Accessible Electronic Resources for All

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INTRODUCTION
What is Accessibility

Ability to obtain the same information, at the same time, for the same price and at the same quality.

- No abridged captions
- Eliminate reformatting
- No upcharges for an accessible version
- If reformatting, provide material at the same quality
Who?

Everyone!

“As gatekeepers of information and research resources, librarians should want to be the first to provide unrestricted and unhindered access to all patrons despite their ability.” P. 38

LAWS AND STANDARDS TO CARE ABOUT
Rehabilitation Act
1973

- **Section 504**
  - No disabled person can be excluded from programs or activities that are funded by federal funds.

- **Section 508**
  - Federal employees with disabilities must have access to and use of information and data that is comparable to the access and use by federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency.
No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs or activities of a public entity, or be subjected to discrimination by any public entity.
American Library Association

ALA Policy 54.3.2

- “Library materials must be accessible to all patrons including people with disabilities.”

Purchasing of Accessible Electronic Resource Resolution:

- Libraries should require vendors to guarantee the accessibility of products
- Libraries ensure accessibility through their own testing or by requiring vendors to test
- Funding bodies provide adequate financial resources for accessibility issues
Functional Web Requirements

- Text Equivalent (have a text equivalent for any graphical elements)
- Synchronized Equivalent Alternatives (have captioned video, transcripts of any audio, or other alternatives for multimedia)
- Use of Color (color should not be used as the only method for identifying elements of the web page or any data)
- Screen Flicker Frequency (limit or eliminate the use of flickering, which can provoke seizures)
Functional Web Requirements

- Online Electronic Forms (all forms must be properly labeled and accessible)
- Method to Skip Repetitive Navigation Links (all web pages should have a link which allows a user to skip directly to the main content, bypassing any site navigation information)
- Alerts on Timed Responses (if any page responses are timed, the user should be given the opportunity to indicate that more time is needed)
WCAG 2.0 (Web Content Accessibility Guidelines)

Goal: To make the web more accessible

- **Perceivable**: Available to the senses
- **Operable**: Users can interact with all controls and interactive elements using either the mouse, keyboard, or an assistive device.
- **Understandable**: Content is clear and limits confusion and ambiguity.
- **Robust**: A wide range of technologies (including old and new user agents and assistive technologies) can access the content.
(WAI-ARIA) Accessible Rich Internet Application

Goal: To make the web more accessible

- Address problems with advanced user interface controls that are often not available to people who can’t use a mouse or use a screen reader
- Improve Drag and Drop
- Alert screen readers and respond consistently to updated website content
- Date sliders—as seen on article databases
- Pull-down menus
MEDIA
Captions

- Purchase captioned media if at all possible
  - Captions and Descriptive services offer the best access to media for individuals with hearing and visual impairments

- Captions can be added to materials by a third party
WEBSITES/JOURNALS/DATABASES
The Problem: Websites

Lazar, et. al. (2012) conducted a study using established web guidelines set forth in 508 (1194.22) of the US Rehabilitation Act. They found that all 24 public library websites in the study failed to meet all accessibility requirements.
The Problem: Databases

- Tatomir and Durrance (2012) evaluated 32 library databases with a checklist method created by Tatomir. The study concluded that 72 percent of the evaluated databases were rated as marginally accessible or inaccessible. These databases failed 3 or more of the 10 accessibility elements outlined on the checklist.
Screen Reader

- Show video

- http://www.youtube.com/watch?v=vIWJpXvQmHQ
ELECTRONIC BOOK FORMATS AND READERS
File Formats

- DAISY (Digital Accessible Information System)
  - Specifically designed for people with print disabilities
  - Format used in talking books

- EPUB 2 & EPUB 3 (Electronic PUBlication)
  - EPUB 2
    - Most commonly used ebook format
    - Similar to HTML
    - Does not support rich media and interactivity
    - Used natively on most platforms and devices except Kindle
File Formats

- **EPUB 3**
  - Based on XHTML 5 and will support rich media and interactivity including audio and video, math formulas, and pronunciation suggestions (an example of where this is important, on my resume MLS, my degree, is read “milliliters” by screen readers).

