



Accessibility in Online Instruction

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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

Source: W3C Web Content Accessibility Guidelines (WCAG) 2.0, <http://w3.org/TR/wcag20>

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

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Welcome!

 Accessible University (AU) is a fictional university, and this is its fictional home page. This page is designed to demonstrate a variety of common web design problems that result in visitors with disabilities being unable to access the content or features of a web page. Although the heading at the top of this section of the page suggests that AU may be a welcoming institution, the inaccessible design of this page sends the opposite message.

Bienvenido!

 Accesible Universidad (UA) es una universidad ficticia, y esta es su página de ficción. Esta página está diseñada para demostrar una variedad de común de diseño web que se traducen en problemas de los visitantes con discapacidad no poder acceder al contenido o las características de una página web. Aunque el título en la parte superior de esta sección de la página sugiere que AU puede ser una institución de bienvenida, el diseño inaccesible de esta página envía el mensaje opuesto.

Can you spot the barriers?

This page is an improved version, with 16 accessibility problems corrected. Details about all known problems are on the [List of Problems](#) page. To see the original problems, consult the [inaccessible version](#).

AU Enrollment Trends

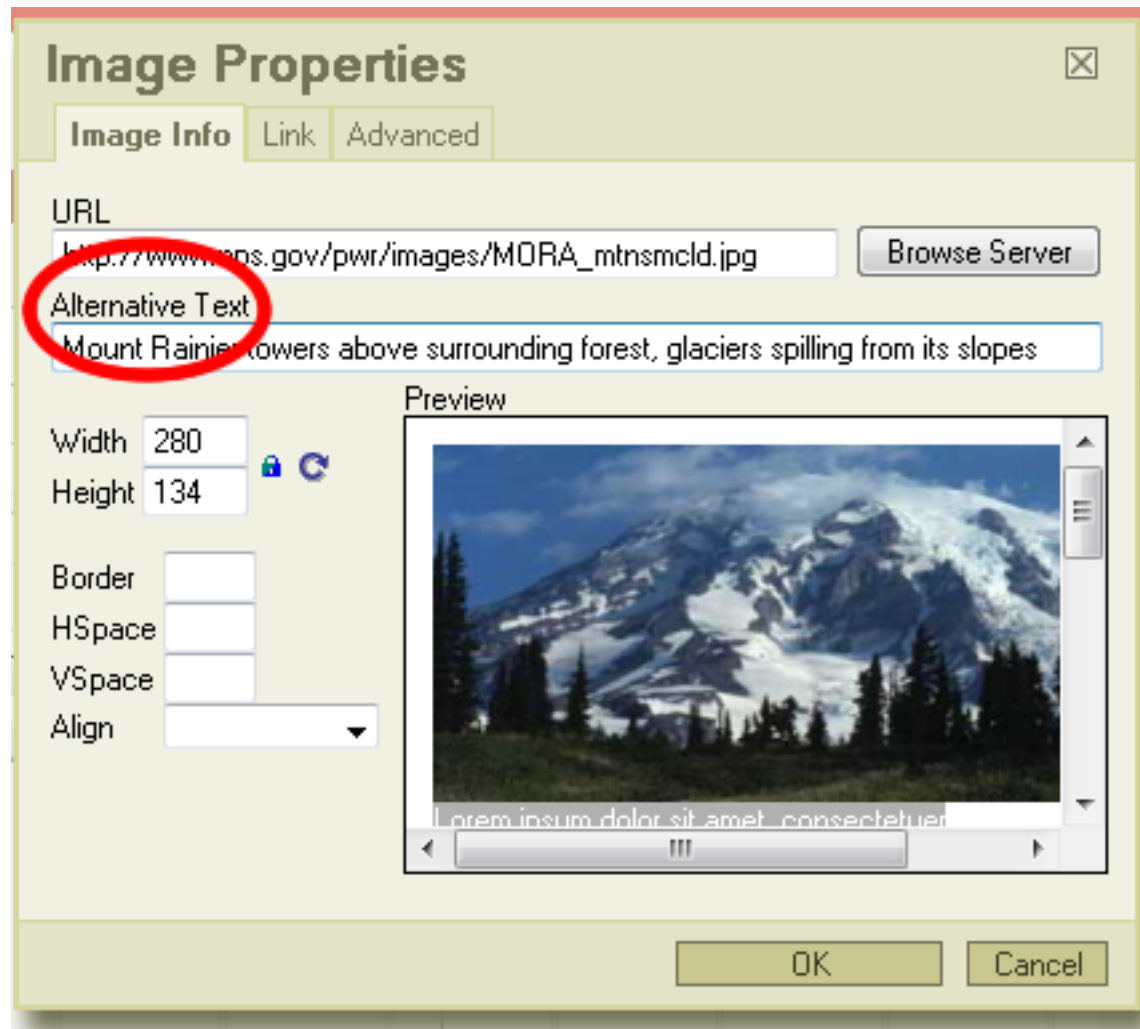
	2007-08					2008-09						
	CS	Eng	Eco	Phy	Psy	Spa	CS	Eng	Eco	Phy	Psy	Spa
Total	84	126	43	32	112	59	82	140	45	34	101	64
% Male	89	84	73	69	20	47	87	80	69	69	22	48
% Female	11	16	27	31	80	53	13	20	31	31	78	52

