

Project 2 Lab Notebook

Jeena Yin

[Andrew id: qyin]

WAVE Report

WAVE is able to identify missing alternative text for the video and images, missing form label, and missing document language. Also, it identifies the missing heading structure, broken same-page link, very small text, and a non-default tab index for the video which may cause confusion for people using keyboard to navigate the website. The color contrast of the three links provided does not satisfy the standard.

✓ Errors (10)

- ✓ 1 X Missing alternative text ⓘ



- ✓ 3 X Linked image missing alternative text ⓘ



- ✓ 5 X Missing form label ⓘ



- ✓ 1 X Document language missing ⓘ



✓ Alerts (4)

- ✓ 1 X No heading structure ⓘ



- ✓ 1 X Broken same-page link ⓘ



- ✓ 1 X Tabindex ⓘ



- ✓ 1 X Very small text ⓘ



✓ Features (4)

- ✓ 4 X Alternative text ⓘ



✓ HTML5 and ARIA (1)

- ✓ 1 X HTML5 video or audio ⓘ



Summary

WAVE has detected the following:

10 Errors

4 Alerts

4 Features

0 Structural Elements

1 HTML5 and ARIA

4 Contrast Errors

1. Headings and Landmarks

The website is missing the heading structure. It's a very severe problem, because people who use ChromeVox to receive information from the webpage have no way to know what this page is about, because the only heading "Accessibility Overview" is conveyed through color in the image. (The automatic accessibility evaluator WAVE detects the problem.)

Changes

- a) I substituted the entire banner with the background image without the text, and added a heading structure with a black header at the center of the background image. The result is similar, but the header can be detected by the automatic accessibility evaluator WAVE.]



- b) I added real heading structure to the "Links" and "Sign Up!" headings. So that they appear as structural landmarks to people who depend on screen reader. They visually still appear the same.

Links

Sign Up!

2. Good Alternative Text for Images

The navigation buttons "Home," "Links" and "Sign Up" don't have alternative text. Therefore, it's a very severe problem because blind people have no way to figure out what those buttons are, even if they could figure out they are buttons. (The automatic accessibility evaluator WAVE detects the problem.) Also, the decorative images like dots have excessive alt text, since they do not present important content to the users.

Changes

- a) For the navigation links, I changed each link to a button, and added to the image the corresponding alt text such as "home button".



- b) I changed the alt text for the dots to alt="", so that the users who depend on screen reader won't waste time listening to non-important information.







3. Form Labels


The form for signup doesn't have labels for each input. Although visually there's a label besides each blank, the texts are not linked up with the input spaces. Thus blind people won't be able to know what to put in there, which is a severe problem. Though the inputs have names like "fn" or "mn," they are not descriptive enough to convey the information the blanks are asking for. (The automatic accessibility evaluator WAVE detects the problem.)

Changes

I added the form label for each input box, and formatted them such that them all visually make sense to all users.

First Name:  Middle Name:  Last Name: 

Email: 

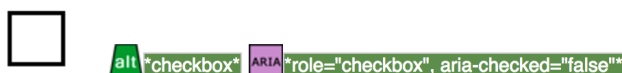
Comments: 

4. Form Widgets without Semantics

The giant checkbox, though looks like a button and responds like a button, it doesn't tell the screen reader that it's a button or whether its status is checked or not. Thus, it's very problematic for people depending on screen reader, that they have no clue how to interact with it. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Changes

- a) I added aria attributes to the checkbox, such that the checkbox is initially unchecked, and the aria-checked attribute is set to false. If the user click on it, the aria-checked attribute is going to be set to true. Thus, the screen reader would be able to identify the current status of the checkbox.



- b) As part of the work for the second category, I changed the navigation images with links to buttons, such that they appear as buttons to the screen reader.

