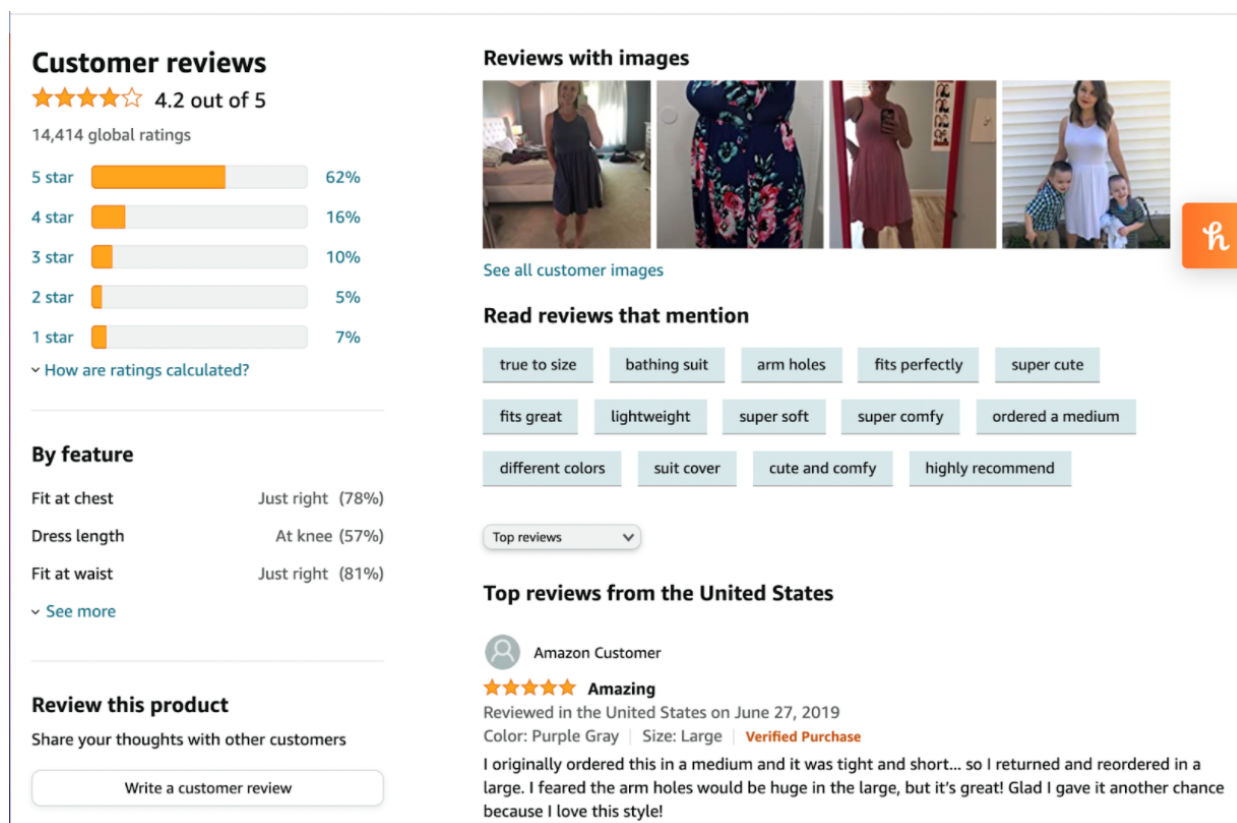


## AMAZING FIT!

Most websites use the stars to indicate the rating of a product. However, these are incorporated as images with no alternative text. For this reason, when stars are used for ratings, the rating is lost because when using a screen reader, this won't be recognized by the assistive technology unless there is a code or alternative text indicating what the icon is showing.

# EXAMPLES

FIGURE 2. THIS EXAMPLE SHOWS A CLUTTERED AND OVERWHELMING REVIEW SECTION



Amazon's reviews sections is busy and complicated. The images shown above do not have alternative text and there are multiple filters and keywords that are not labeled. For this reason, an individual with visual impairments or blindness would not be able to navigate through the reviews section because their assistive technologies would not recognize the section with no labels. For someone using the site with no assistive technology, this section remains as complicated because it is very overwhelming and has too many stimuli grouped together.

