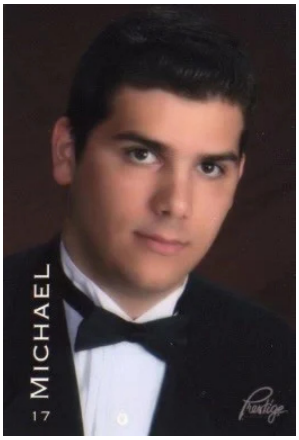
E-commerce Accessibility Insights: A Screen Reader User's Guide to Seamless Digital Experiences

About the Author



Hi, I'm Michael Taylor, and I've been contributing to marketing at UsableNet for over a year. As a blind person, I heavily rely on assistive technology to navigate the digital world. Specifically, I'm a full-time screen reader user, and my go-to ecosystem is Apple. My daily devices include a Mac computer, iPad, and iPhone, all running Voiceover, Apple's built-in screen reader. While I mainly use Voiceover, I'm familiar with other screen readers like JAWS and NVDA.

About this book

In this ebook, I'll explore the accessibility of e-commerce websites from the perspective of someone dependent on assistive technology. Drawing from my extensive experience with retail websites, I aim to provide detailed insights. From navigation strategies to real-world examples of purchase journeys, I'll focus on screen reader accessibility.

How I Navigate a Retail Website

As a blind person, I rely on a screen reader to use the internet. Screen readers are specialized programs that verbalize visual elements on a website, such as text, buttons, and navigation features like menus. On desktop systems, the keyboard is the primary mode of input and interaction.

When exploring a new retail website, I start by exploring the layout and structure of the user interface. This strategy allows me to navigate subsequent site pages quickly, provided the design template is consistent across all pages.

First, I will look for consistent web elements across all site pages, such as top header navigation buttons like the shopping cart or account sign-in menu. Once I have a general idea of where some of the most commonly used functions are, I will set my screen reader to navigate by heading only and begin moving through the page to discover the site's main content organization structure. For example, knowing that shopping by item category is at heading level two and that individual product listings are at heading level three will be helpful when navigating subsequent site sections. As another general rule, I will set my screen reader to navigate by link only. I will manually move down the page, briefly listening to each entry. I do this to determine if the site uses a link or a button-dominated interface. For example, some sites technically use links to activate product search options, while others use buttons for the same task. Knowing if a site is button or link-heavy makes it easier to use targeted filter navigation later on.

I have noticed that many retail sites use similar design and layout structures. For example, it is widespread to have a top header navigation bar containing options such as a menu, shopping cart button, search tool, or account sign-in link. On sites with familiar layouts, I am more likely to jump directly to the web element I am targeting instead of manually moving around the page and searching for it. For retail websites with more unique structures, I will explore the page first before using the site.

I prefer using a different navigation method when quickly moving around a webpage or finding a specific element. Most screen readers offer a feature that allows users to filter and navigate by specific attributes like buttons, links, images, text fields, words, letters, or headings. Generally, I move around a webpage searching for commonly found headings, buttons, or links.

