

January 18, 2018



***Introduction to Web Accessibility***

Jared Smith, WebAIM

<http://ntl.bts.gov/networking/roundtable.html>

Audio call-in number: 877-336-1274; Access code: 5759713

# Introduction to Web Accessibility

Jared Smith  
@jared\_w\_smith  
webaim.org



>8.5% of the population has a disability that affects computer use

# Assistive Technologies

“Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing.”

Wikipedia





Accessibility ...

... is a continuum.

... is a process.

... can always be improved.

Guidelines are measures on  
the continuum of  
accessibility



# Web Content Accessibility Guidelines 1.0



POST OFFICE  
WEST MICHIGAN  
PA

F. B. HOLLERS

# Section 508



# Web Content Accessibility Guidelines 2.0



# Americans with Disabilities Act

- Pre-dates the web
- Title I vs. Title II vs. Title III
- “Places of public accommodation”
- There’s a distinct need to define ADA accessibility standards

Your content can be  
compliant, yet inaccessible

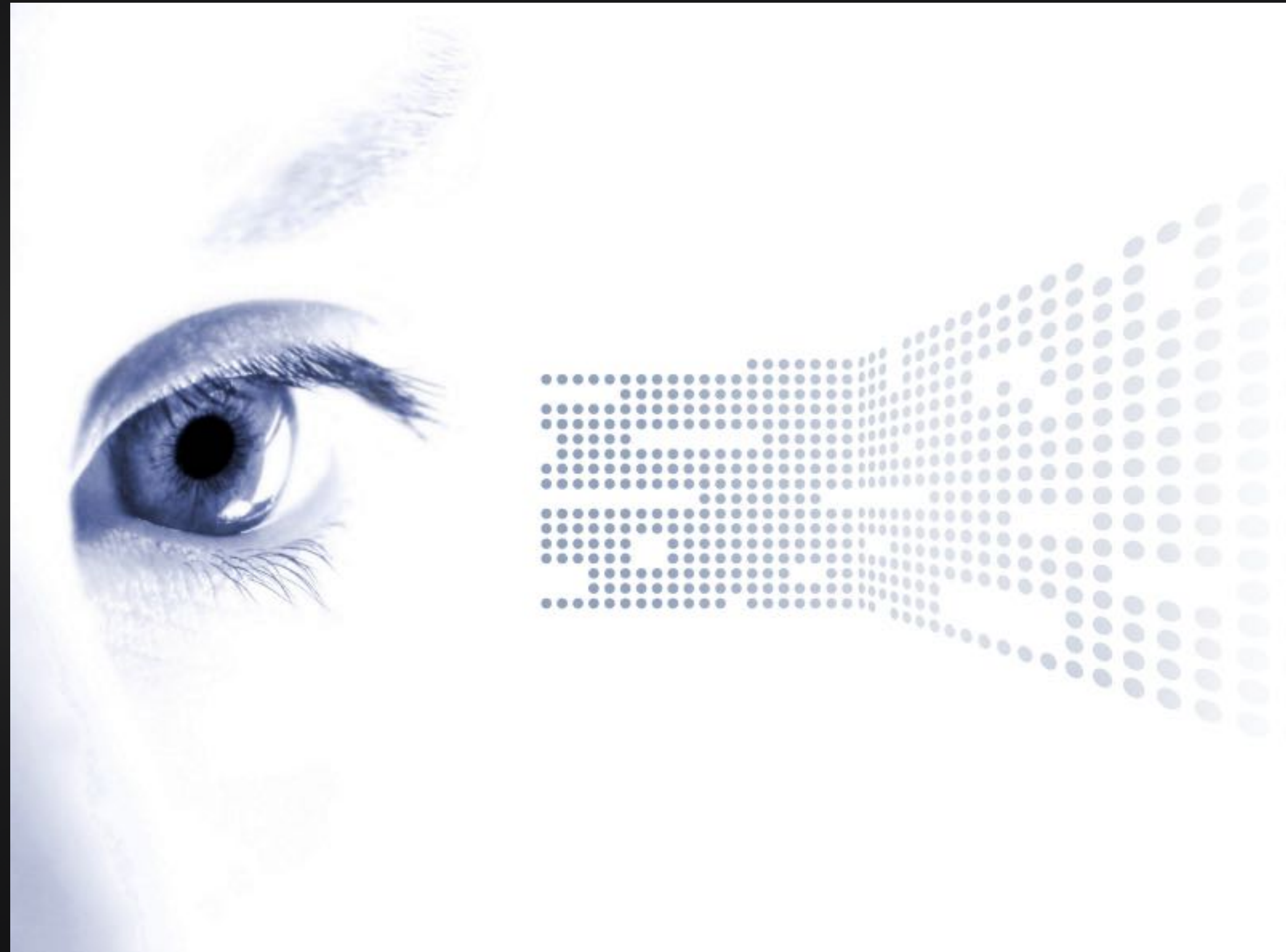


accessibility > compliance

Your content can be  
technically accessible, yet  
functionally inaccessible

Perceivable  
Operable  
Understandable  
Robust

# Perceivable



# Auditory Disabilities

- Captions for video & live audio
- Text transcripts for all audio content

# Auditory Disabilities



# Deaf-blind



# Visual Disabilities

- Blindness
- Low vision
- Color deficiency





Zoom	▶	◆ 2 X
Size	▶	3 X
Shape	▶	4 X
Zoom Filter	▶	8 X

[sing Programs - Business](#)



9	Client Workshop
10	Client Workshop
11	Client II
12	Client Workshop
13	Client Workshop

# Visual Disabilities

- Web pages and documents are linear
- Use meaningful links. Avoid “click here”.
- Alternative text for non-text elements
  - **Content and Function**

# Visual Disabilities

- **Semantics and Structure**

- Provide a logical heading structure

- Associate text labels with form elements

```
<label for="name">Name:</label>
```

```
<input type="text" id="name">
```

- Associate data cells to row/column headers

```
<th scope="col"> Or <th scope="row">
```

# Visual Disabilities

- Sufficient contrast -  
<http://webaim.org/resources/contrastchecker/>
- Ensure that meaning is not conveyed with color alone

The **green** mushrooms listed here are OK to eat.  
The **red** mushrooms will kill you.

