

SI 539 | Final Project

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Website: <http://research.umich.edu/initiatives>

Checklist role: Designer

Checkbox

Designers

- Make sure there is enough contrast between text and its background color

According to the WCAG, the contrast ratio between text and the text's background should be at least 4.5 to 1. If your font is at least 24 px or 19 px bold, the minimum drops to 3 to 1 (though, worth noting that this is a little fuzzy because numbered sizes aren't always reflective of the visual size type). Be especially careful of text over images.

Source: [Salesforce UX](#)

- Don't indicate important information using color alone

There should be another indicator (such as icons to accompany color coding, or an underline on linked text) so that people who cannot easily distinguish colors will be able to understand and use your content.

Source: [UCLA](#)

- Pair values of colors together (not only hues) to increase contrast

When you strip out the color information from two hues and compare the values, there may not be much difference. Pairing different values creates contrast.

Source: [UCLA](#)

- Don't rely on sensory characteristics as the sole indicator for understanding and operating content

You should not rely solely on images, shape, size, visual location, orientation, or sound to indicate important instructions for operating or understanding content (ex. "See the image above"). Instead, use a combination of positioning, color, and labeling to identify content.

Source: [W3C](#)

- Design focus states to help users navigate and understand where they are

Your designs should never actively hide focus states. When people use the keyboard to navigate, your product should include highly visible focus states.

Source: [W3C](#)

- Help users understand inputs, and help them avoid and correct mistakes

Labels should never completely go away when the focus is inside of an input. Users should always have clear instructions on what they should be inputting. Put error messages in text that explain the error and how to fix the error. Never rely solely on color to indicate errors.

Source: [W3C](#)

- Write good alt text for your images

Users with low vision often make use of a talking browser to "read" the web. These specialized browsers convert text to speech so that a user can hear the words on a site. When a talking browser lands on an image, it looks for alt text that it can read aloud; if it finds none, it will often just say "image," leaving the user in the dark as to what the image is and how it matters to the story.

Describe all of the elements that explain what's happening in the image, rather than just setting the alt text to be something like, "photograph"

If you have to use an image of text, be sure to describe the design if relevant, as well as all of the words in the image. (Ex: Whiteboard drawing of the quote "This is a quote")

Source: [WebAim: The Basics of Good Alt Text](#)

- If an experience cannot be made accessible, create another route for users to get that information

It can be difficult to make certain components (like an SVG map) into accessible experiences. In those cases, consider creating an additional screen reader-friendly experience, or at the very least, describe the experience to users.

- Be as consistent and clear as possible in layout and copy

Be consistent across functions, placement, and labeling. Components with the same functionality should work and be identified consistently. Use section headings to organize content. Be clear in writing; avoid jargon and idioms

Source: [Viget](#)

Suggestions

1. The website mostly does a good job on the contrast between text and its background color, but there is one part of the website has minor contrast problems. For example, in Figure 1, the color of "University of Michigan Research" and the background color only pair different hues, thus has low contrast. In this case, I would recommend the website to use different color, such as maze to increase the contrast.

University of Michigan Research

- 1 \$1.48 billion in annual research expenditures
- 2 2.8 million sq. ft. of lab space for research
- 3 100 graduate programs ranked in the Top 10
- 4 227 centers and institutes across campus

Figure 1 Low contrast between text and background color

2. Secondly, for many parts of the website use color only to indicate the navigation. For example, in Figure 2 and Figure 3, there is only color changes between users hover on and off the “GO” icon, which is hard for users with color blind to know whether the icon is hovered or not. In this case, I would recommend the website to user more ways of indication the navigation. For example, when is hovered, the square could have a border, or float on the page to indicate the navigation, as well as indicating the user that the icon is clickable.



Figure 2 Hover off



Figure 3 Hover on

3. When using keyboard to navigate, there are several ways of focus states. For the navigation on the very top of the page, when focused, the text changes from light grey to white. The navigation bar of the page itself would use contrary background color and text color when focused. Links at the bottom of the page, also changes color from light grey to white. All these states are very difficult for users to notice. In this case, I recommend using border to indicate the focus, which can refer to the change of the logo when focused (Shown in Figure 4)



Figure 4 Focus state of the logo

4. The only input action on the website happens when users click the search button, and there shows up a search box. However, know instructions are provided for users to understand what they should input, or the range of searching (Shown in Figure 5). In this case, I recommend using text to instruct the user what they can input or what is the range of searching.

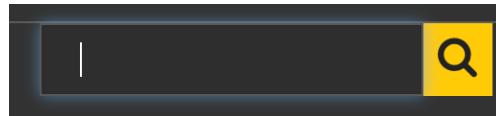


Figure 5 Search box has no input instruction

5. On this website, most of the images are decorative images, thus should not have “alt” and would be invisible for screen reader. The website also did a good job adding the “alt” value of the logo as “University of Michigan logo”. But for the image on the bottom (Shown in Figure 6), there is an alt text for it, but didn’t give a brief but clear explanation of the content of this image. In this case, I recommend the website to user shorter but clearer text for “alt”. For example, for the picture in Figure 6, it can use “Photo of S. Jack Hu”.

The screenshot shows a website section titled "RESEARCH IMPACT". On the left, there is a block of text:

"As the top public research university in the United States, the University of Michigan serves as a critical pipeline of innovative ideas and people that supports the vitality of our nation's economy and enhances our quality of life."

Below this text is the name and title of S. Jack Hu:

S. Jack Hu
Vice President for Research
University of Michigan

On the right side of the section is a photograph of S. Jack Hu, a man in a blue shirt and tie, standing in front of some industrial equipment or machinery.

Figure 6 Image without clear alt text