Accessibility by Design
Introduction

KATIE BRIDGES, INSTRUCTIONAL DESIGNER

Agenda

- ▶ What is Accessibility
- ▶ The Law: Section 508 and it's parts
- ▶ Frequently Asked Questions
- ▶ Creating Accessible Files using Word, Excel, and PowerPoint

What is Accessibility

Merriam-Webster, 2016

1 : providing <u>access</u>

2 a : capable of being reached; *also :* being within reach ; *b :* easy to communicate or deal with

3 : capable of being influenced : <u>open</u>

4 : capable of being used or seen : <u>available</u>

5 : capable of being understood or appreciated

What is Accessibility

- In 1998, Leo Valdes defined accessibility as "means providing flexibility to accommodate each user's needs and preferences."
- Often the need for accessibility is due to a disability.
  - According to the United Nations 15% of the world's population (about 1 billion people) are disabled.
  - According to the CDC, approximately 22% of the US population is considered disabled.
  - In countries where the average life expectancy is greater than 70 years old, the citizens of those countries will on average spend 8 years of their lives with a disability.

Disability Categories

- Cognitive
- Blind, low vision or color blindness
- Intellectual Disability (IQ <70)
- Deaf or hard of hearing
- Neurodevelopmental Disorders (related to the central nervous system)

- Speech or Language Disorders
- Health related and chronic illness
- Physical and mobility impairments
- Temporary or permanent

The Law: Section 508 and it's parts

The Rehabilitation Act of 1973 was amended in 1998 to include Section 508 that addresses the accessibility of electronic and information technology.

The Law: Section 508 and it's parts

▶ Section 508 requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, they shall **ensure that the electronic and information technology allows Federal employees with disabilities to have access** to and use information and data that is comparable to the access to and use of information and data by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency.

▶ Section 508 also requires that individuals with disabilities, **who are members of the public seeking information or services from a Federal agency, have access** to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on the agency.

Federal Register, December 2000

The Law: Section 508 and it's parts

► As written, 508 does not automatically apply to institutions of higher education, even if they receive federal funding. However, States that receive funds through the Technology Related Assistance for Individuals with Disabilities Act of 1988 are required to comply with 508.

► All 50 states, the Federal district and 5 territories receive funding from the Assistive Technology Act and are required to comply with Section 508.

► Georgia receives funds for Tools for Life that has served as Georgia's AT Act Program since 1991. Tools for Life operates under the University System BOR, Georgia Institute of Technology, AMAC project.

University System of Georgia, February 2014

RENSA Catalyst Project

The Law: Section 508 and it's parts

▶ Other relevant Civil Rights Laws

　▶ *Section 504 of Rehabilitation Act of 1973*

　　▶ "No otherwise qualified individual with a disability in the U.S. …shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity *receiving Federal financial assistance.*"

　▶ *American's with Disabilities Act of 1990 (ADA) and ADA Amendments Act of 2008*

　　▶ The ADA is the result of discrimination against persons with disabilities. ADA expanded the reach of existing laws. While the Amendments Act is designed to protect the rights of people with disabilities.

The Law: Section 508 and it's parts

- ▶ Software Applications and operating systems
  - ▶ *Windows, OS, MS Office*
- ▶ Web based intranet and Internet information and applications
  - ▶ **Anything** *on the Internet*
- ▶ Telecommunications products
  - ▶ *Phones*

- ▶ Video and multimedia products
  - ▶ *AV equipment, TVs*
- ▶ Self contained, closed products
  - ▶ *Copier, printer, fax, calculator*
- ▶ Desktop and portable computers
  - ▶ *Desktop computers, laptops, tablets*

The Law: Section 508 and it's parts

▶ Enforcement

    ▶ United States Department of Justice, Civil Rights Division

    ▶ United States Department of Education, Office of Civil Rights

▶ Lawsuits, Complaints and Settlements

Atlantic Cape Community College	McNeese State University	South Carolina Technical College System
Arizona State University	Mesa Community College and Maricopa	University of California Berkeley
California Community Colleges	Miami University (Ohio)	University of Cincinnati
Capella University	Mt. Hood Community College	University of Colorado
Case Western Reserve	New York University	University of Kentucky
Finlandia University	Northwestern University	University of Maryland
Florida State University	Ohio State University	University of Montana
Harvard	Pace University	University of Phoenix
Louisiana Tech University	Princeton	University of Virginia, Darden School of Business
Law School Admissions Council	Penn State	Youngstown State University
MIT	Reed College	

Frequently Asked Questions

WHAT FONTS CAN BE USED?

WHAT COLOR COMBINATIONS ARE OK?

WHAT IS A SCREEN READER?

DO MY VIDEOS HAVE TO BE CAPTIONED?

FAQ: Fonts

Use

- Serif Fonts
- San Serif Fonts

Tahoma

Verdana

Arial

Bookman Antiqua

Georgia

Calibri

Comic Sans

Courier New

Times New Roman

Trebuchet MS

Helvetica

Do NOT Use

- Script Font
- Image Fonts
- Complicated or decorative Fonts

⊕⊁⊏■η☊♌⊁⊏■η☊♦ (Wingdings)

Vivaldi

ALGERIAN

ROSEWOOD STANDARD

FAQ: Color

- There are four different ways color is classified: RGB, HEX, CMYK and PMS

- Hex Codes: is a six digit "number" that represents colors.

