Web Accessibility *(From an auditor)*

Hello!

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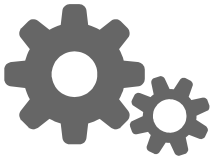


Accessibility audit *typical* steps

first

Keyboard Testing

Use system with solely keyboard commands.

second

Color & Zoom

Check for low vision accommodations.

third

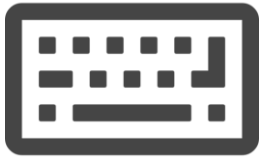
Headings & Labels

Use a screen reader to test page structure.

1

Keyboard testing

First indicator a team has considered accessibility

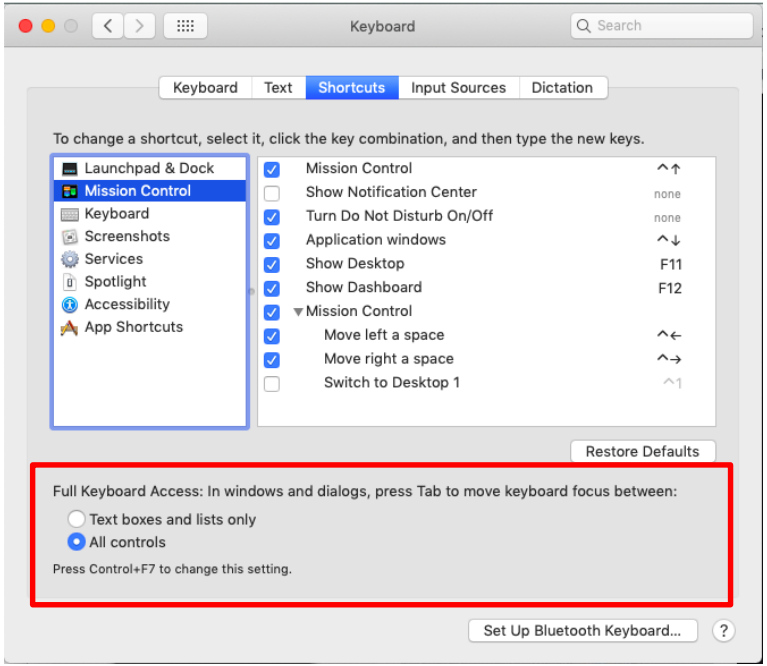


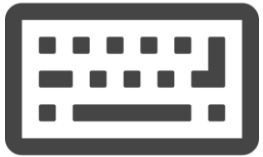
Why keyboard?

- Several disabilities prevent mouse use including motor control difficulties and vision impairments.
- Keyboard operability is the basis for alternatives including speech input software, sip-and-puff software, on-screen keyboards, and switch devices.
- People with vision impairments may find a keyboard easier with magnification software, or required with screen readers.

Keyboard basics

Keyboard on a Mac

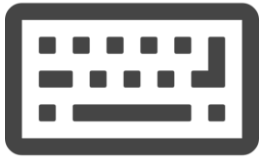




Let’s test keyboard

Use the *keyboard basics* to navigate these websites.
Can you do everything you would with a mouse?

- Site 1: Your Homework Assignment
- Site 2: Tiller Design Agency
- Site 3: WebAIM.org



Keyboard recap

What we were evaluating:

1. WCAG 2.1.1 – Keyboard
   Can we navigate with keyboard?
2. WCAG 2.4.7 – Focus visible
   Do we see a focus indicator?
3. WCAG 2.4.1 – Bypass Blocks
   Can we skip redundant content with the keyboard?

Considerations from our testing:

1. An errand tabindex can make things inaccessible
2. The default is okay, but custom like WebAIM is better
3. This only applied to WebAIM and they had it

2

Color & Zoom

More users will have *difficulty* seeing than be completely blind

Color basics

- Many visual impairments include color deficiencies and lack of clear focus
- WCAG specifies an ideal ratio for the “color contrast” of foreground and background items (1.4.3 Contrast Minimum)
- Several tools help test for contrast:
  - WebAIM.org Color Contrast Tester
  - Colour Contrast Analyser
  - Color.review tool (note, this is not accessible)

Let’s test color

Use the *Colour Contrast Analyser* to evaluate key portions.
Do all areas pass the contrast minimums (excluding photos)?

- Site 1: Your Homework Assignment
- Site 2: Thinkful
- Site 3: Join.Me

Zoom basics

Browser zoom (Ctrl+)

- Per webpage, increases size of elements on single page
- Triggers (or should trigger) responsive design
- Activate with Control+ or equivalent key

Magnification software

- Increases size of *all* computer elements; equivalent to magnifying glass over screen
- Use mouse to “pan and scan”
- Activate in System settings or with ZoomText software

Let’s test browser zoom

Increase the size of these pages in the browser (zoom them). Can you still accomplish your tasks?

- Site 1: Your Homework Assignment
- Site 2: Google Maps
- Site 3: Marcy Sutton’s page

Let’s test magnification

Activate the *magnification* tool on your computer.
Are there areas extremely difficult to use now?

