Accessibility in Online Instruction

Terrill Thompson
Technology Accessibility Specialist
tft@uw.edu
http://staff.washington.edu/tft
January 24, 2011

Due date (midnight Eastern) for comments on DOJ’s proposed rulemaking on web accessibility and the ADA
The Legal Context

• Section 504 of the Rehabilitation Act (1973)
• Americans with Disabilities Act (1990)
• Section 508 of the Rehabilitation Act (as amended, 1998)
Standards and Guidelines

• W3C Web Content Accessibility Guidelines (WCAG) 1.0 (1999)
• Section 508 Standards (2000)
• WCAG 2.0 (2008)
• Draft Information and Communication Technology (ICT) Standards and Guidelines (508 refresh), DRAFT
• ADA proposed regulations, DRAFT
But what’s really important…

Making sure our students can access our educational materials
In order to be accessible, web content must be:

- Perceivable
- Operable
- Understandable
- Robust

7 Examples of Common Web Accessibility Problems

1. Images without alternate text
2. Poor use of HTML headings
3. No accessible markup on form fields
4. No accessible markup on data tables
5. No text alternatives on multimedia
6. Navigation menus or other content that requires a mouse
7. PDF’s not authored for accessibility
Learn More About Accessible Web Design

- Accessible University 2.0
- “Before” and “after” mock site with 16 accessibility problems and solutions
- http://uw.edu/accesscomputing/AU
Accessibility of Course Content

• It is possible within most learning management software to have a fully accessible course.

• It is also possible within all learning management to have a fully inaccessible course, by adding inaccessible course content.
Adding an image? Add alt text.

Alternative Text:
Mount Rainier towers above surrounding forest, glaciers spilling from its slopes.
Creating rich text? Use headings.
Uploading documents?
Take time to be sure your documents are accessible to all students.
HTML

- Highly structured language
- Possible for authors to create highly structured documents
- Possible for authors to create documents with little or no structure
- Structure is well-supported by AT
- Structure facilitates navigation for AT users (and has many other advantages)
Microsoft Word

- Heading structure possible through *styles and formatting*
- Alternate text can be added to images.
- No HTML-like accessible table structure
- Structural information (e.g., headings, alternate text) is communicated to AT
- Most structure is passed on to other file formats when documents are exported
Adobe PDF

• Three general types:
  – Unstructured (image)
  – Structured (embedded fonts)
  – Tagged (optimized for accessibility)
Tagged PDF

– Has HTML-like structure
– Supports alternate text for images
– Supports reflow (text wraps when zoomed)
– Is well-supported by AT
– Many PDF authoring tools and techniques do NOT create tagged PDF
– Untagged PDF docs can be tagged in Adobe Acrobat via the Accessibility menu
– Tags don’t make a document accessible. They make accessibility possible.
How to Create an Accessible PDF from Word (in 3 simple steps)

1. Use Word headings (headings should form an outline of the document)
2. Add alt text to images
3. Use Acrobat plug-in to create PDF (printing to PDF does not create an accessible PDF)
How to Create an Accessible PDF in Acrobat Pro

1. Convert to text if needed (Document > OCR Text Recognition)
2. Add Tags (Advanced > Accessibility > Add Tags to Document)
3. Touch up accessibility Advanced > Accessibility > Touch Up Reading Order)
   - Add alt text to images
   - Reorder content
   - Correct content type to better reflect structure
More Resources

• WebAIM
  – Creating accessible Microsoft Word docs
    http://www.webaim.org/techniques/word
  – PDF Accessibility
    http://www.webaim.org/techniques/acrobat/

• California State University PDF Tutorials
  – http://tinyurl.com/y2dnyl2

• Adobe Accessibility:
  – http://www.adobe.com/accessibility/
Still More Resources

• My blog post on this topic:
  – http://tinyurl.com/29cs69z

• PowerPoint & Friends:
  Accessible Slides on the Web
  – http://staff.washington.edu/tft/talks/powerpoint/

• DO-IT
  http://washington.edu/doit

• These slides
  http://staff.washington.edu/tft
Linking to video? Caption it.
How to Add Captions

1. Create a transcript
2. Divide the transcript into caption-sized segments (optional, depending on choice of tool in #3)
3. Use a captioning tool to timestamp the caption-sized segments
4. Save to an output file that is appropriate for your media type
Captioning Tools

• Free Software
  – MAGpie (Win & Mac), SubTitle Workshop (Win), World Caption (Mac), CapScribe (Mac)

• Commercial Software
  – HiCaption (Win), MovCaptioner (Mac)

• Free Online Tools
  – dotSub, CaptionTube, universalsubtitles.org

• See my blog:
  Free Tools For Captioning YouTube Videos
Welcome to dotSUB - Any Video Any Language

Transcribe Invisible Disabilities and Postsecondary Education

Click here to watch a tutorial on transcribing videos

<table>
<thead>
<tr>
<th>Time</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10</td>
<td>specific chemicals.</td>
</tr>
<tr>
<td>10:18</td>
<td>Students with disabilities have the right to confidentiality.</td>
</tr>
<tr>
<td>10:20</td>
<td>If a student appears to be struggling in class but hasn't requested accommodations.</td>
</tr>
<tr>
<td>10:25</td>
<td>the professor is not advised to ask if a disability is involved.</td>
</tr>
<tr>
<td>10:29</td>
<td>But there are acceptable ways to offer assistance.</td>
</tr>
<tr>
<td>10:39</td>
<td>A very good plan is to include a statement on your class syllabus.</td>
</tr>
</tbody>
</table>

Keyboard Shortcuts

- Toggle Play / Pause: CTRL + SHIFT + P
- Seek Ahead +1 Second: CTRL + SHIFT + →
- Seek Back -1 Second: CTRL + SHIFT + ←
- Set Caption Start Time: CTRL + SHIFT + ↑
- Set Caption End Time: CTRL + SHIFT + ↓

Add a transcription line

<table>
<thead>
<tr>
<th>Time</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:54</td>
<td><img src="Image" alt="Transcription Line" /></td>
</tr>
<tr>
<td>10:57</td>
<td><img src="Image" alt="Transcription Line" /></td>
</tr>
</tbody>
</table>
Flavors of Closed Captions

- Quicktime – SMIL, with captions in qt.txt
- Real – SMIL, with captions in rt.txt
- Windows – SAMI
- YouTube – SubRip, SubViewer
- W3C Timed Text - Distribution Format Exchange Profile (DFXP)
- Apple i* - Scenarist Closed Caption (SCC)
A generation ago, personal computers began to make their mark on the world. It was the beginning of an incredible change.
Example Output in SubViewer (.sub, .sbv)

00:00:21.526,00:00:26.106
(Narrator) Lindsay's a high school sophomore, but she's already thinking about career options.

00:00:26.106,00:00:29.876
(Lindsay) Science and math are probably what I would want to go into, as a, you know,

00:00:29.876,00:00:31.886
a career, when I'm out of college.
Questions?