- To be compliant with Section 508 Guidelines **all** color combinations of foreground and background must be at a minimum contrast ratio of 4.5:1 for normal size (12 point) text and 3:1 for larger text

  - Larger text is bolded 14 point and up or unbolded 18 point and up

  - http://webaim.org/resources/contrastchecker/

  - Spot color finder, ColorZilla for Chrome and Firefox: http://www.colorzilla.com

- Converting RGB to HEX ad visa versa

  - HTML Color Picker: http://www.w3schools.com/colors/colors_picker.asp

  - RGB to HEX Converter: http://www.javascripter.net/faq/rgbtohex.htm

FAQ: Color

IMPORTANT

▶ The default color for hyperlinks in PowerPoint is HEX code #50b9c1 (50b9c1). It DOES NOT meet the 4.5:1 contrast ratio.

▶ Here is how to change the color:

  ▶ Click on the Design Tab

  ▶ Click the dropdown arrow on Variants

  ▶ Choose Color

  ▶ Click on Custom Colors

  ▶ Look for the Hyperlink Option and choose another color

    ▶ On a WHITE background, **Blue** (#0000ff) always works

    ▶ On a BLACK background, **Cyan** (#00ffff) always works

FAQ: Screen Readers

▶ Screen Readers are Assistive Technology tools that can be used to actually read the text on the screen.

▶ GHC Students have access to ClaroRead for free, however, there are many different readers available (i.e. JAWS, Window-Eyes, Dolphin).

▶ Free Screen Readers include:

  ▶ ChromeVox—only available for use on Google Chrome

  ▶ NVDA—is downloaded to your computer and works like JAWS or ClaroRead

FAQ: Captioning

- **Question: "I don't have any students in my class that are deaf or hard of hearing, do I need to have my videos captioned?"**

  Answer: Yes, captions on videos not only help students who have hearing impairments, it's the law! However research has shown that students without disabilities benefit from them as well!

- **Question: "Our program requires students to have basic abilities like sight, hearing, etc., do my videos need to be captioned?"**

  Answer: Yes, the only industry that is exempt from the requirements of Section 508 are those that are directly associated with national security.

- **Question: "My videos are not captioned but I have transcripts is that ok?"**

  Answer: No, according to Section 508 standards for HTML and Multimedia videos must be captioned. Transcripts are required for audio only files like podcasts.

Creating Accessible Files

GUIDELINES FOR ALL:

MICROSOFT WORD

MICROSOFT EXCEL

MICROSOFT POWERPOINT

ADOBE PDF

Hands-on: What they all have in common

▶ **General File Properties**

  ▶ Does the document file name not contain spaces and/or special characters?

  ▶ Is the document file name concise, generally limited to 20-30 characters, and does it make the contents of the file clear?

  ▶ Have the Document Properties for Title, Author (Georgia Highlands College—should be listed as Company), Subject (AKA Description), Keywords, and Language been filled out?

Hands-on: What they all have in common

▶ **Font and Color Properties**

  ▶ Does the document utilize recommended fonts? If there is a question about a font please contact eLearning.

Arial	Helvetica
Book Antiqua	Tahoma (designed for use in electronic media)
Calibri	Times New Roman
Comic Sans MS	Trebuchet MS (designed for use in electronic media)
Courier New	Verdana (designed for use in electronic media)
Georgia (designed for use in electronic media)	

  ▶ Does the document refrain from using flashing/flickering text and/or animated text?

  ▶ Is the color contrast ratio between foreground text and background color at least 4.5:1?

Hands-on: What they all have in common

- **Image Properties**
  - Is the document free of background images or watermarks?
  - Do complex images (i.e., charts and graphs) have descriptive text near the image (perhaps as a caption)?
  - Have all multilayered objects been flattened into one image and does that image use one alternative text description for the image?
  - Do all images, grouped images, and non-text elements that convey information have meaningful alternative-text descriptions?
- **Changes and Comments Properties**
  - Have track changes been accepted or rejected and turned off?
  - Have comments been removed and formatting marks been turned off?

Hands-on: What they all have in common

▶ **Hyperlink Properties**

  ▶ Do all URLs contain descriptive hyperlinks (i.e., avoid generic phrases like "Click here"; inform users about the content of the linked page prior to selecting it).

  ▶ Are all email links accessible?

  ▶ Are all URLs linked to correct Web destinations?

▶ **Other Properties**

  ▶ Has a separate accessible version of the document been provided when there is no other way to make the content accessible?

  ▶ Has the document been reviewed in Print Preview for a final visual check?

About Katie

Katie Bridges, M.Ed.
Instructional Designer
Georgia Highlands College, Center for Excellence in Teaching and Learning
kbridges@highlands.edu
678-872-8083

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Resources

WebAIM: http://webaim.org/

W3C: https://www.w3.org/

Section 508 (full law): http://section508.gov/content/learn/standards/quick-reference-guide#1194.25

HTML Color Picker: http://www.w3schools.com/colors/colors_picker.asp

WebAIM Color Contrast Checker: http://webaim.org/resources/contrastchecker/

AMAC, accessibility resource center for USG: http://www.amacusg.org

ColorZilla, browser add-in for Firefox and Chrome for getting color: http://www.colorzilla.com