- **TXT**
  - Universal format and easily read by screen readers

- **HTML**
  - Universal format for webpages and easily read by screen readers
File Formats

- **PDF**
  - Complicated: Files have the potential to be easily read by screen readers if:
    - Documents are properly saved into PDF format
    - Scanned documents are processed with an OCR utility
  - Unfortunately many documents are not accessible

- **MOBI/AZW**
  - Used by Kindle, can be read by screen readers with appropriate applications (accessibility plug-in for PC and Kindle app on Mac)
Electronic Book Readers

- Apple Products
  - Most accessible and widely known devices
- BLIO (Software only)
  - Created by the NFB (National Federation of the Blind) and Kurzweil Technology and designed for the blind
- Kobo, Nook, Sony Reader, Kindle
  - All have usability problems
    - Lack Text to Speech Menus
    - Features available to able users are not always available to blind readers
WHAT CAN GO WRONG
NFB and Kindle

- First Kindle Fire does not have native text to speech
- Kindles used in many K-12 school programs do not offer blind students the same learning experience
- Kindle software requires a special accessibility plug-in for PC
- Kindle finally released an accessible iOS app on May 1, 2013
Local Challenges and Our Response

Library Responsibility

- Will continue to scan and create accessible PDF documents for faculty on a case-by-case basis.
- Will monitor the accessibility of online databases and work to provide universal access to library collections and services.
- Will purchase captioned and audio described versions of new instructional media and other audiovisual media.
- Will update any non-captioned, non-described media with captioned and audio described media.
Local Challenges and Our Response

- Will maintain a library of captioned media resources that are available for faculty, staff, and student use
- Will maintain a record of all permissions for captioning and digitization of copyrighted media resources
- Will assist faculty by:
  - Identifying materials that are captioned prior to purchase
  - Finding suitable, alternative media products that are captioned
TOOLS TO EVALUATE
Methods

- People
- Automated Tools
  - Wave
  - PEAT
- Checklist
- VPAT (Voluntary Product Accessibility Template)
Wave

- Used to Evaluate Websites
- Free

PEAT

- Photosensitive Epilepsy Analysis Tool
- Used to Evaluate Moving Images
- Free Software Download
- http://trace.wisc.edu/peat/
Tatomir Accessibility Checklist (TAC)

- Accessible versions of PDF web pages and documents.
- Skip navigation and jump-to links.
- Clearly labeled page elements.
- Text captions for tables, images, graphics, graphs and charts.
- Limited use of incompatible programming languages and scripts.
Tatomir Accessibility Checklist (TAC)

- The absence of identically named page elements.
- Text transcripts of videos, animations and podcasts.
- Logical and consistent page organization.
- Absence of timed responses.
- Digital forms and functionalities accessible and usable with adaptive technologies
VPAT/Buy Accessible Wizard

- Voluntary Product Accessibility Template
- VPAT List: http://buyaccessible.net/VARC/
Collection Development

- Print
- Media
- Electronic Resources
- Electronic Book Readers
Licensing

Provider will [make reasonable efforts to] comply with The Americans with Disabilities Act (ADA) requirements, Section 508 of the Rehabilitation Act Amendments by supporting assistive technologies or devices such as large print interfaces, voice-activated input, screen readers, and alternate keyboard or pointer interfaces in a manner consistent with the Web Content Accessibility Guidelines published by the World Wide Web Consortium's Web Accessibility Initiative, which may be found at http://www.w3.org/WAI/GL/#Publications and provide Licensee current completed Voluntary Product Accessibility Template (VPAT) http://www.state.gov/m/irm/impact/126343.htm.
Education

- Educate everyone
- In our digital environment a reasonable accommodation is instant access
- Technology provides an opportunity to make electronic resources accessible to all patrons
- Remember: Same material, same time, same price, & same quality