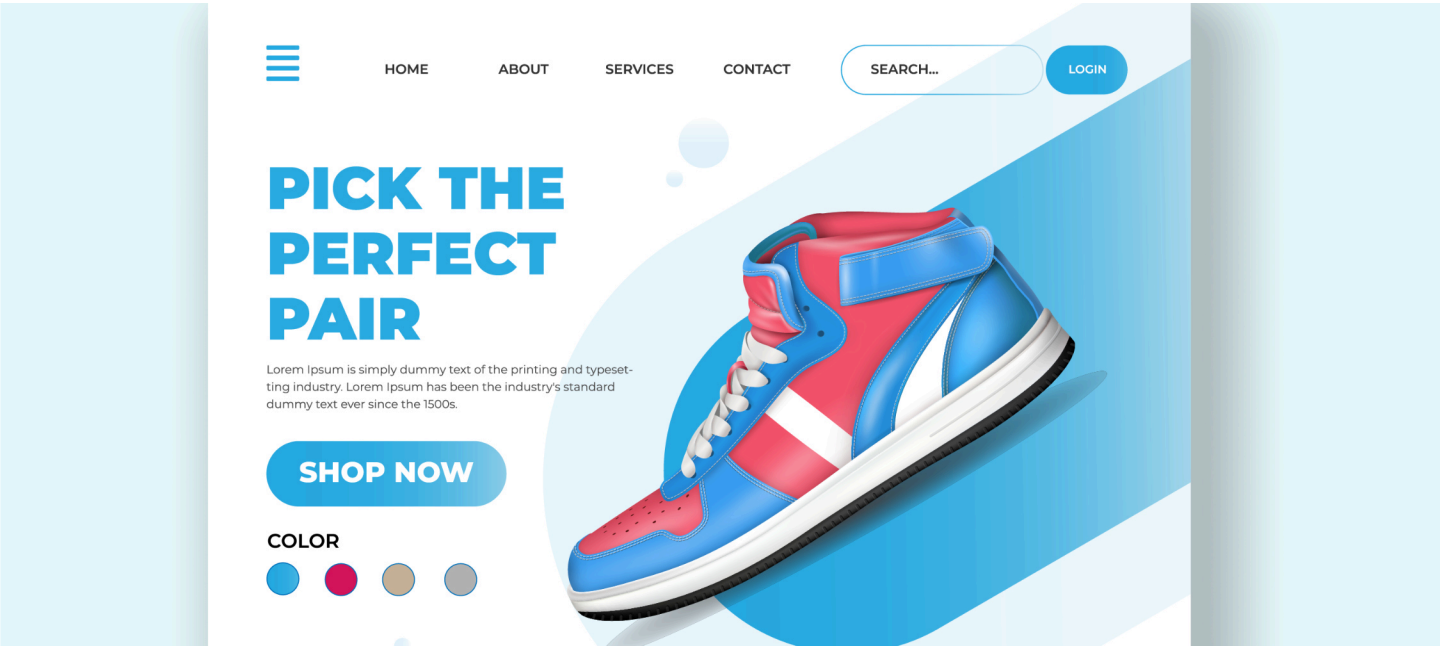
Each screen reader implements this functionality differently. For instance, some screen readers require a simple keypress, such as "H" for headings or "L" for links. In contrast, Voiceover uses a navigation rotor, allowing users to select a filter option and then use arrow keys to navigate through the page, focusing only on elements corresponding to the chosen filter. For websites I frequently visit, I primarily rely on this navigation method.

On most websites, I use a combination of manual and filtered navigation, depending on the site's design and the task at hand.

Now that I've explained how I navigate a website, I'd like to take you through a recent real shopping experience when I explain my interactions with an e-commerce site. I hope this will be helpful to readers who are curious about the blind online experience in general. From there, I want to talk about specifics for website owners. I'll focus on everyday interactions on e-commerce sites. Finally, I'll talk about the everyday challenges I experience when shopping on websites from my desktop.

My Accessibility Experience: A Real Shopping Session

I am seeking a pair of shoes that fall somewhere between a sneaker and a dress shoe. I decided on a popular online clothing retailer and navigated to the website. Upon page launch, I began exploring the site using manual navigation to get a general idea of the site's layout and interface design language. I discovered that the main page primarily consisted of advertisements for new items and listings for the company's product categories. The accessibility of the homepage seemed fine, with no significant issues.



Not quite finding what I was looking for, I decided to perform a direct search for the shoes that I wanted. I set my screen reader to filter by text field only and began navigating. My screen reader's focus cursor first encountered a clearly labeled "Product Search, Text Field." I entered the field, input my search criteria, and pressed the enter key to proceed.

I first noticed three unlabeled buttons at the top when exploring the search results page. They were spoken aloud as "Button." I was frustrated because I knew these buttons would most likely be essential to the effective use of the site. I would soon find out that I was correct. Unlabeled buttons constitute a significant accessibility flaw that can potentially stop users in their tracks. Moving through the search results, I could hear each item's name, number of review stars, and price. However, I quickly discovered that there needed to be more search result options to navigate efficiently.

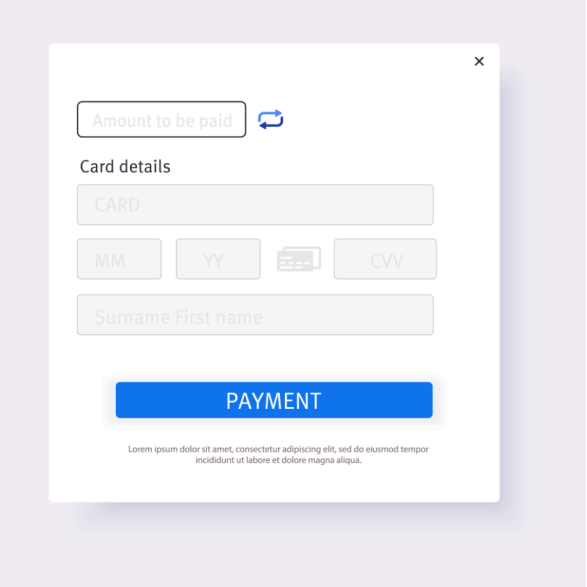
I began looking for a product filter option at the top of the page. I encountered three unlabeled buttons. I decided to activate each button to determine its functionality. The first opened a log-in screen, the second brought me to the cart, and the third, located directly above the first search result listing, opened the search filter options.