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

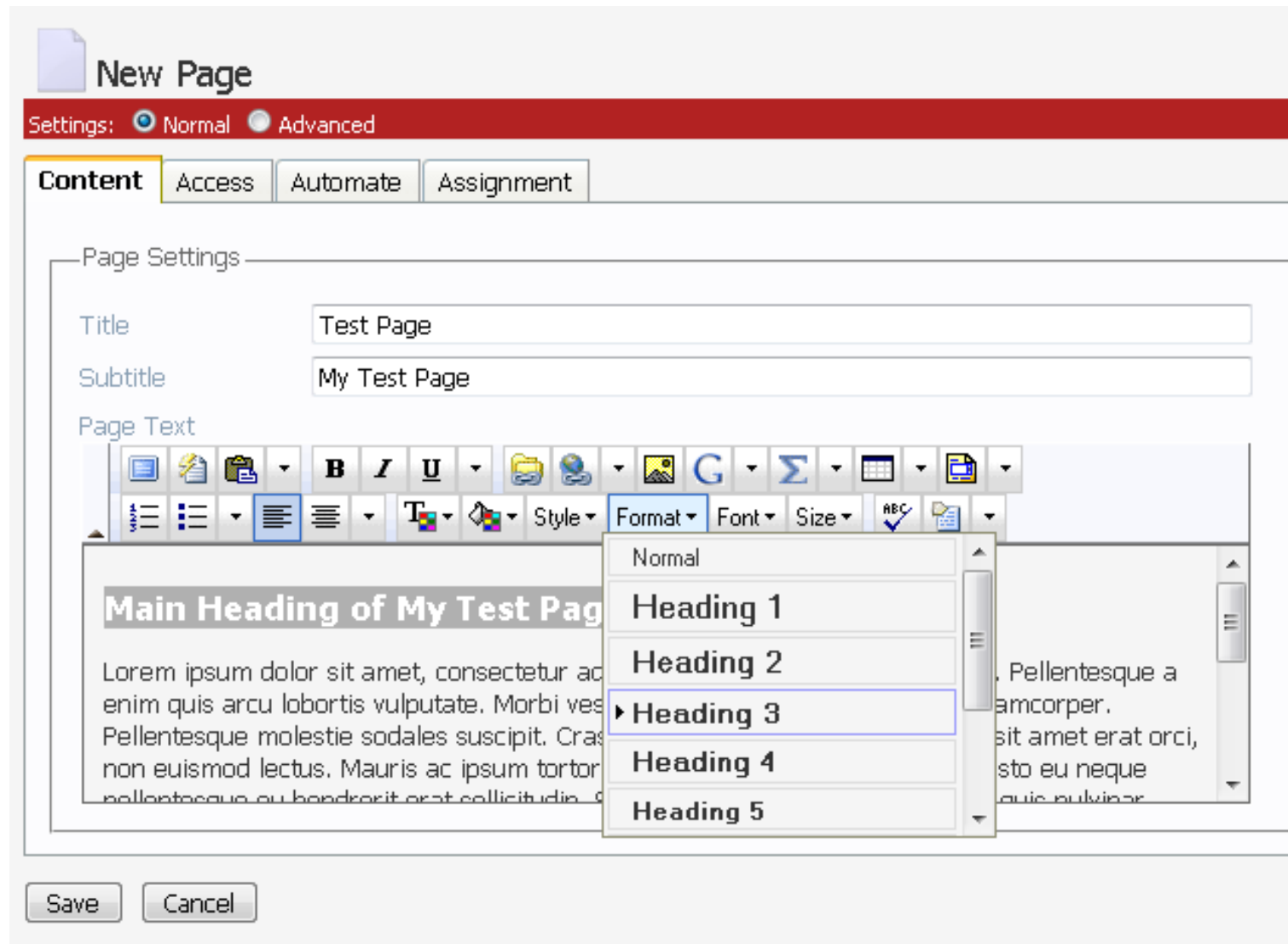
Accessibility of Course Content

- 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.



Creating rich text? Use headings.



The image shows a 'New Page' dialog box with a red header bar. Below the header, there are tabs for 'Content', 'Access', 'Automate', and 'Assignment'. The 'Content' tab is active. Underneath, there are 'Page Settings' fields for 'Title' (Test Page) and 'Subtitle' (My Test Page). Below that is a 'Page Text' section containing a rich text editor. The editor has a toolbar with various icons for text formatting, alignment, and insertion. A 'Format' dropdown menu is open, showing options: Normal, Heading 1, Heading 2, Heading 3 (highlighted), Heading 4, and Heading 5. The text area contains a heading 'Main Heading of My Test Page' and a paragraph of Lorem Ipsum text. At the bottom of the dialog are 'Save' and 'Cancel' buttons.

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/doi>
- These slides
<http://staff.washington.edu/tft>

