



## Modern Web Accessibility

Session Begins 1:00 pm CST

Periodic Audio Testing Occurring

1

## Useful Keyboard Shortcuts

- Full list - *Keyboard Shortcuts* from the *Help* menu on the Menu Bar.
- Chat: Move cursor to the Message text box
  - Windows: Ctrl+M
  - Mac: Command-M
- Speaker level Up:
  - Windows: Ctrl+Alt+Up Arrow
  - Mac: Command-Option-Up Arrow
- Speaker level Down:
  - Windows: Ctrl+Alt+Down Arrow
  - Mac: Command-Option-Down Arrow

2

## More keyboard shortcuts

- Open Closed-Captioning window

Windows: Ctrl+F8

Mac: Command-F8

- Close Closed-Captioning window

Windows: Alt+F4 or Ctrl+W

Mac: Command-W

3

## Listening to the Webinar

- The audio for today's webinar is being broadcast through your computer. Please make sure your speakers are turned on or your headphones are plugged in.
- You can control the audio broadcast via the Audio & Video panel. You can adjust the sound by "sliding" the sound bar left or right.
- If you are having sound quality problems check your audio controls by going through the Audio Wizard which is accessed by selecting the microphone icon on the Audio & Video panel.



4

## Listening to the Webinar, *continued*

If you do not have sound capabilities on your computer or prefer to listen by phone, dial:

**1-712-432-3066**

**Pass Code:**

148937

This is **not** a Toll Free number

5

## Listening to the Webinar, *continued*

MOBILE Devices supported include iPhone, iPad, Android Devices, Kindle Fire HD)\*\*

Individuals can download the free Blackboard Collaborate App from the Apple Store, Google Play or Amazon



\*\*Closed Captioning is not visible via the Mobile App and there is limited access to the white board for individual's using voice over technology

6

## Captioning

- Real-time captioning is provided during this webinar.
- The caption screen can be accessed by choosing the  in the Audio & Video panel.



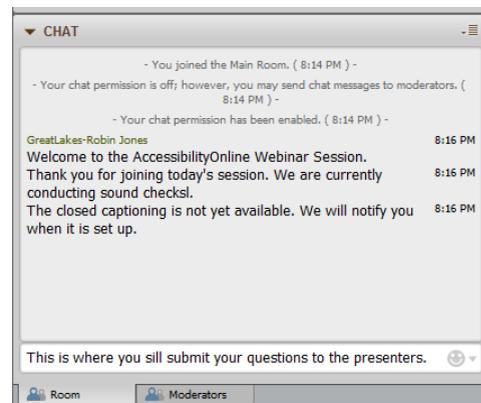
- Once selected you will have the option to resize the captioning window, change the font size and save the transcript.

7

## Submitting Questions

- You may type and submit questions in the Chat Area Text Box or press Control-M and enter text in the Chat Area
- If you are connected via a mobile device you may submit questions in the chat area within the App
- If you are listening by phone and not logged in to the webinar, you may ask questions by emailing them to [webinars@ada-audio.org](mailto:webinars@ada-audio.org)

**Please note:** This webinar is being recorded and can be accessed on the website at [www.ada-audio.org](http://www.ada-audio.org) within 24 hours after the conclusion of the session.



8

## Customize Your View

- Resize the Whiteboard where the Presentation slides are shown to make it smaller or larger by choosing from the drop down menu located above and to the left of the whiteboard. The default is “fit page”
- Resize/Reposition the Chat, Participant and Audio & Video panels by “detaching” and using your mouse to reposition or “stretch/shrink”. Each panel may be detached using the icon in the upper right corner of each panel.

9

## Setting Preferences

- Depending on your system settings you may receive visual and audible notifications when individuals enter/leave the webinar room or when other actions are taken by participants. This can be distracting.
- To turn off notifications (audible/visual)
  - Select “Edit” from the tool bar at the top of your screen
  - From the drop down menu select “Preferences”
  - Scroll down to “General”
    - select “Audible Notifications” Uncheck anything you don’t want to receive and “apply”
    - Select “Visual Notifications” Uncheck anything you don’t want to receive and “apply”
  - For Screen Reader User – Set preferences through the setting options within the Activity Window (Ctrl+slash opens the activity window)

10

## Technical Assistance

- If you experience any technical difficulties during the webinar:
  1. Submit a message regarding your issue via the chat area and the Moderator will address your concern via a private chat with you and/or refer it to one of the Great Lakes ADA Center IT Staff to contact you off line; or
  2. Email [webinars@ada-audio.org](mailto:webinars@ada-audio.org); or
  3. Call 877-232-1990 (V/TTY)

11



## Modern Web Accessibility

January 19, 2017

Jared Smith, Associate Director, WebAIM

12

# Modern Web Accessibility



Jared Smith  
@jared\_w\_smith  
WebAIM.org

13

## Accessibility...

- .. encourages good design and development practices.
- ... supports SEO.
- ... supports internationalization.
- ... supports mobile-friendly content.

14

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

...does not include those with cognitive/learning disabilities,  
color blindness, etc.

15

Accessibility...

... is a continuum.

... is a process.

... can always be improved.