Luckily, the filter menu was accessible and comprised a series of correctly labeled checkboxes. I made my selections and applied the filters. Eventually, I found a pair of shoes that fit my style and size requirements and proceeded to the corresponding product details page.

The overall accessibility on the item details page was good, except for one major problem. The large item image that filled the top half of the page had no text description. On the contrary, my screen reader announced a seemingly endless string of numbers and letters that would only stop once the focus moved away from the picture. Images without alternative text descriptions constitute a significant accessibility flaw on retail websites, mainly because of the lack of written content on modern product listings.

One positive thing I noticed was that the website had the shoe color options clearly labeled with a descriptive, easy-to-understand color label. Everything else on the page, including product Q and A and customer reviews, was accessible to my screen reader. I purchased the shoes and activated the "Add To Cart Button."

Remembering that the cart button was not labeled, I only set my screen reader to navigate by button. I returned to the very top of the page. Luckily, the second unlabeled button still corresponded to the shopping cart. Once in the cart, I reviewed my product selection and proceeded to the checkout. I followed the usual checkout flow, entering my shipping address, contact information, and payment card details. All went smoothly because all text entry fields and action buttons were labeled correctly. After reviewing my order on the final screen, I located the "Confirm Purchase" button. Then, I had a problem. My screen reader announced the button as dimmed, meaning it is visually grayed out and, therefore, unclickable. I reviewed all the information I entered in search of a possible error.



Something occurred to me when I came to the payment method section. The website never prompted for my credit card's three-digit security code. Going through the card entry process again, I could not find the option. I often shop online and am familiar with the credit card entry process. This shopping experience was the first time the website did not prompt me for my card's security code. I suspected the text field was present, but my screen reader did not detect it. A sighted user confirmed that my suspicion was correct. After entering the code, I was able to place the order successfully.

Though this site's overall accessibility was primarily positive, it only took one major accessibility blocker like this one to prevent me from independently completing my purchase. I needed the help of a sighted person to use this website. I hope this section helps demonstrate how the accessibility topics I will discuss in the rest of this ebook affect real-world website usage for people with disabilities. Additionally, it is crucial to understand that blockers to accessibility like the one I encountered can shut out blind people like me from any digital experience.

E-commerce websites are dynamic environments where shoppers interact with various features throughout their online journey. While ensuring overall screen reader accessibility is essential, paying particular attention to specific interactive elements that shape the online shopping experience is critical. In the following section, I'll delve into these interactions, shedding light on accessibility considerations to ensure an inclusive shopping experience for everyone.

Examining Common Interactions on E-Commerce Websites

Search Filtering

Almost every visitor to a retail website performs a search at some point. Given the vast array of online products, the ability to filter and customize search results is vital for a focused and prosperous shopping experience. While most modern retail websites offer search filter functionality, these interactive filters often pose accessibility challenges. Firstly, they can create a keyboard trap, preventing users from exiting the filter selection menu after making their choices and returning to the main site. Additionally, the button to apply selected filters may lack a proper text label, leading to users missing it or activating the wrong button. Another area for improvement is mixing text from the main page and the search filter menu, resulting in unintelligible phrases when read by screen readers. Addressing these problems is crucial for ensuring good screen reader accessibility.

Add to Cart

A typical online shopping strategy is adding multiple items to the cart and deciding on purchases before checkout. This method relies on quick and efficient interactions to yield meaningful results. The "Add To Cart" button must be clearly labeled and easily locatable through manual or filtered screen reader navigation. Placing a second "Add To Cart" button at the top of product listings can facilitate accessibility for assistive technology users. Additionally, having the screen reader announce the item's price as part of the button label can be very helpful. To ensure accessibility, the activation button must be appropriately labeled when navigating the cart.

Furthermore, the cart button should reflect the number of items in the cart when announced by the screen reader. Since users often move between the cart and other site pages, browser forward and back commands should consider the cart a separate page accessible directly. Once in the cart, users must be able to review items, prices, and quantities efficiently. Difficulty in removing items from the cart, often due to unlabeled "X" graphics representing the remove button, is a significant accessibility issue.

