The Impact of Digital Accessibility on Teaching and Learning: Why Does It Matter That You Consider Alt Text and other Tools for Inclusivity?

Harriette L. Spiegel, Ph.D.
The University of Tennessee at Martin
April, 2022
Online Learning Consortium - Innovate
Agenda

Introduction
Quick Poll – what do you know already?
Digital Accessibility – issues, standards, technology (WHAT, WHY, HOW)
Basic Digital Accessibility Guidelines
Practice
Resources

What is “accessible”? 
What do you know already?

- As I present the issue, please think to yourself how you would answer.
To make an IMAGE accessible do which of the following?

- Right-click Ctrl-K and enter description
- Use Styles to format
- Right-click and format alt-text description
- Use pre-formatted layout
Answer: To make an image accessible

- Right-click Ctrl-K and enter description
- Use Styles to format

- **Right-click and format alt text description**
- Use pre-formatted layout
To create accessible HEADINGS in Word which of the following do you do?

- Right-click Ctrl-K and enter description
- Provide captions or transcripts
- Use Styles to format
- Use the Properties to select options.
Answer: To create accessible headings in Word

- Click Ctrl-K and enter description
- Provide captions or transcripts

**Use Styles to format**
- Use the Properties to select options.
To format LINKS accessibly in Word, do which of the following

• Select text, click Control-K and enter description
• Use Styles to format
• Use the Properties to select options
• Provide captions or transcripts.
Answer: To format links accessibly in Word

• **Select text, click Control-K and enter description**
  • Use Styles to format
  • Use the Properties to select options
  • Provide captions or transcripts.
To format accessible POWERPOINT slides, do which of the following:

• Right-click Ctrl-K and enter description
• Use Styles to format
• Use pre-formatted layout.
• Right-click and format alt text description
Answer: To format accessible PowerPoint slides

- Right-click Ctrl-K and enter description
- Use Styles to format

**Use pre-formatted layout.**
- Right-click and format alt text description
To make VIDEOS accessible, do the following:

• Use flashing, colorful content with poor contrast
• Use captions, transcripts, or audio description when possible
• Decide that size of font doesn't matter
Answer: To make videos accessible

- Use flashing, colorful content with poor contrast

**Use captions, transcripts, or audio description when possible**

- Think that size of font doesn't matter
UDL – which is the best answer?

• is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn and should be used along with Digital Accessibility

• stands for Universal Design for Learning.

• guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

• all of the above
Answer: UDL is:

• is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn and should be used along with Digital Accessibility
• stands for Universal Design for Learning.
• guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

• all of the above
Access by everyone

From Tim Berners-Lee, W3C Director and inventor of the World Wide Web:

“The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.”
Standards:

**WCAG – Web Content Accessibility How to Meet Guidelines**

**U. S. Access Board Comparison of Section 508 and WCAG 2.0 standards**
Digital Accessibility – Statistics (1 of 2)

• Individuals with disabilities = 26% (61 million)
• 4.5% of the global population experiencing color blindness, 4% with low vision, and another 0.6% being blind
• Learners miss information
• Not fair;
• Statistics
• The right thing to do: wheelchair ramp on the Web
Digital Accessibility – Statistics (2 of 2)

• Persons with disabilities - higher unemployment rates (about twice as high as persons without a disability).
• Over 285 million people in the world -- visually impaired
• Between one and nine percent of the global population -- mobility-related disorders
• About 10% of the global population to some degree - Hearing loss
• 15% of the U.S. population -- learning-related disabilities
• 6.7 million, or 13 percent of all U. S. public school students, ages 3–21 receiving special education services
• Among U.S. students receiving special education services, 34 percent – "specific learning disabilities."
Legislation

• U.S.A - Americans with Disabilities Act (ADA) – 1990
• W3C WCAG – compare to Section 508 standards
• Applies to federal agencies (including any agencies receiving federal funding)
• Enforcement – several agencies
• Individual States have laws
Terminology (1 of 2)

• Barrier – anything that hinders use of digital documents by anyone

• Disability - means any impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment—or a functional limitation—whether permanent, temporary or episodic in nature, or evident or not, that, in interaction with a barrier, hinders a person’s full and equal participation in society.