- Amanita
- Chanterelle
- Porcini
- Shitake
- Tylopilus

# Operable



# Motor Disabilities

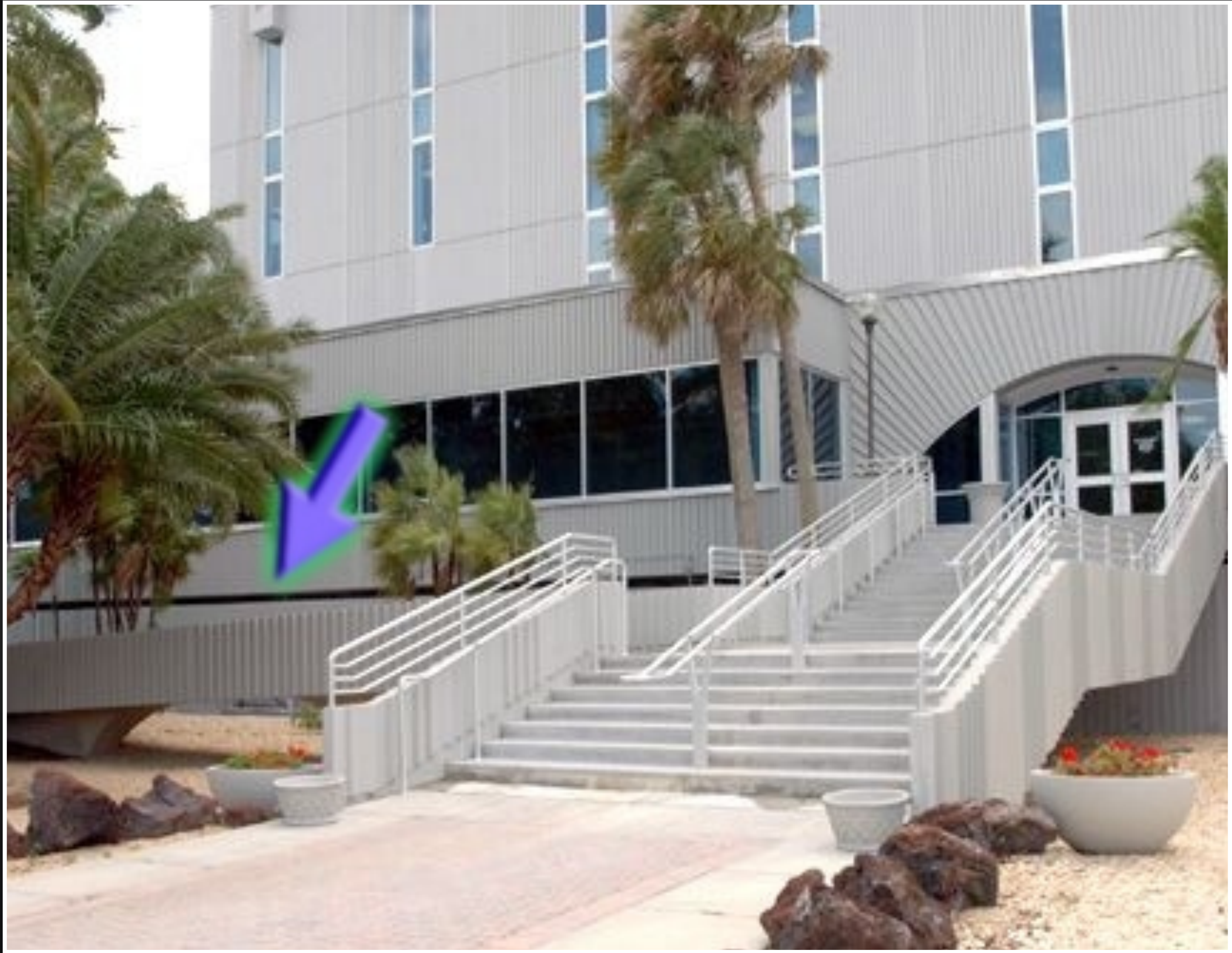


# Operable

- Ensure keyboard accessibility
- Don't remove keyboard focus indicators
- Ensure interactive elements are clearly distinguishable
- Logical reading/navigation order











accessibility is ...

... enabling a positive user experience.

# Understandable



# Who does this affect?

- Cognitive disabilities
- Largest disability group. Larger than all the others put together.
- Everyone!

# Understandable

- Be careful with movement and other distracters
- Semantic organization (headings, lists, etc.)
- Be consistent
- Strive for brevity. Use the simplest language appropriate to the content.



# Understandable

- Focus the user's attention
- “Chunk” and simplify content
- Balance cognitive load vs. functionality

# Understandable



# Robust



# Robust



Perceivable  
Operable  
Understandable  
Robust

# Basic Testing

- Test with a keyboard
  - Tab and Shift + Tab to navigate
- Use a WCAG 2.0 checklist
- Look for low contrast and color reliance
- Listen in a screen reader
- Analyze the page in WAVE



WAVE

**web accessibility evaluation tool**

μερ σcc62rtrtl ελστπσπou τοοτ

[wave.webaim.org](http://wave.webaim.org)

tools are valuable, but no  
replacement for knowledgeable  
practitioners



“For people without disabilities,  
technology makes things **convenient**,  
whereas for people with disabilities,  
it makes things **possible**.”

- Judy Huemann

thank you

Jared Smith  
@jared\_w\_smith  
webaim.org



**Thank you for attending!**  
**Join us February 8, 2018:**



***Improving Research Access at US DOT's Research Hub***

Beyan Johnson, Research Hub

**For Past Episodes, Visit the TLR Archive at:**

**<https://ntl.bts.gov/networking/tlrarchive/index.html>**