- Site 1: Your Homework Assignment
- Site 2: Wilio template
- Site 3: Construction template

Zoom & color recap

What we were evaluating:

1. WCAG 1.4.3 - Contrast (Minimum)
   Is this standard met throughout?
2. WCAG 1.4.10 - Reflow
   Can I use browser zoom?
3. Magnifier usability
   Are best practices being implemented?

Considerations from our testing:

1. Check color contrast as you plan then as you build
2. Do responsive design, think mobile-first
3. Think about proximity and unnecessary movement

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Headings & Labels

These are vital for blind users but also everyone else’s understanding

Headings basics

- Refers to visible headings that use <H*n*> tags; these should appear atop every visually distinctive section
- Screen reader users can navigate by headings, giving a helpful advantage
- Skimming is how we read nowadays, thus this is beneficial for everyone to understand the page

Labels basics

- Refers to <label> tag around form field labels
  - Benefits include screen reader compatibility, larger selection/click area, and easier speech selection
  - Placeholders that disappear are not recommended, including for instructional/formatting information
- Also including “alternative text” here, primarily the “alt” attribute on foreground <img> tags, vital for blind users

Let’s test “labels”

Use a *screen reader* to determine labels for forms and alternative text for images. Do areas read correctly?

- Site 1: Your Homework Assignment
- Site 2: Tiller Design Agency
- Site 3: Mattel Games

Headings & labels recap

What we were evaluating:

1. WCAG 2.4.6 - Headings & Labels
   Are these present and coded?
2. WCAG 1.3.1 - Info & Relationships
   Is the page structured?
3. WCAG 1.1.1 Non-text content
   Do images have alt text?

Considerations from our testing:

1. “Looks like” a label is not good enough
2. This is subjective and takes practice to understand
3. Good text is subjective, and decorative is an option as well

See it in action

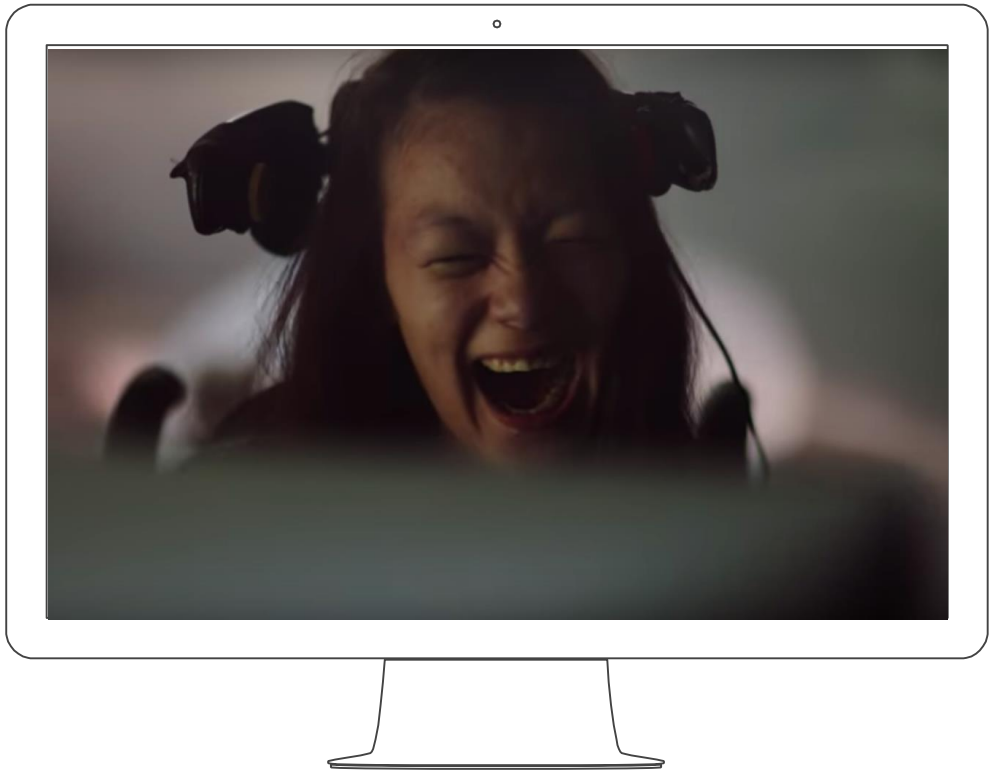
Watch people with disabilities use the techniques we just tried

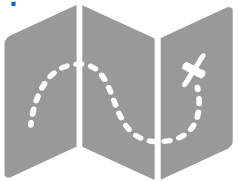
Tommy Edison

This blind film critic shows how he sends emails

Apple products

People show having a disability is not what disables you





Additional Resources

- W3C WAI & WCAG
- WebAIM.org & Teach Access Tutorial
- A11y Weekly newsletter
- Automated testing tools *(just a few of those available)*:
  - Accessibility Insights
  - Axe
  - Lighthouse *(recommended by classmate)*