• Digital Accessibility - means computer output is accessible to any computer user, regardless of disability. A subset is Web Accessibility.
Terminology (2 of 2)

• Web Accessibility – all websites must comply with Web Content Accessibility Guidelines (WCAG).

• Universal Design for Learning (UDL) - applications of universal design applied to educational settings at all levels.

• Screen reader – an assistive technology software application that enables people with severe visual impairments to use a computer

• Closed captions – provide text equivalent of sound.
Checklists

• University of Washington IT Accessibility checklist

• Videos
Basic Digital Accessibility Guidelines

• Alt Text
• Headings
• Meaningful Links
• Tables
• PowerPoint

• Top tip: Use guidelines FROM the START!
• Essentials of Digital Accessibility
Alt Text

• How-to: Right-click on Image and select Edit Alt Text
• Enter descriptive text.
• Note the option to “mark as decorative.”
• Note that the image I used has alt text
Headings (Word)

• How-to: Select text to make a heading; select from Styles pane
• Options: Use Modify to customize Style
Meaningful Links

• How-to: Consider the target location – make the item the link, not the URL

• Select text.

• Right-click/ “Hyperlink” or Ctrl-K for options

• Enter text in “Text to Display” (should be there) and target URL in “Address” and click OK
Tables

• How-to: Select table/ Table Properties
• Select Row options;
• Check Repeat as Header Row...
• Do not use empty header cells
• Provide descriptive text, captions or alt text
• Keep the table simple
PowerPoint

- How-to: Use built-in layout
- Select drop-down in New Slide
- To ensure that information on the slides have the correct heading structure and reading order – how depends on individual application versions (references-Microsoft
- Remember the null Alt Text option.
Practice Document (URLs are provided for convenience)

Inaccessible Doc
Accessible Doc

How do you define “accessible”? 
References

• URLs are provided for convenience: in text, the URL should not be written out, but embedded in the link.
References (1 of 3)

- **Tim Berners Lee** - https://www.w3.org/Press/IPO-announce
- **WCAG – Web Content Accessibility How to Meet Guidelines** - https://www.w3.org/WAI/WCAG21/quickref/
- **U. S. Access Board Comparison of Section 508 and WCAG 2.0 standards** - https://www.access-board.gov/ict/wcag2ict.html
- **ADA** - https://www.ada.gov/
References (2 of 3)

• Inaccessible Doc - https://tiny.utk.edu/Inaccessible_Doc
• Accessible Doc - https://tiny.utk.edu/AccessibleDoc
• Accessible Educational Materials - https://aem.cast.org/
• Captions, Transcripts and Audio Descriptions - https://webaim.org/techniques/captions/
• About Universal Design for Learning - https://www.cast.org/impact/universal-design-for-learning-udl
References (3 of 3)


• (Headings, Alt Text, Links – skip the ads) Polizzoto, J. (2014). **Screen Reader User’s Experience and MS Word** - https://www.youtube.com/watch?v=D8XFkGMF0sw

• **Quality Education is Accessible** – video from DOIT - https://www.washington.edu/doit/videos/index.php?vid=69

• Video- **Introduction to Web Accessibility and W3C Standards** - https://www.w3.org/WAI/videos/standards-and-benefits/

• **What is a Screen Reader?** - https://www.nomensa.com/blog/2005/what-screen-reader

• **Checklists – University of Washington:** https://www.washington.edu/accessibility/checklist/

• **Videos** - https://www.boia.org/blog/checklist-for-creating-accessible-videos
Do you have a disability?

• Broken wrist - one hand to do things?
• Accident of some kind - do without the use of your leg?
• Long list of to-do’s - can’t start your car (for whatever reason) to get going?
• Don’t have your reading glasses and the light is dim?
• A very slow, or blocked Internet connection?

Disability comes in all shapes and sizes.
Thank you!

• Harriette L. Spiegel
• hspiegel@utm.edu
Evaluate Sessions and Win!

- Navigate to specific session to evaluate
- Select “Evaluate Session” on session details screen
  - Complete session evaluation*

*Each session evaluation completed (limited to one per person per session) = one contest entry. **Five (5) $25 gift cards** will be awarded.