Updating Item Quantities in the Cart

Updating item quantities within the cart can be tricky for screen reader users if the controls need to be adequately labeled or are challenging to find. Accessible quantity selectors typically use a drop-down menu or increment/decrement buttons. These controls should have clear labels and provide audible feedback upon activation to ensure users know the changes made. An accessible quantity selector will allow screen reader users to adjust the number of items and confirm the updated total cost in the cart summary.

While e-commerce websites strive to cater to diverse user needs, prevalent accessibility challenges warrant attention. From navigation menus to keyboard traps, these obstacles can impede seamless browsing experiences for individuals with disabilities. Let's address these challenges head-on and explore potential solutions to enhance digital accessibility.

Common Accessibility Challenges

Poor Navigation Menus

Accessibility flaws on retail websites are sometimes related to navigation. Navigation menus are vital because they allow users to browse a site by product type and category without performing a direct search. Unfortunately, these menus often lack accessibility. I have used too many navigation menus that either have unreadable entries or are impossible to close once opened

Lack of Skip Links

Skip links allow screen reader users to bypass the persistent content at the top of a page, such as company logo banners, search fields, and button icon bars. Navigation is often slow and clunky when not present because I must move past all the fluff before proceeding to the page's main functionality.

Keyboard Traps

Keyboard traps occur when the screen reader's focus cursor becomes stuck on a particular web element. Drop-down menus, dialogue boxes, pop-ups (such as email sign-up forms), quantity pickers, and even links are typical culprits. They're especially prevalent on sites with many interactive elements. When trapped, users can't move past that spot on the page using accessible methods. Usual commands like the tab key won't exit the trap.

Any web element requiring users to exit the main page surface can become a trap. Pop-ups, overlay menus, text fields, and value adjustment sliders need manual testing. Your site must provide a screen reader-accessible way to dismiss these elements. Navigation commands like tab or arrow keys should work consistently inside these elements. Testing for and eliminating keyboard traps significantly improves navigational accessibility.

Lack of Alt-text

Images play a vital role in website design, particularly in retail. Product listings often include images, making it crucial to provide alternative text descriptions for screen reader users. Properly described images ensure users receive meaningful information about the image content. Unfortunately, many retail websites lack alternative text descriptions, hindering accessibility and depriving blind users of essential product details.

Issues with Labels

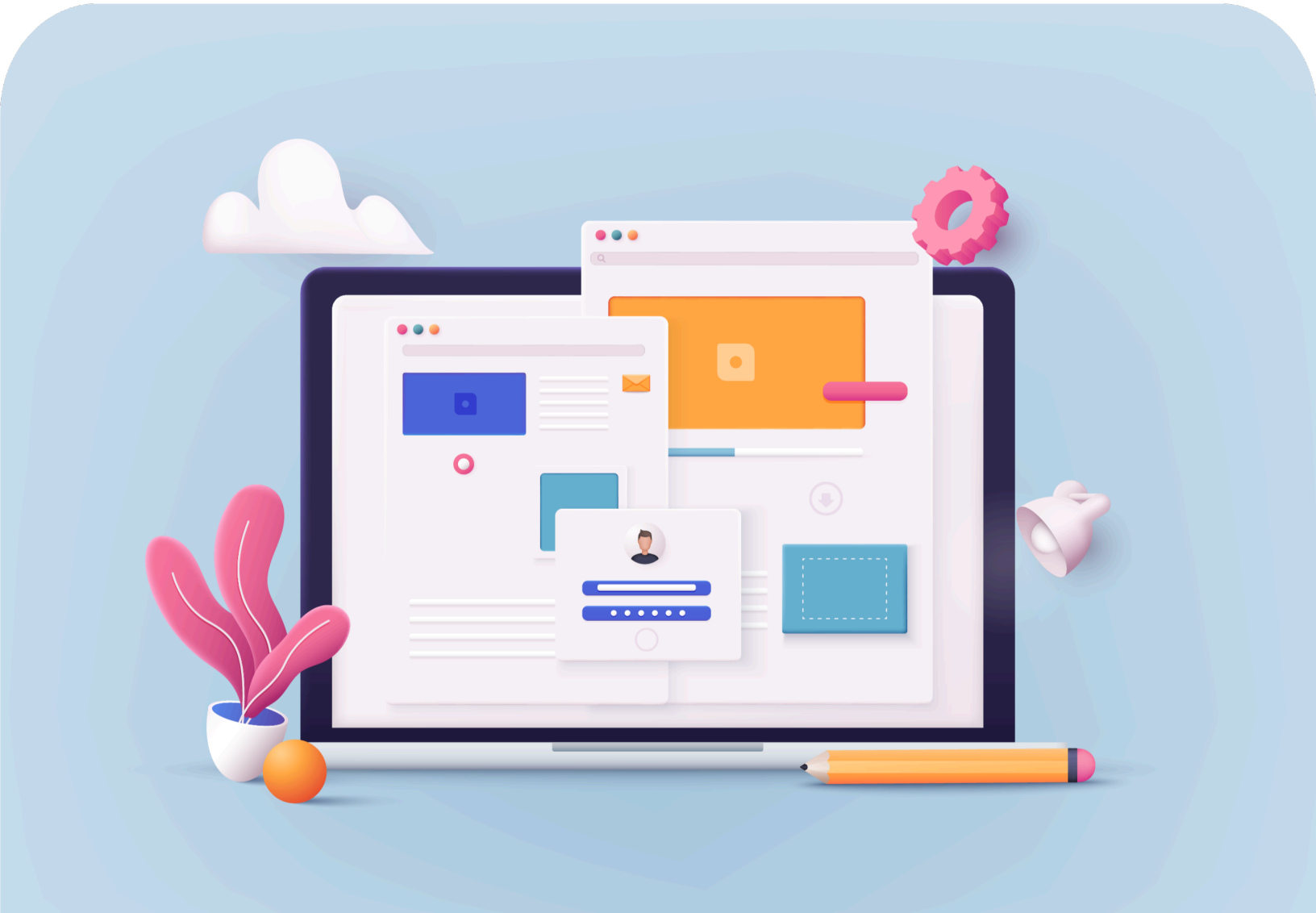
Non-text elements like buttons and text input fields must have word-based labels in the website's code for practical screen reader compatibility. Screen readers may skip or inaccurately describe these elements without proper labels, impacting usability. Icon based buttons, commonly used in retail websites for functions like search filtering and adding products to the cart, require clear labels for accessibility. Similarly, text input fields, crucial for tasks like quantity selection and checkout, must be appropriately labeled to guide screen reader users. Text label deficiencies are among the most prevalent accessibility issues encountered on retail websites.