Linking to video? Caption it.



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World Wide Access



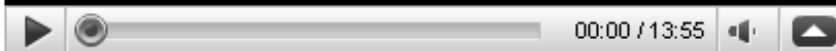
Available Caption Tracks



English

Add a Caption Track

Add New Captions or Transcript



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:

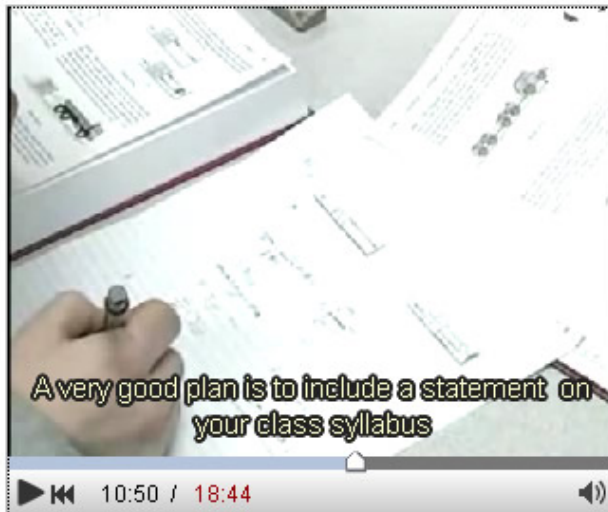
[Free Tools For Captioning YouTube Videos](#)

dotSub.com

Welcome to dotSUB - Any Video Any Language

Transcribe Invisible Disabilities and Postsecondary Education

[Click here to watch a tutorial on transcribing videos](#)



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

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

10 : 54
10 : 57



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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)

Example Output in SubRip (.srt)

1

00:00:17,000 --> 00:00:17,957

A generation ago,

2

00:00:17,957 --> 00:00:21,396

personal computers began
to make their mark on the world.

3

00:00:21,396 --> 00:00:23,429

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?

