

Principles of Accessible Design

IGME-230 • Professor Lawley • Fall 2018 • Week 13

Why should you care about accessibility?

- It's the right thing to do.
- It actually helps everyone.
- It's the law.

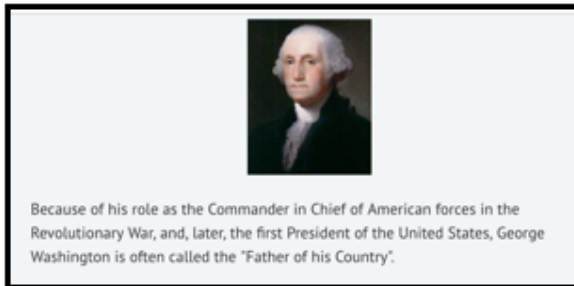
Key Principles for Web Accessibility

Provide (useful) alternative text

Alt text attributes are required, but most people do a poor job of using them

- Provide accurate and equivalent content and function
- Be succinct
- Don't be redundant
- Don't use the phrases "image of ..." or "graphic of ..." to describe the image

Which alt attribute would be best?



- "Image of George Washington"
- "George Washington, the first president of the United States"
- An empty alt attribute (alt="") will suffice.
- "George Washington"

"George Washington" is sufficient. The screen reader will tell the user that it's an image, so saying "Image of" is unnecessary and redundant. Adding "the first president of the US" is not appropriate because the image doesn't convey that information.

What about here?



- “Image of George Washington”
- “George Washington, the first president of the United States”
- An empty alt attribute (alt=”) will suffice.
- “George Washington”

An empty alt attribute is fine, since there's already a caption providing the information.

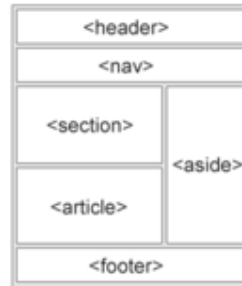
Provide appropriate structure

New Semantic Elements in HTML5

Many web sites contain HTML code like: `<div id="nav">` `<div class="header">` `<div id="footer">` to indicate navigation, header, and footer.

HTML5 offers new semantic elements to define different parts of a web page:

- `<article>`
- `<aside>`
- `<details>`
- `<figcaption>`
- `<figure>`
- `<footer>`
- `<header>`
- `<main>`
- `<mark>`
- `<nav>`
- `<section>`
- `<summary>`
- `<time>`



This goes back to the “separation of concerns” I talked about on Tuesday, too. Your HTML should provide information about the structure of the document—use `<h1>` etc to indicate actual headings, rather than to control size and weight of type.

Use CSS for positioning (and grid instead of tables for layout) so that you can place the content in the right order in the HTML—screen readers will ignore the CSS, so optimize the HTML for them, and then use CSS to rearrange as needed.

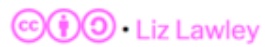
Provide useful “skip” links

```
a#skip {  
  position:absolute;  
  left:-5000px;  
  top: 0px;  
}  
  
a#skip:focus {  
  position:block;  
}
```

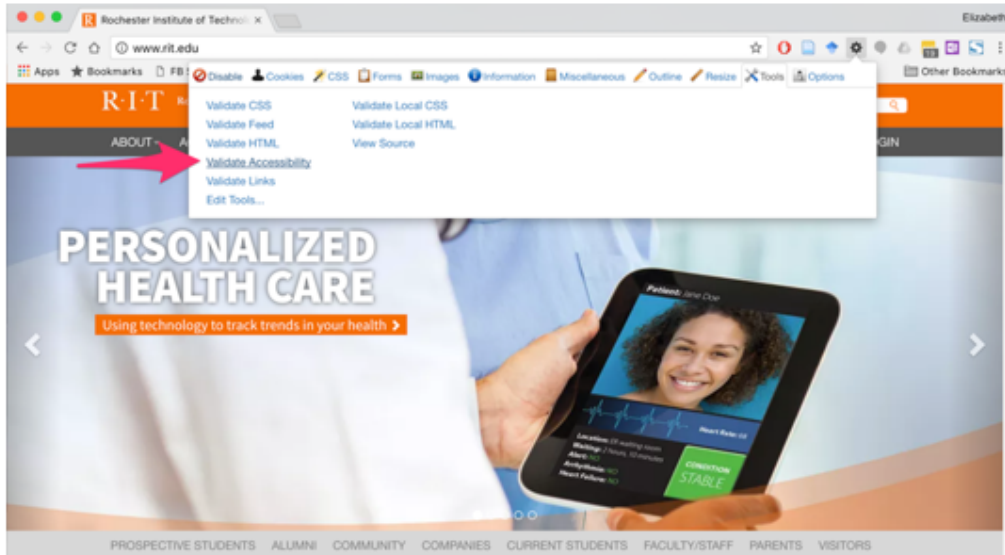
By using absolute positioning to place links off the visible page, you can provide useful “skip” links that bypass purely visual content. The links are seen by screen readers, since they don’t care about positioning.

Use ARIA tags as needed

```
<span>  
<a id="cc" rel="license"  
href="http://creativecommons.org/licenses/by-sa/4.0/" title="Creative Commons  
Attribution-ShareAlike License"><i class="fab fa-creative-commons"  
aria-label="Creative Commons"></i><i class="fab fa-creative-commons-by"  
aria-label="CC BY"></i><i class="fab fa-creative-commons-sa" aria-label="CC  
SA"></i></a> &bull; <a href="http://lawley.rit.edu/">Liz Lawley</a>  
</span>
```



Validate for accessibility!



It's easy to forget

Validate for accessibility!

The screenshot displays a web browser window with the WAVE (Web Accessibility Validation) tool interface. The browser's address bar shows the URL `wave.webaim.org/report4/http://www.rit.edu/`. The WAVE tool is overlaid on the page, showing a summary of accessibility issues detected on the RIT website. The summary includes:

- 21 Errors
- 45 Alerts
- 27 Features
- 96 Structural Elements
- 10 HTML5 and ARIA
- 77 Contrast Errors

Panel Options are also visible, including:

- DETAILS: A listing of all the WAVE icons in your page.
- DOCUMENTATION: Explanation of the WAVE icons and how you can make your page more accessible.
- OUTLINE: The heading structure of the web page.

The background of the browser shows the RIT (Rochester Institute of Technology) website. The header includes the RIT logo and navigation links: ABOUT, ACADEMICS, ADMISSION, CAMPUS LIFE, CO-OP, NEWS, RESEARCH. The main content area features a banner for "PERSONALIZED HEALTH CARE" with the text "Using technology to track trends in your health." The footer includes links for PROSPECTIVE STUDENTS, ALUMNI, COMMUNITY, COMPANIES, CURRENT STUDENTS, FACULTY/STAFF, PARENTS, VISITORS.