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.
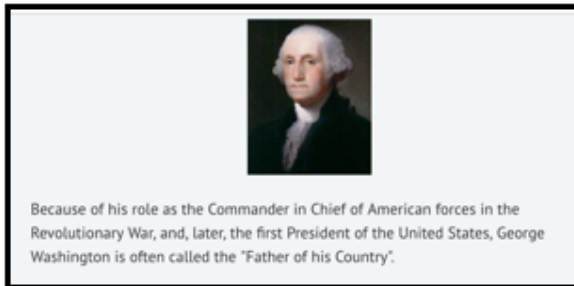- It's the law.

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

"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?

George Washington

Because of his role as the Commander in Chief of American forces in the Revolutionary War, and, later, the first President of the United States, George Washington is often called the "Father of his Country".

- "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.
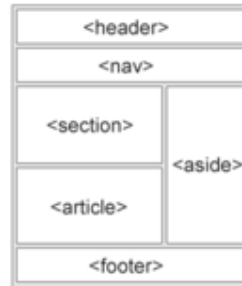
Provide appropriate structure

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>

```
+-------------------------+
|        <header>         |
+-------------------------+
|          <nav>          |
+-------------------+-----+
|                   |     |
|   <section>       |     |
|                   |<aside>|
+-------------------+     |
|                   |     |
|   <article>       |     |
|                   |     |
+-------------------+-----+
|        <footer>         |
+-------------------------+
```

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

```css
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>
```
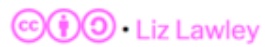
Validate for accessibility!
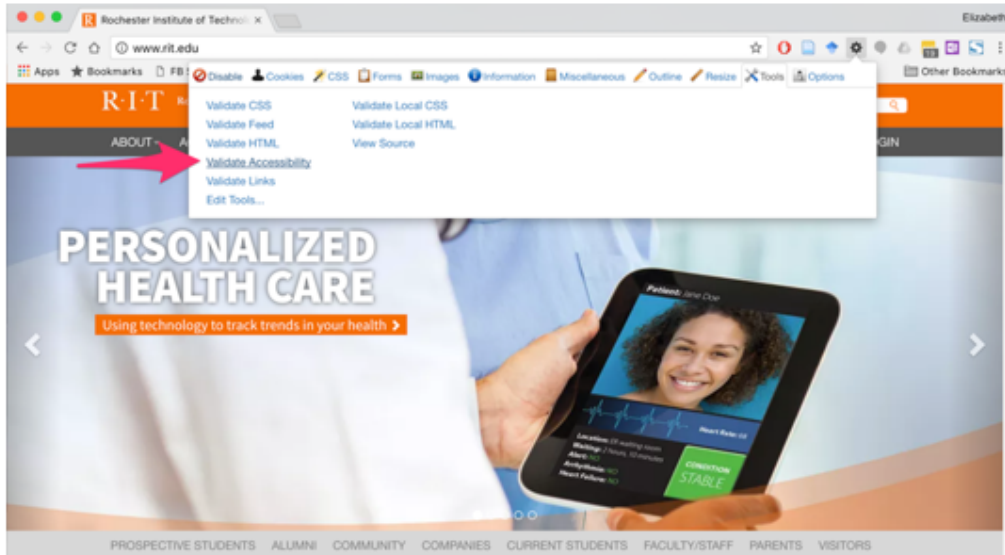
It's easy to forget

Validate for accessibility!