Peter Callahan

SI539 Portfolio Project

**Designers**

*Page reviewed: http://research.umich.edu/initiatives*

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

[According to the WCAG](http://www.w3.org/TR/UNDERSTANDING-WCAG20/visual-audio-contrast-contrast.html), 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](https://medium.com/salesforce-ux/7-things-every-designer-needs-to-know-about-accessibility-64f105f0881b#.n2hwslspv)

Overall, the contrast employed on this website is good. The University of Michigan color scheme lends itself to a high contrast style and maize on a white background is an obviously poor choice. As a result, blue or black text against a white background provides good contrast. However, font weight is light on some paragraphs. Light font weight can lead to legibility challenges in bright environments, or if a user suffers from poor vision.

**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](https://dcp.ucla.edu/2011/04/tips-and-tools-for-creating-accessible-color-schemes/)

The website follows this principle, important information is indicated by a combination of positioning, color, font weight, and contrast.

**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](https://dcp.ucla.edu/2011/04/tips-and-tools-for-creating-accessible-color-schemes/)

See the first comment, this website effectively uses contrast.

**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 labling to identify content.

Source: [W3C](https://www.w3.org/TR/UNDERSTANDING-WCAG20/content-structure-separation-understanding.html)

A combination of images, lists, videos, and text based content clearly convey the information on the page. The impression is positive and does not rely on any one thing (i.e. an image) to make the meaning clear, although there is some room for improvement. Specifically, some single source media elements (YouTube links) do not provide a text based equivalent for users.

**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](https://www.w3.org/TR/UNDERSTANDING-WCAG20/navigation-mechanisms-focus-visible.html)

The main navigation pane uses color to indicate a change of location (via current location highlight) however sub-navigation menus are not visible without hovering, and do not change color. Page headers indicate the current location so the effect is not jarring, and users will likely not get lost, but the design could be improved.

**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](https://www.w3.org/TR/UNDERSTANDING-WCAG20/minimize-error-cues.html)

The only input section on this page is the search bar, so this checklist item does not apply.

**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](http://webaim.org/techniques/alttext/#basics)

Alt text selections for this page are poor and provide little additional information to users who might rely on them. Many images do not have alt text fields, and others have empty strings. This is an area where this website could be improved.

**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.

The tab indexing function for this page is poor- the main navigation bars are tab-able, but sub-navigation bars are not. There are 5 main navigation bars and about 30 sub-navigation bars, so a large portion of the website is not accessible by tab.

**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](http://code.viget.com/interactive-wcag/#responsibility=content&level=aaa)

The page layout is generally consistent. Like most University of Michigan sites however, this site contains many links to other school sponsored sites that have significantly different layouts. The result is jarring when a user is dropped into a website for an adjacent organization that uses a different styling methodology.

***Recommendations:***

1. Redefine tab-index to include all links in navigation bar, about 15% are accessible via tab index in the current website. These inaccessible links are in the dropdown menu of the navigation bar, only visible after a main navigation selector has been accessed.

2. Add alt text figures for images on the website.