# 05

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## REPRESENTATION AND INCLUSION

# REPRESENTATION AND INCLUSION

Some individuals who are blind, have partial vision. They can look at images by using zoom features or by changing the contrasts on their screens. For this reason, it is essential to have models that represent their identity so that they can feel confident and empowered throughout their shopping journey. Similarly, another option is to create opportunities for social inclusion and interaction through online communities in your e-commerce platform. These priorities don't get enough attention most of the time and two of the most common difficulties that individuals who are blind or visually impaired face are related to:

1. Diversity of models
2. Social inclusion and interaction

## RECOMMENDATIONS TO ADDRESS THESE DIFFICULTIES

### 1. Diversity of models

It is important to show how products look on different types of people to give the customer a better idea of how the product fits and if it is compatible with what they need/want. Individuals enjoy identifying with models or representations seen on websites since this empowers them throughout their customer journey.

## DO'S

- Cast individuals with disabilities to model and showcase your products. This will show that individuals with disabilities can be fashionable and trendsetters
- **Use inclusive language and person-first language for descriptions**
  - For example: Say “woman who is blind” instead of “blind woman”

## DON'TS

- Use the same model for every product or item listed on your website
- Use models with the same body type, skin color, and height



# EXAMPLES

FIGURE 1. IN THIS EXAMPLE, WE SEE INCLUSIVE AND DIVERSE CAMPAIGNS



These images are some examples of what diversity among models can look like. Not focusing only on individuals with disabilities but creating campaigns that represent everyone. These were obtained from Izzy Wheels and Tommy Hilfigers, two brands striving to make the world a more inclusive and welcoming place for all.

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## 2. Social inclusion and interaction

Social interaction and inclusion are not always a priority for e-commerce sites. However, the benefits and importance of such can be overlooked. If e-commerce sites had an extra tab on their website where users could share their outfits, favorite products, and trends, opportunities for social interaction and inclusion would arise.

### DO'S

- **Provide a space where users can interact, such as having an extra tab where customers can share their opinions and thoughts about products. This can be extremely beneficial to individuals with disabilities and can give your brand a competitive advantage**
  - This will promote individuals with disabilities as opinion leaders and will encourage them to support your brand if they feel empowered.
  - To ensure customers engage, it can be useful to have a community manager or invite guest speakers that talk about their style, the trends they love, etc.
- **Have a form where users can submit their suggestions on how to improve the website and make it more accessible.**
  - This shows that your brand cares about the needs and wants of your customers

### DON'TS

- Do not ignore the potential that there is on e-commerce websites for customers to interact and engage with each other

# 06

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## ADDITIONAL RESOURCES

# ACCESSIBILITY CHECKLIST

## ADAPTED FROM WCAG

The following checklist has been included to help brands in the exercise of discovering what they're missing on their e-commerce sites to meet accessibility needs. With this checklist, brands can keep track of their progress as they adjust their shopping platforms.

- **Text-alternatives**

- All images, form image buttons, and image map hotspots have appropriate, concise alternative text.
- Images that do not convey content, are decorative, or with content that is already conveyed in the text are given null alt text (alt="") or implemented as CSS backgrounds.
- Content intended to be hidden from all users is also hidden from assistive technology.
- CSS background images that convey meaning have textual alternatives.
- Animated content has an alternative or is described in the text.

- **Meaningful Sequence**

- The reading and navigation order (determined by code order) is logical and intuitive.
- Meaningful CSS content must be available and in a logical order when viewed without style sheets.

- **Sensory Characteristics**

- Instructions do not rely upon the shape, size, or visual location (e.g., "Click the square icon to continue" or "Instructions are in the right-hand column").

- **Distinguishable**

- Audio Control: A mechanism is provided to stop, pause, mute, or adjust the volume for audio from multimedia or animation that automatically plays in software for more than 3 seconds.

- **Contrast**

- Text and images of text have a contrast ratio of at least 4.5:1 for large text (14 pt) and 7:1 for normal text

- **Text size**

- The page is readable and functional when the text size is doubled.

- **Time**

- If a page or application has a time limit, the user is given options to turn off, adjust, or extend that time limit.

- **Seizures and physical**

- No page content flashes more than 3 times per second unless that flashing content is sufficiently small and the flashes are of low contrast and do not contain too much red.

- **Navigation**

- A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.
- The web page has a descriptive and informative page title.
- Information about the user's location within a set of Web pages is available.

# END



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