Reliance on Widgets

Accessibility widgets can seem like a quick solution to meet digital accessibility demands to folks unfamiliar with how they work for people with disabilities. Typically, a website visitor triggers a widget with a button labeled "Explore Your Accessibility Options" on the website's homepage. The widget allows users to adjust visual settings such as text size and page background color, which may benefit some users. However, for screen reader users like me, these widgets fail to provide sufficient accessibility support.

Many accessibility widgets come with a built-in screen reader. Still, they are often rudimentary and lack the advanced functionality experienced screen reader users rely on. Moreover, when activated, the widget's screen reader competes with the primary screen reader, causing confusion and hindering navigation.

Even widgets without a built-in screen reader offer a "screen reader mode." Still, in practice, this often worsens the site's accessibility. The screen reader's focus cursor becomes erratic, making it challenging to navigate the page logically. Additionally, this mode may generate "Ghost Buttons," duplicates of non-functional navigation buttons, further complicating the user experience. Widgets often exacerbate rather than solve accessibility issues for screen reader users like me.



Closing Thoughts: The Impact of Accessibility in E-Commerce

As we conclude our exploration of digital accessibility in e-commerce, it's crucial to reflect on the broader implications of prioritizing inclusive design. Accessibility isn't just about compliance; it's about empowering individuals with disabilities to navigate the digital landscape independently. Let's wrap up our journey by underscoring the transformative impact of accessibility and the path forward for creating a more inclusive online environment.

For a blind person like me, accessibility means much more than a company avoiding a lawsuit or meeting a compliance requirement. Accessible online shopping is a pathway to independence and self-sufficiency. Buying what I need online without sighted assistance is vital for my success as a young, blind adult. Good accessibility and usability on retail websites make my independence possible.

From a business standpoint, investing in accessibility is smart. People with disabilities represent a significant portion of the population, with approximately 15% of the world's population having some form of disability. In the United States alone, this translates to about 61 million people. This demographic possesses considerable spending power, estimated at around $490 billion annually in the U.S. alone. Ensuring a fully accessible digital experience opens up this untapped customer segment. Digital accessibility is crucial in e-commerce and online retail today. Organizations like UsableNet can offer guidance on this journey.

Engaging with experts can provide the guidance and support necessary to achieve and maintain high accessibility standards. Thank you for taking the time to explore accessibility with me. Let's make the digital world a more inclusive place for everyone.

About UsableNet

UsableNet has been helping companies with digital accessibility for more than 20 years. Our unique approach leverages both expert resources and technology, creating a proven roadmap that has assisted hundreds of organizations in making their websites accessible. Learn how our Managed Service can make your website accessible in weeks.

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