Growing Accessibility
Advanced Web Accessibility Coding and Testing for Libraries

Katherine Lynch
Senior Application Developer, University of Pennsylvania Libraries
Web Accessibility

“Web accessibility means that people with disabilities can use the web.”
- Tim Berners-Lee
Web Accessibility

Perceivable

Operable

Understandable

Robust
We are all in agreement...
We are all in agreement...

- Equivalent ability to access information and interact with websites and applications for all users is important.
We are all in agreement...

- Equivalent ability to access information and interact with websites and applications for all users is important.
- To truly work toward as equivalent a user experience as possible for all, at minimum baseline web accessibility measures are required.
Best Practices for Coding
Best Practices for Coding in 5 minutes!
Prioritize the fundamentals

...and execute them flawlessly.
Use your brain
Prioritize the fundamentals

Image alt text

Lists

Properly ordered headings

<h1>There Can Be Only One</h1>

<h2>There Can Be More Than One Of Me</h2>

<h3>Provided That We Occur in Numeric Order</h3>

<h2>These Are Getting A Little Long For Actual Headings</h2>
Prioritize the fundamentals

Avoid walls o’ text

Be mindful of color contrast

Provide alternatives to rich media
  Equivalent text
  Captions, transcription

Skip links

Blog Posts

Short intro text

Code4Lib Philadelphia 2016!

I went to [Code4Lib Philadelphia 2016](http://2016.code4lib.org/) this year and it was a blast!

I also managed to do some sightseeing.

It was smaller in person.

It was a great conference and the organizers are awesome!
<h1>Blog Posts</h1>
<p>Short intro text</p>
<h2>Code4Lib Philadelphia 2016!</h2>
<div class="blogpost">
  <p>I went to <a href="http://2016.code4lib.org/">Code4Lib Philadelphia 2016</a> this year and it was a blast!</p>
  <p>I also managed to do some sightseeing.</p>
  <div style="float: left;">
    <img src="bell.jpg" alt="The Liberty Bell" />
    <span>It was smaller in person.</span>
  </div>
  <p>It was a great conference and the organizers are awesome!</p>
</div>
HTML5 Semantic Elements

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ARIA

Accessible Rich Internet Applications

Roles
States & Properties

Source: https://en.wikipedia.org/wiki/World_Wide_Web_Consortium
ARIA Roles

<div role="alert">
   You have been signed out due to inactivity.
</div>

<div role="status">
   Password successfully updated.
</div>
ARIA States & Properties

aria-live="polite"
  "assertive"
  "off"
ARIA States & Properties

```html
<div class="chat_queue" aria-live="polite"
aria-relevant="additions deletions">
<ul>
  <li>User 1</li>
  <li>User 2</li>
  <li>User 3</li>
</ul>
</div>
```
ARIA States & Properties

`aria-relevant="additions"
  "deletions"
  "text"
  "all"

<div class="chat_queue" aria-live="polite"
aria-relevant="additions deletions">
  <ul>
    <li>User 1</li>
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Prioritizing - Must, Should, Can

What must be done?

What should be done?

Additionally, what can be done?
Accessibility Testing
Accessibility Testing

...also in 5 minutes!
Automated Testing: Validators

WAVE (free)
http://wave.webaim.org/

AChecker (free)
http://achecker.ca/checker/index.php

Compliance Sheriff ($$)
https://www.cryptzone.com/products/content-governance/compliance-sheriff
Creating Tomorrow’s Technologists: Contrasting Information Technology Curriculum in North American Library and Information Science Graduate Programs against Code4lib Job Listings by Monica Maceli recently appeared in the Journal of Education for Library and Information Science 56.3 (DOI:10.12783/issn.2328-2967/56/3/3). As the title states, it studies listings on jobs.code4lib.org:

This research study explores technology-related course offerings in ALA-accredited library and information science (LIS) graduate programs in North America. These data are juxtaposed against a text analysis of several thousand LIS-specific technology job listings from the Code4lib jobs website. Starting in 2003, as a popular library technology mailing list, Code4lib has since expanded to an annual conference in the United States and a job-posting website. The study found that database and web design/development topics continued to dominate course offerings with diverse sub-topics covered. Strong growth was noted in the area of user experience but a lack of related jobs for librarians was identified. Analysis of the job listings revealed common technology-centric librarian and non-librarian job titles, as well as...
Automated Testing: Testing Suites

Capybara-Accessible (Rails)
https://github.com/Casecommons/capybara-accessible

Robot Framework Accessibility Testing Libraries (Python)
https://pypi.python.org/pypi/robotframework-selenium2accessibility/0.2.1

Google Chrome Accessibility Developer Tools
https://github.com/GoogleChrome/accessibility-developer-tools
Creating Tomorrow’s Technologists: Contrasting Information Technology, North American Library and Information Science Graduate Program Job Listings by Monica Maceli recently appeared in the Journal of Information Science 56.3 (DOI:10.2783/issn.2328-2967/56/3): studies listings on jobs.code4lib.org:

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Remember the human aspect
Self-guided testing

Make a list of everything that users MUST be able to perceive, understand, and do on a given test site.
Self-guided testing

Unplug your mouse (or turn it around).

Unlink all stylesheets.

Turn off the monitor and turn on a screen reader.
  Use the screen reader navigation commands.

Challenge the way you interact with a site.
Advocacy in the community

Lead by example.

Realize that you have a gift to share.

...never stop helping someone!

Embrace continuous improvement.
Thank you!

Katherine Lynch

katherly@upenn.edu

@katelynch
Web Accessibility Basics

- W3C WAI Web Accessibility Basics
  https://www.w3.org/WAI/EO/wiki/Web_Accessibility_Basics

- WebAIM Intro to Web Accessibility
  http://webaim.org/intro/

- Web Accessibility Tutorials
  https://www.w3.org/WAI/tutorials/