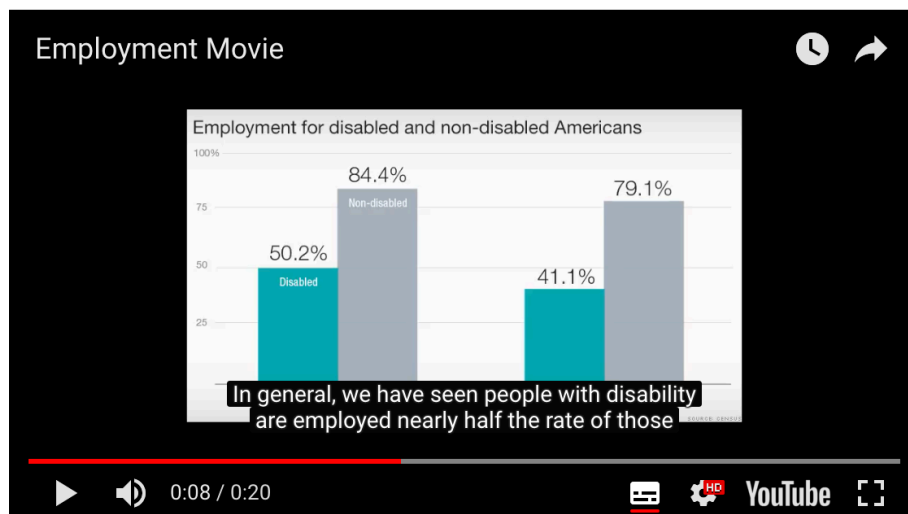


5. Video Captions

The video doesn't have a caption. For people who have hearing problems, it's very hard to receive the information conveyed in the video, which causes a severe problem. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Change

I embedded a youtube player which links up a caption file I created to play with the video.



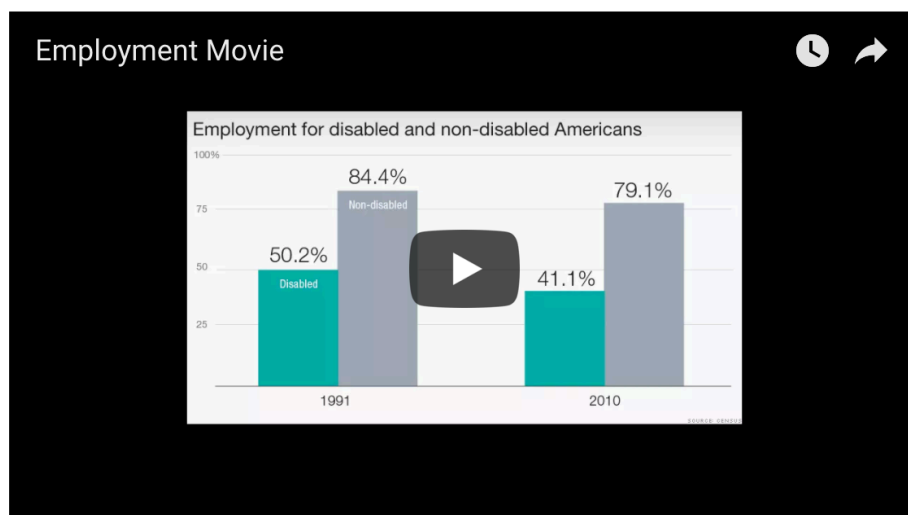
6. Audio Descriptions

The video doesn't have an audio description. For people who can't see the visual representation of the video, there's no alternative that conveys the information contained in the images, which causes a severe problem. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Change

I added audio description for the video using YouDescribe

<https://youdescribe.org/video/l6lZBoR5gvs>



[Here's video description!](#)

7. Tab Order & Visible Focus

There's no way to tab through the webpage originally. For example, the navigation buttons "Home," "Links" and "Sign Up" do not respond to tab key presses. For people who only have keyboard access, it's impossible to access the link under the buttons, which causes a severe problem. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Changes

- a) I added tab index attributes to the navigation buttons as well as the video, links and the forms. Now all the information can be access through tab button.



- b) I added visible focus to help users to locate themselves.

- [Accessibility Research at CMU](#)
- [Disability Services at CMU](#)
- [Hamster Dance](#)

8. Color Contrast

The color contrast of the links provided does not satisfy the standard. Thus, for people who have color blindness, it's hard to recognize the words with the low contrast grey color, which causes a severe problem. (The automatic accessibility evaluator WAVE detects the problem.)

Change

I changed the color of the links, such that the color contrast satisfies the standard.

- [Accessibility Research at CMU](#)
- [Disability Services at CMU](#)
- [Hamster Dance](#)

9. Keyboard Access

It's impossible to play the video with only keyboard control. Thus, for people who depend on keyboard control, they have no way to access the video, which is a severe problem. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Changes

I added keyboard accesses to checkbox, so that whenever the users press 'enter' key or spacebar, the checkbox will be toggled. The navigation buttons, links, and video can also be triggered using enter key or spacebar.

10. Information Conveyed Only via Color

The links are not indicated via other font decoration such as underlining. Instead, they are indicated via their different color. This problem is not too severe, because the section is already indicated with “Links”. However, the screen reader won’t be able to connect the actual links with the three links under it, because the section wasn’t organized using html list. (The automatic accessibility evaluator WAVE DOES NOT detect the problem.)

Changes

- a) I underlined the links, so that the functionality of the links is not just indicated by the difference in color, but also a difference in style.
- b) I also added the list structure. Therefore the screen reader will recognize the three links as together in a list structure.



Accessibility Research at CMU



Disability Services at CMU



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