16

Guidelines are measures on the  
continuum of accessibility

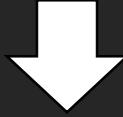
17

## WCAG 2.0

- Principles based
  - Perceivable
  - Operable
  - Understandable
  - Robust
- Levels: A, AA, AAA
- Finalized in 2008
- WebAIM's WCAG 2.0 Checklist

18

Useful



Usable



POUR

19



20

# Evolution of Accessible Design

21

## Inaccessible



22

# Accommodation



23

# Retrofitting



24

## Accessible Design



25

Your site can be compliant,  
yet inaccessible

26

Accessibility > Compliance

27

Your site can be technically accessible,  
yet functionally inaccessible

28

## Perceivable



29

## Auditory Disabilities

Provide captions for video & live audio.  
Provide text transcripts for all audio content.

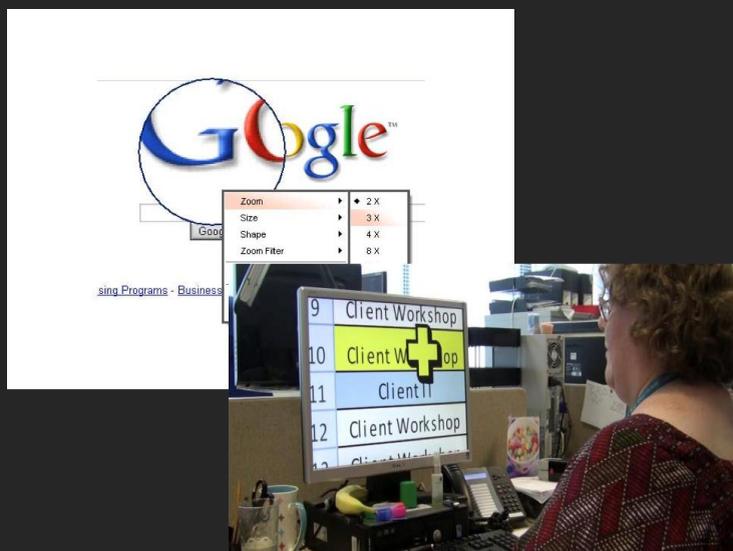
30

# Visual Disabilities

- Blindness
- Low vision
- Color deficiency

31

# Visual Disabilities



32

## Structure and Semantics

- Is the application and content structured to facilitate understanding and navigation?
- Are the semantics of components meaningful and accurate?

33

## Headings

- Typically one `<h1>` per page.
- Should define an 'outline' or table of contents.
- Headings should be descriptive of page sections.

34

## Regions

- HTML5
  - <header>, <nav>, <main>, <footer>, and <aside>
- ARIA Landmarks
  - role=banner, complementary, contentinfo, main, navigation, or search

35

## Semantics

- Use meaningful link text. Avoid “click here”.
- Alternative text for non-text elements
  - **Content and Function**  
<img alt=“Jared Smith”>

36

## Semantics

- Form control labels  
`<label for="name">Name:</label>`  
`<input type="text" id="name">`
- Button values  
`<button>Search</button>`  
or  
`<input type="submit" value="Search">`

37

## Semantics

- Associate data cells to row/column headers  
`<th scope="col">` or `<th scope="row">`
- Descriptive page titles  
`<title>Introduction to Web Accessibility</title>`
- Define document language  
`<html lang="en">`

38

# Semantics

- HTML elements have default semantics, so use them.
- When the semantics of HTML are not sufficient, then (and only then) can you use ARIA (Accessible Rich Internet Applications).

39

## Rule #1 of ARIA: Don't use ARIA

### 2.1 First rule of ARIA use

If you *can* use a native HTML element [[HTML51](#)] or attribute with the semantics and behaviour you require **already built in**, instead of re-purposing an element and adding an ARIA role, state or property to make it accessible, **then do so**.

40

# ARIA

ARIA changes and enhances the default semantics of HTML elements to API values which screen readers already understand.

`<slider>???`

41

Just use a button!

Or `<select>` or... whatever.

42

## Operable



43

## Operable

- Ensure keyboard accessibility
- Don't remove focus indicators
  - Avoid `outline:0` and `outline:none`
- Ensure interactive elements are clearly distinguishable
- Logical reading/navigation order
  - Avoid `tabindex=1+`
- Programmatic focus should follow visual focus

44

## ARIA Enhancements

- `aria-expanded="true | false"`
- `aria-haspopup="true"`
- `aria-live="assertive | polite | off"`
- `aria-required="true"`
- `aria-invalid="true"`
- `role="alert"`, etc.

BE CAREFUL!!!

45

## Understandable



46

## Understandable

- Be careful with movement and other distracters
- Use good organization (headings, lists, etc.)
- Simplify and be consistent. Focus the user's attention.
- Avoid small text
- Avoid long line lengths
- Balance cognitive load vs. functionality

47

## Robust



48

# Robust

Does it work in the technologies my users have?

49

# POUR

**Perceivable**

**Operable**

**Understandable**

**Robust**

50

## Future Challenges

- Continued abuse, misuse, and overuse of ARIA
- Platforms that do not integrate accessibility
- Developers who rely on platforms without understanding HTML
- Increased focus on compliance over a good user experience

51



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

52

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

- Judy Hueman

53

Questions?



Jared Smith  
@jared\_w\_smith  
WebAIM.org

54

# QUESTIONS

You May Type and Submit questions in the Chat Area Text Box or press Control-M and enter text in the Chat Area

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55

Thank You For Your Attention!

- **Jared Smith**
- **@jared\_w\_smith**
- **WebAIM.org**

56



The session today was recorded  
and will be archived at  
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**NEXT SESSION IS *MARCH 16, 2017***  
***MIKE GIFFORD – BUILDING DRUPAL'S SOLID ACCESSIBILITY DEFAULTS***

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57